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Effect of Pragma Yoga on the level of academic anxiety among high school students

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Abstract

The present study was conducted to assess the effect of Pragma Yoga Vyayam on Academic Anxiety among High School Students. For this study, 80 students were selected from the Nav Jeevan Higher Secondary School with age ranging from 14 to 17 years. All Students from stander 9th or 11th. Data collection permission was obtained from the principal of Nav Jeevan Higher secondary school, Vadodara. In this study, to measure Academic Anxiety level, The Academic Anxiety Scale (Atieq UI Rehman and M. Abid Siddiqui) was administered to assess the level of academic anxiety. The total number of 44 items on this scale in this study, random sampling was used. All students filled Academic Anxiety scale questionnaire before and after the Pragma Yoga Vyayam. All participants practiced Pragma Yoga exercise for 40 minutes on 5 days a week, for three-month. Data was analysed by using paired sample t-test. The result showed that Pragma yoga Exercise lead to significant Reduction of Academic Anxiety among high school students ($p < 0.01$) indicating utility of these Yogic practices in high school students.

Keywords: Pragma yoga vyayam, academic anxiety, area of residence

Introduction

Adolescence is a special time in life when both physical and mental traits mature. A person who is between the ages of 10 and 19 is considered an adolescent according to the WHO. (Adolescent and Young Adult Health, n.d.) Approximately 1.2 billion individuals worldwide belong within this age category. (Pandey *et al.*, n.d.) anxiety disorders (which may involve panic or excessive worry) are the most prevalent in this age group and are more common among older than among younger adolescents. It is estimated that 3.6% of 10-14-year-olds and 4.6% of 15-19-year-olds experience an anxiety disorder. (Adolescent and Young Adult Health, n.d.). High levels of stress are specifically linked to this age group because of activities related to academics. Such as a most frequent causes of academic stress (AS) are peer pressure, school policies, interaction with teachers, future worries, parental expectations, the educational system, academic competitions, and financial difficulties. (Rentala *et al.*, 2019) [7]. It can affect their physical, mental, social, and emotional health. Since they make up 16% of the global population, adolescents' mental and physical health cannot be ignored. (About UNICEF | UNICEF, n.d.) As is the most common situation. Many studies have shown that yoga can help students who are anxious or stressed. Pragma yoga promotes the calmness of minds and subsidizes the stress and anxiety level.

The present study has taken the help of Pragma yoga vyayam to reduced the Academic Anxiety among students. Pragma Yoga Vyayam which is a series of 16 asanas practiced with breathing awareness along with chanting of mantras, developed by Pandit Sri Ram Sharma Acharya relaxes both mind and body (Sahu, 2017) [8].

Pragma yoga vyayam is developed by Pt. Shreeram Sharma Acharya (Chief patron, All World Gayatri Pariwar Trust, Shantikunj, Haridwar). Pragma yoga is an influential combine of physical postures, breathing techniques, and body movement. One may achieve optimal physical and mental balance by combining these asanas. There is one syllable of the Gayatri Mantra with every asana step. One exercises their mental concentration and spiritual purity in addition to their physical fitness. It is a series of 16 steps.

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In total there are 16 steps of asanas series but actually 12 asanas are there and 4 asanas are repeated in series. That means, through Pragma yoga overall health is achieved in the student life. (प्रज्ञा योग व्यायाम - प्रज्ञा अभियान का योग व्यायाम: (All World Gayatri Pariwar), n.d.) Pragma yoga facilitates the proper functioning of muscles and organs. Pragma yoga's coordinated, rhythmic movements are intended to promote both organic and functional growth (Deshmukh, 2021) [4]. Pragma Yog done accurately complements the trading of air to and from the lungs opens and extended the mind boggling alveoli or air sacs of the lung tissue and exercise the muscles of the thoracic area the lungs are discharged of pollutions and stale air and subsequently body and cerebrum get rejuvenated by the additional supply of oxygen they get.

Breathing mindfulness happen amid Pragma Yog rehearse handles the ANS. Other autonomic area and causes endocrine emission get managed. In this way one might say that the Pragma Yoga preformed with breathing example and dedication incorporates significant serenity, diminish passionate clash and stress, refine heart and brain. It adjusts bio-plasmic vitality and expels blockage in the nadis through it streams.

1. Tadasan: Remain on the toes. Serenade 'Bhuh' (bhoooh) and raise both the hands upward while breathing in bit by bit and profoundly. Look upwards to the sky. (All the four moves should make put at the same time). Hold your breath inside. This activity enables sufficient blood to supply in the heart, extending the spine in reverse and in this manner giving it the truly necessary rest. This exercise reduces lethargy immediately. It is also helpful in cases of blood disorders and heart weakness.



2. Pada Hastasana: With the serenade 'Bhuvah', bring both the hands descending from the stance of tadasan and breathe out at the same moderate and predictable pace and bow the make a beeline for touch the knees, likewise endeavor influencing the palms to touch the floor. Hold your breath out for a few seconds and return to the typical standing stance. Routine in this asana clears the stomach and stimulates vital qualities in the Ida, Pingala, and Susumna Nadis. It also aids in decreasing abdominal fat and improving spinal cord flexibility.



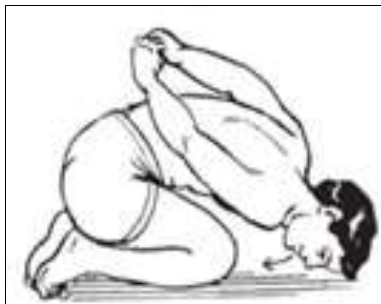
3. Vajrasan: With the serenade of 'Swah', put the toes totally on the floor and set the hindquarters on the feet. Both the legs ought to be in shut contact. Keep the spine erect and put the palms on the knees. Inhale typically amid this stance. The back, neck and head ought to stay straight. By performing this asana for a short while each day, you can cure constipation and stomach problems as well as maintain healthy digestion. It fortifies the muscles surrounding the stomach and guards against hernia issues. By doing this, the blood supply to the uterus and stomach is balanced.



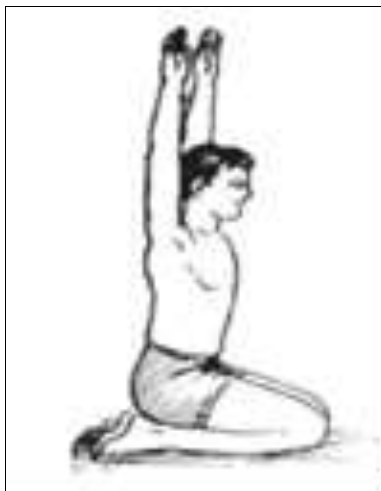
4. Ushtrasan: Now get up marginally from the vajrasan with a serenade of 'Tat'. Remain on your knees with the toes touching the floor and the foot rear areas confronting in reverse. Simultaneously, twist in reverse to put the palms on the foot rear areas from the posterior. Breathe in profoundly while looking upwards. This will blow up your chest. Hold the breath in for few moments. This pose lengthens the stomach, chest, and lower body in a modified manner. Regular practice of this pose helps to heal back pain, abdominal bending, tripping over bones, and other related problems. It increases the common flexibility of the spinal section and solidifies the heart. Additionally, this exercises the genital organ muscles. It is essential to more extensive yoga practices that involve the Ida, Pingla, and Sushumna.



5. Yoga mudra: (Recall, the breath was hold inside amid the ushtrasana!). With the droning of 'Savitur', breathe out gradually and sit on your legs as in vajrasana in the meantime, hold together both the palms at the back and extend upwardly and put the head on the floor so the chest and the stomach touch the thighs. Hold the breath out for few moments. This stance additionally helps curing serious gastric inconveniences, setting the metabolic exercises right and expanding the hunger. Modern yoga practices prescribe it to activate the mañipurita chakra, the extrasensory vitality core between the maritime.



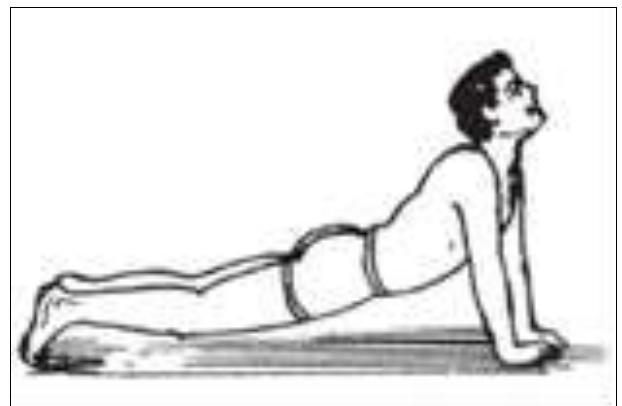
6. Ardh Tadasan: Droning 'Vareñyam', breathe in profoundly. Being situated in the stance of vajrasana, raise both the arms and eyes upwards. Hold the breath inside and extend the arms as much as you can without torment. Concentrate your eyes on the hands. This asana gives a characteristic and gentle footing to the neck and mollifies the issues, assuming any, as cervical spondylitis. Likewise tadasan, it builds blood supply to the heart and cures shortcoming of the heart and blood-stream related disarranges.



7. Shashankasan: Droning 'Bhargo', breathe out at an indistinguishable pace from inward breath in the first asana. All the while, sit in the stance of vajrasana and keep both the arms extended ostensibly before the chest. Place the palms on the floor, twist from the midsection to influence the stomach to touch the thighs and the head touch the floor. The arms ought to stay straight with palms touching the floor. Hold the breath outside for few moments. This asana dispenses with the issue of obstruction and soothingly extends the muscles inside and between the rear-end and butt cheek locales. It unwinds the sitica nerves and furthermore helps in regularizing the emissions from the adrenal organ.



8. Bhujangasan: Droning 'Devasya' breathe in profoundly and pull your abdomen upwards. Toes and palm ought to stay at a similar place where these were in the past stance yet now the arms should stand rectify. The knees and thighs should touch the floor. Draw your chest and head upwards and raise the head like a snake's hood. Hold the breath inside and twist the head in reverse marginally to gaze the sky. This exercise is also recommended as a treatment for cervical spondylitis and a few other back and spine conditions. Having a distinct shape that reduces stress on the heart, lungs, and spine, it is especially beneficial for the healthy operation of the kidneys and liver.



9. Tiryak Bhujangasan (left): In the stance of bhujangasan, breathe out moderating. Presently breathe in and with the serenade of 'Dhimahi' turn the neck towards the left and have a go at taking a gander at the rear area of right foot. At that point hold the breath for few moments. With exhalation get the head the front.

10. Tiryak Bhujangasan (right): Serenade 'Dhiyo', breathe in and turn the neck towards the privilege to see the rear area of the left foot. Hold the breath for few moments and bring the head again in the front with exhalation. Routine with regards to the tiryak bhujangasan upgrades adaptability of the midsection and enlarges the advantages of the bhujangasan.

11. Shashankasan

Droning 'Yonah' come back to the stage 7.

12. Ardh Tadasan

Droning Prachodayat' repeat stage 6.

13. Utkatasan: After ardha tadasan in stage 12, breathe out gradually. Presently serenade 'Bhuh' and with typical breathing sit on the toes. The foot sole areas ought not to touch the floor. Give the calves a chance to touch the thighs and knees touch the bum. Place both the palms on the knees. Twist the arms on elbows and keep the hands before the chest with palms set on each other in the stance of Namaskar. Back, neck and head ought to be erect. Breathing ought to be profound and proceeded at a predictable pace. This asan improves body adjustment and provides quality to the calves.

14. Padhastasan

Droning 'Bhuvah' rehash stage 2.

15. Tadasan

Droning 'Swah' rehash stage 1.

16. Returning to unique position: With a profound serenade of 'Om', breathe in gradually and profoundly, and stand straight with extended chest. Place the arms upwards and twist the elbows over the shoulders in a stance as if you are holding an overwhelming rock on the hands. Hold the breath for few moments with an inclination that your arms, shoulders, chest and entire body are engaged by new key power. Presently shut the clench hands. Breathe out gradually, expedite the arms the sides and stand straight in the stance of consideration. Inhale ordinary in a casual disposition. These sixteen stages finish one round of the Pragma Yoga asans. With slow advance, one may finish 3 to 5 adjusts each day. The breathing examples and droning of Gayatri Mantra likewise get consummated with truthfulness in day by day rehearse.

Objectives

1. To study the effect of Pragma yoga Vyayam on Academic Anxiety among Adolescent Boys of Urban Areas.
2. To study the effect of Pragma yoga Vyayam on Academic Anxiety among Adolescent Girls of Urban Areas.
3. To study the effect of Pragma yoga Vyayam on Academic Anxiety among Adolescent Boys of Rural Areas.
4. To study the effect of Pragma yoga Vyayam on Academic Anxiety among Adolescent Girls of Rural Areas.

Hypothesis

1. There is no effect of Pragma yoga Vyayam on academic anxiety among Adolescent Boys of Urban Areas.
2. There is no effect of Pragma yoga Vyayam on academic anxiety among Adolescent Girls of Urban Areas.
3. There is no effect of Pragma yoga Vyayam on academic anxiety among Adolescent Boys of Rural Areas.
4. There is no effect of Pragma yoga Vyayam on academic anxiety among Adolescent Girls of Rural Areas.

Samples and Sampling

The subjects of the present study are 80 students from stander 9th or 11th with ages ranging from 13 to 18 years. The sample consisted of 40 boys and 40 girls, the same as 40 students who belonged to urban area and 40 students who belonged to rural area. A random sampling was done to select the best and most interested samples. All data were collected from school of Vadodara district.

Research Design

A single experimental group with a pre-post research design was used for this study. The intervention was conducted for three months, five days a week, forty minutes after prayer at school assembly. Data were collected before and after the intervention. Before starting the intervention, permission was obtained from the school principal, and participants filled out a written consent form with signed consent. The institutional committee approved the research study. The intervention included Pragma yoga Vyayam, Pranayama and relaxation techniques (savasana).

Assessment Tools

The AAS (Academic Anxiety Scale) Questionnaire was used to assess the anxiety levels of students between the ages of 13 and 18 years. This tool, developed by Dr. Mohd. Abid Siddiqui and Dr. Atieq UI Rehman (Asst. professor, Dept. of Education, University of Jammu), was used to collect data. This scale is taken from the National Psychological Corporation's Agra questionnaire, which has a total of 44 items.

Data Analysed

Data was entered in the Excel sheet and analysed by online GraphPad using the paired t-test to analyses the academic anxiety levels. Zotero software was used to cite the references.

Intervention

Pragma yoga has 16 steps comprising yogic postures and each step is associated with one of nine words of Gayatri mantra along with breath awareness. The intervention details are given in table 1.

Table 1: Intervention of Pragma yoga exercise yogic postures mantras

Tadasana	Om bhooh
Padahastana	Om bhuvah
Vajrasana	Om swah
Ustrasna	Tat
Yoga mudrasana	Savitur
Ardhatadasna	Varenyam
Shashankasna	Bhargo
Bhujangasana	Devasya

Tiryak bhujagasana(left)	Dhimahi
Tirayak bhujangasana(right)	Dhiyo
Shashankasana	Yonah
Ardhatadasana	Prachodayat

Results & Discussion

Result table showing mean SD SEM and t value of pre -post academic anxiety among various group of adolescent.

Table 2: Result table showing mean SD SEM and t value of pre -post academic anxiety among various group of adolescent

Group	Test	N	Mean	SD	SEM	t	Level of significant
Adolescent Boys of Urban Areas	Pre	20	69.55	12.56	2.81	2.46	0.05
	Post	20	61.30	8.20	1.83		
Adolescent Girls of Urban Areas	Pre	20	71.60	9.58	2.14	3.27	0.01
	Post	20	62.60	7.70	1.72		
Adolescent Boys of Rural Areas	Pre	20	77.05	9.54	2.13	1.78	0.05
	Post	20	71.70	9.48	2.12		
Adolescent Girls of Rural Areas	Pre	20	78.10	8.76	1.96	2.07	0.05
	Post	20	72.20	9.24	2.07		

Discussion

Data were analysed using paired sample t test. The differences in pre-test and post-test mean scores were studied. The pre-Mean & SD score of Academic Anxiety of Urban Boys Adolescent was 69.55 & 12.56 and post-Mean &SD score was 61.30 & 8.20. The t-value of Academic Anxiety of Urban Boys Adolescent was 2.46; hence the yogic Intervention showed a significant improvement in decreased Academic Anxiety level at ($p<0.05$) among Urban Boys Adolescent. The pre-Mean &SD (Standard Deviation) score of Academic Anxiety of Urban Girls Adolescent was 71.60 & 9.58, and the post Mean & SD score was 62.60 & 7.70. The t-value of Academic Anxiety of Urban Girls Adolescent was 3.27; hence the yogic Intervention showed a significant improvement in decreased Academic Anxiety level at ($p<0.01$) among Urban Girls Adolescent, and the pre-Mean &SD score of Academic Anxiety of Rural Adolescent boys was 77.05 & 8.76, and the post-Mean &SD score was 71.70 & 9.48. The t-value of Academic Anxiety of Rural Adolescent boys was 1.78; hence the yogic Intervention showed a significant improvement in decreased Academic Anxiety level at ($p<0.01$) among Rural Boys Adolescent. The pre-Mean &SD score of Academic Anxiety of Rural Girls Adolescent was 78.10 & 9.45, and the post-Mean &SD score was 72.20 & 9.24. The t-value of Academic Anxiety of Rural Girls Adolescent was 2.07; hence the practice of Pragma yoga vyayam showed a significant improvement in decreased Academic Anxiety level at ($p<0.05$) among Rural Girls Adolescent. According to (Asim Kulshrestha, 2014) this Study, "Impact of Pragma Yoga on stress level among college students"; found that after statistically significant decrease stress level of the subjects as compared to the pre stress levels. Eight of the participants showed positive effect on stress level. 30 days Pragma yoga practice is sufficient to significantly decrease the stress level of the students. Yoga practice might improve self-confidence in adolescents. (Bhardwaj & Bhardwaj, n.d.) One another study according to (Manoranjan Tripathy, 2018) The practice of Pragma Yog Chanting of Gayatri Mantra on aggression significantly decreases the aggression level of adolescent students and keeps them away from tension, stress, and anxiety. Thus, the current study proved that the effect of Pragma yoga Vyayam on adolescent academic anxiety decreased significantly.

Conclusion

1. Due to Pragma yoga vyayam improve in decrease the

academic anxiety among urban adolescent boys.

2. Due to Pragma yoga vyayam improve in decrease the academic anxiety among urban adolescent girls.
3. Due to Pragma yoga vyayam improve in decrease the academic anxiety among rural adolescent boys.
4. Due to Pragma yoga vyayam improve in decrease the academic anxiety among rural adolescent girls.

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