



ISSN: 2456-4419

Impact Factor: (RJIF): 5.18

Yoga 2023; 8(1): 261-263

© 2023 Yoga

[www.theyogicjournal.com](http://www.theyogicjournal.com)

Received: 26-01-2023

Accepted: 17-02-2023

**Rajesh Kumar**

PhD Scholar, Department of  
Yogic Science, LNIPE, Gwalior,  
Madhya Pradesh, India

## Effect of Pranayama on state of anxiety level among adolescents from Gwalior

**Rajesh Kumar**

### Abstract

The Objective of this study was to determine the effects of Bhramari pranayama on State Anxiety on adolescent. The subjects for this study were selected from the Gwalior. A total of 40 adolescent subjects were selected and used as one experimental group (20) and other control group (20). Bhramari Pranayama was considered the independent variable and State Anxiety was considered the dependent variable. Anxiety was measured with STAS Anxiety Questionnaire. Training was given up to two months, 3 times in week; each session scheduled for 25 minutes. The Pre-Test Post-Test randomize group design was used for this study. Tests were administered before the training program and after the completion of the treatment again test were administered. Ancova was used to locate significance effects of Bhramari Pranayama on Anxiety in school going children. At 0.05 levels of significance. In relation to Anxiety, effect of Bhramari Pranayama was found significant.

**Keywords:** Bhramari Pranayama, Anxiety

### Introduction

Pranayama is gener plays an important role in your life to become healthy. Seven Pranayama are very important which are related to breathing exercise. This Pranayama helpful to remove bad toxin from our body and give positive energy. Practicing Bhramari Pranayama can alleviate stress and Anxiety and give Mental Relax. It will benefit all aspects in your life especially if you are ambitious sport type that likes to get the most out of it.

Anxiety has been selected in the socio-biological organisms for its probable adaptive value, as it signals potential danger and can contribute to mastery of a difficult situation and thus to personal growth. Excessive anxiety on the other hand is maladaptive, either because it is too intense or because it is inappropriately provoked by events that present no real danger. Thus, anxiety is pathological when excessive and persistent, or when it no longer serves to signal danger. It is often considered to be a major component of unhealthy lifestyles and possibly contributes significantly to the pathogenesis of not only psychiatric but also systemic disorders.

Bhramari relieves stress and cerebral tension, and so helps in alleviating anger, anxiety and insomnia, increasing the healing capacity of the body. The vibration of the humming sound creates a soothing effect on the mind and nervous system. Bhramari Pranayama is characterized by a focus on connecting of body and brain that creates a flow between the more static traditional Panayama. Bhramari Pranayama is translated as linking and the system also implies the linking of the movement to the breath. Essentially the breath dictates the movement and the length of time held in the postures.

### Materials and Methods

Selection of Subjects 40 adolescents from Gwalior, M.P were selected at random as subject of the study and divided in to two groups of 20 subjects each. All subjects were almost from the same socio-economic group and were found to be physically fit for the type of programme they were selected.

The subjects were divided into two groups (experimental group and control group) at random by drawing the lots. The age of these subjects' range between 20 to 24 years. All of them were taking part in routine physical activity programme as per the classes of the school.

**Corresponding Author:**

**Rajesh Kumar**

PhD Scholar, Department of  
Yogic Science, LNIPE, Gwalior,  
Madhya Pradesh, India

Selection of Variable On the basis of various literature on the variables finding out the related research study and keeping in mind the specific purpose of the study to find out the effect of Bhramari Pranayama on Anxiety.

Procedure for Administration of the Test After randomization selecting the subject, they were estimated for their Anxiety level was measured with help of STAS questionnaire. After collecting the initial data, the subjects were administrated for two months training schedule, which was three day per week for duration of 25 mins in the morning i.e., 7.00 A.M. to 7.25 AM on Monday, Wednesday and Friday for duration of two months. And after the two months, Anxiety level was again estimated by STAS questionnaire. The practice session was conducted for a period of 25 minutes.

**Selection of Bhramari Pranayama**

Bhramari pranayama is very effective in instantly calming your mind down. It is one of the best breathing exercises to release the mind of agitation, frustration or anxiety and get rid of anger to finalize the selection of Bhramari Pranayama the scholar consulted expected and studied the related literature also.

**Method Applied for the Training Practice of Bhramari Pranayama**

The Bhramari Pranayama were taught and the practice session

were conducted and supervised by the researcher himself. For teaching purpose, each step was explained and demonstrated before the subject performed the same necessary corrections were made, the rest the instruction was given in between succeeding Bhramari Pranayama.

**Statistical Procedure**

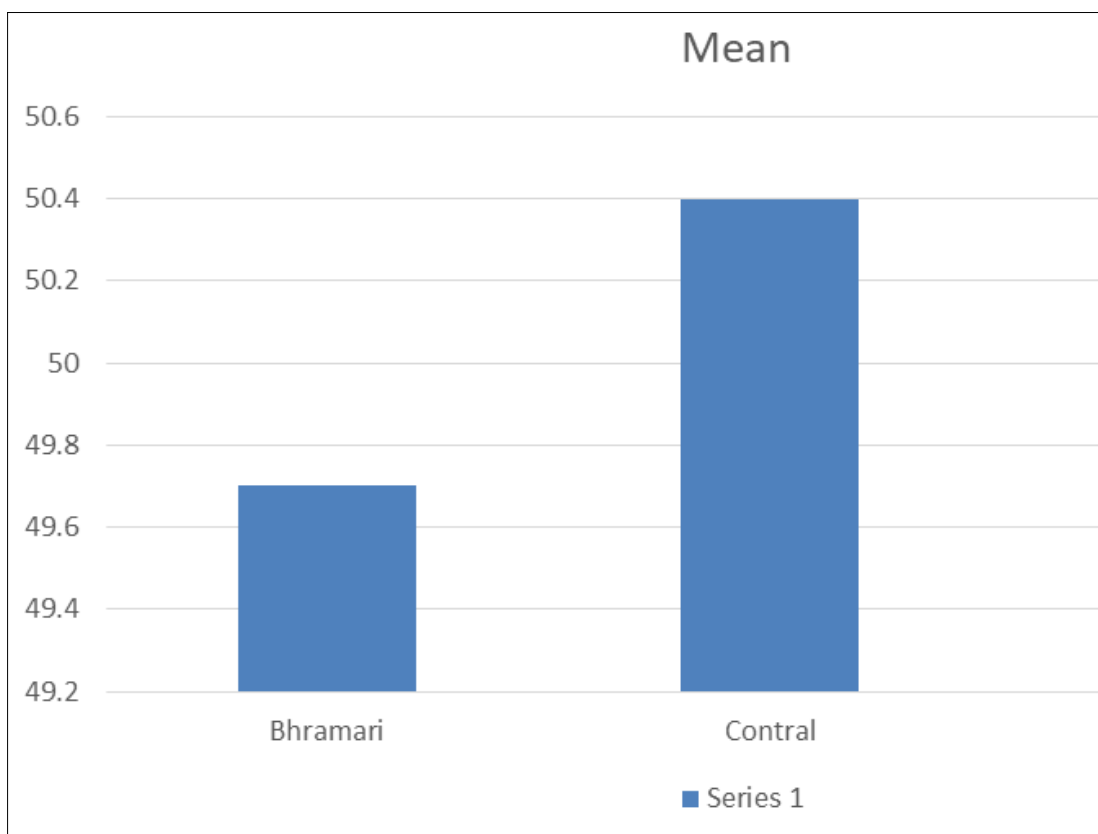
To find out the significance of difference between different pair means, the ‘ANCOVA’ was used. The level of significance was set at 0.05.

**Results and Discussion**

**Table 1:** Descriptive Statistics of Anxiety

Treatment group	Mean	Std. Deviation	N
Bhramari (A)	49.7000	2.36421	20
Control (B)	50.4000	3.64764	20
Total	50.0500	3.05463	40

Table 1 depicts the descriptive statistics for Bhramari Pranayama of the experimental and control groups with. The mean and standard deviation of Experimental group A (Bhramari) was 49.07 and 2.36 respectively. The Control group B was 50.40 and 3.64 respectively.



**Fig 1:** Means of experimental group and control group in relation to anxiety

**Table 2:** Ancova table for the post- test data on Anxiety

Source	Sum of Squares	DF	Mean Square	F	Sig. (P-Value)
Pre	119.802	1	119.802	18.531	0.000*
Treatment Group	77.317	1	77.317	11.960	0.001*
Error	239.198	37	6.465		
Corrected Total	363.900	39			

\*Significant at 0.05 level.

**Table 3:** Analysis of Co-Variance of Comparison of Adjusted Post

Test Means of Experimental group and Control Group in Anxiety

	Sum of Squares	DF	Mean Square	F	P-Value
Contrast	77.31	1	77.31	11.96	0.001
Error	239.19	37	6.46		

F value required to be significant at 1, 37 DF = 7.42

Table-III revealed that the obtained ‘F’ value of 11.96 was found to be significant at 0.05 level in case of Anxiety, since this value was

found higher than the tabulated value 7.42 at 1, 37 DF.

### Discussion

The research scholar has made an attempt to present the discussion of findings. After collection of data, appropriate statistical analysis was conducted. The research scholar examined the effect of Bhramari Pranayama on Anxiety in adolescent. The results in general support that Bhramari Pranayama improve to reduce Anxiety level among adolescent. It was found that the experimental group improved to reduce Anxiety level significantly. The rate of improvement was higher for the experimental groups in comparison to the control groups. Finally, results show that the participants who followed the treatment of Bhramari Pranayama to reduce Anxiety level higher than participants in control group.

### References

1. Saraswati. *Asana Pranayama Mudra Bandha book*. Yoga Publication Trust, Munger Bihar; c2013. p. 401.
2. Bijlani RL. *The Yogic Practices: Asanas, Pranayamas and Kriyas*. Understanding Medical Physiology (third edi). New Delhi: Jaypee Brothers Medical Publishers (P); c2004.
3. Jadhav SG, Havalappanavar NB. Effect of Yoga Intervention on Anxiety and Subjective well-being *Journal Indian Academy of Applied Psychology*. 2009;35(1):S27-320.
4. Chakarborty, Jishu. Abstract from International Conference on Health, Sports and Physical Fitness. Need For Integrated Approach; c1995.
5. Cureton, Krik Thomas *Encyclopaedia of Physical Education Fitness and Sports*. Salt Lake City Utah: Brighten Publishing Co.
6. Digambarji, Gharote ML. *Gherandsamhita*. (Second Edi). Pune: Kaivalyadhama, SMYM Samiti, Lonavala; c1997.
7. Donald KM, Edward LF. *The physiological basis of physical education and athletics*. Philadelphia, W.B. Saunders Company; c1976.
8. Kumar K. A study on the impact on Stress & Anxiety through Yoga Nidra; *Yoga Mimamsa*; Published through Kaivalyadhama, Lonavala, Maharashtra. 2004;36(3):163-69.
9. GJ Tortora, NP Anagnostakos. *Principles of Anatomy and Physiology*. New York: Harper-Collins; c1990.
10. Gajalakshmi G, Ravindran R. Effect of pranayama on autonomic and pulmonary functions. *Journal of Advances in Developmental Research*. 2012;3(1):1-6.
11. Gharote, Ganguly KS. "Effect of yogic training on physical fitness". *Yoga mimamsa*; c1973. p. 15.
12. Gore MM. *Anatomy and Physiology of Yogic Practices*. (Fourth edi). Delhi: New Age Books; c2008.
13. Howard E, Harvey B, Debra G, Kathy C, Delana T, Douglas KH, *et al*. Spirometric Pulmonary Function in Healthy Preschool Children. *American Journal of Respiratory and Critical Care Medicine*. 2001;163(3):619-623.
14. Hutchinson J. On the capacity of the lungs, and on the respiratory functions with a view of establishing a precise and easy method of detecting disease by the spirometer. London: *Medico-Chirurgical Transactions*. 1846;29:137-161.
15. Iyengar BKS. *Light on Pranayama*. Harpar Collins Publishers India; c2010.
16. Jain N, Srivastava RD, Singhal A. The effects of right and left nostril breathing on Cardiorespiratory and autonomic parameters. *Indian Journal of Physiological Pharmacol*. 2005;49(4):469-474.
17. James M, Hagberg JE, Yerg, Douglas RS. Pulmonary functions in young and old Athletes and Untrained men. *Journal of Applied Physiology*. 1988;65(1):101-105.
18. Joshi KS. *Yogic Pranayama breathing for long life and good health*. Delhi: Orient Paperbacks Publication; c1983.
19. Joshi LN, Joshi VD, Gokhale LV. Effect of short term 'Pranayam' practice on breathing rate and Ventilatory functions of lung. *Indian Journal of Physiol. Pharmacol*. 1992;36(2):105-108.
20. Kalwale PK, Khaled MB, Deepmala D, Doiphode RS, Khan ST. Effect of different durations of Pranayama on cardiorespiratory parameters. *International Journal of Recent Trends in Science and Technology*. 2013;5(3):158-160.
21. Karambelkar PV, Deshpande RR, Bhole MV. Composition of expired air in pranayamic breathing: An exploratory study. *Yoga Mimamsa*. 1983;21(3 & 4):1-6.
22. Mathews, Donald K. *Measurement in Physical Education*, Philadelphia: W.B. Saunders Co; c1979.
23. Verma JP. *A Text Book on Sports Statistics*. New Delhi: Sports Publication; c2009.
24. Verma JP, Ghufuran M. *Statistics for Psychology*. New Delhi: Tata McGraw Hill Education Private Limited; c2012.