

INFLUENCE OF TRADITIONAL YOGA TRAINING ON SINUS PROBLEM AMONG COLLEGE WOMEN STUDENTS

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ABSTRACT

Chronic sinusitis is a common disease affecting peoples of all ages, especially those with allergies; inflammation leads impaired drainage and poor ventilation from the sinuses. Yogic techniques have the potentiality to prevent and cure such conditions of nose by relieving the inflammation and by increasing the resistance against the infection. The main aim of the study was to observe the effect of 6 weeks of yogic interventions techniques in students suffering from sinusitis. In this study, twenty numbers of college women students with affecting sinusitis were selected and divided in to two groups. Group-I underwent traditional yoga practice and Group-II acted as a control group without participating in any particular training outside of their regular daily activities. Each group consist of ten numbers of women respondents. Data to the pre- and post-tests were collected to determine how yoga benefited sinus issues. The measurements used to evaluate the severity of sinusitis include breath-holding time and respiratory rate. The results are presented in this study the 't' test value of yoga practice group and control group are 4.6 and 0.07 for breath holding time and 8.62 and 0.12 for respiratory rate respectively. The experimental 't' values are significantly higher than the required table value of 2.26 with degrees of freedom 9 at 0.05 level of confidence. The present study was concluded that traditional yogic practices reduced sinusitis than the control group among college women students. This study suggests that yogic techniques can be employed as a more effective therapeutic way for treating sinusitis.

Keywords: Chronic sinusitis, Traditional Yoga, Respiratory Rate, Breathe holding time

INTRODUCTION:

Sinuses are the empty spaces behind the nose and face bone. Inflammation of these sinuses is called sinusitis, which may or may not be as a result of bacterial, fungal, viral infection, allergic or autoimmune disease. Because of this inflammation, the body's normal sinus drainage pathways get blocked, which results in mucus retention, breathing problems, runny noses, headaches, etc. It is estimated that more than 120 million Indians suffer at least one episode of acute sinusitis each year. Due to increasing pollution, urban growth, and resistance to medication sinusitis prevalence has increased during the past ten years. While the fact that no one has ever died from sinusitis, many people have surely felt suicidal while suffering from it, therefore the negative effects on the patient's quality of life should not be ignored. The following symptoms of chronic sinusitis could persist for up to 12 weeks. These symptoms include heavy nasal discharge, facial pain or pressure, and nasal blockage and fever.

Yoga is a special technique that may directly manage the mind while maintaining both physical and mental well-being. Yoga's holistic approach has the potential to entirely cure people of their diseases. To evaluate and standardized the effectiveness of yogic practices in the treatment of various ailments, including physical, mental, and psychosomatic ones, as well as to understand their potential for healing and preventing them, research in yoga therapy is essential. Numerous studies are conducted on yoga's impact on physical, psychological, and physiological health and disease. By opening the nasal airway, some yoga asanas help people breathe easier when suffering from sinusitis. This investigation tries to focus on the ways that Traditional Yoga Practices can aid in the management and prevention of sinusitis.

STATEMENT OF THE PROBLEM

The purpose of this present study was to find out the Influence of Traditional Yoga Training on sinus problem among college women students.

OBJECTIVES

Designing of Traditional yoga training for Sinus problem was the objective of this study.

HYPOTHESIS

It has been scientifically accepted that any systematic yoga package training over a continuous period of time would produce changes in sinusitis. Based on this concept, the following hypothesis was drawn.

There would be a significant improvement on Sinusitis for college women students due to traditional yoga practices.

INCLUSION

This study was delimited to the following aspects.

1. To achieve the study's objectives, 20 female undergrads with sinusitis issues, aged from 18 to 21, were selected.
2. The subjects were selected from NGM College, Pollachi, Tamil Nadu, India.
3. The students with sinus problems were randomly divided into two groups of ten each, one for traditional yoga group and the other for control group.
4. The experimental group treatment was administrated for period of six weeks, five days per week, one session per day and each session lasted 60 minutes in the evening session.

EXCLUSION

1. This study was not taking into account external aspects like nutrition, environmental factors, economic & social background, climatic conditions and medical background.
2. The daily routine activities will not be included in this study.

METHODOLOGY:

RESEARCH DESIGN

This study is based on a purposive sample design. In which, twenty female subjects with sinus problem were chosen for the study and divided into two groups: Group I received Traditional yoga training, while Group II served as a control group and only engaged in daily activities. Each group has ten participants. Each of the variables used for the study were originally assessed on the chosen subjects. Following the initial test, the members of the experimental group received careful traditional yoga instruction. Five days a week, for an hour in the evening, of training were provided to the experimental group. The training intervention lasted for this study's 6 weeks overall.

SELECTION OF SUBJECTS

The purpose of the study was to find out the influence of traditional yoga training on sinus problem among college women students. For these purpose twenty College women students from Nallamuthu Gounder Mahalingam College, Pollachi, Coimbatore District, Tamil Nadu and India were selected as subjects. The subject's age ranged from 18 to 21 years.

MEASURING VARIABLES

BREATH HOLDING TIME

(Manual Method)

Objective

The objective was to measure the ability of the subject to hold the breath for a long time.

Equipment

A stopwatch with calibration of 1/10 second, score sheet and a pencil were used to administer this test.

Procedure

The subject should stand at ease and inhaled deeply after which she should hold her breath for a long time that is possible to her. The index finger of the respondent served as an indicator to the investigator to know the start and end of the recording time. The thumb and center finger were

used to hold the nose to avoid getting the air through the nostrils. The subjects are requested not to let the air out by opening the mouth while recording the breath holding time.

Scoring

The time of holding the breath till the subject let the air out was clocked by using the stopwatch to the nearest one tenth of a breath holding time.

RESPIRATORY RATE

(Manual Method)

Objective:

To measure the subject's number of breaths per minute.

Equipment:

Stop watch and Long Bench.

Procedure:

The subject should be placed in a comfortable position on the bench, preferably sitting. Discomfort could cause the subject to breathe more rapidly. The subject's arm was placed in a relaxed position across the abdomen or lower chest, or the hand directly over the subject's upper abdomen. This was the position used during the assessment of the pulse. Both the subject's and the researchers/observer's hands rise and fall during the respiratory cycle. Measurement of the respirations was done immediately after the pulse assessment and was not perceived by the patient. The complete respiratory cycle (consists of one inspiration and one expiration) was observed. This ensures that the count would begin with a normal respiratory cycle. Once a cycle was observed, monitor the watch's second hand was monitored and the counting the rate of respirations had began. When the second hand reached a number on the dial, count "one" was counted to begin the first cycle.

Scoring:

Timing of the respirations began with a count of 1. Respirations occurred more slowly than the pulse and therefore, the count began with 1. The numbers of respirations in 30 seconds were counted and then multiplied by 2. The respiratory rate was equivalent to the number of respirations per minute.

RESULT AND DISCUSSION

The primary objective of the paired 't' ratio was to describe the differences between the pre-test and post-test mean of experimental and control group.

Thus the obtained results were interpreted with earlier studies and presented in this chapter well along with graphical presentations.

BREATH HOLDING TIME

TABLE-1

THE SUMMARY OF MEAN AND DEPENDENT 'T' TEST FOR THE PRE AND POST-TESTS ON BREATH HOLDING TIME OF EXPERIMENTAL AND CONTROL GROUPS

Mean	Experimental Group – (I)	Control Group – (II)
Pre- test Mean	37.10	37.00
Post-test Mean	43.20	37.10
Mean	40.15	37.05
't' - test	4.6	0.07

Significance at 0.05 level of Confidence.

(Table value required for significance at 0.05 level for 't'-test with df 9 is 2.26)

The paired sample ‘t’ was computed on selected dependent variable. The results are presented in the above Table-1 the ‘t’ test value yoga practice group and control group are 4.6 and 0.07 for breath holding time. The experimental ‘t’ values are significantly higher than the required table value of 2.26 with degrees of freedom 9 at 0.05 level of confidence. The result of the study shows that traditional yoga practice group has significantly improved the breath holding time.

The pre, post- test and adjusted post-test mean values of experimental group and control group on breath holding time represented in the Figure -1.

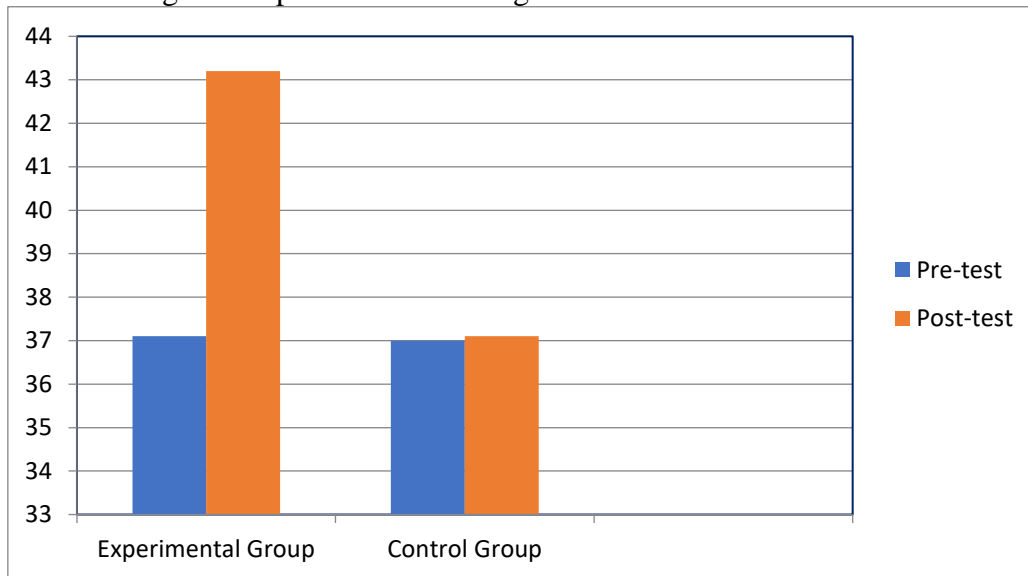


Figure – 1 The graphical representation of the pre and post t-values of traditional yoga practice group and control group on breath holding time.

RESPIRATORY RATE

TABLE-2
THE SUMMARY OF MEAN AND DEPENDENT ‘T’ TEST FOR THE PRE AND POST-TESTS ON RESPIRATORY RATE OF EXPERIMENTAL AND CONTROL GROUPS

Mean	Experimental Group – (I)	Control Group – (II)
Pre- test Mean	34.00	34.00
Post-test Mean	27.70	33.80
Mean	30.85	33.90
‘t’-test	8.62	0.12

Significance at 0.05 level of Confidence.

(Table value required for significance at 0.05 level for ‘t’-test with df 9 is 2.26)

The paired sample ‘t’ was computed on selected dependent variable. The results are presented in the above Table-2 the ‘t’ test value yoga practice group and control group are 8.62 and 0.12 for respiratory rate. The experimental ‘t’ values are significantly higher than the required table value of 2.26 with degrees of freedom 9 at 0.05 level of confidence. The result of the study shows that traditional yoga practice group has significantly improved the respiratory rate.

The pre, post- test and adjusted post-test mean values of experimental group and control group on respiratory rate graphically represented in the Figure -2.

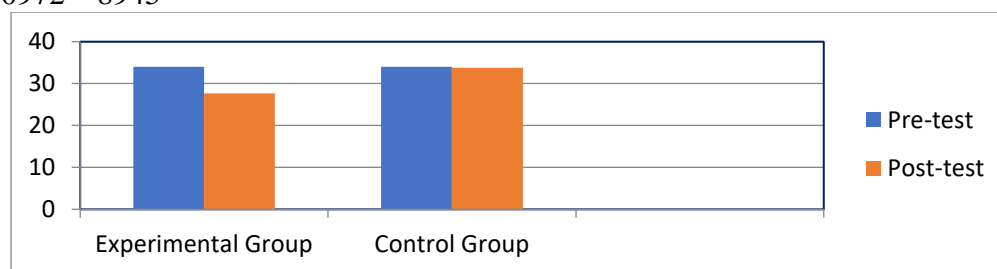


Figure – 2 The graphical representation of the pre and post t-values of traditional yoga practice group and control group on respiratory rate.

DISCUSSION ON HYPOTHESIS

After traditional yoga practices, sinusitis level reduced among sinus problem women students than the control group. Hence hypothesis was accepted at 0.05 level of confidence.

CONCLUSION

It was concluded that traditional yogic practices (Group I) reduced sinusitis than the Control group among college women students. Conclusion based on the discussion of the data obtained we can conclude that the impact of traditional yoga therapy on Sinusitis can be assessed by using breath holding time and respiratory rate test. Present research work showed that and other inflammatory diseases and it can be used as a parameter to assess the efficacy of yoga therapy. This study proves that traditional yoga can be used as a better therapeutically method in the treatment of Sinusitis.

The present study was aimed to explore the yoga practices in sinusitis. In conclusion, the present study showed that reduce the sinusitis problem by particular yoga practices.

References:

1. Sivaraman, M. (2023). Effect of Yogic Practices With and Without Varma Therapy on Selected Risk Factors Among Adultmen Suffering with Sinusitis.
2. Chanta, A., Klaewsongkram, J., Mickleborough, T. D., & Tongtako, W. (2022). Effect of Hatha yoga training on rhinitis symptoms and cytokines in allergic rhinitis patients. *Asian Pacific journal of allergy and immunology*, 40(2), 126-133.
3. Chauhan, R. S., & Rajesh, S. K. (2020). The role of yoga intervention in the treatment of allergic rhinitis: a narrative review and proposed model. *CellMed*, 10(3), 25-1.
4. Abishek, K., Bakshi, S. S., & Bhavanani, A. B. (2019). The efficacy of yogic breathing exercise Bhramari pranayama in relieving symptoms of chronic rhinosinusitis. *International journal of yoga*, 12(2), 120.
5. Naragatti, M. S. (2019). MANAGEMENT OF RESPIRATORY SYSTEM DISORDERS THROUGH THE SYSTEM OF YOGA.
6. Kaminsky, D. A., Guntupalli, K. K., Lippmann, J., Burns, S. M., Brock, M. A., Skelly, J., ... & Hanania, N. A. (2017). Effect of yoga breathing (pranayama) on exercise tolerance in patients with chronic obstructive pulmonary disease: a randomized, controlled trial. *The Journal of Alternative and Complementary Medicine*, 23(9), 696-704.
7. Choudhary, A., Choudhary, T. S., & Mish, R. (2012). EFFECT OF YOGA INTERVENTION IN CHRONIC R. *International Journal of Bioassays*, 1(12), 214-216.
8. Bhavanani, Y. D. A. B. (2008). Scientific basis for some yoga practices in sinusitis. *International Centre for Yoga Education & Research (ICYER) and Yoganjali Natyalayam, Puducherry*.
9. Kausar, S., Fatema, S. A., Husain, A., Farooqui, D., Siddiqui, J. A., & Farooqui, A. H. Chronic rhino sinusitis: A review study. *Otolaryngology-head and Neck Surgery (AAO-HNS)*, 7, 15.
10. Karunaratne, H. K. B. M. S. Yoga Therapy for Immunomodulation (Prevent & Cure) of COVID-19.
11. Rabago, D., Zgierska, A., Mundt, M., Barrett, B., Bobula, J., & Maberry, R. (2002). Efficacy of daily hypertonic saline nasal irrigation among patients with sinusitis: a randomized controlled trial. *Journal of Family Practice*, 51(12), 1049-1055.