



Effect of Yoga on the Reduction in Symptoms of Respiratory Disorders- Cough, Wheezing, Rapid Shallow Respiration

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Abstract

The aim of the study was to find out the effect of yogic exercise and yogic breathing on the reduction of symptoms of respiratory disorders. The researcher have visited a school in which 1100 pupils were studying. All the formalities that is required for an intervention study have been completed. The selection of samples have been done according to the symptoms' frequency of wheezing, coughing and dyspnea attack experienced by the students. Symptoms were categorized into 3 types, Cough, Wheezing, suffocation, and have studied separately. Here the researcher has made a control group and excluded from the intervention program. Students were instructed to do practice regularly in a systematic way preferably early in the morning and it is for minimum 45 minutes, as they were taught 20 minutes yogic breathing and 25 minutes of simple yogic exercise, 5 minutes rest is advised between exercise and breathing. Researcher is used to visit respondents on every Monday and Thursday and have collected their self report regarding the symptoms which they were experiencing. And observed the performance of participants and necessary correction was made as and when required. The intervention program was for 90 days. At the end of the program data was analyzed by using statistical measurement- paired 't' test. It was found there was significant reduction in the symptoms of participants after the practice of yogic exercise and breathing at 1% level.

Introduction

“Yoga is the science of living and, as such, is intended to be incorporated in daily life. It works on all aspects of the life” (Swamy sathyananda Saraswathi). Yogic breathing and Yoga postures that are helpful in maintaining good air exchange. Special deep breathing exercise can be taught to the patient so that elasticity and full expansion of lung and bronchial tissues can be maintained. For

tapering medication the patient should live in a place, with the least air pollution and smoke free environment. The chronic bronchitis which is associated with emphysema must be kept under control as far as practicable through natural methods of treatment. Smoking, if habitual, should be given up. The patient should undertake yogic exercises which will help maintain muscle to move and prevent them from becoming rigid,

patient should practice yogic exercise and breathing- Pranayama morning and evening daily.

Relevance

According to medical scientists, yoga therapy is successful because of the balance created in the nervous and endocrine systems which directly influences all the other systems and organs of the body. Asanas do remove the physical discomfort accumulated during the day.

Sample 30 participants were selected from a Government School in which there were 18 boys and 12 girls. In addition 10 students, 7 boys and three girls were left over as a control group.

Objective

To study the effect of yoga on the respiratory problems such as rapid, shallow respirations, Rapid Pulse, diminished breath sounds, generalized retractions. Frequent pausing to catch the breath when talking, hyper expansion of the chest.

Method

#0 participants were taught pranayama and yogasana. In the schedule importance given to the expiratory breathing. Wheezing happens due to the inability of expiratory process. After 90 days practice pre –post frequency of symptoms were assessed in trust with participants – thgeir self report were taken in to consideration. After the collection of data paired ‘t’ test have been done.

Analysis

Table1. comparison of frequency of attacks

	mean	N	SD	SE	‘t’	df	p
Fr.before	3.77	30	1.305	.238	10.25	29	0.00*
Fr Afte 1 month	2.17	30	1.26	.230			
Fr.before	3.77	30	1.305	.238	8.65	29	0.00*
After 3 months	1.80	30	0.961	.176			

Significant at 1% level

Table.1. The data shows there is 30 participants. The mean symptoms’ frequency is 3.77 and their standard deviation is 1.305 before the intervention program. After 1 month the data reveal the mean symptoms ‘frequency is decreased to 2.17 with a standard deviation of 1.26. Calculated ‘t’ value is 10.25 with a ‘p’ value of 0.00* which is

significant at 1% level. And after 90 days training the data shows mean of symptom frequency is come down to 1.80 with a standard deviation of 0.961. After 90 days the ‘t’ value is 8.65 and value of ‘p’ as 0.00* ,which is also significant at 1% level.

Chart 1. Comparison of frequency of symptoms attacks

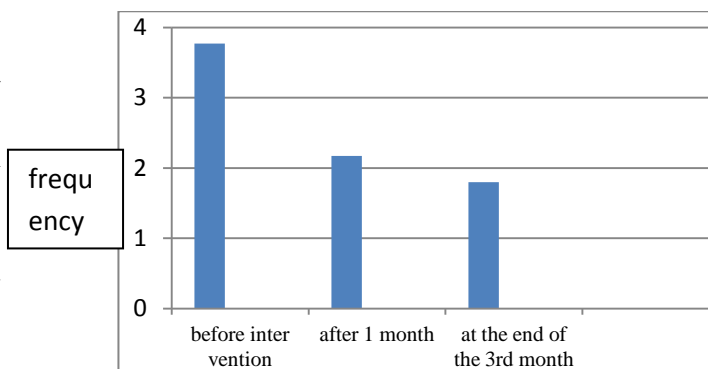


Table .2 Comparison between male &female- reduction of symptoms .

	gender	N	mean	SD	SE	t	df	p
Differen ce end of 1 month	male	18	1.67	0.84	0.20	0.516	28	0.610
	female	12	1.50	0.90	0.26			
Differen ce end 3 rd month	male	18	1.89	1.28	0.30	0.413	28	0.683
	female	12	2.08	1.24	0.36			

Not significant

Table 2. table shows there is 18 males and 12 females, after one month practice of yogic breathing and simple yoga postures the mean symptoms’ frequency of males is 1.67 with standard deviation of 0.84 for male, Where as for females the mean symptom is 1.50 with standard deviation of 0.90. the calculated ‘t’ value shows as 0.516 with ‘p’ value of 0.610. which is not significant. And further analysis reveals that the end of the intervention program(90 days)mean of the symptom frequency for male is 1.89 and their standard deviation is 1.28 and for females it is 2.08 and 1.24 respectively. ‘t’ value shows as 0.413 and having a ‘p’ value of 0.683. which is also not significant. no significant difference seen.

Table.3 Comparison between rural and urban participants.

	locality	N	Mean	SD	SE	t	df	p
End of 1 month	Rural	17	1.65	0.86	0.21	0.339	28	0.737
	Urban	13	1.54	0.88	0.24			
End 3 rd month	Rural	17	2.00	1.22	0.30	0.165	28	0.870
	Urban	13	1.92	1.32	0.37			

Not significant

Table.3.

It can be seen that there is 17 participants from rural locality and 13 from urban area End of 1st month of intervention program reduction in mean symptoms' frequency from rural area children is 1.65 with standard deviation of 0.86, and it is 1.54 with standard deviation of 0.88 for children from urban locality. Calculated 't' value is 0.339 with 'p' value as 0.737. It is not significant. Further analysis of the data after the practice of yogic breathing and simple yoga postures at the end of 3rd month mean of symptoms is 2.00 and the standard deviation is 1.22 for the children from rural locality. For children from urban area the data reveal mean of symptom is 1.92 with standard deviation of 1.32. the 't' value is 0.165 and it 'p' value is 0.870. The above values are not significant.

Table 4 Comparison of reduction of frequency in symptoms between allopathic and indigenous medicines.

	medication	N	Mean	SD	SE	t	df	p
End of 1 month	allopathy	20	1.65	0.88	0.21	0.447	28	0.659
	indigenous	10	1.50	0.85	0.27			
End of 3 rd month	allopathy	20	2.00	1.30	0.29	0.204	28	0.840
	indigenous	10	1.90	1.20	0.38			

Not significant

Table.4

Comparison between children who are all consuming indigenous and who are all consuming allopathic medicines, the data reveals at the end of first month mean of symptoms of children having allopathic medicine is 1.65 and it is for

children having indigenous medicine is 1.50. And their standard deviation is 0.88 and 0.85 respectively. 't' value shows as 0.447 and its 'p' value is 0.659 and it is not significant. And at the end of intervention the mean of symptoms frequency for urban children is 2.00 and it is 1.90 for the children from rural area. Their standard deviation are 1.30 and 1.20 respectively. Data shows 't' as 0.204 with a 'p' value of 0.840. not significant.

Findings

1. Practicing pranayama and yoga postures has an effect on the reduction of symptoms' frequency of respiratory problems of children.
2. Participants gender, locality and consumption of allopathic or indigenous medicine has no significant effect.

Conclusion

Yogic exercise and yogic breathing which improves inspiration and expiration are helpful to maintain good air exchange. pranayama cleansing the body completely of toxins, and then rejuvenate it with fresh oxygen that stimulate metabolic activity. Breathing exercise focusing on expiration must be taught to the patient so that elasticity and full expansion of lungs and bronchial tree are helped to function quite naturally. for tapering medication patient should live in a place, with the least air pollution and smoke-free environment.

Reference

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