

# Yoga, Asthma and Quality of Life: A Study

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## Abstract

To assess the impact of Yoga therapy on the quality of life of asthma patients 30 volunteers (Experimental Group) were additionally subjected to practice yoga (asanas and pranayams) besides allopathic treatment. An equal number of volunteers undergoing only allopathic treatment served as the Control group. The subjects were selected on the basis of incidental sampling technique using the Classical Design. Subjects from both the groups were comparable in terms of age (45 to 50 years), sex (male only), type of family (nuclear), size of family (3 to 5 members), educational status (Matriculation and above), area of residence (Bhagalpur City) etc. Quality of Life Questionnaire (Saxena at al. 1998) was used for both the groups. It was hypothesized that asthmatics practicing yoga in addition to allopathy will have a better quality of life as compared to those on allopathic treatment only. The data was analyzed using 't' test. The results confirmed the hypothesis. The findings have been discussed in the light of the studies in this area as also common observation typical of the world view and the Indians' way of life.

**Keywords:** - Asthma and yoga, Yoga and Asthma, Quality of life and Yoga, Yoga and quality of life, Asthmatics and Yoga.

## Introduction

Asthma is a condition wherein the airways of a person narrows and swell producing extra mucus. Thus, breathing becomes difficult and there is consequent shortness of breath as well. It is said that asthma cannot be cured. However, its symptom can be controlled medically or otherwise. In other words, quality of life of an asthmatic patient can be improved by various means. For example, in allopathic treatment certain drugs or inhalers are used to combat mild and severe attack of asthma such as salbutamol or some steroids.

For severe and chronic cases stronger medication is often required (e.g. formoterol, salmeterol and tiotropius etc.).

In recent years researches in yoga therapy have indicated that proper and careful use of certain asanas and pranayams helps the patient in managing the physical and mental distress considerably. For instance, Bidwell and his associates (2012) are of the view that yoga training indeed improves quality of life. Gore, M. M. (1982) has stressed the importance of long term effects of breathing exercises and yoga in patients suffering from bronchial asthma. Lathadevi and her associates (2012) evaluated the pulmonary functions in asthmatics after six weeks of ujjayi pranayam and shavasana training.

The results, again, tended to be optimistic. Sodhi et al. (2009) assessed the quality of life in patients with bronchial asthma, before and after yoga, and indicated significant outcome from the study. Satyaprabha and her associates (2001) have found naturopathy and yoga useful for asthmatics. Golche et al. (1982) have also posited an objective view with reference to the use of yogic intervention for asthmatics. However, Cramer et al. (2014) have expressed skepticism as regards the claim of yoga researchers for asthmatic. However, there seems to be an inconclusiveness of studies in which the use of yoga in addition to allopathic treatment has been shown. Hence, it was decided, once again, to find out whether an additional use of yoga helps the asthmatics overcome the distress associated with bouts of asthma. Thus, it was hypothesized that certain asanas and pranayamas such as sukhasana and shavasana and Bhramari and Nadishodhan, when practiced in addition to allopathic treatment, will have a positive effect on the quality of life of asthmatics.

## Methodology

### Sample

30 volunteers from the city of Bhagalpur (Bihar) comprised of the Experimental group. The subjects on treatment by the allopathic system of medicine were made to practice Sukhasana and shavasana along with Bhramari and nadishodhan pranayams each day for one hour for six months. 30 volunteers who were only under allopathic treatment constituted the control group. Subjects from both the groups were comparable in certain variables such as age (45 to 50 years), sex (male), education (above matriculation level), type of family (nuclear), size of family (3 to 5 members) and area of residence (Bhagalpur city only) etc.

## Design

The Classical Design was used in the present study. Yogic intervention in the form of asanas (sukhasana and shavasana) and pranayama (bhramari and nadishodhan) served as the independent variable whereas quality of life was the dependent variable. Former being the experimental and latter the control condition.

## Tools

The WHO has developed a Scale (1995) which has 100 items with 6 dimensions of quality of life. But, for practical reasons it was decided to utilize a short version of the same developed by Saxena and his associates (1998). This Test has only 26 items which assess the four dimensions of life – physical, mental, social and environmental. Item 1 and 2 are fillers and as such are not calculated. The Test has items in the form of statements for which the respondent has a choice of 5 alternative answers for evaluating the quality of life – very bad (1), bad (2), neither good nor bad (3), good (4) and very good (5). Good rating score indicates good quality of life and vice versa. The Cronbach Alfa test of reliability for this questionnaire has been found to range between 0.59 to 0.85. The confirmatory validity of the questionnaire was also adequate – 0.95 for physical dimension, 0.982 for mental dimension, 0.972 for social relationship dimension and 0.922 for environmental dimension.

Yogic intervention was the independent variable in the present study. Some asanas and pranayams – Sukhasana and shvasana and Vhramari and nadishodhan were used for the sake of intervention. A brief description of these follows: -

**Sukhasana:-** Sukhsana is a pose for physical relaxation. It focuses on the breath owing to which some control over stress is simultaneously achieved. Hence, it is an ideal asana for asthamtic patients. In all psychosomatic ailments, asthma being one, control of stress is obligatory.

**Shavasana:-** It is commonly labelled 'corpse pose'. 'Shava' means corpse and 'asana' pose. Shavasana, too, is an exercise for physical relaxation which is normally practiced at the end of a yoga session. In this pose one has to lie on the back with face upwards – like a corpse.

**Bhramari:-** As the very name suggests, Bhramari pranayama is a sort of 'humming bee breath'. It is said to soothe the nervous system thereby connecting the entire self to a state of tranquil solitude.

**Nadishodhan pranayam:-** 'Nadi' means nerve and 'shodhan' means purification. Hence, nadishodhan pranayam is a breathing exercise to purify all the nerves of the body through which 'pran', the hypothetical vital energy flows. Thus, this pranayam has a holistic effect on the psyche and the soma.

**Strategy of study**

Initially subjects were contracted as per the requirement of the study. Thereafter, the experimental group was briefed about the study and the techniques of yogic intervention. A room with good ventilation was selected for the same. The sessions were for 6 months for one hour daily in the morning. After the 6 month session the quality of life questionnaire was given to them and finally collected for the treatment of data. Yogic treatment to the control group was not given but were asked to fill the quality of life questionnaire after they had taken allopathic treatment for six months.

**Results and Discussion**

The data, so obtained was arranged in the tabular form for the needful.

**Table**

*Mean, Standard Deviation and 't' score of the quality of life of asthma patients treated by allopathic and allopathic cum yogic systems*

Disease	Dimensions of quality of life	Treatment Method	N	Mean	SD	t
ASTHMA	Physical health	Allopathic	30	21.54	2.39	6.07**
		Allopathic cum Yogic	30	24.98	1.98	
	Mental health	Allopathic	30	18.84	2.43	4.11**
		Allopathic cum Yogic	30	20.86	1.23	
	Social Relationship	Allopathic	30	11.12	2.08	4.06**
		Allopathic cum Yogic	30	12.84	0.92	
	Environmental Factors	Allopathic	30	25.56	4.63	7.61**
		Allopathic cum Yogic	30	32.58	1.61	
Total Quality of life	Allopathic	30	77.31	8.47	7.99**	
	Allopathic cum Yogic	30	91.01	4.01		

\*\* p < 0.01, df = 58

The table indicates the quality of life score of asthma patients taking treatment by only allopathic method and by allopathic cum yogic method. The quality of life score in all four dimensions-physical, mental, social and environmental as well as in totality for both control and experimental groups can also be seen. As such, on the physical quality of life (dimension) the score of the control group was-Mean=21.54, Standard



Deviation=2.39 whereas for the experimental group it was-Mean 24.98, Standard Deviation=1.98. The 't' ratio was found to be 6.07 which was significant at 0.01 level of significance (df=58). Likewise, in the mental quality of life (dimension) the scores indicated-Experimental group-Mean=20.88, Standard Deviation=1.23; Control group-Mean 18.84, Standard Deviation=2.43 and 't' =4.11, df=58  $p<0.01$ . For the social relationship (dimension) quality of life the two groups expressed a similar pattern. Thus, Control group-Mean=11.14, Standard Deviation=2.08 and Experimental group Mean=12.84, Standard Deviation=0.92 and 't' = 4.08<0.01 (df=58). In the fourth dimension of quality of life i.e. environmental dimension the scores again reflected the above mentioned trend. Thus, Control group-Mean=25.58, Standard Deviation=4.63 and Experimental group-Mean=32.38, Standard Deviation=1.61. The 't' ratio was calculated as 7.61 which, at 58 df, was significant at 0.01 level of confidence. Lastly, the score of quality of life in totality was obtained. Thus Control group Mean=77.31, Standard Deviation 8.47. Experimental group-Mean=91.01, Standard Deviation=4.08. The 't' ratio was 7.99 which was significant at 0.01 level of confidence (df=58). Thus, the hypothesis framed for verification was upheld.

### Conclusion

On the basis of the results of the present study and the review of literature in this area it is felt that albeit asthma is not curable yet it can be managed if modern and traditional methods of therapy are judiciously blended and used.

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