Effect of Yogic Practices on Stress and General Mental Alertness among Asthmatic Women

*1A Sathish Kumar, 2Dr. KS Sridhar, 3S Murugesan, 4Dr. R Elangovan and 5Dr. AM Moorthy

*1 Assistant Professor, Department of Sports Medicine and Yoga, Sree Balaji Medical College & Hospital, Chennai, Tamil Nadu, India.

²Director, Department of Physical Education, Pachaiyappas College, ShenaiNagar, Chennai, Tamil Nadu, India.

³Associate Professor, Faculty of Yoga Sciences and Therapy, Meenakshi Academy of Higher Education and Research (Deemed to be University), West K.K. Nagar, Chennai, Tamil Nadu, India.

⁴Head of the Department, Faculty of Yoga Sciences and Therapy, Meenakshi Academy of Higher Education and Research (Deemed to be University), West K.K. Nagar, Chennai, Tamil Nadu, India.

⁵Director, Department of Sports Medicine and Yoga, Sree Balaji Medical College & Hospital, Chennai, Tamil Nadu, India.

Abstract

The purpose of the Random group experimental study was to find out the effect of yogic practices on stress and general mental alertness among asthmatic women. It was hypothesized that there would be significant difference in stress and general mental alertness. To achieve the purpose of the study, 30 asthmatic women from Chennai, aged between 35 to 50 years were selected randomly and divided them into two groups, one experimental group and one control group of 15 subjects each. Experimental group I underwent yogic practices for the period of eight weeks, six days per week of one hour basically, then slowly increased to Ihr and 15min. The control group II was not exposed to any specific training but in active rest. The pre-test and post-tests were conducted before and after the training for both the groups. Stress assessed through Latha Sathis's stress questionnaire and General Mental Alertness by Dr. R.P. Srivastava (Jabalpur) questionnaire. The data pertaining to the variables collected from the two groups before and after the training period were statistically analyzed by using Analysis of Covariance (ANCOVA) to determine the significant difference and tested at 0.05 level of confidence. The results of the study showed that stress significantly decreased and general mental alertness significantly increased due to the influence of eight weeks training of yoga than the control group among asthmatic women. Hence, the hypothesis was accepted at 0.05 level of confidence. The conclusion was that yogic practices could be effective in decreasing Stress and increasing General Mental alertness among asthmatic women.

Keywords: Yogic practices, asthmatic, stress, general mental alertness

Introduction

Respiratory disorders, in particular asthma are increasing in prevalence which is a global phenomenon. Asthma is a chronic lung disorder resulting from the spasmodic contraction of the bronchial muscles.

Most people with an acute illness will do anything to find relief, usually in the form of drugs and other remedies to suppress the symptoms from the yogic and natural health point of view. This can be a mistake. The disease is an attempt by nature to re-balance and heal the body ridding it of accumulated toxins, chemicals and waste products that have been stored and clogging vital capillary, lymphatic, nerves and organic channels these disturb physiological functions converting it to the pathological distorting pranic energy fields. Yoga achieves this lofty aim.

Purpose of the Study

The purpose of the study was to find out the effects of yogic practices on Stress and General Mental Alertness.

Aim and Objectives of the Study

The aim and objectives of the study was to find out whether there would be any significant difference on selected psychological variables such as Stress and General Mental Alertness due to yogic practices among middle aged Asthmatic Women.

Hypothesis

It was hypothesized that there would be significant difference between Yogic Group (Group I) and Control Group (Group II) on Stress and General Mental Alertness among asthmatic women.

Review of Related Literature

Myers H, Sternlieb B, Zeltzer L.(2004) The classes emphasized yoga postures thought to alleviate depression, Beck Depression Inventory, State-Trait Anxiety Inventory, Profile of Mood States, morning cortisol levels. Subjects who participated in the yoga course demonstrated significant decreases in self-reported symptoms of depression and trait anxiety. These effects emerged by the middle of the yoga course and were maintained by the end. Changes also were observed in acute mood, with subjects reporting decreased levels of negative mood and fatigue following yoga classes. Finally, there was a trend for higher morning cortisol levels in the yoga group by the end of the yoga course, compared to controls. These findings provide suggestive evidence of the utility of yoga asanas in improving mood and support the need for future.

Methodology

For the random group experimental study. 30 middle aged Asthmatic Women were selected by using random sampling group design from Chennai between the age group of 35 and 45 years and they were divided into two groups A and B with 15 subjects in each group. It was hypothesized that there would be significant differences due to Yogic practices on Stress and General Mental Alertness due to yogic practices among middle aged Asthmatic Women.

Pre-test was conducted for the two Groups (A and B) on the selected dependent variable before the start of the training program. Group A was given Yogic practices: Group B (Control Group) didn't receive any specific treatment but were in active rest. After the experimental period of twelve weeks, the two Groups (A and B) were retested on the same selected dependent variables. Analysis of co-variance (ANCOVA) was used to find out the significant differences between experimental group and the control group.

Experimental group was given Loosening Exercises, Suryanamaskar, selected Asanas, Savasana, Mahamudra, Nadishodhana, Kapalapathi, Ujjai and Meditation.

Stress was assessed through Latha Sathis's stress questionnaire and General Mental Alertness by Dr. R.P. Srivastava (Jabalpur) questionnaire.

Results and Discussions

The data pertaining to the variables collected from the two groups before and after the training period were statistically analyzed by using Analysis of Covariance (ANCOVA) to determine the significant difference and tested at 0.05 level of confidence. The Analysis of Covariance (ANCOVA) on Stress and General Mental Alertness of the experimental group (group 1) and control group (group II) were analyzed and are presented in tables I and II.

Table 1: Analysis of covariance (ANCOVA) of data on stress between yogic practices and control groups

Test	Exp. Group	Cont. Group	SV	SS	Df	MS	F
Pre-Test	84.33	79.26	Between	192.53	1	192.53	0.176
			within	30646.27	28	1094.51	
Post test	72.66	81.00	Between	520.83	1	520.83	0.610*
			within	23903.33	28	1188.06	
Adjusted	47.42	46.20	Between	1188.07	1	70.75	16.793*
			within	1910.18	27		
Mean Difference	11.67	1.73					

^{*}Significant at 0.05 level of confidence.

Table F ratio at 0.05 level of confidence for land 28(df)-4.19,

1and 27(df)-4.21

Table 2: Analysis of covariance (ANCOVA) of data on general mental alertness between yogic practices and control groups

Test	Exp. Group	Cont. Group	SV	SS	Df	MS	F
Pre-Test	47.000	48.400	Between	14.7	1	14.7	0.4037
			within	1019.6	28	36.41	
Post test	66.800	46.600	Between	3060.30	1	3060.3	97.818*
			within	876.00	28	31.29	
Adjusted	66.93	46.74	Between	3013.28	1	3013.28	92.883*
			within	875.93	27	32.44	
Mean Difference	19.80	1.80					

^{*}Significant at 0.05 level of confidence.

Table F ratio at 0.05 level of confidence for land 28(df)-4.19, 1 and 27(df)-4.21

The obtained F-ratio values were greater than the table value, it indicates that there was significant difference among the post test and adjusted post-test means of the experimental and

the control group on Stress and General Mental Alertness among asthmatic women.

The pre-test and post-test values of yogic practices (Group I) and Control Group (Group II) on Stress and General Mental Alertness are graphically presented in Figure I and II:

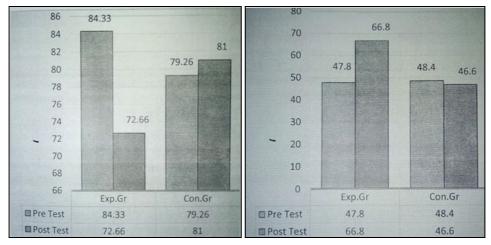


Fig 1 Fig 2

Fig 1&2: Showing the pre-test and post-test values of yogic practices (Group I) and Control Group (Group II) on stress and general mental alertness graphically.

The results of the study showed that stress significantly decreased and general mental alertness significantly increased as a result of Yogic Practices than the control group among asthmatic women.

The results of the study showed that stress significantly decreased and general mental alertness significantly increased significantly as a result of Yogic Practice. Hence, the hypothesis was accepted at 0.05 level of confidence. Practices of Yoga decreases Stress and increases the General Mental Alertness. The above findings were substantiated by observations made by renowned experts Myers H. Sternlieb B, Zeltzer L. (2004).

Conclusion

Based on the results, it was concluded that Yogic Practice is effective in decreasing Stress and increasing General Mental Alertness among asthmatic women.

References

- 1. Phulgenda Sinha. "Yoga Meaning, Values and Practice", Mumbai; Jaico Publishing House, 2007, 1-3.
- 2. Nagarathna RHR Nagendra. "Yoga for asthma", Bangalore: Swami Vivekananda yoga prakashana, 2006, 1-10, 40-60.
- 3. Iyengar PKS. "Light on yoga"Haper Collins Publishers, India, 2004, 4-8.
- 4. Swami Satyanandasaraswathi. "Meditation from the Tantras", Bihar; Yoga Publication Trust Munger Bihar, 2007, 108-111.
- Iyengar BKS. Light on the Yoga Sutras of Patanjali, New Delhi: Indus. An imprint of Harper Collin Publisher Pvt. Ltd., 1993.
- 6. SatyanandaSaraswathi Swami., Yoga and Kriya, Bihar: Yoga Publication Trust, 1981.
- 7. Sundaram, Yogacharya Sundara-Yogic Therapy, Coimbatore: The Yoga publishing House, 2004.