

IMPACT OF YOGIC EXERCISES ON STRESS MANAGEMENT

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Abstract

Stress is a normal response of the body towards the situations which seem difficult to manage. In order to adjust with such situations our body and mind have to work extra; and as a result certain response take place in our body and mind. The responses within the body and mind to tackle the difficult situations are called 'stress' response as stress is the psycho-physiological responses which take place in the person to tackle a difficult situation. Yoga is a means of balancing and harmonizing the body, mind and emotions. Pranayama utilizes breathing to influence the flow of Prana in the energy channels where as meditation is a specific technique for resting the mind and attaining a state of consciousness that is totally different from the normal walking state. Present study employed an experimental design with Stress as dependent variable and Shatkriya, Pranayam and Meditation were administered to Experimental group where as no training in Yogic exercise was provided to Control group. The impact of yogic training on stress management constitutes the major motive of the present research. A significant difference in various components of stress was found between pre test and post test scores of experimental group while in case of control group, significant difference was found only in one the components of stress.

Keywords: Yogic Exercises & Stress Management

Yoga is the science of right living and as such, is intended to be incorporated in daily life. It works on all aspects of the persons: the physical, vital, mental, emotional, psychic and spiritual. Mind is the storehouse of all energies. It is the mind that moves the body and controls it. Mind can feed or sap energies to the whole body depending upon its state. All energies can be diverted towards achieving creative and constructive goals. The fact that mind influences the body more than the body influences the mind is well established and accepted fact all over the world today.

The word 'Yoga' literally means 'union or joining of two things together.' The word 'Yoga' has a long history. It is an integrated subjective science. It is divided into physical, mental and spiritual which cannot be separated. The term 'Yoga' has been derived from the Sanskrit word 'YUJ' which means union of individual consciousness with universal

consciousness. On a more practical level, yoga is a means of balancing and harmonizing the body, mind and emotions. Literally, it means the union of an individual soul with the universal spirit, which actually is the ultimate aim of the discipline of Yoga.

Stress is a normal response of the body towards the situations which seem difficult to manage. Actually, our body has psycho-biological systems which regularly work for the sake of our survival. For this purpose, a constant monitoring of our internal and external environment is done by our brain. In routine, we face many difficult situations which are perceived as a threat to our well – being and survival. In order to cope with those situations, our body's psycho-biological system takes autonomic corrective actions. These responses are the autonomic responses generated by our body and mind to such situations. In routine, these autonomic responses help us in our well – being and in survival.

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But sometimes, there are situations which are too difficult to be handled in the routine way. In order to adjust with such situations our body and mind have to work extra; and as a result certain response take place in our body and mind. These responses which occur within our body and mind to tackle the difficult situations are called 'stress' response. Thus stress is the psycho-physiological responses which take place in the person to tackle a difficult situation. Various research studies are conducted related to the above said variables. Vinod (1991) concluded that the Yogic practices like Meditation, Physical training and Relaxation can reduce Anxiety level by about 28%. Indirani (1993) carried out a study on, "The effect of Yogasanas on selected physical, Physiological variable among school boys." The findings suggest that the asanas effect was observed to be significant on flexibility and agility. Pranayama significantly improved breath holding capacity, vital capacity and resting pulse rate. Bector (1997) conducted a survey of 120 students of government school and public schools and found that they do not differ significantly in their level of Academic stress. Sharma (2001) conducted a study entitled 'Effect of Yoga exercise on the mental health and Anxiety at B.Ed. level'. It was found that yogic trainees have a lower level of anxiety as well as higher level of mental health as compared to general trainees. Asha Gandhi (2007) conducted a study of role of integrated Yoga practices as adjunct in the management of essential hypertension and found that significant improvement in illness score, decrease in Blood pressure, reduction in doses of antihypertensive drug and improved beneficial effect of yoga practices in patients suffering from essential hypertension. Keeping the above facts in mind the problem under investigation is stated as Impact of Yogic Exercises on Stress Management.

OBJECTIVES OF THE STUDY

- To find out the level of mental stress in Secondary School Studies.
- To find out the efficacy of Yogic Shatkriya, Pranayama and Meditation in managing stress of Secondary School Students.
- To find out the difference in stress management

between the groups undergoing and not undergoing Yogic Shatkriya, Pranayama and meditation.

METHOD

SAMPLE

Sample of the study consisted of 50 girl students of XII class randomly chosen from B.C.M. Senior Secondary School, Chandigarh Road, Ludhiana, ensuring that no student had undergone yoga training earlier.

MEASURES

- Academic Stress Scale from Bisht Battery of Stress Scale by Bisht (1987)
- Standard Progressive Matrices of Intelligence Scale by Raven (1988)

PROCEDURE

The study was delimited to Ludhiana district only. For the present investigation, only three Yogic techniques namely Shatkriya, Pranayama and Meditation were administered to see their impact on stress management. Present study employed an experimental design with Stress as dependent variable and Shatkriya, Pranayama and Meditation were administered to Experimental group where as no training in Yogic exercise was provided to Control group. The impact of yogic training on stress management constitutes the major motive of the present research. In order to randomize the subjects to experimental and control groups, Raven's Standard Progressive Matrices of Intelligence was administered on the girls of class XII. Along with testing their intelligence, a pre-test was also conducted on the whole group for finding their level of stress. The Abha Rani Bisht Battery of Stress was administered. Out of 13 scales of stress, only the scale of Academic stress was selected. It has 80 items. The prospective training was provided to a group of 25 students drawn randomly to be taken as the Experimental group. The training lasted 20 days. There were the sessions of Shatkriya (10 Minutes), Prayanama (10 minutes) and lastly Meditation (20 minutes) for each in a week time. The session commenced at 7.00 am. Sharp.

RESULTS AND DISCUSSION

Table 1: Significance of Difference of Means of Frequency and Quantity of various components of Stress between Pre-Test and Post-Test Scores of Experimental group (n=25)

Component of Stress	Frequency/ Quantity	Pre-Test	Post- Test	t-ratio
Frustration	Frequency	M=49.20	M=44.12	7.235**
		SD=9.25	SD=9.02	
	Quantity	M=48.12	M=43.20	5.197**
		SD=10.49	SD=10.94	
Conflict	Frequency	M=22.16	M=18.92	5.273**
		SD=7.06	SD=7.58	
	Quantity	M=25.60	M=22.36	6.113**
		SD=7.69	SD=7.73	
Pressure	Frequency	M=45.80	M=41.40	5.210**
		SD=9.34	SD=9.97	
	Quantity	M=47.00	M=42.72	4.227**
		SD=8.34	SD=9.85	
Anxiety	Frequency	M=25.32	M=23.04	1.743*
		SD=7.22	SD=10.17	
	Quantity	M=26.00	M=22.24	5.050**
		SD=7.30	SD=7.52	

** Significant at 0.01 level, * Significant at 0.05 level

Table 1 reveals the significance of difference of means of scores of frequency and quantity of various components of Stress between Pre-Test and Post –Test of Experimental group (n=25). The mean value of frequency of Frustration is 49.20 in Pre –Test and 44.12 in Post Test with SD of 9.25 and 9.02 respectively for Pre –Test and Post Test of Experimental group. The t-ratio value comes out to be 7.235 which is significant at 0.01 level of significance. The mean value of quantity of Frustration is 48.12 in Pre –Test and 43.20 in Post Test with SD of 10.49 and 10.94 respectively for Pre –Test and Post Test of Experimental group. The t-ratio value comes out to be 5.197 which is significant at 0.01 level of significance.

The mean value of frequency of Conflict is 22.16 in Pre –Test and 18.92 in Post Test with SD of 7.06 and 7.58 respectively for Pre –Test and Post Test of Experimental group. The t-ratio value comes out to be 5.273 which is significant at 0.01 level of significance. The mean value of quantity of Conflict is 25.60 in Pre –Test and 22.36 in Post Test with SD of 7.69 and 7.73 respectively for Pre –Test and Post Test of Experimental group. The t-ratio value comes out

to be 6.113 which is significant at 0.01 level of significance.

The mean value of frequency of Pressure is 45.80 in Pre –Test and 41.40 in Post Test with SD of 9.34 and 9.97 respectively for Pre –Test and Post Test of Experimental group. The t-ratio value comes out to be 5.210 which is significant at 0.01 level of significance. The mean value of quantity of Pressure is 47.00 in Pre –Test and 42.72 in Post Test with SD of 8.34 and 9.85 respectively for Pre –Test and Post Test of Experimental group. The t-ratio value comes out to be 4.227 which is significant at 0.01 level of significance.

The mean value of frequency of Anxiety is 25.32 in Pre –Test and 23.04 in Post Test with SD of 7.22 and 10.17 respectively for Pre –Test and Post Test of Experimental group. The t-ratio value comes out to be 1.743 which is significant at 0.05 level of significance. The mean value of quantity of Anxiety is 26.00 in Pre –Test and 22.24 in Post Test with SD of 7.30 and 7.52 respectively for Pre –Test and Post Test of Experimental group. The t-ratio value comes out to be 5.050 which is significant at 0.01 level of significance.

Table 2: Significance of Difference of Means of Frequency and Quantity of various components of Stress between Pre-Test and Post-Test Scores of Control group (n=25)

Component of Stress	Frequency/ Quantity	Pre-Test	Post- Test	t-ratio
Frustration	Frequency	M=48.60	M=50.76	1.574 ns
		SD=9.97	SD=8.57	
	Quantity	M=48.60	M=50.56	1.129 ns
		SD=9.99	SD=8.95	
Conflict	Frequency	M=19.84	M=21.12	1.463 ns
		SD=6.12	SD=5.66	
	Quantity	M=20.48	M=21.56	1.256 ns
		SD=6.64	SD=6.39	
Pressure	Frequency	M=42.64	M=44.40	1.305 ns
		SD=11.69	SD=10.23	
	Quantity	M=43.52	M=44.32	0.569 ns
		SD=9.89	SD=8.28	
Anxiety	Frequency	M=20.64	M=23.20	2.565**
		SD=6.07	SD=6.84	
	Quantity	M=21.00	M=23.76	2.372*
		SD=6.62	SD=7.02	

** Significant at 0.01 level, * Significant at 0.05 level, ns – Not Significant at 0.05 level

Table 2 reveals the significance of difference of means of scores of frequency and quantity of various components of Stress between Pre-Test and Post-Test of Control group (n=25).

The mean value of frequency of Frustration is 48.60 in Pre –Test and 50.76 in Post- Test with SD of 9.97 and 8.57 respectively for Pre –Test and Post Test of Control group. The t-ratio value comes out to be 1.574 which is not significant at 0.05 level of significance. The mean value of quantity of Frustration is 48.60 in Pre –Test and 50.56 in Post Test with SD of 9.99 and 8.95 respectively for Pre –Test and Post Test of Control group. The t-ratio value comes out to be 1.129 which is not significant at 0.05 level of significance.

The mean value of frequency of Conflict is 19.84 in Pre –Test and 21.12 in Post Test with SD of 6.12 and 5.66 respectively for Pre –Test and Post Test of Control group. The t-ratio value comes out to be 1.463 which is not significant at 0.05 level of significance. The mean value of quantity of Conflict is 20.48 in Pre –Test and 21.56 in Post Test with SD of 6.64 and 6.39 respectively for Pre –Test and Post Test of Control group. The t-ratio value comes out to be

1.256 which is not significant at 0.05 level of significance.

The mean value of frequency of Pressure is 42.64 in Pre –Test and 44.40 in Post Test with SD of 11.69 and 10.23 respectively for Pre –Test and Post Test of Control group. The t-ratio value comes out to be 1.305 which is not significant at 0.05 level of significance. The mean value of quantity of Pressure is 43.52 in Pre –Test and 44.32 in Post Test with SD of 9.89 and 8.28 respectively for Pre –Test and Post Test of Control group. The t-ratio value comes out to be 0.569 which is not significant at 0.05 level of significance.

The mean value of frequency of Anxiety is 20.64 in Pre –Test and 23.20 in Post Test with SD of 6.07 and 6.84 respectively for Pre –Test and Post Test of Control group. The t-ratio value comes out to be 2.565 which is significant at 0.01 level of significance. The mean value of quantity of Anxiety is 21.00 in Pre –Test and 23.76 in Post Test with SD of 6.62 and 7.02 respectively for Pre –Test and Post Test of Control group. The t-ratio value comes out to be 2.372 which is significant at 0.05 level of significance.

Table 3: Significance of difference between the Means of Scores of Total Stress of the subjects of Experimental group (n=25)

Total Stress	Pre-Test	Post-Test	t-ratio
	M=289.20	M=262.20	
	SD=53.77	SD=63.25	

** Significant at 0.01 level

Table 3 reveals the significance of difference between the means of scores of total stress of the subjects of Experimental group (n=25). The man value of total stress of subjects of Experimental group in Pre-Test and Post-Test is 289.20 and 262.20 respectively whereas value of standard deviation is 53.77 and 63.25 respectively. t-ratio value comes out to be 4.433 which is higher than the table value of 2.49 at 0.01 level of significance. Therefore it can be concluded that there exists a

significant difference in the man value of total stress of the subjects of the Experimental group in their scores of Pre-Test and Post-Test conducted after administration of Yogic Exercises. The total amount of stress reduced significantly in the Post -Test scores leading to conclude that the Hypothesis "Yogic Shatkriya, Pranayama and Meditation will result in significant reduction in the level of stress and components in Secondary school students of Experimental group" is accepted.

Table 4: Significance of difference between the Means of Scores of Total Stress of the subjects of Control group (n=25)

Total Stress	Pre-Test	Post-Test	t-ratio
	M=263.96	M=274.16	
	SD=44.92	SD=41.93	

ns – Not Significant at 0.05 level

Table 4 reveals the significance of difference between the means of scores of total stress of the subjects of Control group (n=25). The man value of total stress of subjects of Control group in Pre-Test and Post-Test is 263.96 and 274.16 respectively whereas value of standard deviation is 44.92 and 41.93 respectively. t- ratio value comes out to be 1.265 which is lower than the table value of 1.71 at 0.05 level of significance.

Therefore it can be concluded that there exists no significant difference in the man value of total stress of the subjects of the control group in their score of Pre -Test and Post -Test. Hence the Hypothesis "There will be no significant reduction of level of stress and its components in Sr. Sec. School students of Control group" is not rejected.

EDUCATIONAL IMPLICATIONS

The result of present study can be implied in our system of education by understanding the importance of yoga by curricular frame workers. We need to redesign the curriculum and include the practice of yoga in the school and college

curriculum. Yoga helps in positive channelization of energy, which further leads to reduced stress.

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