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## Effect of yogic practices and physical exercises on selected physical and physiological variables among information technology professional

**S Sivasankar and Dr. V Vallimurugan**

### Abstract

The purpose of the study was to find out the effect of yogic practices and physical exercises on selected physical and physiological variables among Information Technology professional. To achieve these purpose thirty obese women were selected as subjects randomly from Information Technology companies in Chennai, Tamil Nadu. The selected subjects were divided into three equal groups of ten subjects each, namely yogic practices group, physical exercises group and control group. Experimental groups were trained for three alternative days in a week for twelve weeks with their specific training. Physical and physiological Variables such as Endurance and Resting Pulse Rate were selected as criterion variables and they were tested prior to and immediately after the 12 weeks of yogic practices and physical exercises by using Coopers 9 min run/walk Test and Radial Pulse method. The ANCOVA was applied to find out the significant difference in each criterion variables, if any, among the groups. Since, three groups were compared, whenever they obtained 'F' ratio for the adjusted post-test means was found to be significant, the Scheffe's post hoc test was applied to determine the paired mean differences, if any, was used. The results of the study revealed that there was a significant improvement on selected physical and physiological variables due to yogic practices and physical exercises groups as compared to control group.

**Keywords:** Yogic practices and physical exercises, endurance and resting pulse rate

### Introduction

Physical activity is any bodily activity that enhances or maintains physical fitness and overall health. Physical fitness is functioning of the blood vessels, heart, lungs and muscles at optimum efficiency. Regular physical exercises maintain our body healthy and prevent from diseases. Physical exercise is important for maintaining physical fitness and can contribute to maintaining a healthy weight, regulating the digestive system, building and maintaining healthy bone density, muscle strength, and joint mobility, promoting physiological well-being, reducing surgical risks, and strengthening the immune system. Some studies indicate that exercise may increase life expectancy and the overall quality of life.

### Materials and Methods

The purpose of the study was to find out the effect of yogic practices and physical exercises on selected physical and physiological variables among Information Technology professional. To achieve these purpose forty five Information Technology were selected as subjects randomly from Information Technology companies in Chennai, Tamilnadu. The selected subjects were divided into three equal groups of ten subjects each, namely yogic practices group and physical exercises groups and control group. Experimental groups were trained for three alternative days in a week for twelve weeks with their specific training. Physical and physiological Variables such as Endurance and Resting Pulse Rate were selected as criterion variables and they were tested prior to and immediately after the 12 weeks of yogic practices and physical exercises by using Coopers 9 min run/walk Test and Radial Pulse method. The ANCOVA was applied to find out the significant difference in each criterion variables, if any, among the groups. Since, three groups were compared, whenever they obtained 'F' ratio for the adjusted post test means was found to be significant, the Scheffe's post hoc test was applied to determine the paired mean differences, if any, was used.

**Results and Discussions**

The data collected prior to and after the experimental period on selected physical and physiological variables such as

endurance and resting pulse rate of yogic practices and physical exercises group and control group were analysed and presented in Table-1.

**Table 1:** Analysis of covariance of data on anxiety and stress between pre and post-test of yogic practices group and physical exercises group and control group

Variables	Test	Yogic Practices Group	Physical Exercise Group	Control Group	Source of Variances	Sum of Squares	df	Mean Squares	Obtained 'F' Ratio
Endurance (Meters)	Pre-Test	1317.67	1305.33	1323.33	B	28007.78	2	14003.89	1.02
					W	579250.00	42	13791.67	
	Post-Test	1586.33	1533.33	1361.26	B	271234.44	2	135617.22	9.9*
					W	571640.00	42	13610.48	
Resting Pulse Rate	Adjusted Post-Test	1610.66	1585.02	1375.89	B	265788.29	2	132894.15	9.54*
					W	571141.27	41	13930.27	
	Pre-Test	79.73	79.47	79.60	B	0.53	2	0.267	0.07
					W	172.27	42	4.10	
Post-Test	76.67	75.73	80.07	B	156.04	2	78.02	5.40*	
				W	607.20	42	14.46		
Adjusted Post-Test	76.56	75.84	80.07	B	153.47	41	76.73	6.23*	
				W	504.619	2	12.31		

Table f-ratio at 0.05 level of confidence for 2 and 42 (df) = 3.22, 2 and 41 (df) = 3.23. \*significant

Table-1 shows that the obtained “f” ratio value 9.54 for adjusted posttest mean values on endurance which was greater than the required table value of 3.23 for significance with df 2 and 41. The results of the study showed that there was a significant difference among three groups on endurance.

table-1 shows that the obtained “f” ratio value 6.23 for adjusted posttest mean values on resting pulse rate which was greater than the required table value of 3.3 for significance with df 2 and 26. The results of the study showed that there was a significant difference among three groups on resting pulse rate.

**Table 2:** Scheffe’s post hoc test for the difference between six paired adjusted post-test means of endurance and resting pulse rate

Variables	Yogic Practices Group	Physical Exercise Group	Control Group	Mean Difference	Confidence Interval
Endurance	1610.66	1585.02	-	25.64	107.31
	1610.6	-	1375.89	234.77*	107.31
	-	1585.02	1375.89	209.13*	107.31
Resting Pulse Rate	76.56	75.84	-	0.73	3.19
	76.6	-	80.07	3.50*	3.19
	-	75.84	80.07	4.23*	3.19

\*Significant at 0.05 level of confidence.

Table-2 shows that the obtained confidence interval value were greater than the confidence interval value of 107.31 at .05 level which indicates that there was significant different among yogic practices and physical exercises group, yogic practices group and control group and physical exercises group and control group were 25.64, 234.77 and 209.13 respectively on endurance. Table-2 shows that the obtained confidence interval value were greater than the confidence interval value of 3.19 at .05 level which indicates that there was significant different among yogic practices and physical exercises group, yogic practices group and control group and physical exercises group and control group were 0.73, 3.50 and 4.23 respectively on resting pulse rate.

**Conclusion**

1. Psychological Variables such as Anxiety, Stress were significantly improved due to 12 weeks of yogic practices and physical exercises group as compared to control group.
2. The result of the study shows that, there was a significant difference among the group. Physical exercises group was better than the yogic practices group.

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