

Research Article

EFFICACY OF SECTIONAL BREATHING AND NADI SUDDHI PRANAYAMA ON RED BLOOD CELL COUNT AMONG COLLEGE MEN STUDENTS

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ABSTRACT

Although The purpose of the present investigation is to find out the efficacy of sectional breathing and nadi suddhi pranayama on red blood cell count among college men students. To achieve these purpose 45 men subjects were selected at random from Rajapalayam Raju's College, Rajapalayam, Tamilnadu as subjects. Their age ranged from 18 to 25 years. They were divided into three equal groups of 15 subjects each and assigned to experimental group-I, experimental group-II and control group. In a week the experimental group I underwent Sectional Breathing Pranayama Practice, experimental group II underwent Nadi Suddhi Pranayama Practice and Control Group was not given any specific training. All the subjects underwent one area of test namely RBC Count (Red Blood Cell Count). They assessed before and after the training period of 6 weeks. The analysis of covariance was used to analyze the data. The study revealed that the above said criterion RBC Count (Red Blood Cell Count) were significantly improved due to the influence of varied packages of yogic practices on RBC Count (Red Blood Cell Count) among college men students.

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INTRODUCTION

Yoga is right life, right movement. We live by the union of several elements and principles. The lungs breathe in union with the air, the lungs live in yoga with the air. The heart beats in union with the blood, the heart lives in yoga with the blood. Our body lives in union with the pure spirit and that in union with the divine. This union is called yoga. All life is verily a yoga. Yoga means union, communion, connection, touch, contact, yoga is yoking of the mind to the soul, the human to the divine in us. In the technical sense, yoga is psychic science showing us how to live in tune with the pure spirit that is our divine essence. Red Blood Cells carry oxygen to all parts of the body through hemoglobin. Red Blood Cells (RBCs) are the most numerous cells in the blood and give blood its characteristic color. They are responsible for normal oxygen transport from the lungs to the rest of the body. Since they lack the machinery for cell division (in particular, they lack a nucleus), they are incapable of dividing or repairing themselves and must be continually produced and removed. Almost all vertebrates have evolved elaborate systems for controlling the production and removal of RBCs, and most of hematology is devoted to the study of RBCs in health and disease.

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Statement of the Problem

The purpose of the study was to find out the efficacy of sectional breathing and nadi suddhi pranayama on red blood cell count among college men students.

Hypothesis

- It was hypothesized that there would be significant improvement difference in the RBC Count (Red Blood Cell Count) due to the influence of sectional breathing and nadi suddhi pranayama practices than the control group among college men students.
- It was hypothesized that there would be significant improvement difference between the Sectional Breathing Pranayama Practice and Nadi Suddhi Pranayama Practice group on RBC Count (Red Blood Cell Count) among college men students.

MATERIALS AND METHODS

To achieve the purpose of investigation 45 college men students were randomly selected from Rajapalayam Raju's College, Rajapalayam, Tamilnadu. The subjects age ranged from 18 to 25 years. The selected subjects were randomly divided into three equal groups, namely experimental group I underwent

Sectional Breathing Pranayama Practice, experimental group II underwent Nadi Suddhi Pranayama Practice and control group was not given any specific training. Each group consisted of 15 subjects. All the subjects underwent one area of test namely RBC Count (Red Blood Cell Count). They assessed before and after the training period of 6 weeks. The training Program was scheduled at 4 to 4.45p.m and 4.45 to 5.30p.m from Monday to Friday in progression. The analysis of covariance was used to analyze the data.

Dependent Variable

- RBC Count (Red Blood Cell Count)

Independent Variables

- Experimental group I - Sectional Breathing Pranayama Practice
- Experimental group II - Nadi Suddhi Pranayama Practice
- Control group - No Training

Collection of Data

The data on RBC Count (Red Blood Cell Count) collected by administrating Blood Test (Lab). Pre-test were collected two days before the training programme started and post-test were collected 24 hours after the training session. In both the cases, the data were collected in one day only.

RESULTS AND DISCUSSION

Results of RBC Count (Red Blood Cell Count)

The statistical analysis comparing the initial and final means of RBC Count (Red Blood Cell Count) assessed through Blood Test (Lab) due to Sectional Breathing Pranayama Practice and Nadi Suddhi Pranayama Practice on RBC Count (Red Blood Cell Count) among College Men Students presented in Table 1.

Table 1. Computation of Analysis of Covariance of RBC count (Red Blood Cell Count) (scores in million/cu mm)

Test	EXP.GP 1	EXP.GP 2	Control GP	SOV	SS	df	MS	F
Pre test Mean	4.6	4.53	4.46	B	0.15	2	0.07	0.31
				W	10.05	42	0.24	
Post test Mean	5.06	4.77	4.41	B	3.21	2	1.61	5.91*
				W	11.42	42	0.27	
Adjusted Post test mean	5.00	4.78	4.48	B	2.01	2	1.00	18.62*
				W	2.21	41	0.05	

*Significant at 0.05 level of confidence.

Table 2. Scheffe’s Confidence Interval Test Scores on RBC count (Red Blood Cell Count)

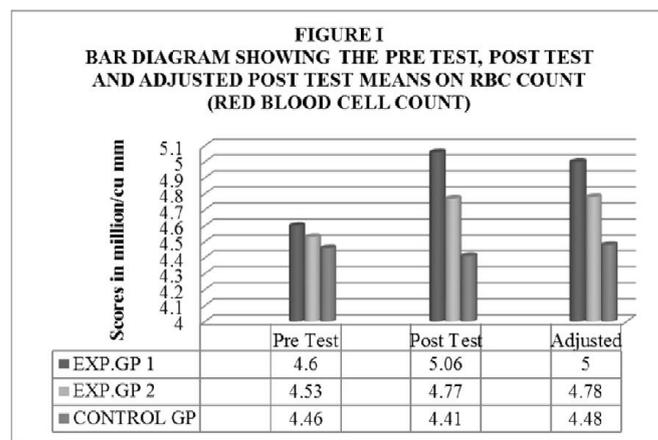
Means			Mean Difference	Required Ci
Exp. Gp 1	Exp.Gp 2	Control Gp		
5.00	4.78	-	0.22*	0.21
5.00	-	4.48	0.52*	0.21
-	4.78	4.48	0.30*	0.21

*significant at .05 level of confidence

Table 2 shows that the adjusted post-test mean difference in RBC Count between EXP.GP 1 and EXP.GP 2, EXP.CG 1 and CG and between EXP.GP 2 and CG are 0.22, 0.52 and 0.30, respectively which were statistically significant at 0.05 level of confidence.

(The Table value required for 0.05 level of significance with F 2, 42 and 2, 41 are 3.22 and 3.23 respectively) As shown in Table 2 the obtained F value on the scores of the pretest means

0.31 was lesser than the required F value of 3.22, which proved that the random assignment of the subject were successful and their scores in RBC Count (Red Blood Cell Count) before the training were equal and there was no significant differences. The analysis of posttest means proved that the obtained F value 5.91 was greater than the required F value of 3.22 to be significant at 0.05 levels. Taking in to consideration of the pretest and posttest means the adjusted posttest means were done and the obtained F value of 18.62 was greater than the required F value of 3.23 hence it was accepted that the Sectional Breathing Practice group and Nadi Suddhi Pranayama Practice group significantly increased the RBC Count (Red Blood Cell Count). Since the significant differences were recorded, the result was subjected to post hoc analysis using scheffe’s confidence interval test. The results are presented in Table 2. The ordered adjusted means are presented through bar diagram for better understanding of the result of this study in Figure 1



DISCUSSION

The result of the study on RBC count indicates that all the experimental groups namely EXP GP 1 and EXP GP 2 brought about significant improvement after the training.

The analysis of the data indicates that there was no significant difference on RBC count between EXP GP 1 and EXP GP 2. Based on the mean value, the Sectional Breathing Pranayama

Practice group was found to be better in increasing the level of RBC count than the Nadi Suddhi Pranayama Practice group. Systematic pranayama practices training increase the RBC count. The result of this study on RBC Count (Red Blood Cell Count) has in line with the study conducted by Yoga, Abirami Kiruthiga and Elangovan, (2010).

Conclusion

Two different yogic practice methods (Sectional Breathing Pranayama Practice and Nadi Suddhi Pranayama Practice) helped to increasing the RBC Count (Red Blood Cell Count). Systematic 6 weeks of Sectional Breathing Pranayama Practice system improves the RBC Count (Red Blood Cell Count) more than the Nadi Suddhi Pranayama Practice.

Sectional Breathing Pranayama Practice system was a suitable training system to improve the RBC Count (Red Blood Cell Count) among the college men students.

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