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Influence of Varied Packages of Yogic Practices on Blood Sugar among Overweight School Boys

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Abstract

The purpose of the study is to find out the influence of influence of varied packages of yogic practices on blood sugar among overweight school boys. To achieve this purpose of the study, forty five overweight school boys studying in St' Britto Higher Secondary School, Madurai. Tamilnadu, India were randomly selected as subjects. The age of the subjects were ranged between 14 to 17 years. The selected subjects were divided in to three equal groups of fifteen overweight school boys each. Group I underwent yogic practices package I and Group II underwent yogic practices package II for five days per week for twelve weeks. Group III acted as control group that did not participate in any special training programme apart from their regular activities. The following factors such as blood sugar and body mass index were selected as dependent variables. All the subjects of the three groups were tested on selected criterion variables at prior to and immediately after the training programme. The concepts of dependent 't' test was employed to find out the significant improvement due to the influence of training programmes on all the selected criterion variables. The magnitude of improvement (MI) was also calculated to find out the percentage of improvements of all criterion variables separately. The analysis of covariance (ANCOVA) was also used to analyse the significant difference, if, any among the groups. Since three groups were compared whenever the obtained 'F' ratio for adjusted post test was found to be significant, the Scheffe's test was used to find out the paired mean differences. The level of significance to test the 'F' ratio obtained by the analysis of covariance was fixed at .05 level of confidence which was considered as an appropriate. In testing post test mean difference among the three groups statistically significant on blood sugar was found. In testing the post adjusted mean among the three groups also predicts the above result.

Keywords: Yogic Packages, Blood sugar, Overweight School Boys.

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Introduction

Yoga is a way of life. It is predominantly concerned with maintaining a state of equanimity at all costs. All yoga schools of thought emphasize the importance of the mind remaining calm, because as the saying goes, only when the water is still can you see through it. Yoga Darshan or Yoga Philosophy also happens to be a valid discipline of Indian metaphysics (Brahma Vidya). It is the result of human wisdom and insight on physiology, psychology, ethics and spirituality collected together and practiced over thousands of years for the well being of humanity. The basic idea of yoga is to unite the atma or individual soul with the paramatma or the Universal Soul. According to Yoga philosophy, by cleansing one's mind and controlling one's thought processes one can return to that primeval state, when the individual self was nothing but a part of the Divine Self. This is the sense encapsulated in the term samadhi. The aim of the yogi is to be able to perceive the world in its

Correspondence Dr.C.Ramesh E-mail: drramyoga@gmail.com, Ph. +9194438 66284 true light and to accept that truth in its entirety.

As well as being fun for children, learning yoga develops self-discipline and can enhance their physical and mental health. Asanas are good for developing coordination and help to improve concentration and memory. Regular practice can enable young people to keep their natural flexibility for many years. It can help teenagers to keep their youthful flexibility and give them the inner strength to say no to negative influences. Older people often find that gentle voga exercises allow them to retain mobility and may relieve problems such as arthritis and poor circulation. During pregnancy, yoga promotes good health in both mother and unborn child. Yoga asanas lessen the effects of such problems as overweight, backache, and depression. Most women who practice yoga find that it can make labor easier and shorter. Although some asanas have to be modified during pregnancy, their essence is perfectly suited to this time of expanded self-awareness. Pregnancy is also a very good time for meditation.

Methodology

The purpose of the study is to find out the influence of influence of varied packages of yogic practices on blood sugar among overweight school boys. To achieve this purpose of the study, forty five overweight school boys studying in St' Britto Higher Secondary School, Madurai. Tamilnadu, India were randomly selected as subjects. The age of the subjects were ranged between 14 to 17 years. The selected subjects were divided in to three equal groups of fifteen overweight school boys each. Group I underwent yogic practices package I and Group II underwent yogic practices package II for five days per week for twelve weeks. Group III acted as control group that did not participate in any special training programme apart from their regular activities. The following factors such as blood sugar and body mass index were selected as dependent variables. All the subjects of the three groups were tested on selected criterion variables at prior to and immediately after the training programme. The concepts of dependent 't' test was employed to find out the significant improvement due to the influence of training programmes on all the selected criterion variables. The magnitude of improvement (MI) was also calculated to find out the percentage of improvements of all criterion variables separately. The analysis of covariance (ANCOVA) was also used to analyse the significant difference, if, any among the groups. Since three groups were compared whenever the obtained 'F' ratio for adjusted post test was found to be significant, the Scheffe's test was used to find out the paired mean differences. The level of significance to test the 'F' ratio obtained by the analysis of covariance was fixed at .05 level of confidence which was considered as an appropriate.

Analysis of the Data

The influence of independent variables on each of the criterion variables is analyzed and presented below.

Blood Sugar

The results of the dependent 't'-test on the data obtained for blood sugar of the subjects in the pre-test and post-test of the experimental and control groups have been analysed and presented in table 1.

Table 1

The summary of mean and dependent 't' - test for the pre and post tests on blood sugar of yogic practices package I, yogic practices package II and control groups

	YPPI	YPPII	CG
Pre-test mean	135.26	135.33	134.40
Post-test mean	125.46	117.73	133.26
't'-test	6.69	14.00	1.09
Magnitude of Improvement	7.24%	13.00%	0.84%

* Significant at .05 level.

(Blood sugar Scores in mg/dL)

(Table value required for significance at .05 level for't'-test with df 14 is 2.14)

From table 1 the dependent 't' test values, on blood sugar performance between the pre and post test means of yogic practices package I group and yogic practices package II group are 6.69 and 14.00 respectively. Since the obtained 't'-test values of the experimental groups are greater than the table value 2.14 with df 14 at 0.05 level of confidence it is concluded that yogic practices package I group, yogic practices package II group had registered significant reduction on the performance of blood sugar and in case of control group the obtained 't' value 1.09 is failed to reach the significant level. From the table it is also observed that the magnitude of improvement (MI) of blood sugar due to the influence of yogic practices package I group, yogic practices package II group and control group are 7.24%, 13.00% and 0.84% respectively. It indicates that the yogic practices package II group had registered better percentage of reduction in blood sugar. The analysis of covariance (ANCOVA) on blood sugar of yogic practices package I group, yogic practices package II group and control group have been analysed and presented in table 2.

Table 2

Analysis of covariance on blood sugar of yogic practices package I, yogic practices package II and control groups

Adjusted Post-test Means			Source of Variance	Sum of Squares	df	Mean Squares	'F' Ratio	
YPPI	YPPII	CG	BG	21.31	2	10.65		
74.34	74.53	75.91	WG	41.72	41	1.01	10.47*	

* Significant at.05 level of confidence

(The table value required for Significant at .05 level with df 2 and 41 is 3.23)

Table 2 shows that the adjusted post test mean value of blood sugar for yogic practices package I group, yogic practices package II group and control group are 125.51, 117.79 and 133.15 respectively. The obtained F-ratio of 87.38 for the adjusted post test mean is more than the table value of 3.23 for df 2 and 41 required for significance at .05 level of confidence.

The results of the study indicates that there are

significant differences among the adjusted post test means of yogic practices package I group, yogic practices package II group and control group on the development of blood sugar. To determine which of the paired means had a significant difference, Scheffe's test was applied as post hoc test and the results are presented in table 3.

Table 3

The	scheffe's tes	t for the	differences	hetween	the a	diusted	nost test	naired	means of	ı hlood	sugar
Inc	scheffe s les	i joi inc	ujjerences	Derween	ine u	ujusicu	positesi	puncu	means or	<i>i 0100u</i>	sugui

A	djusted Post-test n	Mean	Confidence		
YPPI	YPPII	CG	Difference	Interval	
74.34	74.53		0.19	0.93	
74.34		75.91	1.57*	0.93	
	74.53	75.91	1.38*	0.93	

* Significant at.05 level of confidence

Table 3 shows that the mean difference values between yogic practices package I and yogic practices package II groups; yogic practices package I and control groups; yogic practices package II and control group are 7.72, 7.64 and 15.36 respectively on blood sugar which are greater than the confidence interval value 2.92 at 0.05 level of confidence. The results of the study showed that there was significant difference between yogic practices package I and yogic practices package II groups; yogic practices package I and control groups; yogic practices package II and control group on blood sugar. The mean values of yogic practices package I group, yogic practices package II group and control group on blood sugar are graphically represented in the figure I. The adjusted post test mean values of yogic practices package I group, yogic practices package II group and control group on blood sugar are graphically represented in the figure II.



Figure I

Mean values of yogic practices package I, yogic practices package II and control groups on blood sugar



Figure II

The adjusted post tests mean values of yogic practices package I, yogic practices package II and control groups on Blood Sugar

Body Mass Index

The results of the dependent 't'-test on the data obtained for Body mass index of the subjects in the pre-

test and post-test of the experimental and control groups have been analysed and presented in table 4.

Results

- 1. The yogic practices packages I significantly improved the blood sugar. The 't' values of the selected variables have reached the significant level.
- 2. The yogic practices packages II significantly improved the blood sugar. The 't' values of the selected variables have reached the significant level.
- 3. In the control group the obtained 't' value on blood sugar was failed to reach the significant level.
- 4. The significant mean difference does not exist among all the three groups in the pre test on blood sugar.

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