EFFECT OF YOGIC PRACTICES ON HEMOGLOBIN AND HIGH DENSITY LIPOPROTEIN AMONG ADOLESCENT GIRLS

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ABSTRACT

The purpose of the study was to find out the effect of Yogic Practices on Hemoglobin and High Density Lipoprotein among Adolescent Girls. It was hypothesized that there would be a significantly improved on Hemoglobin and High Density Lipoprotein among Adolescent Girls due to Yogic Practices group than the control group.To achieve the purpose of the study investigator selected 30 Adolescent Girls were randomly selected from Chennai district. Their age ranges from 12 to 17 years. The subjects were divided into two equal groups namely, experimental group and control group. After analyzing the various factors associated with the presented study. The Selected variables such asHemoglobinand High Density Lipoprotein were using lab test.The selected subjects underwent twelve weeks Yogic Practices from Monday to Friday every week. The collected data were Analysed statistically by analysis of covariance (ANCOVA) test and 0.05 was fixed as the level of significance. It was concluded that significantlyincreased in the Hemoglobin and High Density Lipoprotein due to effect of twelve weeks training of Yogic Practices when compared to control group among Adolescent Girls.

Key words: Yogic Practices, Adolescent Girls,Hemoglobin and High Density Lipoprotein

INTRODUCTION

Adolescence is characterized by dramatic physical changes moving the individual from childhood into physical maturity. Early, prepubescent changes are noted with the appearance of secondary sexual characteristics. Girls may begin to develop breast buds as early as 8 years old, with full breast development achieved anywhere from 12 to 18 years. Pubic hair growth, as well as armpit and leg hair typically begins at about age 9 or 10, and reaches adult distribution patterns at about 13 to 14 years. Menarche (the beginning of menstrual periods) typically occurs about 2 years after initial pubescent changes are noted. It may occur as early as 10 years, or as late as 15 years, with the average in India being about 12.5 years. A concurrent rapid growth in height occurs between the ages of about 9.5 and 14.5 years, peaking somewhere around 12 years. A concurrent rapid growth in height occurs between the ages of about 10.5 to 11 and 16 to 18,

peaking around age 14. The human body has several glands, many of which are ductless. The various hormones they produce kill germs in our body as they mingle with the blood. If these glands work as well as they should, we would all be disease-free. Yoga gives strength to these glands to do their job properly. Each gland secretes a different fluid that affects a different function in the body. Hormones secreted by ductless glands are very important for a healthy life. When hormones are at a particular performance level, the body can function to its optimum. The improper functioning of these glands is usually the primary cause of most diseases. Fortunately, there are yogic practices that activate each of these glands. (Dr.AnandhaBalayogiBhavanani, 2004). Hemoglobin and High Density Lipoprotein are both the most prevalent and most important factors affecting the blood function of the adolescent girls. Yogic Practices is one of the very antiquity and for most sciences. Yogic Practices helps to promote a balanced development of physical, mental and spiritual wellbeing**.**

STATEMENT OF THE PROBLEM

The purpose of the study was to find out the effect of Yogic Practices on Hemoglobin and High Density Lipoprotein among Adolescent Girls.

HYPOTHESIS

It was hypothesized that there would be a significantly improved on Hemoglobin and High Density Lipoprotein among Adolescent Girls due to Yogic Practices group than the control group.

REVIEW OF RELATED LITERATURE

Marina Rai&Yoga .P(2019) Conducted study on theeffect of yogic therapy on High density lipoprotein among high school girls.The purpose of the present study was to investigate the study on transcendental meditation and suryabhedana pranayama practices on life satisfaction among middle aged working women. To achieve the purpose of the study thirty working women were selected from Karaikudi, Tamilnadu, India during the year 2020. The subject's age ranges from 35 to 55 years. The selected subjects were divided into two equal groups consists of 15 subjects each namely experimental group and control group. The experimental group underwent a transcendental meditation and suryabhedana pranayama practices programme for six weeks. The control group was not taking part in any training during the course of the study. Life

satisfaction was taken as criterion variable in this study. The selected subjects were tested on Life satisfaction was measured through perceived scale. Pre-test was taken before the training period and post-test was measured immediately after the six week training period. Statistical technique't' ratio was used to analyse the means of the pre-test and post test data of experimental group and control group. The results revealed that there was a significant difference found on the criterion variable. The difference is found due to transcendental meditation and suryabhedana pranayama practices given to the experimental group on Life satisfaction when compared to control group.

Jayachitra, D. (2018). Conducted study on the effect of pranayama and bandha practices on selected physiological variables among adolescent girls. To achieve the purpose of the study, sixty female students studying in Rajiv Gandhi Ayurveda Medical College, Mahe, Pondicherry State, India were selected as subjects. The age of the subjects was ranged from 18 to 23 years and subjects with iron deficiency Anaemia wereonly selected for the present study. The selected subjects were randomly divided into four equal groups of 15 each. The group-Iwas given yogic therapy, group-II was provided supplementation of gooseberry with honey and group-III was given combined Yoga therapy and supplementation of gooseberry with honey for the period of twenty four weeks. The selected dependent variable hemoglobin concentration was assessed using standard tests and procedures, prior to and immediately after the training. Analysis of covariance (ANCOVA) was used as a statistical procedure to establish the significant difference, if any, existing between pretest and posttest data on selected dependent variable. It was concluded that the combined yoga therapy and supplementation of gooseberry with honey treatment was significantly better than isolated Yoga therapy and supplementation of gooseberry with honey treatments.

METHODOLOGY

For the purpose of these random groups experimental study. Thirty (30) Adolescent Girls in Chennai were selected at random as subjects based on their Hemoglobin and High Density Lipoprotein and their age was ranged from 12 to 17 years. Yogic Practices was given five days (Monday to Friday at 6.00 pm to 7.00 pm) per week for twelve weeks. All the subjects were randomly assigned to experimental groups and control group each consisted of 15 subjects. Experimental groups were involved in Yogic Practices (12) weeks and the control group kept in active rest. The Yogic Practices given to experimental group include Starting prayer, Loosening

the joining, Suryanamaskar, Padahasthasana, Trikonasana,Vrikshasana, Parvatasana, Gomukhasana, Paschimottasana, Ardhamatsyendrasana, Bhujangasana, Dhanurasana, Sarvangasana, Shasangasana,Kapalabati, Sheetali, Bhramari pranayamas, OM Chanting, NadiShodhana, Shavasana, Yoga Nidra (Relaxation) Techniques. Initially pre-test was taken and after the experimental period of twelve weeks, post-test was taken from all the two groups.The Selected variables such asHemoglobinand High Density Lipoprotein were using lab test. The differences between initial and final Hemoglobin and High Density Lipoprotein were considered as the effect of Yogic Practices on selected subjects. Analysis of Covariance (ANCOVA) was used to find out the difference among the experimental and control groups. The test of significance was fixed as 0.05 level of confidence.

RESULTS AND DISCUSSION

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 significance.

RESULTS ON HEMOGLOBIN

The Analysis of Covariance (ANCOVA) on Hemoglobin Yogic Practices and control group was analyzed and are presented in table-I

Table-I
COMPUTATION OF ANALYSIS OF COVARIANCE ON HEMOGLOBIN OF EXPERIMENTAL GROUPS CONTROL GROUP (in score g/dl)

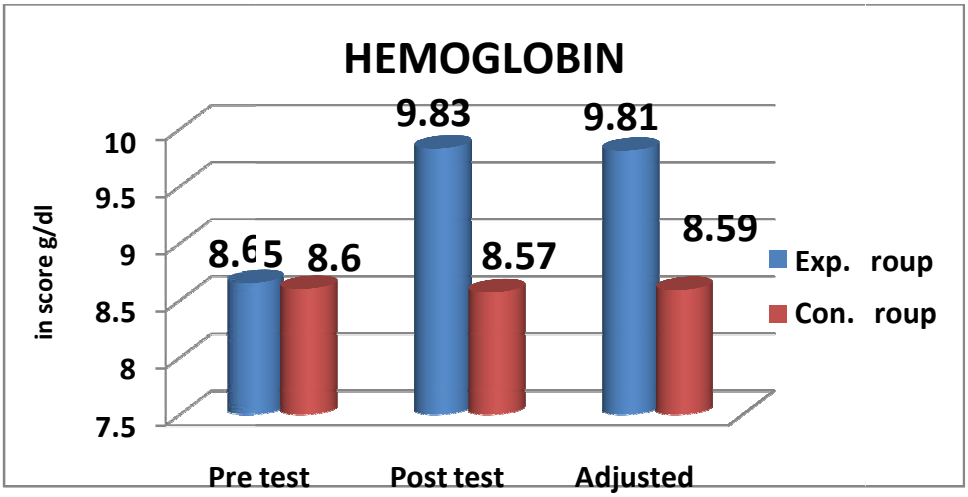
Test	EXP GROUP	CON GROUP	SV	SS	Df	MS	F
Pre test Mean	8.65	8.6	Between	0.02	1	0.02	0.05
			Within	11.93	28	0.42	
Post test Mean	9.83	8.57	Between	11.89	1	5.94	15.68*
			Within	10.61	28	0.37	
Adjusted test Mean	9.81	8.59	Between	11.26	1	5.63	24.72*
			Within	6.15	27	0.22	
mean difference	1.18	0.02					

***Significant at 0.05 level of confidence (Table F ratio at 0.05 level of confidence for df 1 and 28 = 4.20, 1 and 27 = 4.21).**

The obtained F-ratio value for the Hemoglobin were greater than the table value, it indicates that there was a significant difference among post test and adjusted post-test means of the Yogic Practices group than the control group. The pre-test, post-test and adjusted post-test mean values of Yogic Practices and the control group on Hemoglobinwere graphically presented in Figure 1.

Figure 1

BAR DIAGRAM SHOWING THE MEAN DIFFERENCE OF YOGIC PRACTICES GROUP AND CONTROL GROUP ON HEMOGLOBIN(in score g/dl)



***Significant at 0.05 level of confidence**

RESULTS ON HIGH DENSITY LIPOPROTEIN

Table-II

COMPUTATION OF ANALYSIS OF COVARIANCE ON HIGH DENSITY LIPOPROTEIN OF EXPERIMENTAL GROUPS AND CONTROL GROUP(in score g/dl)

Test	EXP GROUP	CON GROUP	SV	SS	Df	MS	F
Pre test Mean	55.06	54.6	between	1.63	1	1.63	0.30
			within	150.53	28	5.37	
Post test Mean	57.53	54.4	between	73.63	1	36. 1	7.39*
			within	139.33	28	4.97	
Adjusted test Mean	57.35	54.57	between	57.35	1	28. 7	14.55*
			within	53.20	27	1.97	
mean difference	2.46	0.2					

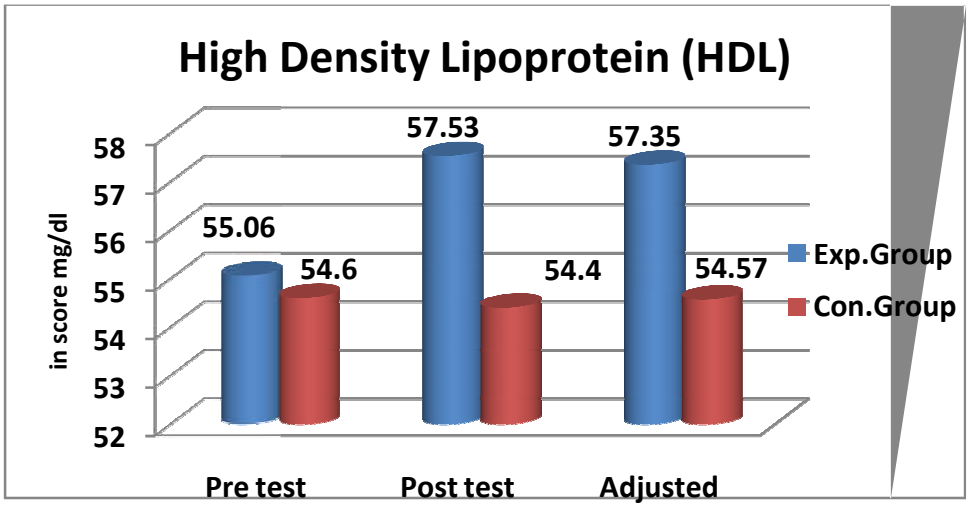
*** Significant at 0.05 level of confidence (Table F ratio at 0.05 level of confidence for df 1 and 28 = 4.20, 1 and 27 = 4.21).**

The obtained F-ratio value for the High Density Lipoprotein were greater than the table value, it indicates that there was a significant difference among post test and adjusted post-test means of the Yogic Practices group than the control group. The pre-test, post-test and adjusted post-test mean values of Yogic Practices and the control group on High Density Lipoprotein were graphically presented in Figure 2.

Figure 2

BAR DIAGRAM SHOWING THE MEAN DIFFERENCE OF YOGIC PRACTICES GROUP, AND CONTROL GROUP ON HIGH DENSITY LIPOPROTEIN

(in score g/dl)



***Significant at 0.05 level of confidence**

CONCLUSIONS

It was concluded that there was significantlyincreased in the Hemoglobin and High Density Lipoprotein due to effect of twelve weeks training of Yogic Practices when compared to control group among Adolescent Girls.

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