



## EFFECT OF YOGASANAS AND PRANAYAMA ON SELECTED PHYSICAL VARIABLES OF ADOLESCENT GIRLS

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### ABSTRACT :

The purpose of the study was to investigate the effect of Yogasanas and pranayama on selected physical variables of the adolescents. The subjects for this study were forty girls students randomly selected from BLDEAs Girls High School Vijayapur. The age of the subjects ranged between 14 – 16 years. The subjects were equally divided into two groups namely experimental and control group. The treatments to the experimental group were assigned randomly; Asanas and Pranayama the treatment schedule was prepared for twelve weeks. The experimental treatments were employed for 45 minutes a day in six days in a week for twelve weeks duration. Pre and post-test data of all the subjects from two groups were collected before and after the experimental treatment period of 12 weeks. The selected variable were Flexibility and Bodyweight . The data was analyzed by employing analysis of covariance at the 0.05 level of significance. The result of the study indicates that practice of both Asanas and Pranayama had significant effect on Flexibility and Body weight of the subjects.

**KEYWORDS :** Yogasanas, Pranayama, Adolescent Girls, Flexibility, Body Weight.

### INTRODUCTION

The term “Yoga” and the English word “Yoke” are derived from Samskrit root “Yuj” which means union. Yoga is a psycho-somatic-spiritual discipline for achieving union & harmony between our mind, body and soul and the ultimate union of our individual consciousness with the Universal consciousness (Madanmoha, 2008). Yoga is mind-body technique which involves relaxation, meditation and a set of physical exercises performed in sync with breathing. Being holistic, it is the best means for achieving physical, mental, social and spiritual well being of the practitioners. This can be achieved by systematic and disciplined practice of ashtang (eight-limbed) yoga described by sage Patanjali. The first two limbs of ashtang yoga are yam and niyam which are ethical code and personal discipline for the development of our moral, spiritual and social aspects. 3rd and 4th limbs are asan and pranayam which help in our physical development and improvement of physiological functions. 5th and 6th limbs are pratyahar and dharna for controlling our senses and making our mind one-pointed, calm and alert. The final two limbs of dhyana and samadhi result in inner peace, ecstasy, higher level of consciousness and the ultimate union of our individual consciousness with the Universal Consciousness, resulting in God realization. The result is unfoldment of a unique spiritual personality that is a blessing for the whole humanity. Yoga helps in developing our total personality in an integrated and holistic manner.

## OBJECTIVES OF THE STUDY

To find out the influence of selected yogasanas and pranayama on physical parameters such as Flexibility and Body weight

### Hypothesis

- There was significant difference in the mean pre test and post test scores of Flexibility of the subject, due to the effect of experimental treatment of yogasanas and pranayama exercise.
- There was significant difference in the mean pre test and post test scores of Body Weight of the subject, due to the effect of experimental treatment of yogasanas and pranayama exercise.

### Methodology

The purpose of the study was to investigate the effect of Yog asanas and pranayama on selected physical variables of the adolescent girls. The investigator was more interested to find the effect of Yogasanas and pranayama particularly on the adolescent girls who had not been taking part in any other physical activity.

### Subjects

Fourty adolescent girls selected from BLDEAs Girls High School Vijayapur. The subjects were age of t ranged between 14 – 16 years. The only purpose of selecting subjects over 14 years was to insure that the selected subjects had attained puberty. The subjects were divided into two equal groups and the distribution was done randomly. One experimental group and control group.

### Delimitation

1. The study was delimited to 80 Girls (Experimental=40 & Control=40) Studying in BLDEAs Girls high school Vijayapur
2. The study was delimited to girls in the age group of 14 to 16 years.
3. Those students who participate in inter school sports and yoga is excluded from the study.

### Limitation

1. Sample size selected for the study was one of the limitations to the study. As it was experimental study the sample size was not large.
2. Intervening maturational factor during the course of study was another limitation.
3. Socio-economic and hereditary factors could not be controlled by the researcher.

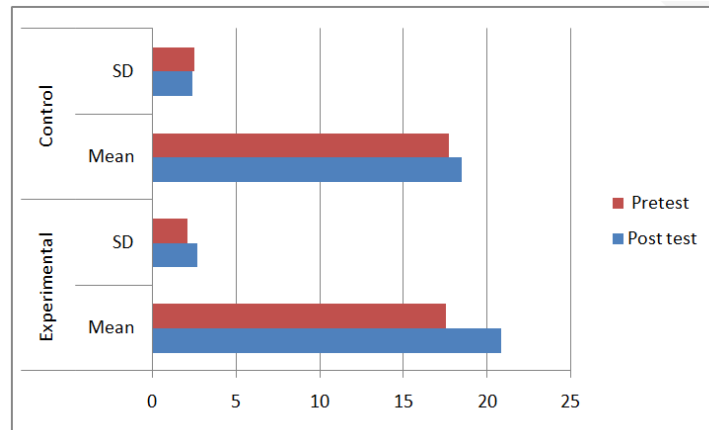
### Mean, SD and of Experimental and Control group performance of High school Girls students with respect to Flexibility test

Test		Post test	Pretest	t-value	Df	P value	Remark
Experimental	Mean	20.8205	17.5128	-20.057	39	.000	S
	SD	2.64448	2.08846				
Control	Mean	18.4359	17.6923	1.1132	39	.321	N S
	SD	2.34851	2.45114				

Table- 1 Shows that the pre test and post test means scores of flexibility strength of experimental groups of high school students. It is observed that mean scores of pretest and post test of experimental groups with respect to flexibility strength of high school students are 17.5128 and 20.8205 and their standard deviation are 2.08846 and 2.64448 respectively. The obtained 't' value is (  $t=20.057$ ,  $df=39$ ,  $\alpha =.05$  ) at 5% level of significance is greater than the table value ( $t=1.96$ ), hence the null hypothesis is rejected and alternative hypothesis is accepted. It indicates that the abdominal

strength is more in case of post test group. The treatment given to the subjects has made positive impact on abdominal strength.

Further, above table shows that the pre test and post test means scores of flexibility strength of control groups of high school students. It is observed that mean scores of pretest and post test of control group with respect to flexibility strength of high school students are 14.3459 and 17.6939 and their standard deviation are 2.34851 and 2.451118 respectively. The obtained 't' value is ( $t=1.1132$ ,  $df=39$ ,  $\alpha=.05$ ) at 5% level of significance is less than the table value ( $t=1.96$ ), hence the null hypothesis is accepted. It indicates that the flexibility strength between the pre test and post test group of high school students is found almost same.

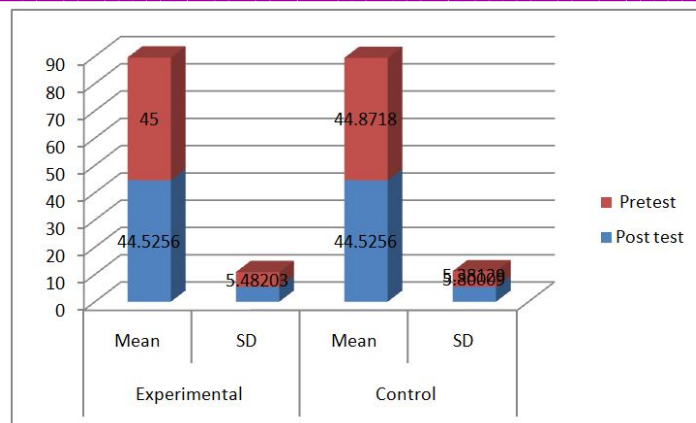


#### Mean, SD and of Experimental and Control group performance of High school students with respect to body weight test

Test		Pretest	Post test	t-value	Df	P value	Remark
Experimental	Mean	45.0000	44.5256	10.335	39	.000	S
	SD	5.48203	5.38129				
Control	Mean	44.8718	44.5256	1.231	39	.127	N S
	SD	5.80009	5.38129				

Table- 1 Shows that the pre test and post test means scores of body weight of experimental groups of high school students. It is observed that mean scores of pretest and post test of experimental groups with respect to body weight of high school students are 45.0000 and 44.5256 and their standard deviation are 5.48203 and 5.38129 respectively. The obtained 't' value is ( $t=10.335$ ,  $df=39$ ,  $\alpha=.05$ ) at 5% level of significance is greater than the table value ( $t=1.96$ ), hence the null hypothesis is rejected and alternative hypothesis is accepted. It can be concluded that the body weight is reduced relatively for the post test subjects. The significant difference is observed between the pre test and post in case of experiment group. The treatment given for the experimental groups has made significant effect in the reduction of body weight of the high school students under study.

Further, above table shows that the pre test and post test means scores of body weight of control groups of high school students. It is observed that mean scores of pretest and post test of control group with respect to body weight of high school students are 14.3459 and 17.6939 and their standard deviation are 2.34851 and 2.451118 respectively. The obtained 't' value is ( $t=1.1132$ ,  $df=39$ ,  $\alpha=.05$ ) at 5% level of significance is less than the table value ( $t=1.96$ ), hence the null hypothesis is accepted. It indicates that the body weight between the pre test and post test group of high school students is found almost similar.



### CONCLUSION:

- 1) It was concluded that 12 weeks yogasanas and pranayama practices significantly altered Physical variable, such as, Flexibility has increased in experimental group to compared the control group.
- 2) It was concluded that 12 weeks yogasanas and pranayama practices significantly altered in Physical variable, such as, Body weight has decreased in experimental group, to compared the control group.

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