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Impact of yogic asanas on the health related physical fitness of students of agricultural biotechnology college

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Abstract

The study was conducted to find out the Impact of Yogic Asanas on the Health Related Physical Fitness of Students of Agricultural Biotechnology College. The Present study was conducted on 40 students. The age of the subjects ranged between 18 to 25 years. The Girls were divided into two equal groups 1. Experimental Group 2) Control Group on the basis of the mean performance of pre-test score. This training programme was of 6 week having 5 days a week. 't'-test was employed. 1 min Bent Knee Sit-ups ($t = 0.964$), Sit & Reach Test ($t = 0.034$) and Body Mass Index ($t = 0.136$), as calculated t-values are less than the tabulated t-value. Significant difference observed in pretest and posttest of Experimental group in 1 min Bent Knee Sit-ups ($t = 4.161$), and Sit & Reach Test ($t = 2.168$). Insignificant difference found in Body Mass Index ($t = 0.308$) which is less than the tabulated t-value of 2.093 at 0.05 level of confidence of 19 degree of freedom. Significant difference observed in posttest of Control and Experimental group in, 1 min Bent Knee Sit-ups ($t = 2.104$), and Sit & Reach Test ($t = 2.331$), Insignificant difference found in Body Mass Index ($t = 0.255$) which is less than the tabulated t-value of 2.093 at 0.05 level of confidence of 19 degree of freedom.

Keywords: Impact, yogic asanas, health related physical fitness

Introduction

Yoga means the experience of one or unity with inner being. This unity comes after dissolving the duality of mind and matter into the supreme reality. It is a science by which the individual approaches truth. The aim of all yoga practice is to achieve truth where the individual soul identifies itself with the supreme soul or God. The attitude towards Yoga and its acceptance has undergone a change over the last twenty years. This is true not only of our country where Yoga originated a thousand years ago, but also of far-flung countries all over the world. Yoga inculcates discipline. Yoga has the surest remedies for man's physical as well as psychological ailments. It makes the organs of the body active in their functioning and has good effect or internal functioning of the human body. Apart from being therapeutic, it is an exhilarating experience harmonizing the body, mind and spirit. The combination of posture, relaxation, repetitions and breathing clears the body of toxins, cleanses the mind and allows the free flow of energy.

Yoga is not a religion. It is a method by which one obtains control of one's latent powers. It is the means to reach complete self-realization. Yogis achieve this by turning their thoughts inward, away from the objective world. By yoga life is so organized and so satisfying that in its twilight a person will be content to let go without regrets and without a sense of leaving too much undone. Yoga is a re-education of one's mental recesses, along with the physical.

Purpose of the study

The purpose of the present study was to find out the Impact of Yogic Asanas on the Health Related Physical Fitness of Students.

Hypothesis

It was hypothesized that, Yogic Asanas would be improved the Health Related Physical Fitness of College girls.

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Methodology

Sources of the Data: The source of the data was collected from girls of Agricultural Biotechnology College.

Selection of the Subject

The selected the 40 girl students are from Agricultural Biotechnology College. The age of the subjects ranged between 18 to 25 years.

Criterion Measures

- Muscular Endurance- Bent Knee Sit ups
- Flexibility- Sit and Reach Test
- Obesity- Body Mass Index

Administration of Test

The students were divided into two equal groups 1.Experimental Group 2) Control Group on the basis of the mean performance of pre-test score. This training programme was 6 weeks having 5 days in a week.

Analysis of Data

't'-test was employed.

Statistical Analysis

Table 1: 1 min Bent Knee Sit-ups of Pre and Post-tests of Control Group

Test	Mean	Standard Deviation	Mean Difference	Standard Error	't'-ratio
Pre-test	12.450	4.174	1.500	1.556	0.964
Post-test	13.950	4.347			

Significant 0.05 level Tabulated $t_{0.05(19)} = 2.093$

Table 1 show that, 1 min Bent Knee Sit-ups mean difference between the pretest and posttest of control group is not significant, because the calculated t-value of 0.964 is less than the tabulated t-value of 2.093 at 0.05 level of confidence of 19 degree of freedom.

Table 2: Sit & Reach Test between Means of Pre and Post-tests of Control Group

Test	Mean	Standard Deviation	Mean Difference	Standard Error	't'-ratio
Pre-test	9.100	2.902	0.044	1.041	0.034
Post-test	9.056	2.799			

Significant at 0.05 level Tabulated $t_{0.05(19)} = 2.093$

Table 2 show that, Sit & Reach Test means difference between the pretest and posttest of control group is not significant, because the calculated t-value of 0.034 is less than the tabulated t-value of 2.093 at 0.05 level of confidence of 19 degree of freedom.

Table 3: Body Mass Index Pre and Post-tests of Control Group

Test	Mean	Standard Deviation	Mean Difference	Standard Error	't'-ratio
Pre-test	21.517	2.032	0.100	0.739	0.136 [@]
Post-test	21.417	2.018			

Significant at 0.05 level Tabulated $t_{0.05(19)} = 2.093$

Table 3 show that Body Mass Index means difference

between the pretest and posttest of control group is not significant, because the calculated t-value of 0.136 is less than the tabulated t-value of 2.093 at 0.05 level of confidence of 19 degree of freedom.

Table 4: Bent Knee Sit-ups Pre and Post-tests of Experimental Group

Test	Mean	Standard Deviation	Mean Difference	Standard Error	't'-ratio
Pre-test	12.400	3.136	4.250	1.021	4.161*
Post-test	16.650	2.412			

*Significant at 0.05 level Tabulated $t_{0.05(19)} = 2.093$

Table 4 shows that, 1 min Bent Knee Sit-ups mean difference between the pretest and posttest of Experimental group is significant, because the calculated t-value of 4.161 is greater than the tabulated t-value of 2.093 at 0.05 level of confidence of 19 degree of freedom.

Table 5: Sit & Reach Test Pre and Post-tests of Experimental Group

Test	Mean	Standard Deviation	Mean Difference	Standard Error	't'-ratio
Pre-test	9.175	3.044	2.685	1.238	2.168*
Post-test	11.860	3.706			

*Significant at 0.05 level Tabulated $t_{0.05(19)} = 2.093$

Table 5 shows that, Sit & Reach Test mean difference between the pretest and posttest of Experimental group is significant, because the calculated t-value of 2.168 is greater than the tabulated t-value of 2.093 at 0.05 level of confidence of 19 degree of freedom.

Table 6: Body Mass Index Pre and Post-tests of Experimental Group

Test	Mean	Standard Deviation	Mean Difference	Standard Error	't'-ratio
Pre-test	21.391	1.166	0.124	0.402	0.308 [@]
Post-test	21.267	1.032			

*Significant at 0.05 level Tabulated $t_{0.05(19)} = 2.093$

Table 6 shows that, Body Mass Index mean difference between the pretest and posttest of Experimental group is not significant, because the calculated t-value of 0.308 is less than the tabulated t-value of 2.093 at 0.05 level of confidence of 19 degree of freedom.

Table 7: Bent Knee Sit-ups of Post-tests of Control and Experimental Group

Group	Mean	Standard Deviation	Mean Difference	Standard Error	't'-ratio
Control	13.950	4.347	2.700	1.283	2.104*
Experimental	16.650	2.412			

*Significant at 0.05 level Tabulated $t_{0.05(38)} = 2.024$

Table 7 shows that, 1 min Bent Knee Sit-ups mean difference between the post test of Control and Experimental group is significant, because the calculated t-value of 2.104 is greater than the tabulated t-value of 2.024 at 0.05 level of confidence of 38 degree of freedom.

1 min Bent Knee Sit-ups means between the Post-tests of Control and Experimental group was graphically shown in Figure -1.

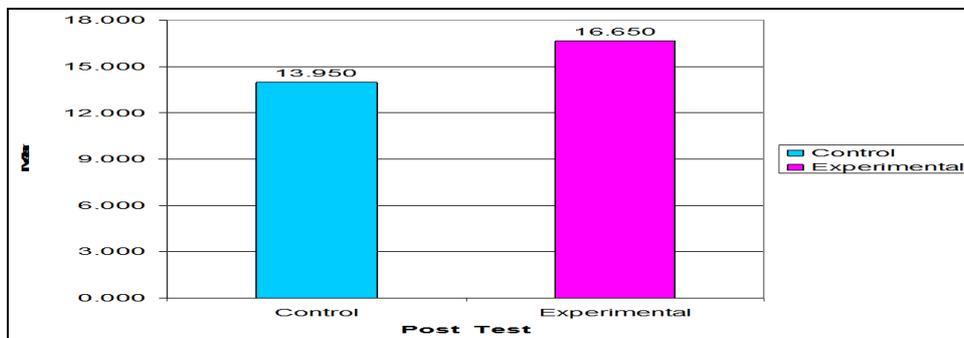


Fig 1: 1 min Bent Knee Sit-ups means between the Post-tests of Control and Experimental group was graphically

Table 8: Sit & Reach Test of Post-tests of Control and Experimental Group

Group	Mean	Standard Deviation	Mean Difference	Standard Error	't'-ratio
Control	9.065	2.799	2.795	1.199	2.331*
Experimental	11.860	3.706			

*Significant at 0.05 level Tabulated $t_{0.05(38)} = 2.024$

Table 8 shows that, Sit & Reach Test mean difference between the post test of Control and Experimental group is significant, because the calculated t-value of 2.331 is greater than the tabulated t-value of 2.024 at 0.05 level of confidence of 38 degree of freedom.

Sit & Reach Test means between the Post-tests of Control and Experimental group was graphically shown in Figure -2.

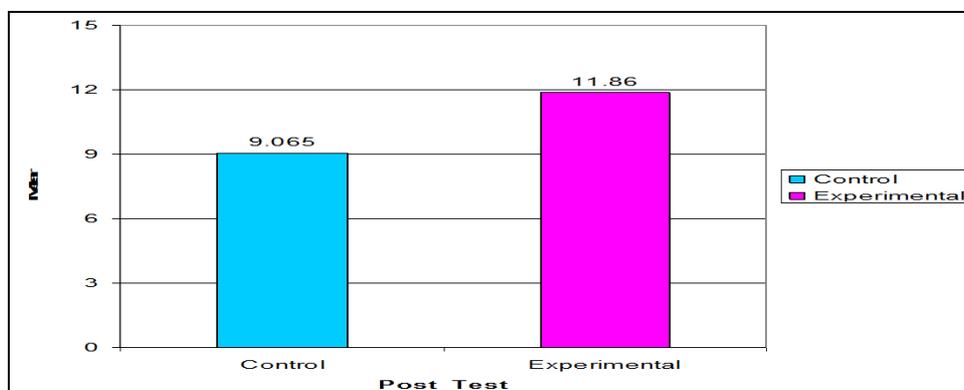


Fig 2: Sit & Reach Test means between the Post-tests of Control and Experimental group was graphically

Table 9: Body Mass Index of Post-tests of Control and Experimental Group

Group	Mean	Standard Deviation	Mean Difference	Standard Error	't'-ratio
Control	21.417	2.018	0.150	0.585	0.255@
Experimental	21.267	1.032			

*Significant at 0.05 level Tabulated $t_{0.05(38)} = 2.024$

Table 9 shows that, Body Mass Index mean difference between the post test of Control and Experimental group is not significant, because the calculated t-value of 0.255 is less than the tabulated t-value of 2.024 at 0.05 level of confidence of 38 degree of freedom.

Body Mass Index means between the Pre and Post-tests of Experimental group was graphically shown in Figure - 3.

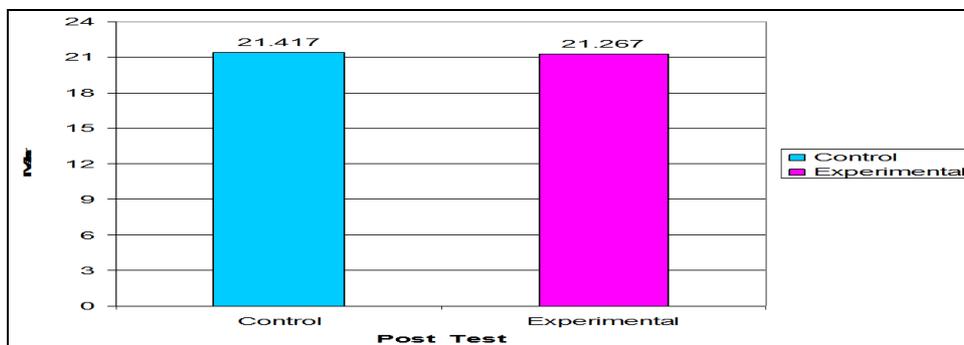


Fig 3: Body Mass Index means between the Pre and Post-tests of Experimental group was graphically

Discussion of Findings

After statistical analysis the findings of the present study as follows:

A. 1 min Bent Knee Sit-ups ($t = 0.964$), Sit & Reach Test ($t = 0.034$) and Body Mass Index ($t = 0.136$), because calculated t-values are less than the tabulated t-value of

2.093 at 0.05 level of confidence of 19 degree of freedom.

B. Significant difference observed in pretest and posttest of Experimental group in 1 min Bent Knee Sit-ups ($t = 4.161$), and Sit & Reach Test ($t = 2.168$), because calculated t-values are greater than the tabulated t-value

of 2.093 at 0.05 level of confidence of 19 degree of freedom. But insignificant difference found in Body Mass Index ($t = 0.308$) it is less than the tabulated t-value of 2.093 at 0.05 level of confidence of 19 degree of freedom.

- C. Significant difference observed in posttest of Control and Experimental group in, 1 min Bent Knee Sit-ups ($t = 2.104$), and Sit & Reach Test ($t = 2.331$), because calculated t-values are greater than the tabulated t-value of 2.093 at 0.05 level of confidence of 19 degree of freedom. But insignificant difference found in Body Mass Index ($t = 0.255$) it is less than the tabulated t-value of 2.093 at 0.05 level of confidence of 19 degree of freedom.

Justification of Hypothesis

Earlier hypothesized was Yogic Asanas would be improve the Health Related Physical Fitness of Agri-Biotechnology College girls. It is observed that significant difference found in, 1 min Bent Knee Sit-ups, and Sit & Reach Test but not in Body Mass Index, hence the earlier stated hypothesis is partially accepted.

Conclusion

Further study concluded that the positive effect of Yogic Asanas on the Health Related Physical Fitness but not significant difference of Body Mass Index in Agri-Biotechnology College Girls.

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