International Journal of Academic Research and Development
ISSN: 2455-4197, Impact Factor: RJIF 5.22
www.academicsjournal.com
Volume 1; Issue 10; October 2016; Page No. 48-51

Effect of yogic training on weight control and general fitness of women employees of Durgapur city

Dr. Deba Prasad Sahu

Head, Department of Physical Education Mahishadal Girls' College, Mahishadal Purba Medinipur, West Bengal, India

Abstract
The purpose of the study is to find out the effect of yogic training on weight control and general fitness of women employees of Durgapur City in West Bengal. Total 30 (thirty) women employees of Durgapur City were chosen randomly as subjects for the study. The average age of the subjects were ranging from 25-45 years. Variables for the study were Bridge – up test, shuttle run, Harvard step test, Height, Weight, Blood Pressure and Yogic Exercises (morning and afternoon). Random group design was adopted for the study and an equal number of subjects have assigned at random two groups of 15 subjects each. The experimental treatment had given to one group served as the control. To find out the difference between initial and final test and to compare the result of two groups the 't' test was used and the level of significance was 0.05 level. The results of the study indicated that in case of flexibility the treatment effect was not evident significantly in the experimental group which was superior probably to control group. This is due to duration of less treatment period. The improvement of weight in experimental group was evident as a result of yogic exercises training. The performance level of blood pressure of experimental group was significantly normal as compared to the control group.

Keywords: yogic training, weight control, women employees, general fitness

Introduction
'Yog' is a Hindu Science of bodily and mental control. It is one of the six classic philosophical systems of India. A discipline of this ancient teaching is called a 'Yogi'. He is an adept who has attained a spiritual allumination.
The traditional founder of 'Yog' is Patanjali, who is believed to have lived about the 3rd century B.C., and whose Yogsutra is the oldest text in the literature.
Yog is one of the India's wonder gifts to mankind. One of its valuable qualities is that it built up a store of physical health through the practice of system of exercises called asanas which keep the body cleansed and fit. Yog believes that exercise is essential for speedy removal of toxins and for keeping blood circulation and all internal process functioning smoothly.
Having dealt with the physical side of life, yog turns to the mental. Here different breathing exercises or techniques quieten the mind and brain, offering inner peace and an ability to face upheavals and deal with problems.
Yog education of the physical is twofold, having as its objectives; (a) care, development and control of the external body and (b) care, development and control of the internal organs.
The former includes postural training and personal hygiene, while the latter consists of varied intricate processes which directly affect the health, development and control of the internal organs.
Of these, the yog postural training, while in the main, subordinated the highest spiritual objective, is sufficiently exhaustive even as comprehensive scheme of physical education. Because of their marked physiological reactions with the minimum waste of energy and other similar hygienic benefits, the yog postures offer a unique system of physical training.
The care of the body-in the sense of keep in every organ in its healthy state is in itself prolongation of life. Thus, instead of taking to some queer measures of longevity, it is profoundly safe to follow a cause of simplified physical education and of hygienic living based upon the cleanliness of the many important organs of the body.
Compared to the mere bathing of the outside skin or to muscular development, the internal cleanliness is probably the important part of hygiene for on the health of the internal organs depends the length of life. Unfortunately, this aspect of personal hygiene-internal purification of the vital organs has not yet been sufficiently investigated to formulate a practical daily scheme of living.
An ideal combination of physical education and hygiene, however, is to be found in the ancient teaching of Yog which recognized and recommends simple measures of postural training, care of the internal organs, technique of breathing and relaxation, dietetics and other aids of good health.

Statement of the problem
The purpose of the study was to find out the effect of yogic training on weight control and general fitness of women employees of Durgapur City.

Significance of the study
1. The study will effective on weight control and general fitness. In this finding, it could be said that yogic training helped to improve general fitness and weight control by doing different yogic Asans and Pranayams.
2. The study may provide useful information to the coaches, physical educator and researcher disciplines included in the study.

3. The study may be useful to prepare norms and carry on the further study in a large scale.
4. The study may act as the stepping stone and may be considered as a milestone to throw light on the yogic training for fitness and weight control test item.

Methodology

The objective of the study was to find out the effect of yogic on weight control and general fitness of women employees of Durgapur City. 30 women employees of Durgapur City were chosen at random as subjects for the study. The average age of the subjects was ranging from 25 to 45 years. The performance scores achieved by the subjects in the tests of general fitness and weight control were considered as the criterion measures of the study. Random group design was adopted for the study and an equal number of subjects have assigned at random two groups of 15 subjects each. The experimental treatment has given to one group served as the control. The measurement of experimental variables was taken at the beginning and after the experimental period of 6 weeks. The experimental group underwent the pretest on test item no. 1(Bridge-up test), item 2(Shuttle-run), item no. 3(Harvard step), 4. Height, 5. Weight & 6. Blood Pressure. Then the experimental group underwent the yogic exercises two times (morning session for 45 minutes and afternoon session for 45 minutes) per day except Sundays and holidays. For a total period of 6 weeks under the careful supervision of the investigator. The control group was not allowed to undergo the exercises. To find out the difference between initial and final test and to compare the result of two group's the't' test was used and the level of significance was 0.05 percent.

Findings

For each of the chosen variables tests, the result pertaining to significance differences, if any between the pre-test & post-test means for the two groups after six weeks training which were submitted to analyze (t-test), are given in table one & two.

To investigate the existing variability within each group, statistical procedure for calculation of coefficient of variation has been adopted.

Although, the variation in case of pre-test scores in not of much interest, still the coefficients of variation have been calculated for all pre-test scores. However, the calculations of co-efficient of variation for pre-test scores of the aforesaid tests have been done. Accordingly, the following inferences are drawn:

1. Only in case of test no. 1, the coefficient of variation of post-test scores for Group-A is more than that of Group-B. Whereas, in other cases i.e. test no.2 & 3, the coefficients of variation of post-test scores of Group-A are less than those of Group-B.
2. There is greater variability in test 1 in Group-A than Group-B. Conversely, there is greater variability in test 2 & 3 in Group-B than Group-A.

Table – 3 indicates that none of the t-values between pre-test and post-test score relating to the above aspects for control groups is significant at 5% level. But, in case of experimental group, computed t-values for test 2 and 3 are significant at 5% level whereas for test 1 is not significant.

In none of the aspects of the control group, the computer t-values are not significant. So it is inferred that there is no significant differences between pre-test and post-test scores so obtained in reference to general and weight control aspects.

In case of experimental groups, as the computed t-value is not significant for test 1, so there is no change in test 1 between pre-test and post-test for this group. On the other hand, there are significant computed t-values for test 2 & 3. This shows that there is a significant difference between pre-test and post-test scores in case of test 2 & 3 for experimental group.

Table 1: Analysis of Significance of Pre-Test and Post-Test Mean Score Difference on Test Item No. 1, 2 & 3 for Experimental Group-A

Test No.	Initial Gained	Mean+SD	Final Gained Mean	Mean SD	Mean Difference	Value of 't'
1.	52.00	8.824	51.167	10.809	0.833	NS 0.298
2.	10.173	0.523	9.847	0.470	0.326	5.543*
3.	74.000	10.827	77.600	9.356	3.6	6.758*

*Significant at 5% level ($P<0.05$)
NS: Not Significance
N.B.: The table value of't' at 5% level of significance for 14df=2.14

The table-1 indicates that the't' ratio (0.298) between pre-test and post-test of the test no. 1 was not statistical significance though there was a certain improvement.

In case of test no. 2 & 3 the experimental groups improved significantly, indicating't' values of 5.543 & 6.758 respectively.

Table 2: Calculation of Co-Efficient Of Variation to Compare the Degree of Variability between Pre-Test and Post-Test

Test No.	Group	Test	Mean	SD	CV
1.	A	Pre-test	52.000	8.824	16.97
		Post-test	51.167	10.809	21.12
	B	Pre-test	52.00	80824	16.97
		Post-test	51.833	8.837	17.05
2.	A	Pre-test	10.173	0.523	5.14
		Post-test	9.847	0.470	4.77
	B	Pre-test	10.413	0.546	5.24
		Post-test	10.460	0.594	5.68

3.	A	Pre-test	74.000	10.817	14.62
		Post-test	77.600	9.356	12.06
	B	Pre-test	74.467	10.057	13.52
		Post-test	74.200	10.213	13.76

Table 3: Comparison of Initial and Final Mean Scores of Test Item No. 1, 2, & 3 of Experimental and Control Groups

Test no.	Group	No. of Subjects	Pre-test Mean	Post-test Mean	Mean Difference	t-value
1.	Experimental	15	52.00	51.167	0.833	NS-0.298
	Control	15	52.00	51.833	0.167	NS-0.323
2.	Experimental	15	10.173	9.847	0.326	5.543*
	Control	15	10.413	10.460	0.047	NS-0.413
3.	Experimental	15	74.000	77.600	3.600	6.758
	Control	15	74.467	74.200	0.267	NS-0.745

*Significant at 5% level ($P<0.05$)
NS: Not Significance

Discussion

The purpose of the study was to find out the effect of Yogic training on general fitness & weight control.

30 women employees of Durgapur City were used as subjects for this study. The women were randomly divided into two groups. Group A (Experimental) and Group B (Control) consisting 15 number in each group.

Group A was instructed to perform Yogic exercises for 45 minutes per day and six days in a week for a period of six weeks. Group B had not undergone any type of Yogic exercises. The initial and final test reading are taken as the criteria before and after experimental period of six weeks.

To find out the significant different between initial and final test of Group A and Group B, 't' test was used. The findings of this study indicated that in case of Flexibility, the treatment effect was not evident significantly in the experimental group, which was superior probably to control group. This is due to duration of less treatment period. But somehow they felt themselves physically and mentally fit, which is undergone in general fitness tendency.

The improvement of weight in experimental group was evident as a result of Yogic exercises training. The appearance of such result may be due to the fact the Yogic exercises gives muscular stretching which in turn increases muscles tone or the readiness of the muscles fibre to work in emergent situation. It controls the weight in some cases by reducing the fat from the body.

The performance level in B.P. of experimental group was significantly normal as compared to the control group. This result helps to interpret that the intervention of Yogic exercises could contribute to normalize the blood pressure.

Conclusion

On the basis of the findings of the study the following conclusion may be drawn.

1. Taking the treatment group as a whole it is interpreted that the Yogic training has significant effect on general fitness & weight control.
2. The control group did not show any improvement upon the experimental variable tests.

Recommendation

In the light of conclusion drawn the following recommendation may be made:

1. Similar studies may be undertaken with groups and sex other those employed in this study.
2. Increasing the duration of training programmes may carry out further studies.
3. The study may be replicated on the difference ethic groups in the country.
4. This study may be adopted by the teachers of physical education and coaches for improving performance on general fitness & weight control.
5. More innovative Yoga training programmes may be developed for various other sports competition.

Reference

1. Asana, Pranayama, mudra, Bandha. Swami Satyananda Saraswati of Bihar School of Yoga. Edition. 1999, 5.
2. Hardayal Singh. Sports Training General Theory Method Partial. 1984, 173.
3. Dipika BKS, Iyengar Nineteeth. Kundalini Yoga byb, Sri Swami Sivananda. 1, 16.
4. Light on Yoga, Edition. 2002.
5. Barry L Jphnson, Jack K Nelson. Measurements for Evaluation in Physical Education. 1988, 216.
6. Karambukur PV. Patanjalii Yoga Sutra. 1950, 12.
7. Govind Singh. Yoga for all by Maharishi Patanjali Adaptation 1982, 34.
8. Swati Chanchnai, Rajiv Chanchhi. Yoga for children 1992, 84.
9. Dr. Joshi, KS. Yoga in Daily Life Eighteen Edition 2000, 15.
10. Ayurveda, Siddha, Unani A Journal of, Homeopathy, Yoga & Naturopathy System of Medicine in India, Govt. of India.
11. Avagahan Yoga. Training Physical Fitness of School boys Yoga Mimasa 1976; 1:9.
12. Ganguly SK. Effect of Short Term Yogic Training Programme on Cardio-vascular Endurance Yoga-Mimasa 1981; 4:45.
13. Govindarajulu N, Bera TK, Murugesan. Effect of work capacity of elite School Players practicing

Yoga in Pondicherry Region. Yoga-Mimasa. 2002; 34:129.
14. Gharote ML. Effect of Yogic Exercises Sports Medicine. Yoga-Mimasa 1978; 18:35
15. Gharote ML. Effect of Physical Fitness in Relation to the practice of selected Yogic Exercises Yoga-Mimasa. 1976; 18:14
16. Kawathekar G, Khare KC. Effect of Learn body mass and Lipid Profile in healthy persons practicing Yoga. Yoga Mimasa 2002; 34:123
17. Lolage RS, Bera TK. Effect of Pranayam on Cardio-vascular Endurance in Kho-Kho players. Yoga-Mimasa. 2002; 34:13.
18. Pugaonka GV, Dhop JM, Bera TK. Effect of Yogic Exercises for the promotion of Physical Fitness and Badminton skills of college girls of age between 18 to 29 years. Yoga Mimasa, 1999; 33:29.
19. Swami Kuvalya Nanda. Effect of Yoga Exercises has a spiritual Goal. Yoga-Mimasa. 1926; 2:207