ABSTRACT

Coaches, physical education teachers and sports scientists strive to optimize sportsmen’s performance. To achieve this goal they must consider health related physical fitness. The Health related physical fitness is pre-requisites for learning of sports techniques and their refinement, modification during the long term training process.

The purpose of this study was to investigate the response of certain asanas and exercise programme on selected Health related physical fitness.

For this study was to investigate the response of exercise and certain yogic practices programme on the health related physical fitness and to assess their effectiveness. The study was delimited to male subjects of age group 20 to 25 years. The study was also delimited by certain yogic practices; it includes specific yogic practices, pranayama and yognidra. The study was further delimited to certain exercise. It was delimited to certain health related physical fitness, variation in the ability of the individual to perform yogic practices and exercise and secondly variation in age group.

Eighty subjects of B.P.Ed and B.B.A class students of Jai Narayan P.G. College Lucknow (KKC) were selected for the study.
The average age of subjects will be 20 years. The subjects were divided into four groups. Experimental group A, B and C and control group D. The each group of 20 subjects.

The experiment was conducted for a period of 12 weeks in 6 day week. The experimental group ‘A’ did 12 yogic practices programme included Srishasana, Sarvangasana, Matsyasana, Halasana, Bhujangasana, Salbhasana, Dhanurasana, Aradhamatsyandrasana, Pachimotana, shavasana, Kapal Bhati, Anlom vilom. The experimental group ‘B’ did 10 exercises programme consists of Spinal Rock, Back over, Side stretcher, Alternative prone lift, one leg jumping, Line walking after front roll, 5 meters dash, raising the hands with folded hands, walking on hands with partner and Stride stretcher. The experimental group ‘C’ did exercise and yogic practices programme combined. The experimental group practiced 6 days in a week.

The whole training programme for the experimental group ‘A’, ‘B’ and ‘C’ was carefully and systematically planned. The experimental groups ‘A’, ‘B’ and ‘C’ underwent the training programme on yogic practices, Exercises and the combined respectively under the guidance of three assistants at the same place and time under careful supervision of the research scholar for a period
of twelve weeks in the 6 day week. The objective reflected exactly what was expected of the subjects after going through the training programme. The control group ‘D’ was not undergone any training programme and was instructed to do only their daily routine work.

The pre and post test data was collected with the help of AAPHERD Health related physical fitness test contains four items namely as follows-

(i) Cardio respiratory function test - 9 minute run walk
(ii) Body composition (leanness/fatness)
(iv) Modified sit-ups

In order to find out the differential effects of the experimental treatments, analysis of covariance F-ratio (ANCOVA) was applied to find out the significant difference in the three experimental groups and control group mean. The level of significance chosen was .05 level.

Results of the statistical analysis showed significant F-ratio for Modified sit-ups test (F= 54.36), Cardio respiratory function test (F=17.53), Sit & Reach test (F=32.87), Body composition triceps skin fold (F=17.69) and Subscapular skin fold (30.28).F-ratio required for significance at 0.05 level of confidence was 2.74.
Further, Post hoc analysis of the results of shows that in all the cases combined group (asanas and exercise) was better than asanas group and exercise group. For each of the chosen measure where F-ratio was significant, the Post hoc analysis goes as.

Based on the understanding after deliberate discussion with experts and the supervisor and also in light of the above understanding following conclusions were finally drawn:-

1. There is significant difference in pre and post test mean values of sit- ups test for yogic practices, exercise and combined group as the obtain t-values are 6.43, 12.48, 16.45 respectively at .05 level of significance.

2. There is significant difference in pre and post test mean values of Cardio-respiratory Endurance for yogic practices, combined group as the obtain t-values are 10.56, 11.5, 15.6 respectively at .05 level of significance.

3. There is significant difference in pre and post test mean values of sit & reach test for yogic practices, combined group as the obtain t-values are 14.52,-11.55 and -14.81 at .05 level of significance.

4. There is significant difference in pre and post test mean values of Body composition (triceps skin fold) for yogic practices,
combined group as the obtain t-values are 5.41, 5.76 and 9.12 respectively at .05 level of significance.

5. There is significant difference in pre and post test mean values of body composition (subscapular skin fold) for yogic practices, combined group as the obtain t-values are -4.64,-9.31, and 11.28 respectively at .05 level of significance.

6. The post test means of sit-ups and the difference between the adjusted final means yielded the F ratio of 11.84 and 54.36 respectively and were found significant.

7. The post test means of the entire four groups for cardio-respiratory endurance yielded an F ratio of 18.68 which was significant. The differences between the adjusted final means for four groups were found significant as the obtained F ratio was 17.53, Tabulated F ratio being 2.74.

8. The post test means and the difference between the adjusted final means of sit & reach yielded the F ratio of 2.95 and 32.87 respectively and were found significant. The F ratio needed for significant at .05 level of confidence was 2.74. The post test means of all the four groups yielded of F ratio 0.71 which was also not significant. The difference between the adjusted final means of body composition (triceps skin fold) for four groups
were found significant as the obtained F ratio was 17.69, Tabulated F ratio being 2.74.

9. The post test means of the entire four group yielded F ratio 0.71 which was also not significant. The differences between the adjusted final means of body composition (sub-scapular skin fold) for four groups were found significant as the obtained F ratio was 30.28. The F ratio needed for significance at .05 level of confidence was 2.74.

10. It is concluded that yogic and exercise programme significantly improve the health related physical fitness.

11. The yogic programme is more effective than exercise programme in the health related physical fitness.

12. A combined exercise yogic programme is more effective in health related physical fitness than the individual programme of yoga and exercise.