CHAPTER - V

SUMMARY, CONCLUSION AND RECOMMENDATIONS
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Sports training methods have undergone rapid development. New training methods have evolved now and then so as to bring about the best in the individual. Yoga has become a necessity but it is certainly not a substitute to any form of Physical Exercise be it jogging, running, jumping, bending, stretching etc.

There are proven facts that yoga has helped to bring about positive changes in many psychological variables like concentration, stress, anxiety etc. and physiological variables like balance and flexibility.

The purpose of the study was to analyze the training effects of yogic practice, physical exercise and the combination of physical exercise and yogic practice. For this study, 100 healthy students were randomly selected, their age ranging between 12-15 years. The subjects were divided into four groups, namely Control Group and three experimental groups, Physical Exercise Group, Yogic Practice Group and Physical Exercise & Yogic Practice Group, each group consisting of 25 subjects.

The experimental groups were given 12 weeks of training whereas the control group was not given any training. The subjects of the four groups were
tested using standardized test procedures on Anthropometric Measurements, Motor Ability Components and Physiological Variables.

In the hypotheses it has been stated that there would be significant improvement in Anthropometric Measurement. It has been rejected as there was no significant improvement on selected Anthropometric Measurements. As for the Motor Ability Components the physical exercise group showed significance in speed and explosive power and the yogic group and physical exercise group showed significant improvement in agility. In the hypotheses it has been stated that there would be significant improvement in pulse rate. But all the three experimental groups did not show any improvement in pulse rate. The yoga group showed significant improvement in breath holding time and the physical exercise group showed significant improvement in cardio respiratory endurance.

**VARIABLES AND TEST PROCEDURES**

<table>
<thead>
<tr>
<th>Anthropometric Measurements</th>
<th>Test/Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height</td>
<td>Studio meter</td>
</tr>
<tr>
<td>Body Weight</td>
<td>Electronic Weighing Machine</td>
</tr>
<tr>
<td>Circumference of Chest</td>
<td>Flexible Metal Measuring Tape</td>
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</tbody>
</table>
Motor Ability Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Test/Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>50 meters Run</td>
</tr>
<tr>
<td>Agility</td>
<td>6x10 meters Shuttle Run</td>
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<tr>
<td>Explosive Power</td>
<td>Standing Broad Jump</td>
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</tbody>
</table>

Physiological Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Test/Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulse Rate</td>
<td>Stethoscope</td>
</tr>
<tr>
<td>Breath Holding Time</td>
<td>Digital Stop Watch</td>
</tr>
<tr>
<td>Cardio Respiratory Endurance</td>
<td>Digital Stop Watch</td>
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</tbody>
</table>

The collected pre-test and post-test data were analyzed with Analysis of Covariance to find out the training significance. Scheffe’s post hoc test was employed to find out the best group among the four.

Findings of the study

- The pre-test and post-test result of Speed, Explosive Power and Cardio Respiratory Endurance shows that the Physical Exercise Group was more significant when compared to the Physical Exercise & Yogic Practice Group, the Yogic Practice Group and the Control Group.

- The Physical Exercise & Yogic Practice Group was significant on Agility when compared to the Physical Exercise Group, the Yogic Practice Group and the Control Group.
• The Yogic Practice Group was significant on Breath Holding Time when compared to the Physical Exercise & Yogic Practice Group, Physical Exercise Group and the Control Group.

• There was no significant improvement on Height, Weight, Circumference of Chest and Pulse Rate in all the four groups.

Conclusion

Within the limitations of this experimental study the following conclusions have been made based on the findings of the study.

• The Physical Exercise Group (that practiced only Physical Exercise) had a better training effect than the other three groups in the following variables.

  Motor Ability Components - Speed

  Explosive Power

  Physiological Variable - Cardio Respiratory Endurance

• The Yogic Practice Group that practiced Yoga (asanas and pranayama) had a better training effect on the following Variable when compared to the other three groups.

  Physiological Variable - Breath Holding Time

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• The Physical Exercise & Yoga Group that practiced both Physical Exercise and Yoga (asanas and pranayama) had a better training effect on the following Variable when compared to the other three groups.

Motor Ability Component - Agility

From the above mentioned facts it is true that specific physical exercises and selected yogic practices contribute to the improvement in performance related variables. So by incorporating Physical Exercises and Yogic Practices in the training schedule of sportsmen, positive results could be obtained.

Recommendations

The following recommendations have been made from the results of the study.

1. By conducting a similar research for different age groups, a micro analytical study can be conducted to find out the rate of variation and influences among various age levels.

2. Other Motor Ability Components and Physiological Variables which were not taken for this study could be taken up for research.

3. A similar study could be conducted to find out the effects of Physical Exercise and Yogic practices on the body weight of middle aged men and women.
4. A similar study could be done on Psychological Variables like anxiety and spatial memory.

5. Physical Educationists, Coaches and trainers could systematize and modify their training programme by including Yoga in their training schedule.