Chapter V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The purpose of the study was to compare the effects of training on wet sand and dry sand on physical and physiological variables of female Goan soccer players.

To facilitate this study, ninety female players were selected as the subjects from the Goan schools near to the coastal area. The age level of subjects ranged from fourteen to sixteen years. All the subjects were residing at different places. The subjects were divided into three groups of 30 each. Group ‘A’ practiced on wet sand, Group ‘B’ on dry sand and Group ‘C’ acted as control group.

The physical variables selected for this study were speed, explosive power, endurance and agility. The physiological variables were pulse rate, blood pressure (systolic and diastolic), vital capacity
and respiratory rate. A ten weeks training programme was employed for two groups. After the completion of ten weeks training programme, data was collected of all three groups on physical and physiological variables. No treatment was given to the control group.

The criterion measures adopted for this study were for explosive strength was measured by using standing broad jump, for speed 50 mts. dash, for endurance 12 mts. run or walk, for agility shuttle run and for physiological variables the resting heart rate was obtained by use of a stopwatch and stethoscope, for counting heart rate, blood pressure (systolic and diastolic) was measured by using sphygmomanometer and stethoscope, vital capacity was measured with the help of wet Spiro meter. Respiratory rate was felt by placing hand just below the thoracic cavity. The test-retest method was used to establish the reliability.
Analysis of covariance was employed to compare the effect of training on wet sand and dry sand of physical and physiological variables of female Goan soccer players. Further, to compare paired mean differences where F ratio is significant, the post hoc test (LSD Test) was used. The level of significance was kept at 0.05 level.

The analysis exhibit that speed, explosive strength, endurance, agility were significant differences among the groups. The calculated F ratio for speed is 3.339, for explosive strength 3.767, endurance 5.159 and for agility 10.669 which were greater than the tabulated F value of 3.10 at 0.05 level.

In the physiological variables resting heart rate was significant (F ratio 34.261) which was more than tabulated value (3.10) at 0.05 level of confidence. Other physiological variables were not significant. The calculated systolic F ratio was 0.262, diastolic F ratio 0.012, vital capacity F ratio 1.342, respiratory rate F ratio 1.324 which was less than tabulated F value 3.10 at 0.5 level of significance.
Conclusions

On the basis of the analysis of data and the limitations of the present study, the following conclusions may be drawn:

1. In case of speed, subjects showed better performance in wet sand and dry sand in comparison to the control group. The wet sand group performance was the best among the three groups.

2. The wet sand group showed better results in coordinative ability in comparison to the other two groups. The dry sand group was better than the control group.

3. As compared to the control group, the wet sand and dry sand group showed better explosive strength results. But there was no significant differences in the wet sand group and dry sand group results.
4. In case of endurance performance the two experimental groups showed better results than the control group. There was no significant difference in the wet sand group and the dry sand group results.

5. With reference to systolic, diastolic, vital capacity and respiratory rate variables, there was no change for the two experimental groups and control groups.

6. Training showed better pulse rate in the two experimental groups than the control group and the wet sand group was better than the dry sand group in pulse rate.
Recommendations

In the light of the conclusions drawn from the study it is recommended that:

1. The training programme on wet sand must be encouraged because it gives better performance in speed, agility, endurance and strength.

2. A study may be undertaken with fully residential subjects (male and female) of different age groups.

3. Training programmes may be carried out for a longer duration on other variables.

4. Similar studies may be conducted on other surfaces.