Chapter V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The present study was conducted to establish the physical fitness norms for Andhra Pradesh teenage population of age ranging from 13 years to 18 years. To measure the physical fitness level of the subjects, the AAHPER Youth Fitness Test Battery was adopted.

Subjects for the study were 6000 male students studying in classes 8 to first year degree (undergraduates) in various government schools and colleges from 10 districts of Andhra Pradesh (3 districts from Rayalaseema region, 3 from Coastal Andhra Pradesh region, and 4 from Telengana region). 20 subjects were selected from each age group, from each of the five institutions from each district. Both the subjects and the institutions were selected on random basis. Thus 1000 subjects were selected from each age group. They were administered the AAHPER Youth Fitness Test. The data on different test items of the test battery was collected in accordance with the
standard procedure laid down in the AAHPER Youth Test Manual, with the assistance of three experts (athletic coaches) and six physical education teachers/lecturers.

The data was statistically analysed using analysis of variance followed by Post-hoc test. For preparation of norms for each of the test items, for each age group separately, the scales namely Percentile, Hull and T-scale were prepared. The mean differences of each age group for different test items were also tested with significant level at .05.

The analysis of the data reveals that inrespect of all the test items of AAHPER Youth Fitness Test the 'F' ratios for different age groups i.e. 13 to 18 years have been found to be significant. The Post-hoc analysis clearly shows that paired means of various age groups are statistically significant at .05 level of confidence in pull-ups, bent knee sit-ups (except 17 and 18 years), standing broad jump (the paired means differences of 17 and 18 years is not statistically significant), shuttle run (paired mean differences of 13 and 14 years, 13 and 15 years, 14 and 15 years, 16 and 17 years, 16 and 18 years and 17 and

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18 years are not significant). 50 mts. dash and 600 mts. run/walk (except 14 and 15 years, 16 and 18 years and 17 and 18 years).

Conclusions

Within the limitations of the present study, the following conclusions may be drawn:

1. The school and college going students in the age group of 13 to 18 years significantly differ in various test items (pull-ups, bent knee sit-ups, standing broad jump, shuttle run, 50 mts. dash and 600 mts. run/walk) of AAHPER Youth Fitness Test.

2. The paired mean differences (inter-age differences) in pull-ups, bent knee sit-ups (except the paired mean comparison of 17 and 18 years) were statistically significant, thus indicating that with increase in age from 13 to 18 years there is a gradual increase in performance in both these variables.

3. In respect of standing broad jump, the inter-age comparisons of paired means were statistically significant except the paired mean comparisons of 17 to 18 years. Explosive strength of legs for covering horizontal distance gradually increases with increase in age.
4. Performance in shuttle run gradually improves with increase in age, however, differences in paired means of 13 and 14 years, 13 and 15 years, 14 and 15 years, 16 and 17 years, 16 and 18 years and 17 and 18 years are statistically not significant.

5. In respect of 600 mts. run/walk, except for 14 and 15 years, 16 and 18 years and 17 and 18 years, in the remaining inter-age comparisons significant differences exist. Performance in this variable does not increase progressively with increase in age.

6. The grading scales namely Percentile Scale, Hull Scale and T-scale can be effectively used by the teachers of physical education and coaches in evaluating the physical fitness performance of boys in various items of AAHPER Youth Fitness Test.

7. It is a common knowledge that with increase in age and also as a result of participation in improved physical education programme, there is a possibility of an increase in the performance of boys in items of AAHPER Youth Fitness Test. The Hull and T-scales prepared by the scholar can be very conveniently used for grading higher performances expected in future.
Recommendations

In the light of the findings of the present study the following recommendations are made:

1. It is suggested that the norms prepared in this study be adopted by the State Education Department of Andhra Pradesh to evaluate the physical fitness of male students in the age group of 13 through 18 years.

2. The teachers of physical education and coaches may utilise the findings of this study in developing programmes of training and also while selecting potential sportsmen for participation at different levels of competitions and also for sports hostels.

3. Similar study may be carried out to construct norms for girls of the same age groups.

4. Research studies may be taken to construct similar norms for the boys of the other age groups.

5. On the basis of the prepared norms for various age groups the fitness level of the students of different regions of the country may be compared.
6. It is also recommended that a regular and effective physical education programme should be introduced in all the schools throughout India as part of physical education and sports.

7. It is further recommended that a research cell may be opened in the field of physical education in the Directorate of Andhra Pradesh to study the physical fitness of students each year so as to revise the norms when the physical fitness level improves.

8. Similar research may be carried out to construct norms for physical education professional students, special groups like Armed Forces (Army, Navy and Air Force), Police, Civil Service employees etc.

9. Similar norms may be prepared separately for the male and female students belonging to rural and urban areas.