CHAPTER V

SUMMARY, CONCLUSION & RECOMMENDATIONS
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Sports persons are considered to be unofficial ambassadors of a country because sports is the best language understood by the world. Sports promote universal brotherhood and oneness of the world. Even the children learn much more through this sports than the academic curriculum. Electronic media is also promoting such a vehemence for sports. "No news is good news: the sports news provide us with an escape. We can exploit the performance of finely trained athletes as they strive to come out on top or to push back the barriers of achievements a little further."

The first and foremost need of the physical education departments and sports authority of India is to improve the standards of sports persons of our country for which physiological standard of each such person should be known. So that they can be trained to raise to the required international standards.

The aim of the present study was to find out physical and physiological profiles of male subjects with different aerobic capacities. The present study was delimited to the Undergraduate male students of Sri Sai Baba National Degree College of Anantapur A.P on the basis of Cooper’s 9 mts. Run/walk test performance, The subjects were randomly selected i.e., 40 subjects were selected from the upper 30th percentile for high aerobic capacity group and 40 subjects were selected

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1 Norman Barrett, great movements in sports (Great Britain: Purnell and sons ltd, 1982)
from the lower 30\(^{th}\) percentile for low aerobic capacity group among 200 subjects tested. Their age ranges from 18 to 22 years.

The following physiological, clinical and physical parameters were selected for the purpose of the present investigation.

A. Physiological Variables
   i) Resting Cardiac rate
   ii) Resting respiratory rate
   iii) Vital capacity of lungs
   iv) Resting blood pressure(Systolic and Diostolic)

B. Clinical Parameters
   i) Haemoglobin content
   ii) RBC and WBC count

C. Physical Variables
   i) Body composition
      a) Body fat percentage
      b) Lean body mass
      c) Total body weight

Before collection of data the significance of the study was informed to all the subjects for their maximum co-operation. The data on resting blood pressure(Systolic and Diastolic Blood pressure, resting heart rate, resting respiratory rate, percentage of body fat by estimating
the skin fold thickness through skin fold caliper were collected early in
the morning between 6 to 7 am in the phy. Education department of the
College. The tests for Haemoglobin content, RBC and WBC count and
measurements of vital capacity and total body weight were collected at
2.30 pm of the same department of the college following the procedures
explained in the III chapter.

To analyze the data of above parameters the mean and standard
deviations and mean difference(t-ratio) method was used to compare the
high aerobic capacity group and low aerobic capacity group. The level
of confidence was set at 0.05 where \( t_{0.5(78)} = 2.02 \).

Analysis of data further revealed that the t-ratio compared
(between high and low aerobic capacity group) for the resting respiratory
rate, vital capacity, resting systolic blood pressure, resting diastolic blood
pressure, WBC count, Percentage of Body fat, lean body mass, total body
weight had values much lower (0.88, 1.36, 0.52, 0.15, 1.21, 0.55, 0.80, 0.92)
than the values of 2.02 (table value) required for the t-ratio to be
significant at 0.05 level i.e., these variables are insignificant where as
the values of resting cardiac rate, haemoglobin content and RBC count
had values higher (2.20, 2.03, 2.48) than the required table value 2.02 or thus significant.

CONCLUSIONS

With in the limitations identified and on the basis of the results of the present study the following conclusions were drawn.

- The resting heart rate in high aerobic capacity group was found quite less than in the low aerobic capacity group
- The respiratory rate in high aerobic capacity was found less than in the low aerobic capacity group
- The vital capacity in high aerobic capacity group was found more than in the low aerobic capacity group
- The resting systolic and diastolic blood pressures in high aerobic capacity groups was found slightly lower than in the low aerobic capacity group
- The haemoglobin content in high aerobic capacity group was found more than in the low aerobic capacity group
- The RBC count in high aerobic capacity group was found more than in the low aerobic capacity group
The percentage of body fat and total body weight in high aerobic capacity group were found less than in the low aerobic capacity group.

The lean body mass in high aerobic capacity was found more than in the low aerobic capacity group.

**RECOMMENDATIONS**

In the light of the conclusions drawn the following recommendations are made.

- The haemoglobin content of blood, resting heart rate and vital capacity can be used as a tool for the detection of high aerobic capacity group.

- A similar study may be conducted on the subjects of different age groups of both the sexes.

- A similar study may be conducted on south Indian population to compare them with that of subjects from North Indian states.

- A similar study may be conducted on subjects of Universities in draught prone areas to compare them with that of the subjects of Universities in coastal areas to observe the effect of Iodine and Other micro nutrients on their aerobic capacities.
❖ A similar study may be conducted to obtain the physiological profiles of Indian athletes of National and International level.

❖ It is also recommended that a similar study may be undertaken using parameters other than those employed in this study expanding the horizons of knowledge in the physiology of physical Education.