Chapter V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

Various field positions in a team game like soccer demands differential anthropometrical, aerobic, anaerobic and haematological variables of the players. Now a days sports science is very much interested in estimating the optimum anthropometrical, aerobic, anaerobic and haematological characteristics make up of players which are most suitable for the particular positioning which she is playing, so that scanning and selection of a particular player can be best judged scientifically.

The purpose of the study was to establish the relationship of anthropometrical measurements, aerobic, anaerobic and selected haematological variables of West Bengal women soccer players among goalkeepers, midfielders, forwards and defenders in soccer.

Seventy two soccer players who participated in various West Bengal State Football Tournaments for the year 2004-2006 were selected according to their position in game during competition. The age level of the subjects ranged from 18-25 years. Out of these 72 subjects, the group of goalkeepers, midfielders, forwards and defenders consisted of eighteen players respectively.

The anthropometric variables for the study were height, weight, leg length and thigh length. The selected haematological variables consisted of haemoglobin content, R.B.C. count and the W.B.C. count.
The criterion for height was measured by stadiometer in centimetre, weight was measured by weighing machine in kilogram, and while both leg length and thigh length was measured by steel measuring tape in centimetre. Aerobic fitness was tested by Cooper’s 12-minute run/walk test and recorded in meter. Anaerobic fitness was taken by conducting 50-metre dash test and recorded in seconds.

Haemoglobin content was measured in gm/100 ml. of blood. Chitra Brucha’s method was adopted to count the R.B.C. and W.B.C. count.

In order to ascertain significant differences among the different field position of women soccer players in various anthropometrical, aerobic, anaerobic and selected haematological characteristics One-Way Analysis of Variance (ANOVA) was employed. The level of significance was set at .05 level.

In case of anthropometric measurements, height of the women soccer players, F-ratio was 25.92, weight 83.23, leg length 19.74, thigh length 8.08, which was significant at .05 level (2.74).

In case of aerobic variable F-ratio were 89.54; anaerobic variable was 43.72, which was also significant at .05 level (2.74).

In selected haematological variable, haematological content F-ratio was 34.29 and R.B.C. count was 24.98, which was significant, whereas in case of W.B.C. count F-ratio was 1.85, which was not significant at .05 level (2.74).

**Conclusions**

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

1. There was significant difference between goalkeepers and midfielders, forwards and defenders in anthropometric measurements, viz., height, weight, leg length and thigh length.
2. In case of aerobic capacity between goalkeepers, defenders, midfielders and forwards there was significant differences.
3. Anaerobic capacity showed significant differences among different positions of women soccer players.
4. Except in W.B.C. counts, there were significant differences in haemoglobin and R.B.C. count between goalkeepers, defenders, midfielders and forwards.
5. It has been concluded that goalkeepers had better anthropometric characteristics in comparison to defenders, midfielders and defenders of women soccer players.
6. Midfielders had better efficiency in case of aerobic capacity in comparison to other women soccer players in different positions viz., goalkeepers, defenders and forwards.
7. In anaerobic capacity forward women soccer players showed better efficiency than goalkeepers, defenders and midfielders.
8. Midfielders had better haemoglobin and R.B.C. count.

**Recommendations**

In the light of the conclusions drawn from the findings of the study the following recommendations are made :-

1. There was no significant difference of W.B.C. count of different women soccer position players. So it is recommended that in modern soccer there is due importance of anthropometric, aerobic, anaerobic and haematological variables as per the position of players.
2. Similar study may be replicated on different subjects of different age and sex.
3. Research may be done on different levels of football players (Inter-State, National and International levels).
4. Identical research work may be pursued taking other anthropometric, aerobic, anaerobic and haematological variables.

5. Further studies may be done on other team games and individual games.