CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY

The game of Volleyball like any other team court sports are characterised by intermittent activities, in which intensive efforts are carried out over short time periods that alternate with periods of low intensity. This intermittent feature requires the use of all three energy systems (aerobic, lactic anaerobic and alactic anaerobic) to meet the players’ metabolic demands. Moreover, these sports have complex demands that require a combination of individual skills, teamwork, technique, tactics and strategies, which contribute to the physical conditions of the players as well as the dynamic nature of team court sports, in general (Stone and Kilding, 2009).

Netball is a fast, exciting, true team sport which involves running, jumping, throwing and catching. Netball is similar to basketball although the rules, equipment and team numbers are slightly different: no dribbling; no running with the ball; 7 players per team; ball must be passed in 3 seconds; ball and basket are slightly smaller; there is no backboard; players are designated to certain areas of the court.

The characteristics of volleyball and netball including speed, jumping for scores at high intensities over a short period of time result in fast and agile athletes who possess a high level of muscular strength and aerobic fitness (Gabbett et al., 2008). While team court sports have been widely researched, no studies have been conducted comparing data from volleyball players and net ball players on selected anthropometric, physical fitness and physiological variables.
Anthropometric information would have vast studious assessment in the identification of sport talents in overhead games such as Netball and Volleyball. In volleyball, teams compete by manipulating skills of spiking and blocking high above the head. In the same way netball among a group of teammates and opponents and score goals in a hoop located above the head. Since both games require handling the ball above the head, anthropometric measurements, such as height, leg length, arm length etcetera are considered to be the most important physical attribute. Some authors have suggested the height as an important condition of sports talent in such events that require height and the presence of tall players is an indispensable element in success as a team. In this study, comparisons on anthropometric, physical fitness and physiological variables of netball and volleyball players were attempted.

The purpose of the study was to make a comparative study of anthropometric, physical fitness and physiological variables of netball and volleyball players. The present study was confined to the randomly selected 150 netball players consisting of 75 men and 75 women and 150 volleyball players consisting of 75 men and 75 women from different colleges of Kerala State located at various places in the University of Kerala Region. The age group of the subjects were between 18-25 years with standard deviation $\pm 2.15$. The colleges were located at various places at university of Kerala. All the subjects were oriented with regard to the purpose of the study, the benefits, significance of the study, test procedures and all the subjects volunteered to participate in this research. The research scholar reviewed research articles, journals on selected physical fitness and mental fitness components. Taking into the consideration the importance, feasibility, criteria, availability of instruments and the relevance of the variable of the variables such as height, weight, leg length, arm length, percent body fat, body mass index, speed, abdominal strength, agility, arm and shoulder
strength, explosive power, endurance, vital capacity, systolic blood pressure, diastolic blood pressure, resting pulse rate, breath holding time and hemoglobin were selected.

This research adapted “Comparative Research” method to compare anthropometric, physical fitness and physiological variables of netball and volleyball players. Comparative research aims comparing two or more groups of subjects with a view to discovering something about one or all of the things being compared. In this study, men and women netball players and volleyball players of anthropometric, physical fitness and physiological variables were compared. Data on anthropometric variables, physical fitness variables, and physiological variables were collected by administering standard tests.

5.1.1 LEVEL OF SIGNIFICANCE

The subjects were compared on the differences among anthropometric, physical fitness and physiological variables between netball and volleyball players. Analysis of variance (ANOVA) was used to find out the significant difference if any among four selected groups. If significant F was obtained the results were further subjected to post hoc analysis to compare pairs of means. In all the cases, 0.05 level of confidence was fixed to test the significance, which was considered as appropriate. The collected data were statistically analysed using ‘t’ test to compare two groups, that is, netball and volleyball players. In all cases 0.05 level was fixed to test the hypothesis of this study.

The findings of the study proved that there were significant differences between men and women netball and volleyball players on selected anthropometric, physical fitness and physiological variables.
5.2 CONCLUSIONS

Within the limitations and delimitations of the study, the following conclusions were drawn.

1. It was concluded that there was significant differences on anthropometric variables height, weight, leg length, arm length, percent body fat and upper arm girth among men and women netball and volleyball players. And there was no significant differences on body mass index and upper arm girth of the men and women netball and volleyball players.

2. It was concluded that there was no significant differences between netball players and volleyball players consisting of both men and women players, there was no significant differences on height, weight, leg length, arm length, percent body fat, body mass index and thigh girth. As for upper arm girth, it was found that netball players was greater than volleyball players.

3. It was concluded that there was significant difference on physical fitness variables speed, abdominal strength, agility, explosive power, arm and shoulder strength and endurance among men and women netball and volleyball players

4. It was concluded that there was no significant difference between netball and volleyball players on abdominal strength, explosive power, and arm and shoulder strength. However netball players were found to be better on speed and endurance than volleyball players and volleyball players were better than netball players in agility.
5. It was concluded that there was significant difference on physiological variables, vital capacity, diastolic blood pressure, resting heart rate, and hemoglobin among men and women netball and volleyball players. However there was no significant differences on systolic blood pressure and hemoglobin among men and women netball and volleyball players.

6. It was concluded that there was significant difference between netball and volleyball players consisting of both men and women players on systolic blood pressure, resting heart rate and hemoglobin. And there was no significant difference between netball and volleyball players on vital capacity, diastolic blood pressure and breath holding time.

5.3 RECOMMENDATIONS

1. The findings of this study proved that there was difference among men and women netball and volleyball players on selected anthropometric variables, in view of these findings, it was recommended that these findings may be taken into consideration while selecting players by physical education teachers, sports managers and coaches.

2. The findings of this study proved that there was difference among men and women netball and volleyball players on selected physical fitness variables, in view of these findings, it was recommended that these findings may be taken into consideration while selecting players by physical education teachers, sports managers and coaches.

3. The findings of this study proved that there was difference among men and women netball and volleyball players on selected physical physiological variables, in view of
these findings, it was recommended that these findings may be taken into consideration while selecting players by physical education teachers, sports managers and coaches.

4.

5. It was recommended that coaches and sports administrators take adequate steps to give more importance for anthropometric, physical fitness and physiological variables of netball and volleyball players which in turn would help them for all round development in their sports and healthful lifestyles.

5.4 SUGGESTIONS FOR FURTHER RESEARCH

During the course of this study, the investigator came across a number of ideas and suggestions that would be taken up in future researches. Based on the experience gained, the following suggestions are made for further research.

1. Researches may be conducted on psychological preparations at different levels of netball and volleyball players.

2. Researches may be conducted to find out the association between anthropometric, physical fitness and physiological variables with the playing ability of netball and volleyball players.

3. A similar research may be undertaken among different levels of players comparing different sports and games.
4. A research may be undertaken to find out the differences among different athletes, like, jumpers, namely, long jumpers, high jumpers and hurdlers.

5. A study among different levels of players may be conducted to predict their winning performance from the selected variables of this study and its association with selected psychological variables.

6. A similar study incorporating the skills of the players along with psychological variables may be conducted.