CHAPTER - V
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The concept of man as a total being, has its origin in the golden days of the Greeks. As the society became more structured and civilized, physical activity became inevitable and more and more people started taking up sports and games. Movements such as walking, running, jumping, throwing, turning and twisting have acquired unique dimensions and have a different significance in sports and games. Sportspersons strive to leave a mark behind them, by producing outstanding performances in their respective sports discipline.

The level of performance in sports is dependent on various factors, such as physical, physiological, psychological, technical, tactical and nutritional and possession of appropriate physique. Every factor has its role to play and harmonious blend of these factors in certain ratio enhances the performance. The prerequisite for a top class performance is different for different sports disciplines. Motor abilities play a dominant role in the process of building up top performance. Experts have identified that speed, strength, endurance, agility, flexibility, coordination and balance are the components, which are innate and can be developed, which in turn will influence the performance. The requirement of these factors differs from one sports discipline to another.

Agility is one of the components of motor ability, which is being gradually replaced by the term coordinative ability, which is a performance determinant in sports. Coordinative abilities are primarily dependent on the control and regulation process of the central nervous system. The quality, accuracy, rhythm and coordinated technical movements are primarily
dependent on coordinative ability. A player can excel if both motor and coordinative abilities are developed to the core.

Kabaddi is an indigenous game and is popular throughout the breadth length of the country. It has been included in the Asian games from 1990 and recent World cup held in Bombay during October 2004 is the testimony to the popularity of the game in Asia and the world over. Kabaddi is a body contact game played between two teams of seven players, which call for acme of strength, speed, endurance, agility, flexibility, coordination, and balance. The players of the defensive side make effort to hold the raider individually or collectively and also escapes from being touched by him. On the contrary, raider attempts to touch the defensive players by extending his limbs to score a point and make effort to escape from the holds of defense players.

The purpose of this study was to find out the relationship of motor ability variables with the game performance in Kabaddi, dominating motor abilities that are required to play Kabaddi and to compare the significance of motor abilities according to positional play of defensive and offensive junior national male Kabaddi players.

To achieve this purpose, data were collected from one hundred junior national male Kabaddi players from Tamil Nadu, Karnataka, Andhra Pradesh, Pondicherry and Kerala. Following tests were administered and the data was collected. Push Up (Muscular Endurance of Arms); Bent Knee Sit Up (Muscular Endurance of Abdomen); Two Hand Medicine Ball Put (Explosive Power of Arms); Five Double Leg Bounds (Explosive Power of Legs); 30 meter run (Running Speed); 20 Meter Multi Stage Shuttle Run (20-MST) (Cardio Respiratory Endurance); Side Splits (Stretch ability of legs); Trunk Twist (Extent Flexibility of Trunk and Shoulder); SEMO Agility (Agility); Modified Bass Test of Dynamic Balance (Dynamic Balance); Backward Ball
Throw (Kinesthetic Differentiation ability of Upper Limbs); Numbered Medicine Ball (Space Orientation); Ball Reaction Exercise (Complex Reaction); Distance Perception Jump (Kinesthetic Perception of Lower limbs).

Three expert coaches rated the performance of each player while they participated in competition on a 10 point rating scale. The aggregate score of the experts was the performance rating of players.

To find out the mean difference of the variables among defensive and offensive junior national level Kabaddi players, ‘t’ value was calculated. Product movement correlation was applied, to find out the relationship between the selected motor ability variables with performance of junior national level Kabaddi players. Multiple regression and Step-wise regression was computed to find out the predictors of performance in Kabaddi.

**CONCLUSIONS**

On the basis of the study the following conclusions were drawn.

1. There is no significant mean difference in the selected motor ability variables among the defensive and offensive Kabaddi players.

2. Significant correlation was found between the selected motor ability variables of muscular endurance of arms, muscular endurance of abdomen, explosive power of arms, explosive power of legs, running speed, stretch ability of the legs, agility, dynamic balance, kinesthetic differentiation ability of upper limbs, space orientation ability, complex reaction ability and kinesthetic differentiation ability of lower limbs with performance rating in Kabaddi.

3. Significant correlation was not found between the selected motor ability variables, of cardio respiratory endurance and extent flexibility of trunk and shoulder with performance rating in Kabaddi.

4. The estimated multiple regression equation of the performance rating in Kabaddi (Y) on the study variables was given by:
\[ \hat{Y} = 4.669 + 0.06606X_1 + 0.04624X_2 + 0.568X_3 + 0.363X_4 + 0.450X_5 - 0.01060X_6 - 0.01443X_7 - 0.05433X_8 - 0.348X_9 + 0.01228X_{10} + 0.03995X_{11} - 0.203X_{12} - 0.0247X_{13} - 0.02577X_{14} \]

5. The dominant predictors of the performance rating in Kabaddi were Push Up (\(X_1\)), Five Double Leg Bounds (\(X_4\)) Ball Reaction Exercise (\(X_{13}\)), Two Hand Medicine Ball Put (\(X_3\)), Bent Knee Sit Up (\(X_2\)), Trunk Twist (\(X_8\)), Backward Ball Throw (\(X_{11}\)) and the estimated multiple regression of performance rating in Kabaddi on the study variables:

\[ \hat{Y} = -0.219 + 0.68X_1 + 0.373X_4 - 0.028X_{13} + 0.620X_3 + 0.049X_2 - 0.032X_8 + 0.057X_{11}. \]

RECOMMENDATIONS

1. A study may be undertaken to probe the reason for dominance of extent ability of trunk and shoulder flexibility in spite of low correlation obtained in the present study.

2. Studies of similar nature may be conducted on other sports disciplines and the results may be compared with the results of the present study.

3. Similar studies may be conducted by taking sub junior boys and girls, senior males and females and junior girls.

4. The investigator has studied only five motor abilities and four coordinative abilities. It is recommended that other important performance abilities also be probed, for the optimum utilization in the process of sports training.

5. It is recommended that similar type of study may be conducted on other sports disciplines at different levels.

6. It is suggested that investigation be conducted to find out the requirement of optimum percentage of various motor abilities and coordinative abilities in different sports disciplines.
7. Studies may be undertaken, to compare the development of motor abilities and coordinative abilities among boys and girls and men and women, who take part in different sports disciplines at different levels.

8. Investigations may be carried out among children who are not taking part in regular physical training and to prepare norms to identify their talent.

9. It is suggested to investigate the sensitive periods among Indian children, which will help to develop optimum degree of motor and coordinative abilities in respective age periods, to succeed in higher level of competitions.

10. Investigation may be carried out on the effects of specific training, on the development of various motor abilities and coordinative abilities.

11. For training for excellence in different sports disciplines investigation may be taken upon, non-skilled, low skilled and highly skilled sports persons.

12. It is suggested to construct suitable motor and coordinative ability norms for different levels of sports persons in different sports disciplines.

13. It is suggested to construct suitable battery of specific tests of motor ability and coordinative ability for Kabaddi and formulate regression equation.

14. The reasons for dominance of few motor abilities and coordinative abilities in Kabaddi need further investigation.