CHAPTER V

SUMMARY CONCLUSION AND RECOMMENDATIONS

SUMMARY

All over the world many new research studies have been done for field hockey game and its improvement. The game hockey involves many stance position and motor fitness, like all the field games. In hockey training is being given separately for goalkeepers, forwards, midfielders and defenders. In motor fitness components, the one which directly stimulates the central nervous system (CNS) is balance. Human beings are dependent on balance and without balance, nothing can complete in our life both physically and emotionally. So I focused on balance in sports performance. Balance is a highly integrated dynamic process involving multiple neurological pathways and also balance is improved through proprioceptive feedback.

We feel our body balance through a different sense. Thus proprioception metaphorically is called the “sixth sense” extending the classical five senses to include the body. This body sense is more than just a feeling of movement however. It is intimately tied to our feeling of muscles perceptions of effort and of balance specialized nerve endings originate in our muscles, fascia, tendons, ligaments, joints and some scientists even include the skin. These “afferent” receptors perceive deformation of tissue – the amount of pressure speed at which movement is occurring and the rate of which the speed is changing (velocity), the direction of movement.

Massive proprioceptive input from sensory nerves embedded in muscles and joints enters from spinal cord and is carried towards sub cortical and cortical parts of the brain. Many neural pathways synapse at various levels of the nervous system, integrating all this information to provide us with both a conscious and non-conscious sense of where we are and how is moving.
This research was aimed at analyzing the effect of proprioceptive training on select motor fitness and skill performance variables of men field hockey players. The purpose was to assess whether this proprioceptive training has given the superior effect on the motor fitness and skill variables of hockey players.

Fifty nine (59) boys are randomly selected from Pondicherry. The study is formulated as random group design. They were categorized into trained players and novice players of thirty players each. Again trained players randomly divided into two groups namely experimental group I and control group I of 15 each, similarly novice players divided into two groups namely experimental group II and Control group II of 15 each. The experimental group I and II underwent 12 weeks training programme. The selected parameters were tested before and after the training programme. To test the significance difference between the pre test and post for groups, descriptive statistics and paired sample ‘t’ test and independent ‘t’ test were applied after the experimental groups players had undergone the proprioceptive training.

CONCLUSIONS

1. The statistical significant difference exists between pre and post test scores of speed for experimental group is due to the proprioceptive training for both trained and novice players. For concerning with control group, there is no statistical significant difference between pre and post test scores.

   For novice players, the experimental and control group was not shown significant difference on the performance of speed. So the proprioceptive training did not influence the performance of speed for novice players.

2. The statistical significant difference exists between pre and post test scores of agility for experimental group is due to the proprioceptive training for both trained and novice players. For concerning with control group, there is no statistical significant difference between pre and post test scores.
For novice players, the experimental and control group was not shown significant difference. So the proprioceptive training does not influence the performance of agility for novice players.

3. The statistical significant difference exists between pre and post test scores of explosive power for experimental group is due to the proprioceptive training for trained players not in novice players. For concerning with control group, there is no statistical significance difference between pre and post test scores.

4. The statistical significant difference exists between pre and post test scores of muscular strength for experimental group is due to the proprioceptive training for trained players not in novice players. For concerning with control group, there is no statistical significance difference between pre and post test scores.

For novice players, the experimental group and control group were not shown significant difference. So the proprioceptive training did not influence the performance of muscular strength for novice players.

5. The statistical significant difference exists between pre and post test scores of reaction time for experimental group is due to the proprioceptive training for both trained and novice players. For concerning with control group, there is no statistical significant difference between pre and post test scores.

For novice players, the experimental group and control group were not shown significant difference. So the proprioceptive training did not influence the performance of reaction time for novice players.

6. The statistical significant difference exists between pre and post test scores of flexibility for experimental group is due to the proprioceptive training for both trained and novice players. For concerning with control group, there is no statistical significant difference between pre and post test scores.

For trained players, the experimental group and control group were not shown significant difference. So the proprioceptive training does not influence the performance of flexibility for trained players.
7. The statistical significant difference exists between pre and post test scores of static balance for experimental group is due to the proprioceptive training for trained players not in novice players. For concerning with control group, there is no statistical significant difference between pre and post test scores.

8. The statistical significant difference exists between pre and post test scores of dynamic balance for experimental group is due to the proprioceptive training for both trained and novice players. For concerning with control group, there is no statistical significant difference between pre and post test scores.

9. The statistical significant difference exists between pre and post test scores of accuracy hitting for experimental group due to the proprioceptive training for trained players not in novice players. For concerning with control group, there is no statistical significant difference between pre and post test scores. The experimental group and control group significantly differed on the performance of accuracy hitting for trained players.

For novice players, the experimental group and control group not significantly differed. So the proprioceptive training does not influence the performance of accuracy hitting for novice players.

10. The statistical significant difference exists between pre and post test scores of ball with speed for experimental group is due to the proprioceptive training for both trained and novice players. For concerning with control group, there is no statistical significance difference between pre and post test scores.

11. The statistical significant difference exists between pre and post test scores of receiving, ball control, driving the ball for experimental group is due to the proprioceptive training for both trained and novice players. For concerning with control group, there is no statistical significance difference between pre and post test scores. The difference is attributed to the proprioceptive training. The experimental group and control group was not shown significant difference on the performance of receiving, ball control, driving the ball for both trained and novice
players. It shows that proprioceptive training did not influenced the performance of receiving, ball control, driving the ball.

For trained players, the significant difference exists motor fitness variables and the particular skills improved through proprioceptive training for trained players, where as in the mean gain of explosive power and flexibility were not improved.

**RECOMMENDATION**

1. The same study will be conducted for female students.

2. This study could be more effective by using Standard Bio-dex Balance Board.

3. This Balance training program can be applied in all sports for improving some specific skills.

4. This research can also be applied to some perception analysis with psychological variables in sports field.

5. This training is not advised for below 13 years students.