Chapter V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

In this chapter the summary of the study consisting of the design, analysis, interpretation and discussion of findings, the subsequent conclusions drawn on the basis of the findings and the recommendations are presented.

SUMMARY

With the development of modern civilization, the evolutionary forms of physical activities have taken the shape of free hand exercises, games and sports and other forms of recreational activities. Such forms of activities are aimed at promotion of physical and functional fitness of the organism to retain the evolutionary form of the body. The other form of such physical activity shaped into skill oriented games and sports leading to competitions in which individuals and groups of individuals forming into a team vied for laurels. As a result of immense popularity of such sporting competitions, individuals, governments, business establishments evinced interest in them to meet their own means. As a result billions of dollars worth of investments are made and revenues are accrued.
Subsequently, focus has been diverted from the routine training methodology to improve the physical and physiological efficiency to psychological and autogenic intervention. Many efforts are made to develop effective chemical substances and hormone supplements that enhance the performance levels.

Many of the sportingly advanced countries like United States of America and Russia have been providing the services of hypnotists to their teams at all major national and international competitions like Olympics, World Championships, Continental championships and other major events since 1950s. However, such knowledge is not made available to the developing countries which continue to toil with the age old training methodology and mostly remained stagnant in terms of progress and development in sporting performances.

Hypnosis is not a new invention – but is age old practice not only in India but all over the world. It was referred as “VASEEKARAN VIDYA” in Vedas and Upanishads and it constituted a part of the 64 arts that the royals are expected to master to be a good and efficient ruler. Similarly, hypnosis is known from the times of Hippocrates of Greece from the 5th century B.C. under the name somnambulism.

Modern hypnosis became popular from the 17th century mostly as a curative means. It was also popular as magic demonstrated widely in theaters and in the road shows. It was also used in sorcery and black
magic. However, from the middle of the nineteenth century it became a popular tool in bringing cures to physical and mental illnesses. It has become very popular with the experiments of psychoanalysis of Freud. Then onwards people started applying the techniques of hypnosis to find solutions to many problems.

In light of the preceding, the present work has been taken up to investigate the effects of hypnotic suggestion on selected physical and physiological variables. For the purpose of the study, maximum strength (Back Leg dynamometer), leg back flexibility (Wells Sit and Reach Test) and muscular endurance (bench press to exhaustion) are identified as the physical variables; while pulse rate, blood pressure, respiratory rate and the vital capacity constituted the physiological variables. The project was designed to test the subjects under three conditions, namely, pre-hypnotic motivation, hypnotic trance and the posthypnotic stressed conditions.

55 volunteer subjects were registered from among the inmates of the University Campus for the purpose of the study with the intention of retaining 50 subjects for the purpose of the study as desired by the research development Committee. The additional five subjects are taken keeping the possibility of drop outs and elimination of those who resist hypnotic trance. The subjects were the most faithful students of the investigator.

On selection, all the subjects were introduced to the activities and the apparatus intended to be used as part of testing. On the first day of testing,
the investigator delivered an elaborate lecture involving the salient features of good sports performance thus, motivating them to do their best in the tests. Then the subjects tested on an orderly form at 8 stations specially erected for the purpose. The subjects were given hand outs containing the material on self actualization and they were asked to read thoroughly and understand before they return on the third day for testing under hypnotic trance.

The subjects were hypnotized and the scores were collected on the designated day. Again three days later, the subjects were tested after apprising them of their earlier performances and suggesting not compromising for any lesser performance. Thus, the test scores were collected under stressed conditions.

The date so collected as above, was subjected to statistical treatment by applying ANOVA to determine the differences, if any, among the variables. On achieving the ANOVA values, Post Hoc test has been applied to identify the variables that are responsible in effecting the significant differences from among the treatment variables.

The results have shown that the hypnotic trance proved to be an effective means in bringing out the best performance potentials of the subjects in the above listed physical variables. Besides, Pre-hypnotic motivation and Post hypnotic stress conditions also elicited positive results in the performance of physical variable. However, the three experimental
conditions were found not effective to bring in any significant differences on physiological variables like pulse rate, systolic blood pressure and diastolic blood pressure and the vital capacity. At the same time the treatment variables have effected significant differences in case of other selected physiological variables, namely, respiratory rate and the breath holding time.

Basing on the above investigation and the resultant analysis leading to findings, it is concluded that the three experimental conditions, namely, pre-hypnotic motivation, hypnotic trance and the posthypnotic stressed conditions are useful in enhancing the performance levels in the selected three physical variables involving maximum strength, leg back flexibility and the muscular endurance. The same also may be helpful in regulating the breathing related variables like breath holding time and respiratory rate. However such treatment was found to be ineffective to effect any significant changes on variables associated with the functioning of the heart and lungs like pulse rate, blood pressure and the vital capacity.

In light of the above findings the following conclusions were drawn.
CONCLUSIONS

Basing on the analysis, interpretation and discussion of findings, of the present study, the following conclusions are drawn:

The analysis of data collected by conducting tests in selected physical (Maximum Strength, Lower back and Leg Flexibility and Muscular Endurance) and physiological variables (Blood Pressure, Breath Holding Time, Pulse rate, Respiratory rate and the Vital capacity) under conditions of three hypnotic states, namely, pre-hypnotic motivation, hypnotic trance and posthypnotic stressed conditions lead to drawing of the following conclusions.

1. Hypnosis and the hypnotic trance infused positive impact on performance enhancement on tasks involving physical variables such as maximum strength, lower back leg flexibility and the muscular endurance. Hypnotic trance proved to be effective mode to enhance performances in such events where the above listed physical variables have a bearing.

2. At the same time posthypnotic stressed condition has also proved its potential in positively influencing the performances on flexibility and muscular endurance.
3. Whereas, the pre-hypnotic motivated condition has also produced a significant result on flexibility test justifying the role of motivation on physical performance.

4. The subjects (sportspersons) under hypnotic trance are very much focused on specific task on their hands and performed the task to the point of disability and total exhaustion.

5. Pre-hypnotic motivation in the form of pep talk highlighting the success oriented psychological factors and removal of complexities such as fear, self doubt and confused state of focusing ability before the actual testing brought in positive behavioural modifications associated with physical performance.

6. Hypnotic trance also generated significant differences among the physiological variables like breath holding time and the respiratory rate.

7. However, the same failed to generate any significant difference in case of pulse rate, blood pressure and vital capacity. As such it may be interpreted that hypnosis and the trance do not bring in any modifications in the functioning of the circulatory system as well as the heart.
8. Besides, circulation of hand outs containing factual information and positive cues and suggestions before hand of actual process, help in mentally preparing the subjects to hypnotization.

9. Repetition of suggestions at all the stations of testing boosted the trance levels and helped in retaining the subject in such condition through out the testing process.

10. All the above three states of hypnotic conditions have a bearing on accruing positive behavioural changes in the mode of subjects’ physical performances at some magnitude at different levels.

11. On recovery from hypnotic trance, the subjects did not show any extraordinary tiredness compared to similar efforts under normal circumstances, as a result of their full blooded efforts during the testing.

This knowledge and its application - of various hypnotic techniques - in preparing the sportspersons for competitions would be helpful to the teachers of physical education, coaches and sports administrators, in bringing out the best performances – every time - matching the potentials of their wards.
RECOMMENDATIONS

In light of the content of the above project, the following recommendations are made for further pursuit of experiments in the area and follow up in the interest of enhancing the sports standards in the country by applying the relevant knowledge and practices.

1. Similar studies may be conducted to verify the results of the present study or on different variables or different states/conditions of hypnosis.

2. Specific areas may be identified for the purpose of specialised investigations in special cases.

3. Since the nature of hypnosis is to more individualistic and also the problems are specific to individuals, more and more case studies may be taken up to assess the effectiveness of hypnosis as a corrective as well as a mean of rehabilitation of sportspersons with emotional, behavioural and mental problems.

4. Serious thought may be given to provide the top level sportspersons and the teams of the country with the services of expert hypnotists as part of their preparation and participation at the actual events of competitions.
5. Such interaction between the sportspersons and the hypnotists concerned is to be established right from the beginning of the camps.

6. Similar to the way the research facilities, sports medicine facilities and other training oriented facilities are created permanent psychology labs manned by hypnotists may be created at the important training centres in different parts of the country. So that, the sportspersons suffering from monotony disinterest, lack of motivation towards training, locus control, self doubt, confidence and enthusiasm may readily approach and utilize such services of the available experts.

7. Training in hypnosis shall constitute a part and parcel of physical education teacher training and the coaches training. This may be incorporated along with the topics on sports psychology content and aimed at giving orientation to stimulate interest among the students and trainees - so that some of them may get seriously interested and specialise to man the future requirements. Demonstrations and guest lectures may be arranged at such level in general and at the national level in particular.

8. When one aspires to be at par with some one leading a particular field, we need to match their wits. That is how one can challenge the supremacy of the other. Therefore, due importance may be
given to focus on more sophisticated physical, physiological, mental and emotional training methods rather than sticking to age old knowledge and practices.

This is most essential in the interest of the sportspersons coaches, and to the nation as the country is spending crores of rupees to mould the country's sportspersons to into the world class performances.