Chapter 1

INTRODUCTION

Thriving of physical activity is a natural phenomenon and it is an urge of all living organism. This is an evolutionary inheritance to sustain the acquired physical form as a result of the lifestyle of such organism, besides being the means to acquire skills, organic growth, and to ensure the functional efficiency as a matter of survival.

However, with the advancement of civilization, the above ritual has paved way for varied forms of physical activities bringing in the skill component in maneuvering various apparatus and handling of equipment. The endeavor to demonstrate and prove the supremacy in terms of primitive skills and physical abilities has taken a new dimension in terms of sophisticated, skillful and efficient performances for the glory of individuals, countries, races, cultures and political ideologies. Sports have assumed the status as one of the most powerful human needs after food, shelter, sleep, clothing, education and vocation. Ascribed such eminence, sports arena has become the battle ground for the civilized world to demonstrate the supremacy of human endeavor, ably supported or associated with the desire for personal excellence, supremacy of ideologies and races. The field of sports provided means for launching the diplomatic relations between warring countries and countries with different political ideologies. One most significant event where sports played a very important role in transforming the world’s political scenario is the Henry Kissinger’s ping pong maneuvers in unfolding the bamboo curtain – an event - that has ultimately brought in world of changes in
the global politics. El Salvador, Honduras and Ecuador have fought a war on
the out come of a foot ball world cup qualifying match in sixties signifying as to
how sports can influence the patriotic sentiments of people from different
countries.

Ancient Olympics were held to signify, by identifying the personified
human valor in its ultimate form by way of sporting competitions under
specified rules and regulations. The victors at such competitions emerged as
heroes in the countries of their origin. Such individuals have enjoyed special
treatment both from the royalty and the commons.

In recent years, much emphasis has been placed on the need for
competition, the fact that life itself is competitive and we therefore need to
stimulate and encourage healthy competition. Athletes derive satisfaction
from the act of participating in a sports activity. This satisfaction sparks and
stimulates the competitive drive which tends to vary in terms of the individual
and/or the type of activity pursued. However, it must be recognized that the
competition and rivalry are not inherent tendencies but, rather, are learned
incentives peculiar to our type of society. Indeed, there are many societies
where in competition; we know it is in its various ramifications, is unknown or
undesirable.

Because of variations in human temperament, individual differences
permit some persons to become more competitive than others.¹

¹ Carl E.Klafs and Danail D.Aruhein, Modern Principles of Athletic Training
Today India does not stand high in the field of competitive sports. Though her participation in Olympics and various world cup tournaments are old enough to get experience to face the challenges, so far, India has failed repeatedly in the international tournaments, because of many reasons. Compared to this, the programmes of Physical Education, Games and Sports are more sophisticated and result oriented in many of the advanced countries.

Achievement in Games and Sports at various levels is no more the mere concern of the sportspersons involved. At world level countries are vying for the supremacy of their sportspersons in various world class competitions. Sports and Games arenas have become the patronised fields to demonstrate the supremacies of races ideologies and national prestige.

No efforts are being spared by the advanced countries in achieving this objective. World's leading countries in games and sports from both capitalist and communist blocks are sparing some of their top class scientists with varied specialisations to work as a team in formulating the training methodology in general and towards the individual aspects in particular. In the process, new innovations are being made and new concepts are drawn in this direction making what was thought once impossible a possibility. This unending quest to achieve yet higher levels of performances in games and sports led those, involved in the process, to tap the various possibilities in the areas of both pure sciences and social sciences.

One of the outcomes of these efforts is the emergence of psychology of sports and its role and application to enhance the sports performance. The principles of Psychology were applied to study the various aspects of sportspersons' behaviour, motivation, attitudes, aptitudes, aspirations,
analysis, theories and transfer of learning, body types and their associated aspects, visualization, imagery, mental practice, autosuggestion, self-hypnosis and the hypnosis.

Efforts were made to study the application of hypnosis and suggestion in remedying the psychological barriers and complexes in performances by suggestions in hypnotic trance. Further a number of investigations were made with mental practice as a means to achieve the positive state of mind at the time of practice and competitions.

Once a barrier is broken, either by actuality or in the imagery of hypnosis, then it is no longer conceived as impossible.²

Although many writers on hypnosis have stressed the important role played by the specific suggestions and their mode of presentation to the Human beings, with the highest development of intelligence and associated mental activities are the supreme of the evolutionary forms on this earth. Individuals perform differently in various physical and mental tasks as a result of their abilities as determined by the genes that created them.

Apart from the above fact, individuals score below par their abilities due to self doubt and attitude to give up (abandon) after putting a degree of their best efforts.

A deer does every thing beyond its normal proportions of strength, speed, endurance and the agility as it tries to save itself the chasing predator — that require a superlative effort — which would have been impossible under normal conditions. Similarly, human beings demonstrate great physical valor, greater mental activity and greatest commitment during periods of crises.

However, under normal circumstances, human being appear to quit or abandon a task by retiring at some point of effort due to laziness, lack of will to win, lack of self confidence, fighting against self.

"t is all because of the fact that the body and mind prefer to be lazy and relax all the time unless there is a real urge to be fulfilled. Such urge or situation shall be so strong to arouse action on the part of the human organism — which again is likely to be abandoned at sub-maximal levels of performance compromising with the feeble suggestions of the mind that the effort put in is enough for the time being or so far the effort that has been put in is the limit of one’s abilities, Normally human beings have a tendency to abandon a task half way or at some point of effort due to instinctual weakness of lethargy and preference for comforts. In the process, optimal of the potential performance never comes out. Such attitude forms the habit of quitting efforts with out taking the same to the threshold of original potentialities. As a result, individuals fail - on many occasions in their lives - to materialize from the opportunities and miss the chance of hoisting new horizons."3

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3 Warren, R. Johnson and George F. Kramer, "Effects of Different In other words, human beings after putting in certain amount of effort against a task (may be physical or mental) and abandon the same by Typed Hypnotic suggestions upon physical performance" Research Quarterly 31 (October 1960): p. 469-73.
Unrevealing of potential is a momentary occurrence which go waste when not utilized. As a result, individuals fail to material their ambitions and miss the real opportunities of unrevealing of their potential.

Modern Hypnosis is in use for more 150 years - especially in therapeutics as part of clinical psychology – in different forms. Practice of Hypnotism is universal and older than our history and civilization. Animals hypnotise their prey and most of the popular leaders of all times possess a magnetic personality that people are easily influenced and affected by them. They practice mass hypnotism.

Hypnosis is as old as evolutionary process. The predators use their magnetic or mesmeric power to over power their prey. All the great rulers, revolutionaries, gladiators and leaders, ethnic groups posses and exert the characteristics of magnetic power to attract and overpower their follows to remain loyal to themselves unto death. As a result, loyalists under the spell do not even hesitate to give their lives for the sake of their leaders. Hypnosis is said to be an art as well as a science.

The ancient scriptures recognised such magnetic power as part of the 64 arts (Kalas) that people shall learn. It was named as "VASIKARAN VIDYA". Numerous instances are mentioned in Mahabharata where hypnosis like trance was elicited by characters like Shakuni, Nahusha, and Krishna. It is evident that Krishna could successfully persuade Arjuna to over come his self doubt and timidity to fight at Kurukshetra war by adopting techniques similar to hypnotic trance.
The contents of Bhagwad Gita carries the suggestions of Krishna - aimed at Arjuna to fight the war leaving the consequences to 'Him' – many of which are similar to hypnotic suggestions and are similar to what is referred as Hypno Hallucination in modern hypnosis. Thus, hypnotism is, by all means ancient in content and concept and was successfully practiced by the people even during puranic periods.

Similarly, there are evidences in the works of ancient Greece. Greek physician Hippocrates (400-377 BC), called the father of medicine believed in Somnambulistic powers. Many great experimentalists, physicians and thinkers of later period held similar beliefs. The Italian physician Cardon (1501 – 1576) mentions a state of insensibility induced by a magnet. Paracelsus, a German physician and a alchemist demonstrated history of double magnetism to explain how the magnetic fluid from a healthy body attracted the weaker and deteriorated magnet of a unhealthy man. Other such experimentalists were Van Helmont, Burgraeve, Helinoticus, Father Kircher and Maxwell in the sixteenth and seventeenth century.4

Sigmund Freud, the great inventor of Psychoanalysis maintained that if Psychotherapy was ever to become widely available to the people, the use of hypnosis as a short cut procedure would be essential. 5

Friedrich Antan Mesmer has given a status name and a scientific footing in 1733 before the audience of the University of Vienna, Austria. The technique was named after him as mesmerism. Jesuit Father Hall, Marquis de Pusygur attracted the attention of the scientific world with the results of their experiments in achieving miraculous cures to diseases through their
techniques.

In America, Baron du Potet (magnetic mirror) Dr. James Braid of Manchester, Dr. Grimes in America, Dr. Burq of France, Dr. Charcot, Dr. Liebault, Dr. Liyus, Bernheim M Thorcot Sal Patrory (suggestive therapeutic) Dr. M.H. Erskon followed such practices making them acceptable in the scientific world. Some hypnotists hold a step further and opine that telepathy is possible through hypnotism.  

One need not be champion to use hypnosis. Any one can learn and perfect simple, self-hypnosis techniques for

- Mental imagery and future rehearsal of success (including effective techniques from areas like NLP)
- Focusing on success, strategy (how to get into the success zone when you need to)
- Overcoming mental blocks and barriers
- Reinforcing self-belief, motivation and positive thinking

The mind and the body are linked in the same way different parts of a computer are linked. Ones mind tells the body what movements to make and the body tells your mind what it is seeing, feeling etc.

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The mind is the most powerful computer in the world and it can help the body to achieve amazing things. It can help show the body how to make rockets and go into space but for the purposes of sporting excellence and achievement. It can help to be the best one possibly can be. Hypnosis and applied sport psychology can help in many ways.

Improved focus involving goal setting with confidence and motivation, mental imagery of goal achievement and the mental flow plays a very important role in realising goals.

Goal Setting does not just involve setting goals or outcomes within the sporting arena. It also involves setting goals in life. It may be that solving relationship or personal difficulties is a priority.

What's the point of asking an athlete to focus on winning a gold medal if their marriage is having difficulties or they are about to be declared bankrupt? You cannot take sport or any other area of life in isolation. Football coaches have learned that and many other sports coaches are learning it too.

It is important to have short term achievable goals in sport so that you can work towards them as a 'reality'. Some people say long term 'outcomes' are not favorable as they can lead to disappointment.

Well, it can assure that the vast majority of highly successful people who win gold medals, championship trophies etc have all done it a thousand times in their minds and in their dreams before they ever do it in reality.
The truth in sport psychology is that we don't develop strategies from scratch and then teach them to athletes. The truth is that we look at what the truly successful sports stars are doing anyway. It is possible to look at any sporting great from the past and write an entire book on applied mental sporting techniques based on what they did naturally. Mental edge is often the difference between great and truly great.

Mental Imagery involves seeing and experiencing success in your mind. You don't just have to see it – some people are much better at feeling things. Imagine how it feels to run your fastest ever time! Imagine how it feels to have that gold medal placed around your neck!

Affirmations are useful at times, for instance you could repeat 'everyday I am getting stronger and faster. I am the greatest!' This will improve your 'self-talk', but to truly change your internal belief system it is necessary to make use of mental imagery and rehearsal.

There is no failure - only feedback. One has nothing to fear but fear itself!

If you use mental imagery and rehearsal in your preparation and coaching, you are more likely to achieve positive personal development and performance management as well as motivation, self-confidence, self-esteem and a new and powerful personal belief system.
Mental Flow involves being 'in the zone', being engrossed in an event to an almost spiritual level. Have you ever know you were going to score a goal before you even made contact with the ball? Have you ever felt invincible as if it was your day and nothing could possibly go wrong? This state of performance is sometimes known as a peak experience.

Flow involves positive state management. In other words, getting into that championship state more often and just when you need to.

Hypnosis and sport are a very effective combination for many reasons.

There is plenty of evidence that hypnotism, simple imagery, and direct suggestions assist in overall improvements in sports activities. It is possible to elevate an individual's sports ability through the use of hypnosis. Additionally, hypnosis is quite effective for soothing pre-game anxieties.

Champion golfer Dave Stockton was once asked to name the player he most feared in the field of golf champions. Without hesitation he answered, "Me." No one has ever stated more.

Hypnosis can be equally useful with all kinds of individual and competitive sports. The greatest of champions and athletes also tend to be the ones who have learned to think successfully, they have mastered the psychology of their individual sport.

Sports Hypnosis is a growing field in the United States and around the world. Athletes are keenly aware that so much of their performance is "In The
Mind". Hypnosis sessions are a highly effective way to help athletes improve mental focus, tune out all distractions and visualize the outcome they desire. Hypnosis can provide that competitive advantage and allow you to get into that "ZONE" state of mind where everything is functioning at its peak with no conscious interference.

Mental conditioning through hypnosis can quickly help you rise to new heights in your performance and minimize distractions.

Hypnosis is not a magic bullet, it will not, and can not, turn a talent-less athlete into a superstar. It will however amplify the athlete's talent and abilities. Finally, all sports will require mental factors of strategy and concentration, which naturally involve the mind, and as hypnosis is a mind oriented approach, it can quite literally assist anyone and everyone, to get the best out of them!"

Mental edge is often the difference between great and truly great. This is not a new invention. In the 1956 Melbourne Olympics, the Russian team took along no less than 11 hypnotists. You don't need to look too far in any sport to find great champions using hypnotic techniques to improve performance. The reason most of them don't like to talk about it is because of the age-old myth that hypnosis is a magical power to make you do things. Athletes use all kinds of scientific technology to improve their performance including equipment, training advances, nutrition and even applied sports psychology which will usually include focusing and visualisation techniques for improvement.
It is recognised fact that Sports performance hypnosis can help any athlete achieve their goals.

Ever since the times of the Russian Olympic teams employing hypnotherapist to greatly enhance their athlete’s performances, focus turned, sports hypnosis and the interest rapidly spread throughout the entire world. Without any doubt, it is the mind that holds the determining factors over just about all of our performances and behavior, and so it is in mastering the mind, that the athlete has the greatest chance of performing at their best.

Hypnosis can play a major role in helping the athlete prepare themselves mentally, and that preparation will typically include a whole package of approaches tailored to the athletes requirements and will nearly always include methods designed to:

"Overcome self-doubt, mental rehearsal, positive visualization, encourage rapid healing from any injury, increase confidence, increase motivation, increased concentration and focus, eliminate negativity, promote positive expectation, reduce performance anxiety, increase self belief, etc."\(^7\)

\(^7\)Internet, Sports Hypnosis: Published as general information without endorsement
Development of positive attitude is the most important thing one can accomplish through the power of the mind. Negative thoughts pertaining to performance skills can be changed or eliminated. Performance of the sport will be enhanced to a major degree as skills improve to the point where intermittent incidents of poor performance no longer arouse feelings of discouragement, irritation or other detrimental emotional reactions. Concentration, coordination and technique can improve as well as awareness of proper form and posture. Sports enthusiasts face some stumbling blocks in their quest for perfection such as fear, and fear comes in many forms. Fear of failure is always restrictive and is very common in sports as is its hidden partner, fear of success - an apprehension that success can create the expectation of further improvement. Fear of humiliation can also be very strong. Competition can produce sensations of intimidation resulting in deterioration of skills.

Hypnotherapy can work to reduce or eliminate the mental obstacles to peak performance in sports activities. This is an area where the truth of the phrase "What the mind can conceive, the body can achieve" becomes highly evident.

"The goal of hypnosis in Sports is to allow the athlete to develop the mental attitudes necessary to achieve their personal best to perform at their peak level. With all hypnotic techniques, the first step must be Relaxation. Relaxation to a level appropriate for the planting of positive hypnotic suggestions is not merely resting, but a much deeper level.
Goal Setting is essential. Without a clear objective in mind, it is pointless to begin any task or project. Athletes, coaches, therapists or a combination thereof may set goals. It is important for goals to be specific, focused on the area where improvement is desired. "Playing better tennis" is not a specific goal. Improving one's serve or backhand is a specific goal. Goals must be short-term, achievable, and step-by-step so that both success and completion are experienced.

Concentration is vitally important, and sometimes difficult to develop and maintain. Hypnotherapy has long been a very effective method of improving concentration abilities.

Distractions must be eliminated. Posthypnotic cues may prove useful in stimulating both concentration and specific skills. Visualization, not only in mental rehearsal but also at the moment of performance, can produce dramatic positive results.

Finally, Mental Rehearsal is the ultimate key to superior performance. It can prove more productive at times than actual physical practice. Imagery is not just visual in nature; it can include the other senses as well. In a diving competition, the form of the dive is visual, the smell of chlorine in the water is olfactory, the sensation of wetness is tactile, and the cheers of the crowd are auditory. Achieving perfection requires the use of all the senses during Hypnotherapy sessions."
There is no limit on what the mind can do when it is programmed with positive expectations. After all, hypnosis is belief + expectation = outcome!

When mental training progress is accelerated performance improves and fears, worries and stress are greatly diminished or eliminated. Even recuperation from injuries and exhaustion is made more rapidly.

Hypnotists have found that the mind can lessen or eliminate fears and anxieties and physical pain since the body is a "robot" taking directions from the subconscious mind. Hence, whatever you think, see, feel, hear, taste or smell does have a chemical and physiological base in the brain.

The body has an intelligence of its own that can be engaged through hypnosis to improve any sport performance. Generally, direct suggestions from improving your sport combined with positive imagery will activate the body's own intelligence to improve your game while relaxing you. Ideally the person should have a few sessions to ensure that all of your desires for sports success are achieved.

There are many individuals who attend in only one session with their hypnotist and then complain it did not work. Due to individual differences, it would be ideal to attend at least three sessions with hypnotist to understand the same. Listening to such suggestions regularly as well as before the competition is likely to alter the brain chemistry effecting long term and timely changes in the benefit of the concerned sports person.\(^8\)

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\(^8\) Internet, Sports Hypnosis: Published as general information with no endorsement
Statement of the Problem

The purpose of this study was to find out the effects of hypnotic suggestion on selected physical and physiological variables, namely, maximum strength, lower back flexibility, muscular endurance and respiratory rate, blood pressure, pulse rate, vital capacity and breath holding time of the volunteer subjects, respectively.

The second purpose of this study was to compare the above variables on the volunteer subjects in pre-hypnotic hypnotic and posthypnotic states.

The third purpose of this study was to find out the effect of hypnotically infused stress conditions on the above listed physiological variables on the volunteer subjects.

Delimitations

1. The study was delimited to adult male volunteer subjects.

2. The study was delimited to selected physical and physiological variables.

Limitations

1. Dearth of sophisticated instruments for measuring physical and physiological variables.

2. The subjects for this study were only the volunteers willing to be hypnotized. The homogeneity of their personal, social and economical status cannot be ensured.
Hypothesis

1. It was hypothesized that there will be no effect of hypnotic suggestion on selected physical and physiological variables.

2. It was also hypothesized that there will be no difference of the effects of pre-hypnotic, hypnotic and post hypnotic suggestions on the selected physical and physiological variables.

3. It was further hypothesized that there will be no effect of hypnotically infused stress conditions on the selected physical and physiological variables.

Definitions and explanation of terms

Hypnotic Suggestion

The term hypnotic suggestion refers to the cues or suggestions of information given to the hypnotized subject by the hypnotist – emphasizing the task to be performed.

Maximum Strength

The force that a muscle or a muscle group can exert against resistance in one maximum effort.⁹

Flexibility

Numerous scholars have defined flexibility as the range of movement in a joint or a sequence of joints or the degree one is able to move the joint of the body through their completed range of motion.¹⁰


Muscular Endurance

Muscular endurance is the ability of a muscle or a group of muscles to sustain a work for a relatively prolonged period (of time). 11

Blood Pressure

Blood pressure is the pressure exerted on the walls of arteries as the heart pumps blood through the body. Systolic pressure is obtained when the blood is ejected into the arteries. Diastolic pressure is obtained when the blood drains from arteries. 12

Breath Holding Time

Breath Holding Time is the duration of time through which one can hold his breath without inhaling or exhaling. 13

Pulse Rate

"It is the pulse count during a designated time (usually for a period of one minute)" 14


12Ibid., p.9.


Significance of the Study

Sportspersons face varied problems and situations in training and competition. They are exposed to various challenges both within themselves and from the others. However, sophisticated the system of training, training conditions and other associated factors may be, they cannot help an individual to overcome some of his personal weaknesses. An appropriate example to this is the psychological barriers in performance. An athlete may be able to jump 6’11” a number of times in his training, but could never cross 7’. Similarly, when an athlete is competing against a particular opponent, he could never bring out his best performance. Such barriers and complexes are proved yet in times the limitations to the abilities of both the trainer and the trainee. Thus, the state of mind of an individual play a great role in his training and in competition.

Once a barrier is broken, either by actuality or in the imagination of an athlete, then it is no longer conceived as impossible.

In order to achieve this objective, hypnosis and suggestion may be used as a means to overcome such hurdles.

In light of the preceding, the study may be significant in the following ways:

1. The findings of this study may add to the existing knowledge about those factors, that is, physical and physiological variables which may be effected by the hypnotic suggestion in training and competition.
2. The physical educators and coaches will be able to utilize the hypnotic suggestions as a means to bring about the best out of their wards.

3. The findings of this study will help the teachers and coaches in tracing the individual problems of psychological barriers and complexes.

4. The study is likely to give clues, to give emphasis on any mode of hypnotic suggestion without disturbing desired physical and physiological state of the individuals.

5. The study may also bring out the adverse affects of hypnotism, if any, which my prove to be the negative point in the wellbeing of the sportspersons.

6. The study will adopt in a small way to the existing professional literature on sports coaching in India.

7. The above may lead to bringing in suitable changes in the coaching strategies in the coaching of national teams.

8. Consequently, such support is likely to lead the country to improved standard in sports competitions.