

CHAPTER - I

INTRODUCTION

Cricket is a major international sport played in more than 105 countries. There is no exact record available which shows when and by whom this game was started in England. The game of Cricket has had its origin in England and it has developed from a crude game, which was played as early as 12th century. Cricket is played between two teams normally eleven a side, and gives the maximum opportunity for combining team effort with individual skill and initiative. Each team bats or takes its innings, in turn, the choice for first innings being decided by toss. The game is played on a pitch on which two wickets are placed twenty two yards apart, though this distance may be reduced for young boys. The batsmen defend their wickets against the bowling of the fielding side and when a batsman is out, another takes his place and so on until ten batsmen are out or until the innings has been declared closed. Cricket is the game of bat and ball in which each team has to bowl and bat according to certain rules and regulations. A team, which scores greater number of runs, will be the winner.

Cricket is basically a bat and ball game and it is one of the oldest sports in the world. The expansion of the British Empire spread this once colonial recreational sport into a spirited game to all corners. Today cricket seems to be a virtual lifeline of many commonwealth nations. Cricket is a game in which each team has to bowl and bat according to certain rules and regulations. A team which scores greater number of runs will be the winner.

In olden days, the game was played in different names in different countries. The game of Cricket is developed from a simple game of hitting an object with a piece of wood. Basically it is the battle between bat and the ball, but the approach has changed from time to time. Cricket is played in many forms such as Test, One day International, First class Twenty 20, Super Six, Eight-a-side, Indoor Cricket Max Cricket, Double wicket and Single wicket.

The game of Cricket is passing through an exciting period of change and development that is making coaches to re-evaluate the coaching methods, techniques and tactics. Sports performance is a complex mixture of genetics make –up and environmental influences like training etcetera. Performance in Cricket is determined by several factors namely skill, technique, tactics, fitness, training etcetera. Both physical and mental fitness play vital role in performance, **(Sisodiya et.al, 2005).**

1.1 PHYSICAL FITNESS AND CRICKET

Cricket is a sport in which fitness is traditionally not thought of as very important. However, the success in the 1990s and 2000s of the world beating Australian team has been attributed to their professionalism, and in part to the way they address their fitness. The other test playing nations have rightfully put more emphasis on fitness recently and are reaping the benefits. With the introduction of one day Cricket and more recently Twenty20, the game has gone through major changes and the physical demands made on a Cricketer's body have also increased dramatically. Depending on the version of the game being played and the role of the player in the team, the importance of fitness will vary: the fitness requirements of a fast bowler will be greater and also different than that of an

opening batsman, and one-day Cricket will be more demanding than a test match.

Kapil Dev former Indian Cricket team captain and one of the best all rounder's in the world of cricket started training at a very young age and he firmly believes that it is complete physical fitness that has contributed to his overall success in all aspects of the game-bowling, batting and fielding. He contends that physical fitness achieved during off-season periods helped him in bowling long spells over and over again without fatigue or lapse of concentration. Kapil began his test career in 1978. A truly remarkable accomplishment! Even as a boy, he would go in for energetic jogging, springing and stretching exercises. Also he would bowl at the nets for as long as possible till the point of exhaustion (**Amarnath, 1996**).

Bompa (1996) observe that, almost all physical activities incorporate one or more of the elements of force, quickness, duration and the range of motion. When a given exercise is required to overcome resistance, it is called a strength exercise. When quickness and high frequency is maximized, it is referred to as a speed exercise. If distance, duration or the number of repetitions is high, an endurance exercise is performed. On the other hand, if the range of motion is maximized, a flexibility movement is being performed. And finally, when in a given exercise a high degree of complexity is required, this is known as co- ordination exercise.

Buchanan (2010) former Cricket Australia national coach says that there are four major performance skills for all elite sportsmen and women, these being technical, physical, tactical and mental. The later skill is one that can make the

crucial difference for athletes performing consistently to their abilities. Sport psychology has played a significant role in the understanding, training and ultimately the use of mental skills for peak performance.

Batsmen stay at the crease for as long as possible, sometimes for periods of over four hours. In order to occupy this position, a good batsman must be able to stay focused, have good ball / eye skills, and have the strength and fitness to make each played shot productive. On the other hand, power comes from having a strong core, abdominal mid-section and the ability to generate explosive upper body actions. While on the other, the kinetic energy of the ball may be used to score four runs by the batsman by a slight change in direction. Unfortunately this skill has only been given to a few class batsmen. Fielders need the ability to sustain a concentrated effort for a period of six hours or more without fatigue and in sometimes very warm conditions. The body must be capable of explosive bursts at any given time - such as racing for a ball, jumping for a catch. Every cricket player can contribute his part to fielding unlike batting and bowling. In a tight game, fielding performance will invariably be the decisive factor between winning a match and losing it. **(Muralikrishnan, 2010).**

Cricketers while progressing through different stages of their development should find fielding enjoyable rather than a tiresome chore. Fielding drills and mechanisms thereof are taught from a very young stage. Even in international cricket one could observe fielders picking up the ball with improper balance and finding it difficult to make accurate throws to effect a run out. Learning to pick up the ball on either side will make the fielder confident to stop the ball and this makes the batsman a little nervous to start for a run

especially when the ball is within the 30 yards circle. Fielding too is an important skill of the game. In recent times, more attention is being paid to fielding.

The thrill that spectators get with a brilliant piece of fielding can seldom be matched by a huge six or the sight of the stumps sent flying by a quick bowler. Good fielders like Rhodes are always more popular than big hitters. Fielding is a regular part of every cricket game, big hitting may not always be seen in every match (**Muralikrishnan, 2010**).

Bowlers require both explosive strength and speed, combined with good muscular endurance, in order to be able to maintain a high count of number of overs. Poor fitness and muscular strength will result in inaccurate bowling and greater risk of injury, especially for high speed bowlers and also allows the batsmen to settle down in the wicket to score more runs. All players will at some time in the game, bat and field. A cricket training programme shall be designed with these as objectives in the mind.

1.2 SPORTS PHYSIOLOGY AND CRICKET PERFORMANCE

When physical training is done, the physiological changes occur in almost every system of the human body. These changes depend on frequency, duration and intensity. Sports Physiology tells about the complete story of various internal functions of the body during rest and play. Traditionally, Cricket has been perceived as a relatively mild sport from a physiological point of view. The intermittent nature of the game with its long rest intervals provides plenty of

recovery time between any short spells of higher intensity activity. However, the demands of cricket may be underestimated (**Noakes & Durandt, 2000**).

High level of performance of a Cricketer might be dependent upon his physiological make up and it is recognized that physiological fitness is much needed for high level performance. It has numerous parameters such as aerobic capacity, anaerobic capacity, pulse, vital capacity, blood pressure, breath holding time and etcetera. Certain physiological variables play important role in Cricket. Most of physiological variables can be tested only in laboratory. **Foster, et al., (1986)** opines that fast bowling is predominantly an anaerobic activity which requires an aerobic base. In one study of the 1999 South African World Cup side, a number of physiological tests for explosive power and aerobic endurance capacity showed they were as 'fit' as the South African national rugby side.

1.3 SPORT PSYCHOLOGY AND CRICKET PERFORMANCE

Cox et.al (1993) defines Sports Psychology as the Science of applying psychology to sports. It is a study of behavioral science in sports setting. Sports psychology is gradually and steadily gaining momentum in the field of training of high level sportspersons. Today, sport is no more a recreation. It is not just a game of nerves as well. With the winning margin of competitive sport narrowing down to fraction of seconds, modern day sport warrants an essential supply of psychological support to come to term with reality.

Tendulkar, Indian Cricketer, who holds the record of most number of runs both Test and One day International Cricket, In press conference (2010) he said, "When pressure builds up in the game I try to focus on the next ball with

calmness without thinking of the future course of the match. My mood undergoes a change before every match as I start mentally preparing myself for the game," he added.

Weinberg et.al. (1995) wrote that in any sport, a player's success or failure results from a combination of physical and mental abilities. Most coaches consider that sport is at least fifty percent mental, with certain sports such as golf, tennis and figure skating, consistently receiving percentages in the 80 percent to 90 percent range. According to **Smith (1994)**, a former English Cricketer, "Cricket is played in the mind, more than any other game". Anxiety and Self confidence also play important role in Cricket. Anxiety is a negative emotional state with feelings of nervousness, worry and apprehension associated with activation or arousal of the body. (**Weingberg and Gould, 1995**).

Anxiety depending upon the degree is defined in different ways such as tension, panic, etcetera. Self confidence is being confident of one's own abilities. In other words, it is the Cricketer who realistically believes that he is capable of performing well. **Gould, Weiss & Weinberg, (1981)** opine that the most consistent factor distinguishing highly successful from less successful athlete is 'confidence' This means that top athletes, regardless of the sport, consistently display a strong belief in themselves and their abilities.

Preponderance of scientific evidence obtained from different investigations has revealed that apart from physical and physiological variables, techniques and tactics, high level performance of a sportsman is dependent upon his psychological makeup. Different psychic abilities play decisive roles in

achieving top level performance in track and field athletics. Therefore superb psychological fitness and training of the “individual” are important factors, which help in achieving outstanding performance (**Manicam,2009**)

The concept of Anxiety occupies a very important place in the study of human personality and multitude activities of the mind. Trends were the first to define Anxiety within the context of Psychological theory. According to him, “Anxiety is something felt unpleasant effect of state or Condition”. **Spielberger (1966)**, had defined Anxiety in different angles. These definitions lead to the conceptualization of ‘Anxiety’ as “a combination of apprehension, uncertainty and fear”. Many studies of the past reveal that anxiety plays influential role in Cricket.

Success in sports depends on trust in your own strength and ability. If an athlete is well prepared for competition from a physical, technical and tactical point of view, the most important factor deciding about his/her degree of success is Self-Confidence. Self-Confidence is considered to be one of the leading elements for a successful athlete. Believe in one’s self is the centre of sports performance. One of the most important factors determining Self-Confidence involves trust in our ability to execute a task. Like any other sport, in Cricket also self-confidence as well as Sports Achievement Motivation plays critical role.

YOGA

Yoga is the oldest known science of self-development, originated in ancient India. Yogic practice is a physical and mental exercises practiced

throughout the world. Many research studies of the past report that yogic training improves the physical & mental fitness level as well as the performance of sports persons in various sports disciplines.

Yoga is an ancient physical and spiritual discipline and branch of philosophy that originated in India reportedly more than 5,000 years ago. The word yoga comes from the Sanskrit word yuj, which means to yoke, join, or unite. The Iyengar School of yoga defines yuj as the "joining or integrating of all aspects of the individual—body with mind and mind with soul—to achieve a happy, balanced and useful life." The ultimate aim of yoga, they claim, is to reach kaivalya (emancipation or ultimate freedom).

1.4 CONTRIBUTION OF YOGIC EXERCISES IN THE FIELD OF SPORTS

Yoga can be practiced by males and females of all ages and it can be taken up at any stage of life. It is never too late to begin. Through yoga one can achieve the success of life. It is the fact that yoga plays an important role for reducing stress, tension and anxiety of common man as well as of athletes. . . Mainly the stress and anxiety play an important role in sports, as these are an integral part of the "motivation for peak performance" in a sports activity. In recent competitive situation, impose tremendous stress and tensions on sportsman while aiming of winning a medal. The high level of sports anxiety disturbs body awareness and affect physiological functions which resist the smooth movement of muscles, joints etc. Different type of yogic exercises increase the flexibility of back, spine, hip, improve the concentration and balancing ability, improve the efficiency of liver and digestive system, cure the

neurosis and cardiac diseases, remove the blood pressure problems, strengthen the back and shoulder muscles, improve breath and release the mental tension and centering emotions of the sportsmen, which are the main essentials related to the performance of the athletes in different games and sports. of immense use in improving the sense of aesthetics in sports. However, till-to-date neither any information nor research report on yoga in relation to aesthetics in sports is available so far. It was, therefore through desirable to see if yoga can contribute to enhance the aesthetic aspects so that an athlete improves case in movements and skill for performance. Yoga can be practiced by males and females of all ages and it can be taken up at any stage of life. It is never too late to begin. Through Yoga one can (**Sharma, 2010**).

The vital role played by yoga i.e. physical fitness, fitness related to health, skill and performance has assumed tremendous importance in recent times. The life style changes leading to positive energy balances has been the causative factor for many of the metabolic disorders like hypertension, diabetes malites, cardio vascular diseases and obesity and related problems. Yoga, which is a time- tested method, has shown great positive influence on physical, mental, psychological, social and spiritual personalities of a person. With the above in background various research works have been undertaken to measure the changes that take place during yoga practice.

1.5 BENEFITS OF YOGA

Yoga is a system that benefits body, mind and spirit by teaching self control through series of postures and exercises as well as through breathing and relaxation and meditation techniques. The most important benefit of yoga is

physical and mental therapy. The aging process, which is largely an artificial condition, caused mainly by autointoxication or self-poisoning, can be slowed down by practicing yoga. By keeping the body clean, flexible and well lubricated, we can significantly reduce the catabolic process of cell deterioration. To get the maximum benefits of yoga one has to combine the practices of yogasanas, pranayama and meditation.

Yoga has such a great sense of community to it and it really allows for mental clarity and focus. After the yoga practice, one can feel more grounded, less self-absorbed and peaceful. This type of mental clarity really helps in other sports or activities involved in (Ceroni, 2009). Yoga places a huge emphasis on balance, flexibility, and mental discipline, traits essential for a sport like soccer too. Simple yoga exercises are a great way to warm up before soccer practice or loosen up after a game. The incidence of injuries can also be reduced if one practice yoga as it also sharpens reflexes. Specific exercises include poses like the spread-leg forward fold or 'Upavista Konasana'. In this pose, players sit on the floor with your legs parted as wide as possible. Then lean forward and place hands on the floor. Maintain this stretch for 15 seconds and rise back up. Repeat this about 10-15 times. With this posture, the hamstrings and calf muscles are stretched making them more flexible. This is a good yoga pose to begin soccer practice with.

In order to provide the necessary power to legs back muscles need to be strong. The dog pose or the Adho Mukha Svanasana is useful for this. To do this pose, sit on the floor on all fours. After this, gently lift up hips alone while keeping legs and hands completely stretched out. Make sure that back is fully

straight. Return to the original pose and repeat this 10-15 times as well. This exercise strengthens back muscles of the players. A good exercise to finish cricket practice with is the hero pose or 'Virasana'. This is a simple pose where player need to kneel down with feet pointing backwards. Keep back straight and take in deep breaths. This pose will loosen hips, knees and ankles and relax joints after a tiring workout.

Cricket players can also practice breathing techniques like 'Ujjayi' breathing to help to be calm. For this exercise, take in full deep breaths through both nostrils for at least 10 minutes. This will increase breath-holding time and strengthen lungs thus increasing endurance levels.

1.6 MENTAL TRAINING

Today, sport is no more a recreation. It is not just a game of nerves as well. With the winning margin of competitive sport narrowing down to fraction of seconds, modern day sport warrants an essential supply of psychological support to come to term with reality.

The Mental training strategies which players use these days are not new. Many of them have been in use for centuries. An ancient book which describes the training programme for the samurai warriors of Japan devoted half of the text to the Mental preparation of these superior athlete warriors. The former Eastern block nations were utilizing the service of sport psychologist in the early 1960's. However, it has only been compared recently that western countries have begun to fully appreciate the significant role that serious Mental skills training can play in the performance of a sports competitor.(bull et.al.1996).

Recently, a number of Mental training programmes have become available for a sport performer. Sports psychologist offer Mental training packages by means of books, cassette and video tapes. These materials are intended to help sport performers to learn Mental skills and to improve performance. The game specific Mental training is also coming up in many games. Mental training is otherwise called as psyching-up. It is the process of preparing a player Mentally for better performance.

1.6.1 LAWS OF MENTAL TRAINING

Specificity : The brain adapts to a specific stressor or stimulus, the stressor is where we place our attention mentally and physically, how long we place it there for (duration and frequency) and the type of emotion we attach to it.

Double the focus of attention. He does this twice a day.

Overload : As we pay more attention to the stressor, through focus and work (the thoughts and actions), the brain adapts relative to the heightening of the stressor. For Batter A, he is paying attention to what he doesn't want to happen, he keeps running his negative visualization and imagery script. In fact he is struggling to stop this negative 'mental movie' from running. For Batter B, his 'overload' (paying attention to specific thoughts) is running through his positive visualization and imagery script twice a day for ten minutes.

Adaptation : Adaptation is the physical change that is made in the brain by paying attention to a stressor/ stimulus (a thought or a movement) on a

regular basis. This is called plasticity or neural plasticity, it is the plastic ability of the brain to re-wire itself.

This is a relatively recent discovery, the amazing thing is that it is not age related, the brain continues to create new wiring and programs so long as it is stimulated. For cricketers, you can keep updating your game plans and learning for better performance throughout your careers. This new wiring begins to show after 24 hours, the more the attention is focused on the stimulus/stressor the deeper the connections are made.

Reversibility: Reversibility happens when the amount of attention we pay to a thought is reduced over time. The adaptation brought about by the training load (how often/ frequency) will gradually weaken as we pay less attention to it, this is known as neural pruning. Keeping the brain fit and functioning optimally is a case of 'Use it or Lose it', the neural wiring needs to have its circuits fired regularly to keep them working effectively.

Brain Training: The ideas presented here have been understood intuitively by sports psychologists and coaches interested in mental training. They may not have perhaps looked at them through the lens of 'The Laws of Training' before. These ideas are now backed up by Neuroscience, for a great read and exercises for training your brain try the wonderful book by Dr. R. Kawashima called, not surprisingly, 'Train Your Brain'.

1.7 PROGRESSIVE RELAXATION

Relaxation strategy has received much attention in the recent years. Relaxation techniques are useful for long serving energy and for speeding

recovery Sportspersons can often use them to relax competitive situation. In addition, if the athletes become skilled and can control the extent to which they relax, these techniques can be used to clear their mind.

Relaxation techniques are used to facilitate the development of visual images, to Speedup learning, and to aid recall of information (suinn, 1982). Progressive Relaxation is the commonly used Relaxation strategy at all levels.

Jacobson's progressive Relaxation technique (1983) forms the cornerstone for many modern Relaxation procedures. He named the technique 'progressive' because the procedure progresses from one muscle group to the next, until all major muscle groups are completely relaxed The technique has been modified considerably over the years , but it's purpose remains to help people learn to feel tension in their muscles and then be able to let go of this tension. Orlick, (1980) opines that, the ability to psychically relax and calm oneself Mentally is important because it allows you to teach an optimum level of activation which enhances performance. He further says that, peak performances and personal bests often occur when mind and muscle combine in free flowing experiences.

1.8 IMAGERY

Imagery is a most powerful Mental training technique. Most of the world's top sports persons regularly practice imagery. Imagery is nothing more than systematic practice of creating and Strengthening strong positive Mental image. It is dramatically effective for converting the desires from Mental state to physical state.

Imagery is one of the popular Mental preparation strategies where players try to Mentally picture themselves (going through the actual movement in their mind) prior to competition/training. The different terms used for imagery are visualization, Mental rehearsal and Mental practice.

In modern sports world, many athletes are using imagery to aid their performance. Imagery ability could be explained as a process of seeing oneself performing or practicing a sport-related-skill, or imagining oneself competing in a certain situation.

Create a blueprint - If you have played cricket for a while, many skills become automated. You can bowl without thinking about the action, or catch a ball without worrying about hand position. However, to use imagery well you need to be aware of how doing something right actually feels. To do this, when you perform a skill correctly, take a moment to remember it in detail: the position of your body, the timing, the flow of movement, the way you feel and anything else.

Recall - Once you are becoming aware of the way success looks and feels you can start to recall it outside of practice. Take some time on a day where you are not practicing to recall your success. This could be a very detailed memory of a whole game, through to something very simple like the feeling of a well timed drive through the covers. Control - Finally you can put these successful images/feelings into a match situation. On the morning of a match and before you are about to bowl or bat bring back the images and feelings in your mind as vividly as possible. Make them real.

To help with your imagery you can use a trigger. For example holding a bat when imagining shots or getting to 100. If possible, use a video to record your successes and edit it so you just see yourself performing perfectly. Use it as part of your routine of recalling success. In general, you should only use imagery to focus on success. However, you can use it to work through problems as well. You do this by thinking about the error, working out what need to change to prevent it and imagine yourself correcting the error next time.

1.9 RATIONALE FOR SELECTING THE PROBLEM

The investigator, being a Cricketer, coach, selector, and Yogic practitioner was motivated to find out the influence of game specific field training, Yogic practice and mental training on selected physical, physiological, psychological and performance variables among cricket players. Moreover, very little research had been done on field training, yogic practice and mental training among Cricket players. This also motivated the investigator to take-up the study.

1.10 STATEMENT OF THE PROBLEM

At present most of the Cricket players at lower level lack physical, physiological, psychological and performance components in terms of speed, explosive strength, flexibility, systolic blood pressure ,diastolic blood pressure, vital capacity, anxiety, aggression, self-confidence and cricket playing ability. The purpose of this study was to determine the influence of game - specific field training, yogic practice and mental training on selected physical, physiological, psychological and performance variables among Cricket players.

1.11 HYPOTHESES

1. There would be a significant improvement on the selected physical, physiological, psychological and performance factors among Cricket players due to the influence of game-specific field training.
2. There would be a significant improvement on the selected physical, physiological, psychological and performance factors among Cricket players due to the influence of game-specific field training with yogic practices.
3. There would be a significant improvement on the selected physical, physiological, psychological and performance factors among Cricket players due to the influence of game-specific field training with yogic practices and mental training package.
4. The game-specific field training, yogic practices and mental training group would show significant improvement on selected physical, physiological, psychological and performance factors among Cricket players than the other experimental groups and control group.

1.12 SIGNIFICANCE OF THE STUDY

1. The study would help to explore the effectiveness of field training, yogic practice and mental training on selected physical, physiological, psychological and performance variables among Cricket players.
2. The field training, yogic practice and mental training schedule designed in this study would help the yoga experts, physical educators and coaches in designing these packages.
3. The findings of the study would add to the quantum of knowledge in the area of Sports training, sports psychology and Yoga.

1.13 DELIMITATIONS

1. Sixty male inter-collegiate Cricket players studying in various colleges affiliated to Bharthidasan University, Tiruchirappalli district, Tamilnadu state in India were randomly selected as subjects their age ranges from 18 to 25 years.
2. The subjects had past playing experience of at least three years in Cricket and only those who represented their respective college teams were taken as subjects.
3. The subjects were randomly divided into four equal groups in which each group consisted of fifteen subjects and named Group-I was involved game-specific field training, Group-II was given game- specific field training with yogic practice, Group-III was given game-specific field training with yogic practice and mental training , Group - IV Control group was not exposed to any training/conditioning other than their daily routines activities.
4. The selected variables for the present study are Physical fitness components namely speed, explosive strength and flexibility; Physiological variables namely systolic blood pressure, diastolic blood pressure and vital capacity ; Psychological variables namely anxiety, aggression and self confidence and performance was subjectively rated by three qualified Cricket coaches were only selected as variables.

1.14 LIMITATIONS

1. The subjects selected for the study were non-residential Cricket players with different economic background. Therefore, variations in their living conditions, life style and diet were recognized as a limitation of the study.
2. The previous experience of the subjects in the field of Cricket which might be influencing on the training and data collection were not considered.
3. The investigator did not take any effort to control or assess the quality and quantity of food ingested separately by each individual.
4. The quantum of physical exertion, physiological & psychological stress and other factors that affect the results were also considered as limitations.
5. The meteorological variations such as air, temperature, atmospheric pressure, relative humidity during the testing periods could not be controlled and their possible influence on the results of the study was recognized as a limitation.
6. The responses to the subjects to the statements in the Questionnaire would depend upon various factors such as understanding of the statements, seriousness and sincerity of the subjects.

1.15 DEFINITION OF TERMS

FIELD TRAINING

The physical training which was specially designed to improve the technico- tactical part of the game and also the fitness components essential for Cricketers.

YOGA

Yoga is a process of gaining control over the mind. (**Nagarathna and Nagendra, 2001**).

MENTAL TRAINING

"The ability to consistently perform towards the upper range of your talent and skill regardless of competitive circumstances."

SPEED

Speed may be defined as the capacity of the individual to perform successive movements of the same pattern at a fast rate (**Yobu, 1988**).

EXPLOSIVE STRENGTH

The ability to expend energy in one explosive act or in a series of strong, sudden movements as in jumping or projecting some object, as far as possible (**Kent, 1994**).

FLEXIBILITY

It is defined as the range of possible movement about a joint or sequence of joints (**Kent, 1994**).

SYSTOLIC BLOOD PRESSURE

The systolic pressure, the top number in the blood pressure reading, is the pressure the blood exerts in the artery when the heart muscle is beating.

DIASTOLIC BLOOD PRESSURE

The diastolic pressure, the bottom number in the blood pressure reading, is the pressure the blood exerts in the artery in between heart beats, while the heart muscle is relaxing.

VITAL CAPACITY

The volume of air that can be moved out of the lungs after maximum inspiration is called vital capacity. **(Strukic, 1981)** The maximal volume of air that can be forcefully exhaled from the lungs is followed by a maximal expiration.

SPORTS PSYCHOLOGY

Sport psychology is the branch of sports and exercise science that seeks to provide answer to questions about human behaviour in sports **(Cox, et.al., 1993)**.

ANXIETY

It is a negative emotional state with feelings of nervousness, worry and apprehension associated with activation or arousal of the body **(Weinberg, et.al., 1995)**.

AGGRESSION

In sport, aggression is a characteristic that can have many negative as well as positive effects on performance. Aggression is defined as “any form of behaviour directed toward the goal of harming or injuring another lived being who is motivated to avoid such treatment” **(Weinberg, et.al., 1995)**.

SELF CONFIDENCE

Self-confidence is the belief that one that aids an individual to perform any desired behaviour successfully (**Weinberg, et.al., 1995**).

PLAYING ABILITY

It is the ability to excel the performance in the sports and games within the rules and regulations governed by the chosen game. Ability to pursue the excellence in a particular game or sport with reference to their playing positions is termed as playing ability. In team sport, it includes both defensive and offensive abilities (**Atkins, 2004**).