CHAPTER

I

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1.1 INTRODUCTION

Meditation has great deal of applications in sports performances. Meditation and mental training help athletes to build up and improve their sports skills and peak the flow of performance during a variety of content situations. Moreover, sport meditation and mental training is the application of meditation skills, breathing practices, psychologies of the mindfulness, cognitive principles, and behavioral techniques on different aspects of humans, that help athletes to surmount difficulties such as mental, emotional, behavioral, interpersonal and spiritual, that can hinder their performance at both competitive and non-competitive level. Furthermore, the harmonization and the systemization of the outer and inner life are essential as shown by this research on selected skills of the basketball game.

Performance and success in a basketball game should be the priority of an athlete.

Thus, for an increase in performance, an athlete should first set the goals and then try to achieve these goals. Physical fitness is one of the factors that can intensely affects the performance of an athlete in any competition, however, there are also other motivating and inspiring factors that can help in achieving his goals and therefore, physical fitness is not the only criteria needed for a good basketball performance or success in a basketball game. The athlete must also be in a very good psychological health as the inner condition of the athlete affects the outcome of the game. Meditation and mental training help
an athlete to develop intense will power which will further help him to have a very high degree of performance and also help in achieving success.

The concept of meditation and mental training is to show how the outer performance or outer life can be helped by the inner wellbeing. To enhance the outer performance in basketball, practice is primordial. By practicing free throw every day in a basketball game, the athlete develops more stamina, speed, perseverance and preciseness in getting the ball in the basket. Concerning, meditation and mental training, these two things should also be done in parallel to be able to increase the athletes inner capacity since both physical fitness as well as the psychological fitness are very important. Moreover, the body's capacity and the soul's capacity along with the body's speed and the soul's speed work in harmony together to enable an athlete to achieve success in any given task.

Another aspect of meditation and mental training is the fact that they make the dormant capacities of an athlete to become fully manifested, that is prior to the beginning of meditation and mental training ,the athlete was doing his best but was not using all his capabilities . Concerning the free throws in basketball, the initial throws prior to the initiation of meditation and mental training showed low performance and achievement levels among the players. Moreover, following meditation and mental training among the group of studied athlete , the result demonstrated that performance is better .this further implies that previously or at the initial stage the capacities of these athletes were dormant and after mental training and meditation ,these capabilities became fully awake and thus helped them to achieve success in a better way.
Meditation is a safe and simple way to balance a person's physical, emotional and mental state. It is enrichment to the soul and has several benefits to the body and the bodily performances and activities. In this way, meditation has great effect and the sportsman in several fields including basket ball. During a basketball game certain skills have to be employed to allow the athlete to ditch the ball in the basket and to man over the ball correctly. Meditations have been found to have a direct correlation with the performance level of athletes. Meditation has shown to strengthen the mind and makes it come under control so that it is able to provide effective guidance to the physical body to execute the required skills at the right and required time. In this case, meditation also helps the basket ball player to coordinate his activities and throws to achieve success.

As for psychological exercise in mental training, it is a powerful way to improve the concentration and enhance mental strength. This helps the athlete tremendously to resolve all kinds of fears (phobias) which can cause stress. Therefore, this again helps the athlete to focus on the positive aspects which further help them to use their acquired skills in a better way to achieve success.

Meditation and mental trainings is stillness, calmness and quietness in an athletes life but at the same time the performance or activities performed by the athlete are all in a very dynamic state. However, meditation and mental training is a kind of unseen power or poise that is always ready to come to the help to the aid of a basket ball player, to do the throws skillfully in spite of all the pressures outside on the court and pressure by the audience watching the game.
Mental training and meditation are boosting factors for an athlete. That is, once the athlete achieves some goals, this is not the end. His aim is that he should still go forward and try to achieve higher and higher. Therefore, this higher achievements are also ensured by the practice of meditation and mental training which are the inspiring motivating factors or the very essence that make the athlete bring forward his capacity continuously to prioritize success and performance. Moreover in the achievement of basket ball success, both physical and psychological skills are closely related to each other and progress and success depend up on both of them.

1.2 Mental Training

The beginning of sports training should have in sight the developmental make up of the learner. It is the prime need of all the physical activities that the learner should perform the movements quite accurately. It will also get him to be involved more if he would come to know why a particular activity should be executed by the way it is being performed. Sports should not be only a physical aspect of his personality; it should be an integrated part of his personality, as the sport attitude. Such sports attitude will make sports learning a pleasure.

No doubt all the sports competitions need physical abilities and specified skills but it is more than re-creative sports which is many a times related with victory, ego and self respect. In the training of some smaller units of skills, specific mental attitude should also be stressed. Using of mental training is a useful facility to achieve psycho relation and also help the learner in learning his successful performance, which will lead to a useful change in psychomotor behavior. Mental training is not a
mystery and not a charm, it is a hidden potential that is present in every human being but so many individuals hesitate to poster mental training and only few famous top athletes use this technique at the high level. Martens says that “This internal theater is a key to achieve concentration and useful to provide sense of optimistic and also will lead to self-confidence in doing any types of skills.”

Here is an interesting concept that mental training is not only related to sports but also to so many cognitive, psychologist uses that to achieve their goals. Maltez who has written a book of “Psychology of imagination” he knows Mental training as a miracle which is relates to all success as well as failure in the life. He also says that “For real life, it means for satisfactory life we need to provide perfect mental imagination which will make you feel happy and if it doesn’t then you hide it so that the creative mind will stop on you.” Therefore, there is no need to be surprised that different articles are related to athletes get different information of mental symbolic, can imagine and analyze them. Also, there are so much efforts that they can bring proper answers for different coaches and athletes that they had different questions such as: whether mental training of one psychomotor activity is before or after, more or less than physical training and is it useful or not? If mental training is useful to achieve relaxation then how is it possible? Or what is the scientific reason for that?

Those who study books and physical education articles have also got relation to practical science and psychomotor psychology, regularly they use key words such as “Imagery”, “visualization” “mental training” and “Mental Rehearsal”. These words most of the time have an independent definition,
they also have one meaningful definition that can be considered as imagination of successful performance of one’s motor skills of peaceful imagery into mind with any physical training an external experience.

Most of the times experts consider differences between concept of imagery and visualization from mental training and mental rehearsal and when their purpose is peaceful training or when they discuss about the learning ability and imagination of one particular situation in sports, games and race they use imagery and when they want to analyze different parts of symbols of one particular skill without any muscle movement they use mental practice and mental Rehearsal. Thus, mental practice of imagination of movement or doing particular movements will be done in relation to performance of skills. Also an individual with mental training and successful performance of one's skill can provide effort for doing strange as well as difficult movements and with the help of imagination or peaceful remembrance he can struggle with anxiety of games and learn how to concentrate his senses in relation to particular parts of skills.

1.2.1 Whether mental practice is useful in learning?

Many people pretend that mental practice must be one integral part of a programme of practice of an athlete and also many athletes such as Stones who won bronze medal in the Canada Olympics—said that: his success is related to mental practice but whether mental practice is useful in learning or not?

The reality is that research of mental practice and performance of movements’ skills is related to the last decade of the nineteen century, that it can be found in Plato discussion. through, scientific analysis of this title with
Gestalts in German is one of the most important parts to be enlighten in relation to imagery. Tolman, a well-known theorist of learning also considers mental effort for finding different ways of learning and performance of one skills, he suggested that learners for learning one particular activity or for the progress of performance of one’s skills, they must use mental practice, and he suggested that mental practice must be done immediately after performance of skill. These scientist who were doing research in the field of motor learning until some years back had doubts, whether mental practice lead to learning or not. Previously deductive was that practice and learning had the cause that physical training is one of the integral parts of learning and also understanding learning without practice and performance was difficult. Though, in many researches we can find satisfactory results that show that the process of mental practice may cause motor skills learning. Rowling and Chen (1972) in one research scheme came to the conclusion that learning according to mental practice is almost as same as learning by physical training and those who did not do mental practice learned less than those who did mental practice. Results of researches means effectiveness of mental practice to learning of motor skills, to different learning of motor skills, to different researches. We understand that in many researches there was in equity of physical and mental practice in the motor learning. For instance, one report in 1993 has established that, related to comparison between physical practice and mental practice in all researchers they came to conclusion that physical practices of those who play ski were more effective than mental practices. Present research show that physical practice is higher than mental Rehearsal and mental practice cannot be without physical practice, but mental
practice, makes easier learning of new skills and for performance of previous skills. In addition to this the information that has been collected from interviews with athletes and famous coaches, shows that, those who have performance of movements while they are learning and when they wanted to put in performance of movement into skills, they firstly did all performances in their mind.  

1.2.2 Efficiency of mental training:

There are at least two common effective methods for imagery and mental training in the movement field. One is that we can use from imagery for relaxation and to remove tension and other is that mental training is a useful method for learning movement skills, even though these two methods are not separate from each other and before you start doing any mental training it is necessary that a person starts to make her/himself relax. But till now relaxation between mental training and learning and performance of movement skills form three different sides and have been discussed. Different researches investigated role of mental training in learning of one new movement skill. For instance, one young student who has a problem in doing spikeing in volleyball and even after showing the movement for spikeing by his coach and practicing at different times if the problem continues. Then the coach will ask the student to cut practice, and sit on the floor and start to practice spikeing in his mind. He has to imagine the skill of spikeing and do that for 15 times in his mind. He will be encouraged to do all different types of movement such as preparing himself, reaching to the net and spikeing as well. After doing all these practices in mind the coach will ask the student to return back to the ground and start doing spikeing in real. Some researches which
are related to effectiveness of mental practice into performance of those skills that they learned successfully. For instance we will consider one Gymnast who is waiting besides the mattress to do his ground performance. In this situation before starting any movement that Gymnast starts practicing all of his movements in his mind. After this he will go on the mattress and start his performance. And eventually third types of researches regarding mental practice in learning and maintaining one movement skill, here mental practice is used like mental reinforcement for body performance example a Golf player starts reinforcement of his practices Mentally.\textsuperscript{14}

1.2.3 **Benefits of Mental Training\textsuperscript{15}**

- Mental practice is useful for reaction of body and mind.
- Mental practice can be increased self-conceited, of any one to him/her self.
- Mental practice will bring reinforcement of those skills that athletes are expert in regarding them.
- Mental practices, remove those problems which are related to learning of new skills.
- Mental practice will reduce anxiety.

1.2.4 **Suitable condition for mental practices.**

Control toward mental training and creating mental training can be achieved in suitable condition.
- Real situation
- Relaxed Attention
- Learning attitude
- Having real waiting
• Regular practice.

1. Only few of athletes have these abilities. A lot of beginners have a tendency to practice in the place without any disturbing factors. They can slowly reach this kind of ability in any place, like crowded areas and those places that are full of stimulant and able to focus on mental practice.

2. Before starting any practice it is necessary that an athlete makes himself relax but here relaxation must be under control so as the athlete doesn’t feel sleepy. It is necessary for any athlete at first, to make his mind and muscles completely relaxed and focus his attention on his aim. Muscle relaxation gives permission to neurotic system which is related to create imagery. In different researches that mix imagery practice with relaxation practices are much better than any individual practice.

3. The best athletes are those who self-stimulate, self-stimulation makes them in bound and they spend too much time to prepare themselves for famous races. Athletes must have belief in psycho preparation like the belief in body preparation till the feeling of responsibility makes them ready for doing any practice on psycho skills.

4. Imaging practices like any other skill is successful then positive attitude comes toward them. Still many athletes reject these types of practices and they do difficult body practices.

5. Any athlete is able to understand the importance of practice but any athletic does not pay attention to understand that qualitative practice is much important than quantities practice. Spending too much time to do movements is not sufficient and it may even take away concentration from skill, this will
lead to doing wrong things regularly. Mental practices without any complete attention cannot improve any skill. \(^\text{16}\)

1.2.5 Theories of Mental Training

There are three generally accepted hypotheses that propose why mental practice benefits the learning and performance of specific motor skills.

A: Neuromuscular Hypothesis

We can trace the notion that mental practice of a motor skill has a neuromuscular basis to the work of Jacobson (1932)\(^\text{17}\) when he asked people to visualize bending the right arm, Jacobson observed EMG activity in the ocular muscle, but not in the biceps brachium. However, when he asked them to imagine bending the right arm and lifting a lob weights, he noted EMG activity in the biceps brachium on more than 90 percent of the trails. Since Jacobson's early study, many other researchers have provided evidence for this type of electrical activity in the muscles of people asked to imagine movement (e.g. Oxedeine, 1996, Bedi et al., 2005). \(^\text{18-19}\)

The creation of electrical activity in the Musculature involved in a movement as a result of the performer's imaging of an action suggests that the appropriate never motor pathways involved in the action are activated during mental training. This activation aids skill learning by helping establish and reinforce the appropriate coordination patterns that are so essential to develop. For some one performing a well-learned skill, this activation tunes, i.e., primes the neuromotor perthways that will be activated when the person on performs the skill. This tuning process increases the likelihood that the
person will perform the action appropriately and reduces the demands on the motor control system as it prepares to perform the skill.

**B: Brain Activity Hypothesis**

The results of brain imaging studies have shown that when a person imagines moving a limb, brain activity is similar to when the person physically moves the same limb. Thus, as with the neuromuscular hypothesis, the brain activity hypothesis proposes that mental practice, especially in the form of imagery, is effective because of neuro-physiological similarities between the imagined and the actual movements. An example of the research supporting this hypothesis is an experiment by Kexes (2005)\(^0\) in which PET scans showed changes in brain region activity as a result of mentally practicing and sequence of left-foot movements. At the beginning of training brain activity associated with the physical execution of the movements was observed bilaterally in the formal cortex and striatum, as well as in the interior cingulated and a different region of the inferior parietal lobe. The researchers observed similar patterns of brain activity when participants imagined the sequence of foot movements.

**C: A cognitive Hypothesis**

Researchers generally agree that the first stage of learning a motor skill involves a high degree of congestive activity. Much of the activity is related to questions about "what to do" with this new task. It should not be surprising. Then, that mental practice would be an affective strategy for people acquiring a new skill or re-learning an old one. Mental practice can help the person answer many performance-related questions without the pressure that
accompanies physical performance of the skill. In the Later strategies of learning, mental practice can be beneficial in assisting the person to consolidate strategies as well as to correct errors. \(^{21}\)

### 1.3 Meditation

Meditation as a method of life has antiquity of around two or three thousand years. We can find application of Meditation in ancient cultures of India, China, Africa; and it even has roots in the European culture as well. We can also observe effects of Meditation in the religions of Islam, Buddhism and Christianity. It is impossible to find out the origin of Meditation. In present times Mediation has started from times of progress and developed in Western countries as well.

After 1980 this word (meditation) found a concept and meaning. Many citizens all around the world even if they did not have any practice and experience regarding it knew about meditation. where as in previous decades the concept of Meditation was unknown to all the people in different places, and only those who were familiar with this method could understand this concept. \(^{22}\) Recently Meditation got famous and attractive in generality so it has become a part of one's psycho, moral and spiritual discussion in today's world.

In previous times Meditation was only related to temples and Monk's cell and it has been used in different rituals which were related to Indian religion and rituals of Indian monastic called as the Ashrams, but after some time it came into general life. Generally Meditation can inform us help us about the characteristic such as sickness and mental disorders.
In present days Meditation is extremely improved and the other thing is that it is not only related to disciple but it can be easily used by those who are interested in learning this method. Also different issues related to Meditation in news-papers and magazines and discussion on the radio and on television regarding Meditation is not amazing, where as they show the tendency of different people regarding this topic. Therefore, in these decades conditions of learning Meditation is ready for everyone who wants to learn this method.

In 1960 need of spiritual and moral values had been felt by the Western Youth. They were interested in escaping from material values of their societies. This movement was a profit phenomenon. These movements had shocked the society as it brought so many changes in every one.

Between all these slogan that started from the Western Society regarding changes and improvement, providing new values had been felt, more than the previous times. In these situations in 1960 perfect changes in Western societies had started. In this decade 1960 a large number of youth were encouraged to immigrate to myth country of India and Nepal.

Spreading of science, psychology, Technology and Meta physics, all this brought many changes in the present century. Psychological developments were effective movements into understanding human potential. We are in the first step when humans started to discover her/his internal potential and in this way he/she could discover creativeness and non-discovered sources of his Id.

In previous decade’s information as well as knowledge of humans regarding relation between material and spiritual had improved and in conclusion of this moral revolution our feelings about many aspects of life
improved and it brought us power to have a complete attitude and brought the
casept of health and welfare. New progress in Medical field has found that
this science can help us in reaching perfect health.

In relation to automatic neuron system that has already imagined that is
out of our control, but now we believe that it has effect on our psycho
condition.

There is no need to consider psychosomatic sickness of body or mental
as a myth, where as it is a real thing that we can touch in our real day to day
life.

It is real that human mind has the power and potential to create or
relieve different types of sickness or disabilities in to the frame of human kind.

Now it can be imagined that mental health is basic and it has its root for
bodily health. New discoveries provide, situation to look at the ancient art of
Meditation deeply and in better manner. Any way, this is one of the oldest
method of mental training and oldest method of psycho therapy as well.

Mechanical attitude in previous decades removed our psycho safety
and relaxation from us. In this situation Meditation has an important role to
return our peacefulness and help us to being relaxed.

Present atmosphere of world has readiness for development and
spreading meditation. There are so many investigation and researches in our
decade related to different aspects of meditation. In our time there are so
many investigation and researches on internal and mental frame of human
kind, and they help us to use their conclusion in behavioral science. May be
there were not any facility for previous generation in history to learn
meditation. In past Meditation was like private inheritance which was only
related to few groups of people. Where as these days learning Meditation is possible for every one. Meditation is one of the oldest art and, the method still remained fixed in today's disturbed world, and those who have an open mind and are interested to get conscience and philosophical information on it can ask to learn that openly.

In the past those who felt the need to learn it, were always spending their time in the Monk's cell and monasteries and they were busy because of retrogression they did Meditation all the time. These topics and titles are not useful and necessary, in present times as Meditation is open for everyone now.

And aim and prophetic mission of Meditation has provided so many changes in the present world. May be this information is consider as exaggerated information but in fact there are inspired because the real thing is that our present world needs to exchange and spread deeply. Some experts believe that, if they provide one particular frame work by those who have insight all around the world they can provide one type of deep insight for every one. If we focus on Meditation we can believe that we can achieve personal worth or will be able to provide some changes in our world. If we consider or imagine mental and psycho of humans as a huge ocean, providing any wave that shows any changes in human kind it can bring vacillation in our surrounding.

Those who have retrogression in Meditation with concentration methods believe that any small vibration can lead to powerful storms and waves. They believe that if Meditation spread in one society many wicked and useless behaviors in society such as felonious and aggressive behaviors will
be reduce with increasing number of mediator in that particular society. They believe that in this graph there is a turning point that, this graph shows and provides changes in informing the society that it has a signal power to bring about a change in humans.

This turning point will make one new wave in a huge ocean of humans and in conclusion these waves will lead to some vibration and changes that may be in these types of researches regarding Meditation in the sport they stimulate or may be considered as an important part of this method.\textsuperscript{26}

1.3.1 The Role of Meditation in sports performance

The practice of Meditation brings back true, real nature to mind. In other words, it is a mediation pertaining to the personal purification of one's mind. It is also called a supreme form of knowing the truth – the total perception – deeper or profound understanding and awareness in its natural condition.

By Meditation practice, purification of mind takes place and eliminates all negativities, complexes etc. Such are the blockades, that hamper pure consciousness, and thus all moral qualities of mankind such as love, compassion, sympathetic joy, and equanimity are destroyed. Meditation makes life worth living, helps achieve qualitative life, completely devoid of illusion, fantasy and falsehood. Such meditation practice provides the person who is meditating, feeling of release from tension and complexes, which has been lying in the depths of the unconscious mind.

There are many great advantages while continuing. Such as – quieting the mind, increasing concentration cultivating, mindfulness, and opening the mind to the Superabundance consciousness.\textsuperscript{27}
Meditation is originally grounded on moral conduct. Meditation does not have anything to do with a particular group of believers. This technique works on the simple basis that all human beings share the same problems, and this meditation process helps eradicate these problems irrespective of any faith or religion. It is a practice which helps to gain the total value of human life that enables us to reach a point that allows us to experience basic essence of human existence – to know ourselves as human being.

No doubt meditation helps to overcome stress besides it makes us more alert creative, and provides us comprehensive understanding of life’s mission. Meditation has many fold benefits e.g. it improves our total health as it relaxes the whole body, it strengthens our body-systems, including the immune system. Even many diseases can be cured by practicing Meditation especially, the illness related to stress – mental tension. Thus, Meditation can get rid of many negative patterns in our life. This is a lot beneficial to sport loving people or sport professionals. Negativity is the most harmful to sports personnel as it lowers down the challenging spirit which is very essential for a sportsman to maintain competitive spirit.

Sportsmen often talk about being in “The zone” – a state of mind where everything in the game becomes easy and things flow. The zone is just another word for the Zen state. It is appropriate to know what Zen state is. It is to still the mind. It necessitates a sportsman to concentrate his/her mind on the purpose of achievement. Meditation can reduce stress and anxiety to considerable level, enhance motor reflexes, increase motor control, increase exercise tolerance, sharpen perceptions, increase awareness, improve
concentration, maintain health, provide a general positive outlook on life, and eventually faster development a sense of personal meaning in the world.

Considering the above beliefs derived from meditation-practice, it is obvious that in favour of a sportsman it is a blessing parlance. In general, meditation produces a reduction in multiple biological systems, resulting in a state of relaxation.\(^{29}\)

Human mind is a highly sensitive organ in the living body. Human behavior is the result of mind attitude – mental function, due to various reasons – influences can be negative or positive. In other words, mind or psyche. After 1960s the hegemony (control and leadership) of the behaviorists was substituted by cognitive revolution in psychology, cognovits have retained a substantial portion of the principles of classical and operant behaviour.\(^{30}\)

For sports loving persons meditation is a boon in many ways. In meditation practice a person gets to learn to fix his attention and for a sportsman in a specific sense, he or she has his/her goal achievements of the best performance. Meditation suspends the flow of disturbing thoughts, may be negative ones. He may doubt his own success or think its below standard. In such a situation when mind is occupied with such pessimistic thoughts, meditation practice provides him/her, a state of greater physical relaxation mental calmness, and psychological equilibrium.

The sympathetic nervous system helps mobilize the body for action when a person is under stress; it produces the fight – or – flight response. The heart rate and breathing rate increases, consequently, the blood vessels narrow, down thus blood flow is restricted, which really is a serious situation.
Another benefit, the parasympathetic nervous system creates “rest and digest” response. This system is just opposite to the sympathetic nervous system. It causes the heart rate and breathing rate to slow down, the blood vessels to dilate.

This is another purpose viz. health purposes through the process of meditation. For many years, meditation has been recommended as treatment for high blood pressure, and most studies show a reduction in blood pressure.31

The somatic method of meditation, however, combines frequently with bio-feed backs and progressive muscle relaxation, is another way of increasing awareness of self in sport performance. Meditation is defined as mental exercise and by focusing on particular facts of physical sensation a individual can begin to be aware of the correlations between physiological functions and psychological activity. For example, when certain muscles tense before a specific task, and are harmful to that task, meditation can be a way to identify what is happening within one’s self and intervene before undertaking the activity thereby, averting a possible poor performance.

The cognitive and somatic techniques of improving performance are interrelate because before effective cognitive based strategy can be used, appropriate psychosomatic states conducive for performance require specific condition for operation. Reduction in anxiety, achievement of critical levels of arousal, and the appropriate attention processes require degree of psychosomatic suitable. These criteria presuppose a depth of self-awareness that allows self-regulation and self-monitoring to be effective identifying psychosomatic cues to regulate behavior and performance, it is the initial and
continued ability of the individual to self-monitor and know, which influences their capacity to use mental skills training. We have studied before that mental training, self-monitoring process, or self-regulation, all of these areas can be achieved to satisfactory level, only through Meditation. Without this any application of cognitive – somatic technique to increase performance quality will be poor or limited. Because, the meditative state requires awareness of internal physical and psychological causes, and thus, may be useful as a mental skills technique during competitive situations.

The ability of the individual to control mental and emotional elements help task performance as well as creating a psychological foundation for confidence and well-being. When the individuals feel as though they possess a degree of self-mastery in relation to psycho-somatic function, this serves to motivate continued efforts in attempting to increase performance.

1.3.2 Benefits of meditation

- Concentration of the mind increases.
- Awareness of the mind improves.
- Mastery over the mind improves.
- Memory becomes very sharp.
- Decision – making Power improves.
- Self-confidence increases.
- Agitation, fear, tension, nervousness and stress decreases.
- Ability to understand and express increases
- Mind becomes healthy, wholesome and strong
- One becomes full of good wishes for others.
1.4 Nature and importance of concentration in sport

Most sport psychologists use the terms such as “attention” and “concentration” interchangeable\textsuperscript{35} to establish the validity of this practice; it may help to review the meaning of the term “attention” researchers usually define this term as the concentration of mental effort on internal or external events. Most sport psychologists\textsuperscript{36} accept this definition, emphasizing two absolutely crucial features of this content construct in particular. To begin with, they stress the selectivity of attention.\textsuperscript{37} Thus in order to concentrate effectively; athletes must try to endeavor to exclude irrelevant stimulation while focusing on what is deemed to be important at that moment. Secondly, in agreement with Ian Botham, sport psychologists recognize that considerable “mental effort” is required in order to maintain alertness for prolonged periods. By exerting such mental effort, distractions which might impair performance can be avoided.

But what does the term “mental effort” mean? According to Paas, Van meerienboer, and Adam \textsuperscript{38} it refers to the amount of mental resources allocated to task demands. In other words, it involves “controlled processing” of task-relevant stimuli. Intriguingly, the focus of our mental effort is believed to be “shift able”. In other words, we can change both the direction (i.e. where it is pointed – at either internal or external targets) width (i.e. how much information is detected) of our beam of concentration when necessary.

Combining these features of selectivity and mental effort, we can see why sport researchers like Schmid & Peper (1993)\textsuperscript{39} define concentration as the ability “to focus one’s attention on the task at hand and thereby not be disturbed or affected by irrelevant external and internal stimuli”. As an example of this skill in action, consider how a quarterback in American football
must distinguish very rapidly between relevant and irrelevant information before throwing a pass. Initially, the player must glance at the opposing defence in order to determine its formation. Then if he decides that the linebackers are going to “blitz”, he will probably replace the long pass he had intended to throw with a shorter pass. But being aware of this likely change, the linebackers often fake their movements in order to send irrelevant messages to the quarterback. Therefore, it becomes critical for the quarterback to be able to distinguish rapidly between valid and spurious signals for a particular “play”, because it seems reasonable to use the terms “attention” and “contribution synonymously. Most sport psychologists recognize the fact that attention is a multi-dimensional construct. For example, Etzel (1979) has identified a number of attention components of sport performance. To begin with, “capacity” refers to the amount of mental energy available for task-related information processing in a given sport situation. In other words, “attention” is simply situational processing capacity. Next, the “duration” dimension of attention refers to the ability to sustain concentration over time – a characteristic also known as “vigilance”. Third, attention “flexibility” refers to the ease with which a sport performer can “direct and alter the scope and focus of attention”. For example, marathon runner may switch from concentrating on their own bodily sensations (an attention strategy known as “sensory monitoring”) to focusing instead of features of the environment in which they are running (a “dissociative” strategy). Finally, “selectivity” designates the most obvious feature of attention, namely, analytical information processing activates.
1.5 Relation of meditation and mental training in free throw in basketball

Free throw is a fine motor skill. As a result of various research studies, it is projected that physical and perceptual variables viz, reaction time, depth perception, arm steadiness, leg and back strength, hand-eye coordination, grip strength are the factors which are responsible for enhancement in shooting performance. Further research studies proved the significance of psychological variable viz, anxiety, stress, emotional stability, attention, and concentration as psychological factors which contribute to decide the performance of a shooter.

Basketball has undergone a tremendous improvement since its origin in 1891 at the school for the Christian workers; now known as Springfield colleges by Dr. James Naismith with the sole idea of engaging the college students in their free time to provide some sort of recreation, competition, as well as fitness activity.

In the field of international competition, it is difficult to distinguish the top performance from one another therefore, fitness aspect, both mental and physical, is important consideration for them. It is evident that today, world's most sporting Nations are very much conscious of these facts and concentrate on the development of both of these aspects.

Meditation and mental training are supposed to reduce the high activation level and psycho physiological disequilibrium and also contribute to steadiness, psychomotor coordination and emotional stability. Such condition of high activation level and psycho physiological imbalance along with emotional instability seem to increase the various disorganization of motor
responses and tremors meditation and mental practices are intended to stabilize the psycho physiological mechanism so that there is less and less tendency towards an imbalance in the face of external and internal stimuli. These claims of meditation and mental training are supported by various researches which took place during last few decades. Kocher and pratap(1972) revealed that high activation level is reduced as a result of mental practices .Sahu and Gharote (1984) suggested better neuron-muscular coordination as an effect of meditation exercise ,Kocher studied that steadiness and two hand coordination is improved as a result of mental exercises. Moreover, he found that there was reduction in anxiety level and increase in emotional stability.

While considering the literature of meditation the researcher finds existence of relative components mostly similar to mental training because the origin of both are in human culture and traditions .the contents of meditation also talk about its contribution towards psycho physiological balance along with emotional stability that seems to increase the coordinated way of peaceful life. In fact free throw performance in Basketball needs psycho physiological balance, which can be achieved perhaps by adopting both the disciplines of physical and psychological practice.

The above literature revealed that both meditation and mental practices can be justifiably employed not only for promotion of free throw performances in Basketball, but also be used in every sphere of life activities.
Physical fitness is not the only need for good Basketball performance but for success in Basketball players must also be in good psychological condition so both are important factors for success in Basketball. Players not only need physical fitness for Basketball performance but for success, the players must have good psychological condition so both are important factors for success in Basketball.

In order to achieve the set goals, the Basketball player needs excellent capabilities and skills both in physical and psychological aspects. As a matter of fact, in the achievement of Basketball success, the player’s, psychological skills help him to perform better in using his acquired skills.

Both physical and psychological skills are closely related to each other and so progress and success depends on both of them.

Recent years have witnessed increasing interest among athletes, coaches and psychologists in mental aspects of sport performance (e.g. the use of visualization or mental training or meditation to enhance skill actions). In the past, it was believed that psychological skills are instinctive and inheritant in order to achieve success, the sportsman either have these skills or lack them.

1.6 Statement of Problem

Physical fitness is not the only need for good Basketball performance but for success in Basketball players must also be in good psychological condition so both are important factors for success in Basketball. Players not only need physical fitness for Basketball performance but for success, the players must have good psychological condition so both are important factors for success in Basketball.

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Recent years have witnessed increasing interest among athletes, coaches and psychologists in mental aspects of sport performance (e.g. the use of visualization or mental training or meditation to enhance skill actions). In the past, it was believed that psychological skills are instinctive and inheritant in order to achieve success, the sportsman either have these skills or lack them.
Nevertheless, modern science rejected this theory and has shown that suitable training can create these psychological skills in a sports man. Mental training or making a picture is kind of psychological and mental skill that a sport man uses his imagination and draws some picture in his mind. Internal experiences are rebuilt and cleared exactly, or are felt and changed into a new form by mental interruption, that is, it affects on the abilities such as facing stress, reducing sadness, enhance concentration capability and increase self confidence. One of these skills is mental training that defines goals and precedence in sportsman, so that he can collect his daily schedules and activities to ward a certain goal. Generally Sports man does mental training with the help of, coaches and psychologist if necessary.

Unfortunately many athletes don’t follow a certain goal and relaxation during the sports activities. Moreover, the main focus of this research was to find a link between mental training and meditation with physical exercise.

Although most of the sports men and coaches, give important to physical fitness more than psycho mental training, this research went to establish mental exercise influence and meditation on sports performance, that is free throw of Basketball, moreover, the significance of sport psychology is to achieve skillful performance and enhance sports qualification by decreasing stress and anxiety and reinforce the concentration ability. Thus,
excessive exhaustion is brought to a minimum and motivation and success is upgraded together with a feeling of wellness and high self esteem and confidence. Therefore mental training and meditation play a dominant role as much as physical fitness in the achievement of success and proper attention should be given in order to attain the set goals. This research, aims to show the effect of meditation and mental training on selected skill of basketball game.

1.7 Significance of the study

1. The result would help to get information about the various aspects of sports psychology among students in high school.
2. The result would help to identify difficulties, if any, being faced practically in school.
3. The result of the study may help the sport scientist.
4. The study may provide a new model for teaching of Basketball skills.
5. This study may be helpful to the physical educators to prepare the appropriate physical education programme as well as to understand the sport potential of the students.

1.8 Need and importance of the study

1. This study is important for the improvement of the performance of the Basketball player.
2. The study will be important for the coach of the Basketball.
3. This study will help the teachers for teaching Basketball.
4. This study may contribute new knowledge and literature of basketball game.
5. This study is important for the sport psychology.

1.9 Objectives of the study

The objectives of the study include the following:
1. To determine the effect of mental training on the result of selected skill of basketball game.
2. To determine the effect of meditation on the result of free throw skill of basketball game.
3. To find out the effect of both meditation and mental training on the result of free throw skill in basketball game.

1.10 Hypothesis of the study

1.10.1 Null hypothesis.

The following are the hypothesis:

A) \( H_0 \). There will be no significant effect on the result of free-Throw skill of basketball by mental training.

B) \( H_0 \). There will be no significant improvement on result of free throw skill of basketball game through the meditation training.

C) \( H_0 \). There will be no significant improvement on result of free throw skill of basketball game through the mental and meditation training.
D) $H_0$. There will be no significant improvement through meditation than mental training on result of free throw skill.

E) $H_0$. There will be no significant difference between the meditation, mental training, and meditation + mental training group.

1.10.2 Alternative hypothesis

It should be noted that, although the null hypothesis is needed for statistical purposes, most actual hypotheses are alternatives to the null. There is 50% probability of rejecting null hypothesis in such situation researcher accepts alternative hypothesis which may be stated as follows:

A) $H_1$. There will be significant effect on the result of free-Throw skill of basketball by mental training.

B) $H_1$. There will be significant improvement on result of free throw skill of basketball game through the meditation training.

C) $H_1$. There will be significant improvement on result of free throw skill of basketball game through the mental and meditation training.

D) $H_1$. There will be significant improvement through meditation than mental training on result of free throw skill.

E) $H_1$. There will be significant difference between the meditation, mental training, and meditation + mental training group.
1.11 Assumptions

1- It was assumed that all subjects will follow the instructions given to them regarding the experiment.

2- It was assumed that subjects will give true response to the exercise programme.

3- The test used for pre and post evaluation were valid and reliable.

1.12 Scope and Limitations

a) Delimitations of study

1 The study is delimited to basketball game only.

2 The study is delimited to the result of free throw skill of basketball game.

3 The study is delimited to the player of basketball only.

4 The study is delimited to the male player of basketball.

5 The study is delimited to the one hour training in a day and five days in a week.

6 The study is delimited for 10 weeks duration.

7 The study is delimited to the skill of free throw of basketball game.

b) Limitation of the study

1 The study is limited to the diet and daily routine of the players.

2 The study is limited to all skills of basketball game except free throw.

3 The study is limited to the physical fitness factors of the players.

4 The study is limited to the physical training of basketball player.
1.13 Definition of important terms

Meditation:

A: Meditation is one of the Five Principles of Yoga. It is the practice by which there is constant observation of the mind. It requires you to focus your mind at one point and make your mind still in order to perceive the 'self'. Through the practice of meditation, you will achieve a greater sense of purpose and strength of will. It also helps you achieve a clearer mind, improve your concentration, and discover the wisdom and tranquility within you. Meditation is a mental discipline by which one attempts to get beyond the reflexive, “thinking” mind into a deeper state of relaxation or awareness. It is recognized as a component of almost all religions, and has been practiced for over 5,000 years.\(^\text{50}\)

B: Meditation of contemplation involves focusing. The mind upon a sound, phrase, prayer, object, visualized image, the breath, ritualized movements, or consciousness in order to increase awareness of the present moment, promote relation, reduce stress, and enhance personal or spiritual growth.

In general, there are two main types of mediation: concentration, and mindful meditation. Concentration Meditation, involves focusing one's attention on the breath, an imagined or real image, ritualized movement, or on a sounds, word, or phrase that is repeated silently or aloud (Mantra).

In comparison, mindfulness meditation involves becoming aware of the entire field of attention.

There is an awareness of all thoughts, feelings, perceptions or sensations a) they arise from moment to moment. In fullness meditation is
enhanced by the person's ability to quiet the mind and to accept all that is perceived with composure.

Concentration:

"The ability to selectively attend to the appropriate stimuli is critical in most athletic situations. Selective attention is perhaps the single most important cognitive characteristic of the successful athlete."^{51}

**Mental Training:**

A. Mental training is preparation for the goal, which is to achieve in mind before physical practice or practice directly on the field. The preparation mental, physical psychological aspects through visionary is called mental training.\(^{52}\)

B. Mental training teaches how to focus on the task at hand. The skills used in mental training can be applied to learning better. Making practice sessions more effective, or preparing for performance. Mental training skills can be used in any situation where one must perform under pressure. For example, consider a diver about to take her final dive, a figure skater about to start his long program. Mental training is often different as well as possible between performing \(^{53}\).

**Skill:**

Skill is the learning ability to bring about pre-determined result with maximum certainty, often with the minimum outlay of time or energy or both.

A skilled movement is one in which a pre-determined objectives is accomplished with maximum efficiency with a minimum outlay of energy.

A capability to bring about an end result with maximum certainty, minimum energy or minimum time.\(^{54}\)
Free throw:
Free throw is shooting skill in ball when defender commits a fault so offender will be allowed shooting the ball in the goal without disturbance by the defender team. This shoot is called free throw shoot (Penalty shoot). The one who is performing this shoot; will stand behind the (free short) line and throw the ball in basket by one hand or by two hands.  

1.14 operational definitions
Meditation: operational definition of meditation in this research is a process in which there is no need to do anything, person only has to be
Mental training: mental training refer to the repetition of a free throw, without observable movement, with the specific intent of learning,
Skill: in this research skill means acquiring best result with high accuracy and score.
Free throw: operational Definition of free throw in this research is throwing of ball in the basketball ring without any disturbance by defender
REFERENCE


42. Ibid, pp.301-304.


