CHAPTER 1

INTRODUCTION

The desire to do one's personal best to excel, to attain the highest standards of performance, to be supreme in his chosen field is a worthy human ambition which has lead and can continue to lead to increased standards and personal growth. We want not only to live but also to have some thing to live for and for some people this means to pursue excellence in sports. High level of achievements and excellence in any area do not come easily. The trial is hard and steep. There are numerous obstacles to overcome and barriers to push forth. Becoming a highly skilled person in any field, athletics, art, surgery, science, writing, teaching, demands commitments and sacrifice on the part of the person concerned.

Even if an individual possesses with high level of general motor ability, but lacks the basic motor qualities necessary, to achieve he may still be unable to perform well in a particular sports, unless he has developed a specific skill of that sports through long hours of practice. Strength, speed, endurance, agility, reaction time, speed of movement and co-ordination are the general components of the performance in the field of sports and games. General motor abilities assist a sportsman in learning specific skills and form a solid base, over which he can develop excellence in the particular game in which he is involved.¹

Skill can refer to a particular act performed or to the manner in which it is executed. All Physical Education activities may be considered as skills or as being comprised of skills, and the degree of proficiency attained by the individual reflects his skill level.

Skill is a relative quality, not to be defined in absolute terms. Performance displayed by an individual may be so outstanding as to warrant his being considered skilled, by comparison with a group of his peers on the neighbourhood football field. The same person, when placed in contrast with some member of Varsity team, may appear relatively unskilled. Skill as demonstrated by performance, is an indication of that which has been learned. Skill and performance can be greatly influenced by a host of factors that may have psychological or emotional origins. However, it is usually thought that the highly skilled individual will be able to perform fairly consistently regardless of the factors present that might cause the "average" person's performance to fluctuate.²

Until recently, physical talent alone was considered an adequate recommendation for a player. However, sports has undergone a tremendous change in consequence. Now, the coach

is interested in a combination of physical talent with other qualities – qualities that not only influence performance, but help to sustain the athlete in his or her commitment to sports.³

The greatest barriers to confront in our pursuit of excellence are psychological barriers, which we impose upon ourselves sometimes unknowingly. Running a metric mile under four minutes was viewed as an impossible barrier until it was broken by Roger Banister, when he clocked 3 minutes 59.5 seconds on 6th May, 1954. Since then the four-minute barrier has been broken by approximately 500 runners. The thing that changed was not physiological make up of the runners, it was rather their psychological knowledge of what was possible.

The modern sports training lays a greater emphasis on preparing the athletes psychologically than physically, and thus lot of emphasis is being given to the psychological research dealing with psychological characteristics of the top level athletes, mental rehearsals of the training task etc. Not only that, a new field of psychology which has come up very fast and is still progressing in heaps and bounds is that of "Sports Psychology". It has helped coaches to coach

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more effectively and athletes to learn most efficiently. No training in the sports field is complete without reference to the psychological study and psychological training of athletes. All other factors—biological and sociological being equal, psychological conditioning of an athlete decidedly determines his success or failure in competitions.

Don Schollander, winner of four gold Medals at the Tokyo Olympics, has written in his book Deep Water that 'in competitions like the Olympics, a race is won in the mind—winning is 20 percent physical and 80 percent mental'.

The Soviets proved this after Montreal Olympics. They divided equally their Olympic team as follows:

<table>
<thead>
<tr>
<th>Group</th>
<th>Training Percentage</th>
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<tbody>
<tr>
<td>Group one</td>
<td>Total physical training</td>
</tr>
<tr>
<td>Group two</td>
<td>25 percent psychological and 75 percent physical training</td>
</tr>
<tr>
<td>Group three</td>
<td>50 percent psychological and 50 percent physical training</td>
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<tr>
<td>Group four</td>
<td>75 percent psychological and 25 percent physical training</td>
</tr>
</tbody>
</table>

The most effectively trained group was found to be

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4 John H. Llewellyn and Judy A. Blucker, *Psychological Coaching Theory and Applications* (Delhi: Surjeet Publication 1982), P. 1

group four, then three down to the least effectively trained group one.6

Ulrike Meyforth, the high jump world record holder (2.02 mt.) crossed 2.00 mt. for the first time in a sports festival at Munich. Then she tried world record of 2.02 mt. but could not make it. She later said, that "after crossing the 2.00mt barrier I was mentally not prepared to cross 2.02 mt., although I came very close to making a world record."7

Today the preparation of an athlete for top notch achievement is a completely dynamic state, characterised by a high level of physical and psychological efficiency and degree of perfection of the necessary skills and knowledge, teaching and tactical preparation. An athlete arrives at this stage only as a result of corresponding training. Thus athlete's training today is a multisided process of expedient use of aggregate factors so as to influence the development of an athlete and ensure the necessary level of participation.8

Sports psychology, as an applied psychology, is the


The greatest blessing of the modern day science in this age within a short span of time, sports psychology has taken giant strides. The knowledge in all fields of human endeavor, especially of behaviour, has expanded to such an extent that it is difficult to discuss one aspect of behaviour without reference to others. Singer\(^9\) states that "sports psychology explores one's behaviour in athletics." At present the psychological aspects have been emphasized and have become increasingly vital in the study of psychological characteristics that limit the performance of an individual in a given sports at high level of competition. Studies have shown that athletes who have dedicated much of their lives to their chosen sports, choke or clutch when the long sought goal is within their reach. Pages are full of stories about well trained athletes with superb physical fitness who falter at the moment of their victory. Psychological readiness plays a decisive role as to determine whether or not an athlete in competitions and in training responds to his optimum potentials.

Giving high-quality of attention during an athletic competition is an important aspect of effective coaching. Depending upon the sport, close attention may be needed for long periods of time, reflecting sustained vigilance, or for

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brief episodic periods, as when a weight lifter hoists the barbell over head.10

Often the qualities needed in sport requiring prolonged close attention are not those needed in sports requiring shorter spans of attention. Moreover, some sports situations require that attention be directed inward at the self monitoring of a complex skill such as a tennis serve, a high jump, or a discus throw, whereas some other sports require attention to an array of often confusing external cues. In this later case, the over learning of the motor skills involved is imperative so that outward attention may be unimpaired by the need to perform well.11

Anxiety is one of the most deterrents to good performance. At worst, the effect of anxiety gets the athlete so tied up in knots that he is frozen in fear. At best, anxiety subtly impairs performance by distracting the attention. That is not to say that one can not produce superlative performance when nervous.

Anxiety is one of the greatest problems of modern trends in scientific knowledge, cultural conflicts, economic problem of man, thus increasing the anxiety level. Anxiety refers to the emotional state of mind where a fear of danger

11 Ibid- P-104
or loss of suffering is a prominent feature. It generally arises as a result of fear of something unknown which creates tension and disturbances.\textsuperscript{12}

Laboratory, field and clinical evidence demonstrate that athlete and motor performance can suffer if anxiety becomes too high. Many youngsters report that various worries prevent them from playing their best when they compete. Competitive anxiety can affect youngster’s health by disrupting normal sleeping patterns or creating gastrointestinal problems. So cognitive approach and environment approaches are widely used in reducing anxiety.\textsuperscript{13}

Pain, or at least an individual’s perception of it, will usually have some bearing on the performance of skills, especially in competitive situations. Physiologically, pain mechanisms are quite similar for all people. The ability to detect painful stimuli may operate in the same way as we gain information related to vision, taste, movement: specialized sense receptors have specific functions, and pain receptors are activated when painful experiences are present. Another point of view is that pain encompasses so many stimuli that it can not be related to a single sense modality. Advocates of this concept suggest that intense

\textsuperscript{12} K.C. Kocher and V. Pratap, "Anxiety level of yogic practice," \textit{Yoga Mimansa} 15 (April 1972): 11

stimulations activate nonspecific receptors and that pain patterns emerge instead. Beyond the activation of pain receptors is the person's psychological attitude to the pain situations. Previous experiences influence the ability to cope with pain. Furthermore, pain thresholds may also be related to genetic factors. Experimental research and empirical observations suggest that some persons are able to withstand pain more than other persons. This situation may be related to an individual's pain threshold, conditioning factor related to previous experiences, and motivation to overcome the pain. Pain tolerance is related to a host of variables.

People differ in the responsibility they perceive for the reward and punishment, they receive, which is called locus of control. People are inclined to explain the events in their lives as resulting from external forces, such as luck, chance, and other powerful people, are called external controls.

People who are internally controlled are more likely to perceive the event in their lives as being dependent upon their own behaviour. They believe that in most cases, if they perform well or poorly, appropriate consequences will

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15 Ibid P. 207-208.
follow. They do not consider what happens to them to be purely a matter of luck or chance, and do not see their fate as always being in the hands of other people. Most people have some qualities of both internal and external control, but tend to view the world predominantly more from one perspective or the other. Therefore, you can subjectively identify people on a single continuum shown in Figure 1.16

![Diagram of external control and internal control](image)

**Fig. 1**

Self confidence is an accumulation of the athlete's unique experiences in achieving many different things, which results in the specific expectations he or she has about achieving success in a future activity. Many athletes think self-confidence is believing they will win. One of the tenets of the American sports creed is that athletes should always think they will win. To think otherwise is sacrilegious. Athletes are told that if they do not feel positive about defeating the other team, then they are thinking like losers, which makes them losers.

It is this mistaken belief about what self-confidence is that often leads to a lack of self-confidence or to over-confidence. True self-confidence is an athlete's realistic expectation about achieving success. It is a vital part of an athlete's personality, and is some thing that is others quickly recognised about him or her. Self-confidence is not involved with what athletes hope to do, but with what they realistically expect to do. It is not always what they say they will do to other, but their innermost thoughts about what they are capable of doing. It's not pride in what they have done, but their considered judgment of what they will be able to do.17

Achievement behaviour is defined as behaviour directed at developing or demonstrating high rather than low ability. It is shown that ability can be conceived in two ways. First ability can be judged high or low with reference to the individual's own past performance or knowledge. In this context, gain in mastery indicates competence. Second ability can be judged as capacity relative to that of others. In this context, a gain in mastery alone does not indicate high ability. To demonstrate high capacity, one must achieve more with equal efforts or use less effort than others for an equal performance. The conditions under which these different conceptions of ability function as individual's goals and the nature of the subjective

17 Ibid, P. 151.
experience in each case are specified. Different predictions of task choice and performance are derived and tested for each case.18

Motivation is a process by which an individual is inspired, guided as coaxed to do something. It is one of the important conditions rather than control core of life. In other words it is that psycho-physical condition of the organism which causes an individual to work as strive to fulfil his needs. In the absence of proper motivation not only the learning process but also life itself becomes an uninteresting uphill task. Motivation than is considered as that process by which a child may be prepared to respond to situations which are directed towards the achievement of certain predetermined goals or objectives. In this field of physical education and sports, no athlete can win or even show better performance without motivation.19

The concept of Motivation specially, achievement motivation, has attracted the interest of many coaches and researchers working with athletes. Motivation appears to be the key to accomplishment, whether it be in sports, in teaching, in research or in some other challenging pursuit;

18 John G. Nicholls, "Achievement Motivation: conceptions of ability, subjective Experience, task choice, and performance" Psychological Review 91 : 3 (July 1984), P-328
19 M.L. Kamlesh, Psychology of Physical Education and Sports, P.196.
volumes have been written about the various theories of Motivation.

- Each sport has basic motor traits and should be developed to perform efficiently in such sports. Concentration and depth perception play an important role in games and sports, but each sport will definitely require the different types of perception (depth perception, vertical distance perception, horizontal perception, kinesthetic perception, time perception, angle perception) and different level and type of concentration as the archer requires more of horizontal perception and static concentration where as a diver in swimming may require more of depth perception and dynamic concentration to perform efficiently in their respective activities.

Depth perception is primarily based upon binocular vision and is aided by certain visual cues. In motor activities the success of athlete depends upon his accuracy in judging the distance and speed of individuals and objects, especially in ball games, for efficient performance.

Keeping in view the significance of the above psychological variables to sports performance the researcher decided to find out the relationship of selected psychological variables to motor components and sports skills of high and low fitness groups.
Statement of the problem

The purpose of the study was to study relationship of selected psychological variables to selected motor components and sports skills of high and low fitness groups.

Sub-Problems

The following were the sub problems of this study.

1. To compare high and low fitness group on selected psychological variables.
2. To compare high and low fitness group on selected sports skills.

Delimitations

1. The study was delimited to the following psychological variables:
   a) Attention  e) Sports self-confidence
   b) Anxiety    f) Achievement Motivation
   c) Pain tolerance g) Depth perception.
   d) Locus of control

2. The study was further delimited to the following selected Motor components:
   a) Speed       d) Agility
   b) Explosive Strength e) Flexibility, and
   c) Endurance    f) Co-ordination

3. The study was also delimited to the following sports skills:
   a) Hitting the target
   b) Shooting the Basketball
   c) Serving in Volleyball, and
   d) Basketball throw for Accuracy
4. The study was further delimited to the 100 male students of B.Sc. Physical Education, Health Education, and Sports of Mahanada Mission Harijan College, Ghaziabad, U.P.

Limitation

Since no special motivational techniques were used to motivate the subjects, hence this may be considered as one of the limitations. However, the subjects were asked to put up their best performance.

Hypothesis

Based on the literature reviewed, discussion with the experts and the scholar’s own understanding of the problem, it was hypothesised that there will not be any significant relationship between selected psychological variables to motor components and sports skills of high and low fitness groups.

Definition and Explanation of terms

Attention

The act of fixing the mind on some thing or somebody, especially by watching or listening; full thought and consideration.20

Anxiety

Anxiety may be defined as a state of emotional and physical disturbance induced in a person by real or imagined threat. In psychiatry the term refers to disturbances caused by threats that are only apparent to the individual and cause him to behave in a way that is not relevant to the true situations.²¹

Anxiety is an uneasiness and feeling of foreboding often when person is about to embark on a hazardous venture. It is often accompanied by a strong desire to excel.²²

Pain Tolerance

It is the ability of the individual to endure pain and fatigue for a longer duration due to physiological process.

Locus of Control

Locus of Control of reinforcement refers to an individual’s perception of reinforcement contingencies. The more a person sees a connection between his own behaviour and what happens to him the more "internal" he considers. Conversely the more he does not perceive connections between his reinforcement's and his actions but see the consequences

²¹ Encyclopedia American 1966 ed S.V. "Anxiety"
as due to luck, chance or the influence of others, the more "external" he is considered.23

Sports self-confidence

Self-confidence is an accumulation of the athlete's unique experiences in achieving many different things which result in the specific expectations he or she has about achieving success in a future activity.24

Achievement Motivation

An effective arousal state directing behaviour in an achievement oriented activity cognitively appraised as potentially satisfying. It is assessed here in as in the motivational disposition, the need to do a job well and the need to be a success which results in emulation of the successful rather than in hard work.25

Depth Perception

Oxenedine has defined depth perception as the "ability to distinguish the distances of objects or to make judgements about relative distances."26


24 Ibid, P. 151-152


Speed

Rapidity with which a movement or successive movement of the same kind may be performed.\(^{27}\)

Explosive Strength

Explosive strength is the ability of a muscle or a group of muscles to release minimum force in the shortest possible time, in an explosive manner, projecting the body or an object.\(^{28}\)

Endurance

The ability of a muscle to work against a moderate resistance for a long period of time is termed muscular endurance.\(^{29}\)

Agility

Agility is the physical ability which enables an individual to rapidly change body position and direction in a precise manner.\(^{30}\)


\(^{28}\) Ibid., p.173.


Flexibility

Mc Cue defines flexibility as the amount of movement which can be achieved in a joint or articulation.31

Two Hand Co-ordination

Two hand co-ordination is the ability of the performer to integrate types of movement into specific patterns. One of the most important factor in the sports skills is concerned with the co-ordination of eyes with either hands or feet. Skillfulness in this area of movement is characterised by control accuracy and steadiness. For the purpose of this study two hand co-ordination can be defined as the ability to perform the movement of specific pattern with both the hands and eyes with control, accuracy and steadiness.

Significance of the study

In the field of sports and games where an individual has to perform complex motor task, an integrated functioning of physical and psychological variables is of paramount importance. The ability of a sportsman to perform a task effectively and efficiently is an interaction between one’s physical and mental capabilities. Both mental and physical faculties of the individual are closely linked to each other.

that along with mental tasks one has to cope-up with the
demands of physical task and vice-versa. The present study
will be of significance in the following ways :-

1. The current study will help in determining the
relationship of psychological variables to motor
components of high and low fitness group.

2. The current study will further determine the
relationship of psychological variables to selected
sports skills of high and low fitness group.

3. The present study will also help to compare the high
and low fitness group on selected psychological
variables.

4. The present study will also help to compare high and
low fitness group on selected sports skills.

5. The results of this study will help the coaches,
athletes, and sports psychologists to identify those
psychological factors which contribute to sports
performance and shall in turn help them to develop
training programme on the same line and direction.