Chapter I

INTRODUCTION

What, then, is the right way of living? Life must be lived as a play, playing certain games, making sacrifices, singing and dancing, and then a man will be able to propitiate and gods, and defend himself against his enemies and win in the contest.

Plato

"Sports by their very nature are enjoyable, challenging, all absorbing and require a certain amount of skill and physical conditions." In the order of human values conquest in the field of sports holds an unique place. It is success, victory, triumph and domination of some over others—team mates and friends—because sport is comradeship and friendship. The sublimity of competition

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lies in the loser's acclaim for the winner, which along with the friendly handshake acknowledges both defeat and triumph.³

Sports is as old as the human society, and it has achieved an universal following in the modern times. It now enjoys a popularity which outstrips any other form of social activity. It has become an integral part of educational process. Millions of fans follow different sports events all over the world with an enthusiasm bordering on devotion. Many participate in sports activities for the fun of it or for health, strength and fitness. It is taking the shape of a profession to some with high skills, with ample financial benefits linked with high degree of popularity.⁴

Soccer has become a very popular game in the world. Almost all the nations play this game both for enjoyment and competition. Modern soccer


is very fast by its nature, and it demands a high level of special fitness. The spectators and the players enjoy the game of soccer with a great amount of merriment. It is a game of constant action and requires continuous adaptation to the changing situations by the team as well as by the individual players. Although it is a team game, there is ample room for players to display their brilliance through individual performance with the ball as well as through team play involving technical and tactical knowledge.) It is a game that sends people from all over the world into frenzy, creates national and international heroes too, as like Pele the great of Brazil, Diego Maradona of Argentina, Zico of Brazil, Platini of France and the like.  

As sport has developed into a distinct scientific discipline in itself and each nation is vying with the other to produce top class players to win laurels in international competitions, considerable research is devoted to identify factors

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that will be predictive of achieving high level of skill in a given sport with proper coaching.\textsuperscript{6,7}

Training techniques based on new findings in exercise physiology, biomechanics, sports medicine, sports psychology, etc. are adopted to bring about maximum possible unfolding of potential in sports performance.\textsuperscript{8,9,10}

Hereditary predisposition is estimated to be two-third of the basis of top performance.\textsuperscript{11}


\textsuperscript{11} Ibid., p. 191.
Certain anthropometric considerations, somatotype features, and racial traits are identified as advantageous for performance in a specific sport. 12, 13, 14, 15 Intelligence, divergent thinking (creativity), psychological characteristics of aspiration, persistence, self-control etc. are also important factors to reach the category of top sports. 16, 17, 18


Miroslav Vanek\textsuperscript{19} has stated "physical effort prevails in training and psychic effort prevails at competition."

Today the preparation of an athlete for achievement is a complex dynamic state, characterized by high level of physical and psychological efficiency (physical and psychological readiness) and the degree of perfection of the necessary skills and knowledge, techniques and tactical preparation. Many other factors are also brought into action in his preparation (means of rehabilitating strength after loads, special nutrition, organization of general regime in accordance with the conditions of sports activity etc.). Thus athlete's training today is a multi-sided process of expedient use of aggregate factors (means, methods and conditions) so as to influence the development of an athlete and ensure the necessary level of preparation.\textsuperscript{20}


\textsuperscript{20}Matveyev, Fundamentals of Sports Training, p. 22.
Therefore, besides monitoring physical fitness and functional ability, selected anthropometric and somatotype characteristics and psychological traits etc. will be of definite advantage in the selection of top level sportsmen.  

21 Athlete for superior performance in any sport is selected on the basis of physical structure and body size he possesses which has proved to be appropriate for high performance in the given sports. 22,23,24

The advantage of body segmental or musculo-skeletal framework as the phrase implies, is an arrangement of the bones and muscles. Adjacent bones are attached to one another by joints, which


provide the motion for moving the bones to which they are attached. Mechanically speaking, the total bone-joint-muscle structure is an intricate combination of lever which makes possible a great number of coordinated movements, ranging from the small hand and finger motions used in assembling a television set or playing the Piano, to the total body movements of a swimmer, soccer player or a gymnast.\(^{25,26}\)

The importance of height for basketball players, pole vaulters, high jumpers, soccer goal keepers and stopper backs is well known to coaches as providing mechanical advantage, are well established and described in sport literature.\(^{27,28,29}\)

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\(^{27}\) Encyclopedia of Sport Sciences and Medicine, 1971 s.v. "Stature" by Carl E. Willgoose.


+ Votto\textsuperscript{30} studied somatotype characteristics of 23 major college football players and concluded that football players were markedly classified as endo-mesomorphic.

\textbf{Tattersfield}\textsuperscript{31} studied 15 players, each from amateur rugby, professional rugby and amateur soccer, professional soccer teams and observed that defensive soccer players were superior to the forwards in body weight and standing height.

\textbf{De Garay, Levine and Carter}\textsuperscript{32} after an intensive study of anthropometric measures of Olympic Athletes, concluded that top level performance in a particular event demands particular type of body size and shape, other aspects being similar. They established high relationship between structure of an athlete and the specific task (event) in


\textsuperscript{32}De Garay, Levine and Carter, \textit{Genetic and Anthropological Studies of Olympic Athletes}, p. 73.
which they excelled.

Besides anthropometric advantages to sports performance, at present the psychological aspects also have been emphasized and have become increasingly vital in the study of psychological characteristics that limit the performance of an individual in a given sport at the high level of competition.\(^{33, 34}\)

Personality assessment has now been used in the selection of athletes and also serves as a tool to evaluate sport gifted individuals. In recent years psychologists and physical educators have become interested in assessing the personality of athletes. There has been a general premise that athletes possess unique and definable personality characteristics.


Cratty\textsuperscript{35,36,37,38} has abstracted available research findings on the relationship of physical skills with personality characteristics and personality development which are summarized as follows:

Participation in physical activities besides developing physique, contributes to building up of self-confidence, reduction of anxiety level, and outgoing tendency or extroversion as such proficiency leads to increase success in physical task which is valued in one's group. Success in sports-activities in adolescence enhances self-esteem whereas physical inaptitude leads to feeling of inferiority.


Certain psychological characteristics and personality features facilitate participation in physical activities and acquiring proficiency and skills which in turn may enhance desirable psychological dimensions. A minimum level of I.Q. is necessary to achieve superiority in sports endeavour. People with the low intelligence experience difficulty in acquiring skills. Certain personality traits such as freedom from agitation, high need for social approval, lack of hostility to the environment are predictive of superior performance in sports endeavour.

Many who support the personality performance relationship go so far as to state that, all other things being equal, the personality of the athlete will determine the winner. Cofer and Johnson suggested that athletes are a special breed in terms of personality and their special attributes sort out the champions from those who are blessed with similar physical abilities.39

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On the basis of the large number of observation and evaluation of individual sportsman, a number of personality traits related to high sports achievement, have been determined. These traits are drive, determination, intelligence, aggression, leadership, emotionality, self-confidence, mental toughness, trust and conscience development. 40, 41, 42, 43

High relationship between physical fitness and personality traits were also noticed in the literature, where highly fit sportsmen were found to be more intellectually inclined, outgoing, emotionally stable, self-confident, easy going, relaxed, less ambitious, less tense and unconventional


in comparison to the low fit sportsmen.\textsuperscript{44,45} 

Cooper\textsuperscript{46} feels that some sort of complex of personality factors must be functioning that compels an individual to join and work with a team, with its regular practices, leadership, and peer involvements and continuity over time. He also states that such factors related to participation in competitive sport may well be different from the general psychological needs related to ordinary physical activity.

Therefore, some discrete set of personality factors probably exists which is related to causing some people to select and participate in sports. Perhaps these people possessing the strongest and most fortuitous combination of these salient personality factors tend to persist in sport and become


\textsuperscript{45}Kenneth Tillman, "Relationship Between Physical Fitness and Selected Personality Traits," \textit{Research Quarterly} 36 (December 1965): 488.

successful as outstanding athlete. 47, 48

But very little 'hard' evidence are in existence that the participation in competitive sport influences and modifies a competitor's personality structure. 49

Buffon 50, Hughes 51, Mihevic 52 and Morgan 53


49 Alderman, Psychological Behaviour, p. 138.


agree that participation in general sports activities does not seem to affect personality but vigorous exercise and programme that increase fitness level may have positive effects on mood, self-concept and general mental health.

The importance of the self-concept in the personality pattern is evidenced by the levels usually given it. It is referred to as the core or centre of gravity of the pattern or as the keystone of personality. Its importance stems from its influence over the quality of a person's behaviour and his methods of adjustment to life situations.54

Research studies in the literature indicate a high relationship between the concept a person has of himself and his achievement. The major premises underlying this information are that the manner in which a person sees himself is a product of how others view him and these perceptions are

the major products in his various achievement behaviours. That is, if you think you are good, and you perceive others as thinking you are good, then you will be good.\textsuperscript{55}

The term self is generally defined as being bidimensional. The first dimension, self-as-an-object, deals with the person's attitudes, perceptions, thoughts, feelings, and evaluation of himself as-an-object. The second dimension, self-as-a-process, deals with self-as-a-doer and considers it a function of thinking, perceiving, evaluation and remembering. The concept of self-as-an-object is generally known as person's self, whereas the concept of self-as-a-process is referred to as the ego. If a person's ego is competent in coordinating his inner demands with the constraints and restrictions of external reality, then he will think highly of himself and thus have a strong self. Also, if one thinks highly of himself his ego processes are likely to function more efficiently. Such interaction manifests itself in successful

\textsuperscript{55}Alderman, \textit{Psychological Behaviour}, p. 143.
achievement. With the strong self-concept base the individual will be more confident, assured and assertive in his actions with the other people and in the endeavours he undertakes. This is fairly obvious in the self-confidence and self-assurance displayed by successful athletes and in the results of evaluation of their self-concepts. The athlete exhibiting these traits tends not to be fatigued by exciting situations, feels quite adequate in demanding and crucial situations, is not easily downhearted or remorseful, prefers excitement, noise and people, and is not likely to be a hypochondriac. ⁵⁶

Perhaps with these desirable qualities the sportmen exhibit their deserving performances in respective events and thereby gradually enhance their self-confidence.

It is believed that self-confidence is vital to successful athletic participation. Athletes invariably say that the key to success is believing

in themselves and they back it up by exuding self-confidence in their play.\textsuperscript{57}

On the other hand lacking in self-confidence which probably arises out of self doubts, causes an athlete to fall from the ladder of success because they begin to behave in accordance with those doubts. They expect to fail, which in turn leads to actual failure which confirms their negative self-image. Thus self-doubts are negative expectations of diffident sportsmen undermine their performance by creating anxiety, loss of concentration and uncertainty of purpose. Diffident athletes frequently focus so intensely on their shortcomings that it distracts them from attending to the things essential to good performance.\textsuperscript{58}

In sports literature high proficient athletes are found to have higher self-concept in comparison to the low proficient ones' which obviously indicate


\textsuperscript{58}\textit{Ibid.}, pp.152 - 153.
the self-concept as the contributory factor of top sports proficiency. 59,60,61

Thus there seems to have certain association with anthropometric characteristics, personality traits and self-concept dimensions to sports proficiency, either by the way of appropriate anthropometric characteristics, personality traits and self-concept dimensions facilitating sports proficiency or the sports proficiency influencing the development of certain anthropometric features, personality traits and self-concept dimensions.

Further it is a generally accepted fact that physical fitness is an invariable concomitant of sports proficiency, but, whether the players of


a specific sport belonging to the high and low fitness levels are influenced equally by the anthropometric characteristics, personality traits and self-concept dimensions in the same magnitude is not fully investigated. Therefore, it will be worthwhile to investigate and differentiate the anthropometric and psychological (personality traits and self-concept dimensions) characteristics of high and low fit soccer players.

Statement of the Problem

The purpose of this study was to investigate whether high and low fit soccer players are characterised by distinct anthropometric and psychological (personality traits and self-concept dimensions) characteristics.

Delimitations

1. The study was delimited to the method of measurement of anthropometric characteristics as mentioned in the literature.

2. The study was further delimited to the assessment of personality traits as psychological characteristics through Cattell's 16 P.F. Questionnaire prepared by Cattell and Eber.
3. The study was delimited to the assessment of self-concept dimensions as another psychological characteristic by self-concept questionnaire prepared by Dr. Raj Kumar Saraswat.

4. The study was also delimited to the soccer players, who were undergoing selection trial of Burdwan University.

**Limitation**

The measurements taken are likely to be vitiated by approximation of taking readings and errors due to human perception and handling.

**Hypotheses**

1. The size of selected anthropometric characteristics namely standing height, leg length, foot length, foreleg length, thigh length, calf girth, thigh girth, hip width and shoulder width will not distinguish the high and low fit soccer players.

2. Selected psychological characteristics namely personality traits and self-concept dimensions will not distinguish the high and low fit soccer players.
Definition and Explanation of Terms

Anthropometric Characteristics

Anthropometric characteristics are dimensions of the structure of the human body taken at specific sites to give measures of length, girth and width.62

Psychological Characteristics

Personality and self-concept were studied as the psychological characteristics.

Personality

1. Personality is that which permits a prediction of what a person will do in a given situation. The goal of psychological research in personality is to establish laws about what different people will do in all kinds of social and general environmental situations. Personality is concerned with a total behaviour of the individual, both over

and under the skin. 63

2. Personality is the dynamic organization within the individual of those psychological systems that determine his characteristic behavior and thought. 64

Self-concept

1. Self-concept denotes totality of attitudes, beliefs, perceptions and feelings which individual views as a part of the characteristics of himself. It is one's own conception of himself with regard to health, physique, intellectual abilities, mental health, emotional stability and socio-economic status. 65


2. The self is something of which we are immediately aware. We think of it as warm, central, private region of our life. As such it plays a crucial part in our consciousness (a concept broader than self), in our personality (a concept broader than consciousness), and in our organism (a concept broader than personality). Thus it is some kind of core in our being.\footnote{G.W. Allport, Pattern and Growth in Personality 1961, cited by Hurlock, Personality Development, p.21}

Soccer

Soccer is a football game, played under teams of 11 players on a side and using a round football. The designation "soccer" is derived from "Association Football" to distinguish from American Football, Canadian Football, Rugby and several other sports in the historical development of the game. It is now played under the overall supervision of the Federation International de Football Association.\footnote{New Encyclopedia of Sports, 1977 s.v. "Soccer" by Ralph Hickok.} It is popularly known as football in India.
Significance of the Study

Even though anthropometric and psychological advantages to a sportsman are recognised facts, the example of a certain individual sportsman of a specific sport attaining high fitness proficiency inspite of matching the anthropometric and psychological model, places a doubt, whether much reliance can be placed on anthropometric and psychological (personality and self-concept) characteristics, as essential features of selection of high fit sportsmen for that specific sport. In this study an attempt was made to investigate, whether soccer players, belonging to the high and low levels of fitness proficiency, were characterized by distinct parameters of selected anthropometric and psychological (personality and self-concept) characteristics. The result of this study is likely to add to the knowledge of the role of physical and psychological endowment in developing high and low fitness proficiency in soccer, other contributing factors being similar.
The findings of this study may also give certain guidelines based on anthropometric and psychological characteristics, for selecting players for competitive sport which demand high level of physical fitness.