CHAPTER I

INTRODUCTION

The search for a possible personality profile for high-level athletes has always been one of the main objectives for researchers, and this fact led this population to be studied and compared with non-athlete samples. In this context, Auweele et al., (2001) assure that the definition, identification and measurement of the predictable behavior functionality of athletes are extremely important in the sports psychology, justifying studies that attempt to distinguish athletes from other populations. Several personality concepts are found in the scientific literature on the topic. It is observed in works of Butt (1987), Cox (1994) and Weinberg and Gould (1995) some personality similarities when pointed to a definition based on the set of psychological characteristics that, altogether, compose the single character of each individual. Demonstrating the complexity of the topic, Allport (in Cox (1994): p.21) defined personality as “the dynamic organization of the individual’s psychophysical systems that determine unique adjustments to his environment”.

More recently, Hernández-Ardieta et al., (2002) defined personality as the “organization more or less stable and lasting of the character, mood, intelligence and physical composition of an individual who determines his particular way to adjust himself to environment and to interact with it”. Since the decade of 1970, many studies comparing athletes and non-athletes were performed (Backmand et al., (2001); Dobosz and Beaty, (1999); Fletcher and Dowell, (1971); Frederick, (2000); Saint-Phard et al., (1999); Stephens, (2001); Stoner and Bandy, (1977); Stoner and S. Bandy, (2001) and Yeung and Hemsley, (1996). This type of psychological characteristics comparison between athletes and non-athletes including athletes from team and individual sports has always been emphasized in these studies. However, Weinberg and Gould (1995) and Saint-Phard et al., (1999) indicate that researches involving these populations are still
incomplete and inconclusive and what distinguishes athletes from non-athletes is not a single profile, once the differences between groups are not consistent. This characteristic seems to be constant in personality studies, demonstrating that this area is still an open field full of questions to be explored. With regard to researches on the topic, the existence of a personality profile of the competitive athlete has been matter of many controversies among researchers. Vealey (2000) already assured the inexistence of a personality profile for athletes. Once there are no distinguishable differences between athletes and non-athletes, fact also corroborated by Morris (2000) and Guillén and Castro (1994).

Auweele et al., (1993) performed a meta-analysis and verified that athletes are not different from non-athletes with regard to extroversion in three different instruments (16 PF, EPI and EPQ), becoming a robust result for personality researches. Unlike the authors mentioned above, Butt (1987), Cox (1994) and Saint-Phard et al., (1999) reported that the competitive athlete presents some psychological characteristics that distinguish him from other populations. Among these differences, the authors consider that athletes present higher emotional stability, extroversion, self-confidence and present higher mental resistance if compared with non-athletes. Maresh et al., (1991) compared a group of runners with a group of non-athletes. The results indicated that these athletes were more withdrawn, thoughtful and presented lower anger levels than non-athletes. With a sample of similar characteristics, however using the POMS (Profile of Mood States) questionnaire, Morgan and Costill (1996) concluded that athletes presented a better iceberg profile, also presenting lower levels of tension, depression, anger, fatigue and mental confusion than non-athletes. In short, athletes presented more positive characteristics than non-athletes.

Weinberg and Gould (1995) and Backmand et al., (2001) intended to compare different groups of athletes with non-athletes so that possible differences could be better understood due to largeness of the athletes population. The first authors reported that team athletes were characterized
by being more extroverted and dependent on the group and presented lower indication of the ego orientation. Athletes of individual sports also demonstrated to be more dependent from a group than non-athletes; however, they were distinguished by higher objectivity and lower anxiety levels. The findings of Backmand et al., (2001) corroborated that athletes are different from non-athletes, but the psychological qualities are common to some groups of athletes and not to athletes as a whole. Other subgroups were also investigated. Comparing the athlete with non-athlete woman, Weinberg and Gould (1995) and Hernández-Ardieta et al., (2002), demonstrated that the athletes are more aggressive, independent, emotionally more stable and more concentrated in work than non-athletes. Using the methodology of comparing ex-athletes with non-athletes, Backmand et al., (1996) verified that not many differences were observed with regard to variables extroversion and hostility, unlike some studies previously presented. A difference was found in the lower neuroticism level of non-athletes. Other result to be presented was the study by Dobosz and Beaty 1999) that indicated that athletes presented higher leadership ability than non-athletes. This demonstrates the large amount of variables studied. Analyzing groups of athletes and comparing them with non-athletes, they found that runners presented lower stress, depression and anger levels (similar to Morgan and Costill, 1996); that team sports athletes were less neurotic and that endurance athletes were more extroverted than non-athletes.

In the last years, researchers have performed comparisons between groups of athletes and non-athletes. Kitsantas and Zimmerman (2002) compared groups of volleyball players with non-athletes in the self-regulatory process during the practice of physical activity. Dineen (2003) investigated the personality of athletes and non-athletes who presented higher indexes of neuroticism and lower indexes of extroversion. In another study, Lernieux et al., (2002) verified no aggressiveness differences between athletes and non-athletes.
Elite athletes repeatedly have to perform under high pressure, and it is therefore not surprising that psychological characteristics often distinguish those successful at the highest standard from their less successful counterparts (Morris, 2000). Early research evidence already supported an association between psychological characteristics and sports performance (Morgan and Pollock, 1977; Morgan, 1979; May et al., 1985). Further research evolved with an emphasis in identifying psychological skills relevant to sport (Meyers et al., 1996). Mahoney et al., (1987) identified potential constructs assessing motivation, confidence, anxiety control, mental preparation, team emphasis and concentration. They developed an instrument that assesses a broad range of psychological skills possessed by athletes and moreover is sport-specific: the Psychological Skills Inventory for Sport (PSIS.)

Compared to non-elite athletes, elite athletes reported that they were more motivated to do well in their sport, were more self-confident, experienced fewer problems with anxiety, relied more on internally referenced and kinesthetic mental preparations, were more focused on their own performance than that of their team, and were more successful at deploying their concentration (Mahoney et al., 1987; Mahoney, 1989). So far, many other researchers have also distinguished successfully elite from non-elite athletes on the basis of their psychological skills. For example, Grossarth-Maticek et al., (1990) described psychological factors as determinants of success in football and boxing. Meyers and colleagues (1996) reported better scores for elite rodeo athletes than non-elite ones on motivation, confidence, anxiety control and concentration, whereas in a study on Chinese track and field athletes, Cox et al., (1996) found elite athletes outscoring collegiate level athletes on confidence and anxiety control. It is not self-evident that the relation between psychological skills and performance level is similar for different types of sports or for males and females.

Various studies have indicated, for example, that differences exist in psychological skills between individual and team sports (Feltz and Ewing,
1987; Mahoney et al., 1987; Cox and Liu, 1993) and between the genders (White, 1993; Chantal et al., 1996; Sewell and Edmondson, 1996; MacIntyre et al., 1998). In addition, a relation between psychological skills and performance level has been found within the highest performance level, that is when elite and sub-elite athletes are compared to each other. Orlick and Partington (1988) reported that among physical, technical and mental characteristics, mental readiness provided the only statistically significant link with final Olympic ranking of Canadian Olympians. However, it seems that differences are smaller when elite athletes are compared to sub-elite athletes rather than to non-elite ones.

In a study on equestrian athletes, elite athletes scored higher than sub-elite athletes on only two of six psychological skills from the PSIS (Meyers et al., 1999) whereas Meyers and colleagues (1994) found no differences in psychological skills between top-ranked (1 to 65), middle ranked (75-180), and bottom-ranked (200+) female world-ranked tennis players.

1. PSYCHOLOGICAL CHARACTERISTICS

1.1. MOTIVATION

1.1.1. Definition

The word motivation comes from the Latin root ‘movers,’ which mean to move. We can say that in its literal meanings motivation is the process of arousing movement in the organism. According to various subject scholars the movement is produced and regulated through the release of the energy within the tissues.

Lot of research has been done on psychology of motivation in the past. Many new theories have been evolved to explain human behavior. Various scholars defined motivating in their own words. Definitions given by some psychologists have been given below:
1. The term motivation refers to the arousal of tendency to act to produce one or more effects. (Atkinson, 1965).

2. The term motivation refers (i) to existence of an organized phase sequence (ii) to its direction and content (iii) to its persistence in given direction or stability of content. (Hebb, 1966).

3. Motivation is constant never ending, fluctuating and complex and that it is an almost universal characteristic of particularly every organismic state of affairs. (Maslow, 1966).

4. Motivation refers to all those phenomena which are involved in the stimulation of action towards particular objectives where previously there was little or no movement towards there goals. (Bernard, 1972).

The relevance of psychological concepts to the investigation of sport performance and elite sport performance in particular has recently been underscored by many (e.g., Mahoney, 1989; Morgan, O'Connor, Ellickson, and Bradley, 1988). Among such concepts, motivation is certainly one of the utmost importance (Roberts, 1992). In this regard, Self-Determination Theory (Deci and Ryan, 1985, 1991) could prove relevant, since it has been repeatedly acknowledged as a useful multidimensional theoretical framework to understand human motivation in the sport domain (Briere, Vallerand, Blais, and Pelletier, in press; Deci and Ryan, 1985, Fortier, Vallerand, Briere, and Provencher, 1995; Pelletier et al., 1995; Ryan, Vallerand, and Deci, 1984; Vallerand, Deci, and Ryan, 1987).

According to self – Determination Theory (Deci and Ryan, 1985, 1991), individuals have a need to feel self – determined and competent when dealing with the environment. Self-determination is defined as an autonomous and flexible capacity to choose, among several courses of action, that action that will bring desired consequences. Competence, on the other hand, entails a sense of being effective in one’s interactions with the environment. It is hypothesized that these two fundamental needs
result in at least four types of motivation that are ordered along a continuum of self-determination. From high to low self-determination, these types of motivation are: intrinsic motivation (IM), self-determined extrinsic motivation (EM), non-self-determined extrinsic motivation, and finally amotivation (Vallerand and O’Connor, 1989).

Intrinsically motivated activities are engaged in for the feeling of pleasure and satisfaction derived from participation. For example, athletes who experience fun and satisfaction in learning new aspects of their sport or athletes who experience pleasure in trying to surpass them while training display intrinsic motivation. An intrinsically motivated activity is thus seen as an end in itself as opposed to a means to some ends.

Extrinsically motivated activities are performed in order to receive or to avoid something once the activity is terminated. Self-determined EM occurs when an activity is personally valued and is perceived as chosen by one. For instance, athletes who choose to train regularly because they feel that their training contributes to their well-being display self-determined EM. Indeed, even if their training is instrumental, it nevertheless results from choice. In such cases, individuals experience a sense of direction and purpose instead of obligation and pressure, in performing the activity. Conversely, non-self-determined EM involves engaging in an activity in order to obtain rewards (e.g., to win a medal), to avoid sanctions (e.g., to lose sponsorship), or even in order to appease internal pressures (e.g., guilt). Thus, non-self-determined EM implies a sense of being compelled to behave in a specific way.

Finally, individuals are said to be amotivated when they don’t perceive contingencies between their own actions and the resulting outcomes. In other words, amotivation is at work when individuals experience pervasive feelings of incompetence and lack of control. Thus, amotivated activities are neither intrinsically nor extrinsically motivated. For instance, athletes who train or compete with no real purpose and with little sense of meaning display amotivation.
Incorporated in this theoretical framework is Cognitive Evaluation Theory which represents a key component of Self-Determination Theory (Deci and Ryan, 1985, 1991). According to Cognitive evaluation Theory, various situational factors can have a detrimental impact on IM. For instance, and germane to the sport domain, one such situational factor is certainly that of competition. Previous research has shown that emphasizing winning at all costs may lead individuals to focus on extrinsic elements of the activity so that participation is no longer regulated by the inherent qualities of the activity proper, but rather by some external agent. In such cases, there is a shift from an internal to an external locus of causality, thus leading to a decrease in feelings of self-determination and consequently, to a loss of IM. The detrimental impact of competition on IM has been demonstrated in both laboratory (Cornelius, Silva, and Molotsky, 1991).

In accordance with this line of research, Fortier et al., (1995) have recently suggested that Cognitive Evaluation Theory could be extended to other types of motivation besides IM, namely non-self-determined EM and amotivation; that is, external factors such as competition would not simply have the potential to undermine IM but they could also foster non-self-determined EM and amotivation. Results of this study indicated that competitive athletes (who presumably experienced stronger pressures to perform), when compared to recreational athletes, displayed lower levels of intrinsic motivation while exhibiting higher levels of motivation. However, sport performance was not assessed in the Fortier et al., (1995) study.

The few investigations that have simultaneously dealt with sport performance, elite athletes’ motivation has outlined a positive relation between better performance and higher motivation (Bakker et al., Koning, 1993; Mahoney, 1989; Mahoney, Gabriel, and Perkins, 1987; Morgan et al., 1988). However, very little research has determined the specific types of motivation that would be conducive to better sport performance.
In the last two decades, a keen interest in the concept of intrinsic versus extrinsic motivation has taken place (Condry, 1977; Deci and Ryan, 1985, 1991). Intrinsic motivation can be defined as doing an activity for itself, out of interest, and for the pleasure and satisfaction derived simply from performing it (Deci and Ryan, 1985). An example of intrinsic motivation toward sport would be athletes who go to practice because they find it interesting and satisfying to learn more about their sport, or athletes who practice their sport for the pleasure of constantly surpassing themselves.

Contrary to intrinsic motivation, extrinsic motivation pertains to a wide variety of behaviors where the goals of action extend beyond those inherent in the activity itself. Thus, athletes who practice their sport for the prestige associated with being an athlete, or athletes who go to practice to show others how good they are at their sport display extrinsically motivated behaviors. This intrinsic-extrinsic conceptualization of motivation has proven to be ecologically valid in different life domains, including the sport and physical activity domain (Blais, Vallerand, Pelletier, and Mongeau, 1985; Ryan, Vallerand, and Deci, 1984. Vallerand, Deci, and Ryan, 1987; Weiss and Bredemeier, 1983).

Competition emphasizing winning at all costs represents another situational factor that has been found to decrease intrinsic motivation. Thus, by focusing on winning or beating someone else, something extrinsic to the activity itself, individuals in competition adopt an external locus of causality, thus leading to a decrease in feelings of self-determination and consequently, a loss of intrinsic motivation.

1.2. CONFIDENCE

Confidence is an emotion or state of mind commonly associated with athletic success. Indeed, the following quote from tennis champion Jimmy Connors provides great insight into the confidence level of an elite athlete.
The whole thing is never to get negative about you. Sure, it’s possible that the other guy you’re playing is tough, and that he may have beaten you the last time you played, and okay, maybe you haven’t been playing all that well yourself. But the minute you start thinking about these things you’re dead. I go out to every match convinced that I’m going to win. That is all there is to it (Weinberg, 1988).

The importance of high levels of confidence in elite athletics is also highlighted in the studies of Jones and Hardy (1990) and Hemery (1986). In Jones and Hardy’s report of interviews of elite athletes, they found that in general, elite athletes tended to have very high levels of confidence and felt that the athletes felt that these high levels were needed for the performances that they were looking for. Hemery’s study of 63 elite athletes showed that 90% of the sample had “a very high level of self-confidence” (Hemery 1986). Confidence is usually a result of an athlete anticipating success in their upcoming event. An athlete’s anticipated outcome is the greatest indicator of confidence (Kauss, 1980). This expectation for success can be based on an athlete’s confidence in themselves, in teammates, emotional readiness, physical ability, knowledge of the opponent, goals, strategies, physical condition, or in the coach (Kauss 1980). Elite athletes are renowned for high confidence levels. DeVenzio (1997) believes that this may be a result of being an elite athlete and not necessarily a cause. He believes that “confidence level mirrors skill level” (DeVenzio, 1997). This view points to the link between talent or previous success and confidence level.

If the preceding paragraph is true, perhaps the best therapy for low confidence is success. Coaches in every sport have employed this tactic. It can be seen whenever top ranked teams schedule lower ranked teams so that they can rack up wins and boost confidence. In addition to this technique, O’Connor (1970) suggests that an athlete can also build confidence just by acting confident. He says that an athlete should always act as if they are confident even if they are not. In doing so, the athlete does not let on any weaknesses to opponents and can even build up their own confidence (O’Connor, 1970). The investigator believes that one
cannot clearly define confidence as a cause or effect of being an elite athlete. It is obvious that to reach the very pinnacle of sport, an athlete must have a high confidence in their abilities; and getting to that elite level and all the preceding successes that it took to get to that level must surely build the confidence levels of an athlete.

The amount of self-confidence that an individual possesses has been found to differ among elite and novice athletes. Research with a group of tennis players indicated that the advanced players had significantly higher levels of self-confidence (Perry and Williams, 1998). This has been found to be true of gymnasts (Bejek and Hagyet, 1996) as well as swimmers (Jones, Hanton, and Swain, 1994). The predictors of self-confidence identified by research are perception of preparedness, and external conditions (Jones, Swain and Cale, 1990). Other researchers have found that the strongest predictor of self-confidence has been found to be the amount of ability that an individual believed he or she had (Gould, Petrchlikoff, and Weinberg, 1984). This makes sense given an individuals previous experience in a given situation. Self-confidence has been found to account for a greater proportion of variance in performance than cognitive or somatic anxiety (Hardy, 1996). This suggests that the most powerful quality that elite performers possess is a high level of self-confidence which may act as a protective factor from cognitive anxiety.

1.2.1. Confidence and Anxiety

Although the research conducted focusing on cognitive anxiety and self-confidence provides some insight into their effect on athletic performance, the interaction of these variables in conjunction with somatic anxiety provides a better understanding of the true effects. Among a group of 91 athletes ranging in age from 14 - 36 years old, who participated in soccer, swimming, and track and field, those individuals with higher scores on self-confidence and lower scores on cognitive anxiety and somatic anxiety perceived their overall anxiety levels as more facilitative of athletic performance (Wiggins and Brustad, 1996). Research conducted comparing athletes competing in team sports (basketball) with those competing in
individual sports (track and field) has found that subjects competing in individual sports report significantly lower self-confidence and higher somatic anxiety than team sport athletes (Kirby and Liu, 1999). This is supported by research that has been conducted with figure skaters as well. Martin and Hall's (1997) research demonstrated that skaters experienced greater cognitive and somatic anxiety prior to an individual competitive event than prior to a team competition. Perhaps this is due to a diffusion of responsibility that occurs in the team framework but not in an individual framework. Important gender differences have also been found by researchers focusing on the relationship between cognitive anxiety, self-confidence, and somatic anxiety. Females had lower self-confidence and higher somatic anxiety scores than males (Thuot, Kavouras, and Kenefick, 1998). This research also focused on the location of an athletic event as well, finding that away games resulted in increased somatic anxiety and lower self-confidence. Finally, Thuot et al., (1998) found that adolescents, regardless of gender, experienced significantly higher levels of cognitive and somatic anxiety and lower levels of self-confidence as the ability of opponents increased.

Clearly, anxiety exerts a variety of effects on athletic performance. These effects vary based on sport, gender and level of experience. In order to facilitate peak performances by athletes, sport psychologists must consider the three different facets of anxiety: cognitive anxiety, somatic anxiety, and self-confidence. Given the research that indicates that successful athletes who interpret their anxiety as being facilitative is characterized by high scores on self-confidence and low scores on somatic and cognitive anxiety.

1.3. ANXIETY

The link between anxiety and performance in sport has been known for a long time. Stories abound of athletes or teams that performed poorly because they underestimated their opponent (below optimum anxiety levels) or worried themselves out of the game (above optimum anxiety levels).
Dealing with anxiety successfully is an important characteristic of the elite athlete. Research has shown that the ability to cope with pressure and anxiety is an integral part of sports, particularly among elite athletes (Hardy et al., 1996; Orlick and Partington, 1988). This is also evidenced by the report that more than 50 per cent of consultations among athletes at an Olympic festival were related to stress or anxiety related problems (Murphy 1988). As a result of this high link between performance and anxiety, anxiety in athletes has become one of the most common topics of sports psychology research.

One of the earliest models that attempted to explain the relationship between arousal / anxiety and performance was the inverted-U hypothesis (Broadhurst 1957; Hebb 1955). The inverted-U hypothesis stated that as arousal increased performance would increase as well; but if arousal became too great performance would deteriorate. In other words, as stress began to build an individual still felt confident in their ability to control it and performance would improve. However, once a stressor became so great that the individual started to doubt their ability to cope with it, performance would decline. An individualistic approach was added to this hypothesis when researchers developed the concept of individualized zones of optimal functioning or IZOFs (Hanin 1980, 1986). According to this theory, each individual has an optimal level of pre performance anxiety. If the athlete is in this “zone,” peak performances will be the result. However, if anxiety levels are too high or low, the athlete will not see optimum results (Hanin 1980, 1986). IZOFs can be determined by repeatedly measuring anxiety and performance or through athlete's recall of anxiety levels prior to peak performances. Research conducted with an elite group of swimmers found that anxiety intensity levels were higher in subjects who interpreted their anxiety as harmful as those who reported it as being an aid (Jones et al., 1994). This has also been found to be true of gymnasts (Jones et al. 1993) as well as basketball players (Swain and Jones, 1996). Another interesting research study was performed on a group of tennis players. Gould, Petrichlikoff, and Weinberg (1984) reported that the strongest predictor of cognitive anxiety was years of experience such that the more experience
an individual had the lower the level of cognitive anxiety. This seems to make sense, because as an athlete gains experience he or she learns the tricks of the game, proper stress management techniques, and the added experience reduces the likelihood of encountering new and stressful events. The higher an athletes’ confidence, the less he or she will worry about the competition- they know they are prepared and ready. Likewise, if an athlete is over-anxious, it may be a sign of self doubt.

Anxiety also plays a vital role in motivation. It can be served as a motivating source. It can increase the ability of an individual to learn and work. Experiences presented to the studies should be relevant to his maturation level and should deal with his interests. Learning among players/students can not take place without proper motivation. Mental and physical activity on the part of the learner is essentially a motivational problem. Fear, failure, success and social rewards are factors that influence the behavior and can affect the motivational state of a person.

Anxiety has many facets that cannot be encompassed in any simple definition. Mostly anxiety prevails when individuals are at odds with themselves. It can also be defined as a persisting or recurring distressful psychological state arising from an inner conflict. The distress may be experienced as feeling of foreboding or vague uneasiness, or feelings of anger, fear, depression irritability, restlessness etc.

**Following Scholars have defined anxiety in the following ways**

*Fredenbursh (1971)* “Anxiety is a state of emotional tension of uncertain or unknown cause which produces feelings of apprehension and fear”.

*Kalish (1969)* “Anxiety, an emotional state closely related to fear, occurs when a person worries about what might happen in future or when he is fearful about some vague or unknown thing, which he can not explain”.

Marx (2007) “Anxiety refers to a much more diffuse and highly generalized distress in which the source of fear is sometimes not at all identifiable.

Anxiety resembles fear in a number of ways, so clear distinction cannot be made between the two emotions. In general, fear is a more dramatic and instant emotion. It is evolved by a threatening situation perceived as immediate and potentially overwhelming on the other hand anxiety is likely to be more diffused and vague and is usually of lower intensity than fear.

Anxiety is the least understood and the most extensively studied of all emotions. It is both an emotional state and a personality trait or characteristic behavior pattern of an individual. It is an emotion with a great number of attributes.

The ability to cope with pressure and anxiety is an integral part of sports, particularly among elite athletes (Hardy, Jones, and Gould, 1996; Orlick and Partington, 1988).

The catastrophe model of anxiety and performance looks at the interactive effects of physiological arousal and cognitive anxiety upon performance (Fazey and Hardy, 1988; Hardy, 1990). Physiological arousal can influence performance as a result of the individual's interpretation of their physiological symptoms. According to the model as cognitive anxiety increases it will be beneficial to performance at low levels of physiological arousal but a detrimental effect at high levels of physiological arousal (Hardy et al., 1996). Furthermore, when cognitive anxiety is at a low level, changes in physiological arousal have little effect upon performance. However, as cognitive anxiety increases physiological arousal can have either a positive or negative effect on performance depending on how much arousal there is (Hardy et al., 1996). Once physiological arousal levels are too high there is a steep drop in performance which can only be reversed by a reduction in physiological arousal (Hardy et al., 1996). Although the
model fails to include a self-confidence variable, its interactive approach
seems to be the best explanation for observed behavior.

A great deal of research has been devoted to the effect of anxiety on
sports performance. Researchers have found that competitive state anxiety
is higher for amateur athletes in individual sports compared with athletes in
team sports (Simon and Martens, 1977). In addition, participants in
individual non-contact sports have been found to report lower levels of
state anxiety than participants in individual contact sports (Lowe and
McGrath, 1971). Cognitive anxiety has been found to exert a powerful
influence on performance. This statement holds true regardless of the
individual's skill level. Participants in a collegiate softball tournament were
put into one of two conditions: high situation criticality or low. While somatic
anxiety did not differ in the two situations, those athletes in the high
criticality condition had significantly higher levels of cognitive-anxiety
(Krane, Joyce, and Rafeld, 1994). Clearly the cognitive interpretation an
individual gives to a situation exerts an effect.

Researchers have found that athletes that are successful interpret
arousal to be facilitative. Research conducted with an elite group of
swimmers found that anxiety intensity levels were higher in subjects who
interpreted their anxiety more debilitative than those who reported it as
being facilitative (Jones, Hanton, and Swain, 1994). This has been found to
be true of gymnasts (Jones, Swain, and Hardy, 1993) as well as basketball
have reported that the strongest predictor of cognitive anxiety was years of
experience such that the more experience an individual had the lower the
level of cognitive anxiety. This was supported by research conducted with a
group of tennis players. Advanced subjects (individuals who had been
participating in the sport for an extended period of time) reported more
facilitative interpretations of their anxiety than novices (Perry and Williams,
1998). Similar results have been observed among a group of elite
swimmers (Jones, Hanton, and Swain, 1994). Perhaps this is due to
previous experience with arousal and how to cope. This conclusion is
supported by the research of Jones, Swain, and Cale (1990) found that
cognitive anxiety was best predicted by an evaluation of previous
performances, individual's perception of preparedness, and goal setting.

Clearly, anxiety exerts a variety of effects on athletic performance.
These effects vary based on sport, gender and level of experience.

1.4. MENTAL PREPARATION

Mental preparation is a very wide term. It includes many
factors which constitute mental (or) intellectual development. Mental
or intellectual development starts with the birth of the individual.
Include so many factors, Important among them are Progress in
intelligence

- Development of language
- Proper use of time or development of time sense
- Logical questions
- Sense of distinguishing what is bad and what is good
- Ability to concentrate on object idea, think or action
- Plan making ability
- Developing sense of eating and behavior etc.

Intellectual development of the young infant shows itself the
attainment of motor skill and in the achievement of elementary
vocalization. After the age of twelve or eighteen months this
development shows itself more and more mastery of words and in the
compensation of ideas that are increasingly complex.

Mental fitness is also very important part of personality. One
should know that Physical fitness contribute much to the
development of mental fitness. Sound mind can only be found in a
sound body. It is an admitted fact that a person train’s sound body
can develop the mental power, one can develop his intelligence,
thinking power and reasoning power only in case he is having sound body or physical health. Individual who is having good physical health is always quick at taking decisions, but an individual having weak physical health cannot be quick at taking quick decisions because wavering in control over body. He is wavering in his will power also and wavers while taking decision. Sound mind can only be found in sound body.

1.5. GROUP COHESION IN SPORTS

The social psychological variable most often thought to influence competitive athletic team success is that of cohesion. In his book, ‘In pursuit of excellence’ Orlick (1986) states that one of the most gravitating experience a coach or athlete can have is to be a member of a team that gets along well and work together efficiently and cohesively. In a recent survey, investigating what coaches want to learn from the field of sports psychology, the most frequent and critical factor mentioned was the issue of how to build and sustain group cohesion in sports team.

The origin of the term cohesion is the Latin word ‘cohaesus’, which means to cleave or stick together. This concept of sticking together is contained in the various definitions of cohesion. For example Grass and Motins (1952), perceived cohesion as the resistance of the group to disruptive forces, While Festinser et. al., (1950) defined it as the total field of forces causing members to remain with the group. Recently Carron (1988), advocated that in sports teams, cohesion should be viewed as a dynamic process that is reflected in the group’s tendency to stick together, while pursuing its goals and objectives. In brief, as group members interact and the group becomes integrated, a state of interference evolves. Each group member becomes inextricably bound to the group for the social
rewards and the benefits which accrue from group membership and task oriented activities of the group.

Group dynamics began as an identifiable field of inquiry in United States toward the end of 1930’s. Its origin as a distinct specialty is associated primarily with Kurt Lewin, who is 1945 established the first organization devoted explicitly to research on group dynamics. From that time onwards, this centre for Group ‘Dynamics Research Hasten Pioneers’ work for the understanding of group decisions, group interactions, group cohesiveness, group productivity, group goals etc.

The word dynamics is derived from a Greek word, which means force. Thus the phrase group dynamics refers to the forces operatives in a group. In other words, group dynamics is the study of the forces exerted by the group on the individual or by the individual on the group member.

Group is the collection of two or more then two interdependent individuals who normally think, feel and act together for the attainment of some common goal.

1.5. CONCENTRATION

It is believed that effective concentration is a vital prerequisite of athletes achieving optimal performance (Moran, 2004). Wilson, Schmid and Peper (2006) defined concentration as the ability to focus on relevant tasks cues while ignoring distractions, and is considered to be an important component of attention. Researchers have found favorable performance outcomes as a result of manipulating athletes’ attentional focus in competitive situations (Mallet and Hanrahan, 1997; Morgan, 2000). Based on the principle that different sport situations require different attentional demands, Nideffer (1976) argued that attention varies along two
dimensions of focus: width (broad and narrow) and direction (internal and external). On the one hand, broad attention refers to perceiving several occurrences simultaneously. In the case of goaltenders, there are times when they have to attend to several stimuli such as a three-on-two developing from a turnover. On the other hand, narrow attention occurs when responding to only one or two cues (e.g., focusing on a breakaway). Insofar as direction is concerned, external focus directs attention outward to an object (e.g., focusing solely on the puck). Finally, internal focus directs attention inward to thoughts and feelings (e.g., ruminating over a previous goal).

Porter (2003) suggested that an individual’s concentration skills are dependent on the individual’s motivation to maintain them.

An individual’s prospects for cognitive functioning and learning a task are in direct proportion to one’s ability to focus on the relevant cues. The ability of an individual to concentrate relates to one’s capacity to maintain focus on a specific task to the exclusion of everything else. The attention ability of an individual relates to awareness of the ever-changing environment. The capacities of concentration and attention are key elements in the learning process. Abernethy (1993) states, “It is difficult to imagine that there can be anything more important to the learning and performance of sport skills than paying attention to the task at hand”. Attention processes have been used to explain how information processing affects the learning and performance of both cognitive and motor tasks.

Research findings have indicated that the effects of physical exertion on the ability to concentrate and to be attentive differ significantly and depend mainly on the intensity and the duration of the exercise. For example, Davey (1973) used different amounts of physical activity to investigate the relationship between physical
exertion and attention. Subjects pedaled a cycling ergometer and were mentally tested after different amounts of physical exertion. Davey concluded that a moderate amount of physical exertion improves attention, severe physical exertion tends to produce a decrease in attention, and an intermediate amount of physical exertion produces different results in different individuals. These findings indicated that an inverted – U relationship exists between the level of physical exertion and attention

2. GAMES

Kabaddi, cricket, and ball badminton are popular games in India. In international arena Indian teams are also performing well in these games. Hence, the investigator motivated to choose thes games for investigation. A brief outline of these games is presented in the following sections.

2.1. Kabaddi

Kabaddi (sometimes transliterated Kabbadi or Kabadi) is a team contact sport that originated in South Asia, as a form of recreational combat training. (http://www.kabaddiikf.com/history.htm). Two teams occupy opposite halves of a field and take turns sending a "raider" into the other half, in order to win points by tagging or wrestling members of the opposing team; the raider then tries to return to his own half, holding his breathe and chanting "kabaddi, kabaddi, kabaddi" during the whole raid. The name — often chanted during a game — derives from a Tamil word meaning "holding of hand", which is indeed the crucial aspect of play. It is the national game of Bangladesh, and the state game of Tamil Nadu, Punjab and Andhra Pradesh in India.

2.1.1. Game Play

In the international team version of kabaddi, two teams of seven members each occupy opposite halves of a field of 13m × 10m in case of men and 12m X 10m in case of women. (http://kabaddiikf.com/RULES_REGULARikf.doc)
Each has three supplementary players held in reserve. The game is played with 20 minute halves and a five minute halftime break during which the teams exchange sides.

Teams take turns sending a "raider" to the opposite team's half, where the goal is to tag or wrestle ("confine") members of the opposite team before returning to the home half. Tagged members are "out" and temporarily sent off the field.

Meanwhile, defenders must form a chain, for example, by linking hands; if the chain is broken, a member of the defending team is sent off. The goal of the defenders is to stop the raider from returning to the home side before taking a breath.

The raider is sent off the field if:

- the raider takes a breath before returning or
- the raider crosses boundary line or
- A part of the raider's body touches the ground outside the boundary (except during a struggle with an opposing team member).

Each time a player is out the opposing team earns a point. A team scores a bonus of two points, called a lona, if the entire opposing team is declared out. At the end of the game, the team with the most points wins.

Matches are categorized based on age and weight. Six officials supervise a match: one referee, two umpires, a scorer and two assistant scorers.

The Kabaddi Federation of India (KFI) was founded in 1950, and it compiled a standard set of rules. The Amateur Kabaddi Federation of India (AKFI) was founded in 1973. The AKFI has given new shape to the rules and it has also the rights of modification in the rules. The Asian Kabaddi Federation was founded under the chairmanship of Sharad Pawar.

Kabaddi is popular throughout South Asia, and has also spread to Southeast Asia, Japan and Iran. It is the national game of Bangladesh. It is the state game of Punjab, Karnataka, Tamil Nadu, Andhra Pradesh, and Maharashtra in India. It is played by the British Army for fun, to keep fit and as an enticement to recruit soldiers from the British Asian community.

2.2. CRICKET

Cricket is a bat-and-ball team sport. Many variations exist, with its most popular form played on an oval-shaped outdoor arena known as a cricket field at the centre of which is a rectangular 22-yard (20.12 m) long pitch that is the focus of the game. A game (or match) is contested between two teams of eleven players each. One of the team bats, trying to score as many runs as possible, while the other team bowls and fields, trying to dismiss the batsmen, and thus limit the runs scored by the batting team. A run is scored by the striking batsman hitting the ball with his bat, running to the opposite end of the pitch and touching the crease there without being dismissed. The teams switch between batting and fielding at the end of an innings.

There are also variations in the length of a game of cricket. In professional cricket this ranges from a limit of 20 overs per side (Twenty20) to a game played over 5 days (Test cricket, which is the highest level of the game). Depending on the form of the match being played, there are different rules that govern how a game is won, lost, drawn or tied. The rules of two-innings games are known as the Laws of Cricket and maintained by the ICC and the Marylebone Cricket Club (MCC); additional Standard Playing Conditions for Test matches and One Day Internationals augment

Cricket was first documented as being played in southern England in the 16th century. By the end of the 18th century, it had developed to the point where it had become the national sport of England. The expansion of the British Empire led to cricket being played overseas and by the mid-19th century the first international matches were being held. Today, the game's governing body, the International Cricket Council (ICC), has 105 member countries. (http://www.cricketarchive.com/Archive/Countries/index.html Retrieved on 22 December 2010) With its greatest popularity in the Test playing countries, cricket is the world's second most popular sport after Association football. (http://www.themonitor.ca/Baseball/2009-04-21/article-636664/The-most-popular-sport-youve-never-played-yes-cricket-actually-exists-in-Montreal/1 Retrieved on 22 December 2010).

The International Cricket Council (ICC), which has its headquarters in Dubai, is the international governing body of cricket. It was founded as the Imperial Cricket Conference in 1909 by representatives from England, Australia and South Africa, renamed the International Cricket Conference in 1965, and took up its current name in 1989.

2.3. CRICKET IN INDIA

Cricket is the most popular Sport in India (http://www.synovate.com/news/article/2003/11/study-finds-india-sports-a-high-awareness-of-celebrity-brand-endorsements-and-sachin-is-number-one.html). Although, it is not the nation's official national Sport (a distinction held by Field Hockey). The India national cricket team won the 1983 Cricket World Cup and the 2007 ICC World Twenty20, and shared the 2002 ICC Champions Trophy with Sri Lanka. Domestic competitions include the Ranji Trophy, the
Duleep Trophy, the Deodhar Trophy, the Irani Trophy and the Challenger Series. In addition, BCCI conducts the Indian Premier League, a Twenty20 competition.

2.4. INTERNATIONAL CRICKET

International cricket in India generally does not follow a fixed pattern. For example, the English schedule under which the nation tours other countries during winter and plays at home during the summer. Generally, there has recently been a tendency to play more one-day matches than Test matches. Cricket in India is managed by the Board of Control for Cricket in India (BCCI), the richest cricket board in the cricket world. Indian International Cricketing Squad has also provided some of the greatest players to the world. Indian cricket has a rich history.

2.5. DOMESTIC COMPETITIONS

BCCI Corporate Trophy - BCCI have set up a 12 team inter-corporate tournament which will involve all the top Indian cricketers. The tournament will involve 50 over aside matches with the winner picking up Rs 1 Crore and the runner up getting Rs 50 lakh.

Irani Trophy - The Trophy tournament was conceived during the 1959-60 season to mark the completion of 25 years of the Ranji Trophy championship and was named after the late Z.R. Irani, who was associated with the Board of Control for Cricket in India (BCCI) from its inception in 1928, till his death in 1970 and a keen patron of the game. The first match, played between the Ranji Trophy champions and the Rest of India was played in 1959-60. For the first few years, it was played at the fag end of the season. Realising the importance of the fixture, the BCCI moved it to the beginning of the season. Since 1965-66, it has traditionally heralded the start of the new domestic season. The Irani Trophy game ranks very high in popularity and importance. It is one of the few domestic matches that is
followed with keen interest by cricket lovers in the country. Leading players take part in the game which has often been a sort of selection trial to pick the Indian team for foreign tours.

**NKP Salve Challenger Trophy** - Started as the Challenger series by the Board of Control for Cricket in India in 1994-95 and later named as NKP Salve Challenger Trophy in 1998-99, the tournament features 3 teams: India senior, India A and India B playing each other. They were later renamed India Blue, India Red and India Green respectively. This competition also marked as the platform of return for some big names like Sachin Tendulkar and Sourav Ganguly in 2005-06 seasons after they battled injury and form respectively. The tournament features the top 36 players from across India and is also the most popular domestic structure after IPL.

**Ranji Trophy** - Founded as 'The Cricket Championship of India' at a meeting of the Board of Control for Cricket in India in July 1934. The first Ranji Trophy fixtures took place in the 1934-35 season. Syed Mohammed Hadi of Hyderabad was the first batsman to score a century in the tournament. The Trophy was donated by H.H. Sir Bhupendra Singh Mahinder Baha-dur, Maharajah of Patiala in memory of His late Highness Sir Ranjitsinhji Vibhaji of Nawanagar. In the main, the Ranji Trophy is composed of teams representing the states that make up India. As the political states have multiplied, so have cricket teams, but not every state has a team. Some states have more than one cricket team, e.g. Maharashtra and Gujarat. There are also 'odd' teams like Railways, and Services representing the armed forces. The various teams used to be grouped into zones - North, West, East, Central and South - and the initial matches were played on a league basis within the zones. The top two (until 1991-92) and then top three teams (subsequent years) from each zone then played in a national knock-out competition. Starting with the 2002-03 season, the zonal system has been abandoned and a two-division structure has been adopted with two teams being promoted from the plate league
and two relegated from the elite league. If the knockout matches are not finished they are decided on the first-innings lead.

**Duleep Trophy** - The Duleep Trophy competition, a first-class competition, was started by the Board of Control for Cricket in India in 1961-62 with the aim of providing a greater competitive edge in domestic cricket - because, apart from the knock-out stages of the Ranji Trophy, that competition proved predictable, with Bombay winning for fifteen consecutive years. The Duleep was also meant to help the selectors in assessing form. The original format was that five teams, drawn from the five zones, play each other on a knock-out basis. From the 1993-94 season, the competition has been converted to a league format.

**Vijay Hazare Trophy** - named after the prolific Indian batsman, the Vijay Hazare Trophy was started in 2002-03 as an attempt to bring the limited-overs game among a greater audience. The competition involves state teams from the Ranji trophy plates battling out in a 50-over competition, much on the lines of Ford Ranger Cup of Australia and Friends Provident Trophy of England. Since its conception, Tamil Nadu and Mumbai have won the trophy twice each. It is also dubbed as the Premier Cup by BCCI. It now joins Deodhar Trophy as the second one-day competition of Indian domestic circuit.

**Deodhar Trophy** - Started in 1973-74 by Board of Control for Cricket in India, it is the current one-day cricket competition in Indian domestic cricket. 5 zonal teams - North zone, South zone, East zone, West zone and Central zone feature in the competition. North zone have won this competition 11th time. It is also called All-Star Series due to some big names representing their Zonal sides in the one-day fixtures.

**Inter-State T20 Championship** - After India became another member of the ICC Twenty20 and played its first international T20 against South Africa, BCCI launched its own state structure in 2006-07 season, with 27 Ranji teams divided in 5 Zones. The final was played between Punjab and
Tamil Nadu, which the latter won by 2 wickets and 2 balls remaining, thereby becoming the only ever winner of this series. In this series, Rohit Sharma also became the only ever Indian to register a T20 century for Mumbai against Gujarat. The competition was later replaced by a franchise-based IPL.

**Indian Premier League** - In response to the rival ICL, the BCCI started the Twenty20 Indian Premier League (known as the IPL). This League has been launched by BCCI have received support from all the other Cricket Boards, and International Players could be drafted into City-based Franchises. The game has been likened to Baseball with crowd participation encouraged more strongly than in other forms of the game. It has been greatly acknowledged by people and has made huge profits.

**Syed Mushtaq Ali Trophy** - To be played for the first time in the 2008-09 season, this will be the first of its kind zonal T20 championship and the third overall in the Indian cricket season, which would see Ranji teams divided along zonal lines into two groups with the tournament culminating in the All India T20 final between the winners of the two groups for the Syed Mushtaq Ali Trophy. It is launched after the success of the IPL and the need of the BCCI to search for more talent in the growing regions of cricket.

### 2.6. INTERNATIONAL STRUCTURE

The ICC has 104 members: 10 Full Members that play official Test matches, 34 Associate Members, and 60 Affiliate Members.[43] The ICC is responsible for the organisation and governance of cricket’s major international tournaments, notably the Cricket World Cup. It also appoints the umpires and referees that officiate at all sanctioned Test matches, One Day International and Twenty20 Internationals. Each nation has a national cricket board which regulates cricket matches played in its country. The cricket board also selects the national squad and organises home and away tours for the national team. In the West Indies these matters are
addressed by the West Indies Cricket Board which consists of members appointed by four national boards and two multi-national boards.

2.7. BALL BADMINTON

Ball Badminton is an indigenous sport in India. It is a racquet game played with a woolen ball upon a court of fixed dimensions. This game was played as early as 1856 by the royal family in Tanjore, capital of Thanjavur district in Tamil Nadu, India. The game is widely played in India. It is a fast game. The sports demands skill, quick perception, corrects judgment, agility, and the capacity to control the ball with proper movement of wrist.

The sport is usually played in the outdoors during daytime. As a result, climatic conditions influence the game. Game rules were modified to distribute the effects of the climate more or less evenly on both teams. In recent years, there were indoor versions of the game played under flood lights. A good number of All-India tournaments have been conducted regularly using flood lights in Tamil Nadu, Pondicherry, Andhra, and Karnataka.

Before, the game was purely played by rural boys as it was easily affordable at those days. The game attracted a huge number of students in South India and this brought about the formation of the Ball Badminton Federation in 1954. The Ball Badminton Federation was among the first three federations, together with the Indian Athletic Federation and the Indian Hockey Federation, which formed the Indian Olympic Association. The federation gradually spread to Andhra Pradesh. The first national championship was conducted at Hyderabad in 1956. It was later introduced to junior and sub-junior levels. (http://ballbadmintonfederationofindia.com/gamehistory.html).

3. ASSOCIATION OF INDIAN UNIVERSITIES

The idea of bringing together all the universities on a common platform emerged from the deliberations of a Conference of the Vice
Chancellors of Universities convened by Lord Reading, the then Viceroy of India at Shimla in 1924.

3.1. INTER UNIVERSITY SPORTS

The Inter-University Board (IUB) of India was subsequently formed on March 23, 1925, with the view of promoting university activities, especially by way of sharing information and co-operation in the field of education, culture, sports and allied areas. The Inter-University Board acquired a legal status with its registration in 1967 as a Society under the Societies Registration Act, 1860. In 1973, it assumed its present name: The Association of Indian Universities (AIU). The membership includes traditional universities, open universities, professional universities, Institutes of National Importance and deemed-to-be universities. In addition, there is a provision of granting of Associate Membership to universities of neighboring countries.

3.2. OBJECTIVES

- to serve as an Inter-University Organization;
- to act as a bureau of information and to facilitate communication,
- co-ordination and mutual consultation amongst universities
- to act as a liaison between the universities and the Government (Central as well as the State Governments) and to co-operate with other universities or bodies (national or international) in matters of common interest;
- to act as the representative of universities of India;
- to promote or to undertake such programmes as would help to improve standards of instruction, examination, research, textbooks, scholarly publications, library organization and such other programmes as may contribute to the growth and propagation of knowledge;
- to help universities to maintain their autonomous character;
- to facilitate exchange of members of the teaching and research staff;
• to appoint or recommend where necessary a common representative of the Association at any Conference, national or international, on higher education;
• to assist universities in obtaining recognition for their degrees, diplomas and examinations from other universities, Indian as well as foreign;
• to undertake, organize and facilitate conferences, seminars workshops, lectures and research in higher learning;
• to establishment and maintain a sports organization for promoting sports among Member-Universities;
• to establish and maintain organization dealing with youth welfare, student services, cultural programmes, adult education and such other activities as are conducive to the betterment and welfare of students or teachers and others connected with universities;
• to act as a service agency to universities in whatever manner it may be required or prescribed
• to undertake, facilitate and provide for the publication of newsletters, research papers, books and journals;

3.3. **(TAMIL NADU STATE INTER-ENGINEER'S SPORTS (TIES))**

TIES sports events have been started in 1977 at College of Engineering, Guindy, Chennai. The idea of bringing together all the engineering college on a common platform emerged from the deliberation of a conference of the principal’s of engineering colleges. Convened by Raman, Director of Physical Education, Anna University, Chennai, at college of Engineering in 1977. Nowadays the TIES tournament is a mega event in Tamilnadu state, nearly 20,000 engineering college students take part in it. TIES general body formed on January 1977 with view of organize the event.
This Sports Carnival is an ideal spring board for young engineering sports persons to exhibit their talent. The bonanza offered for the winners give them a tonic effect which whets their appetite for more prizes. Unarguably, this sports carnival proves to be the biggest show on Asian turf. This carnival draws participation of about 20,000 eminent sports persons representing 427 engineering colleges across the state.

### 3.4. HOST COLLEGES OF TIES (1977-2010)

<table>
<thead>
<tr>
<th>s.No.</th>
<th>Year</th>
<th>College</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1977</td>
<td>College of Engineering, Chennai</td>
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<tr>
<td>2</td>
<td>1978</td>
<td>Alagappa Chettiar College of Engineering and Technology, Karaikudi</td>
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<tr>
<td>3</td>
<td>1980</td>
<td>Faculty of Engineering, Annamalai University, Chidambaram</td>
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<tr>
<td>4</td>
<td>1985</td>
<td>Government College of Engineering, Coimbatore</td>
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<td>5</td>
<td>1986</td>
<td>Government College of Engineering, Salem</td>
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<tr>
<td>6</td>
<td>1987</td>
<td>Regional Engineering College, Trichy</td>
</tr>
<tr>
<td>7</td>
<td>1988</td>
<td>P.S.G. College of Technology, Coimbatore</td>
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<tr>
<td>8</td>
<td>1989</td>
<td>Thiagaraja College of Engineering, Madurai</td>
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<td>9</td>
<td>1990</td>
<td>Coimbatore Institute of Technology, Coimbatore</td>
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<td>10</td>
<td>1991</td>
<td>Mookambigai Institute of Technology, Coimbatore</td>
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<td>11</td>
<td>1993</td>
<td>Karunya Institute of Technology, Coimbatore</td>
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<tr>
<td>12</td>
<td>1994</td>
<td>Regional Engineering College, Trichy</td>
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<td>13</td>
<td>1995</td>
<td>Mepco Schlenk Engineering College, Sivakasi</td>
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<td>14</td>
<td>1996</td>
<td>Government College of Engineering, Tirunelveli</td>
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<td>15</td>
<td>1997</td>
<td>P.S.G. College of Technology, Coimbatore</td>
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<tr>
<td>16</td>
<td>1998</td>
<td>Kongu Engineering College, Erode</td>
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<td>17</td>
<td>1999</td>
<td>Alagappa Chettiar College of Engineering and Technology, Karaikudi</td>
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<tr>
<td>18</td>
<td>2000</td>
<td>J.J. College of Engineering and Technology, Trichy</td>
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<tr>
<td>19</td>
<td>2001</td>
<td>Crescent Engineering College, Chennai</td>
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</table>
3.5. JUSTIFICATION FOR THE STUDY

So far, it is not yet clear whether the same psychological variables that distinguish elite from non-elite or elite from sub-elite athletes in adulthood are important for outstanding performance throughout the process of talent development (Morris, 2000). To assist young athletes in reaching elite level, it is important to gain insight into factors that influence the development of a successful sports career, such as their psychological skills. However, as far as the authors know, no studies have focused primarily on the relation between psychological skills and performance level. Therefore, this study concentrates on athletes that have been identified as talent but who have not yet reached the top in adult elite sports. Two different performance-level groups within a group of all-talented athletes were compared on psychological skills. The goal of this study was to reveal the relationship between psychological skills and performance level with possible effects of type of sport and gender in talented youth athletes.

3.6. STATEMENT OF THE PROBLEM

Two different performance-level groups within a group of all-talented athletes were compared on psychological skills. The goal of this study was
to reveal the relationship between psychological skills and performance level with possible effects on type of sport and sex. The problem is stated as “Psychological Characteristics of Intermediate and Advanced Sports Performer’s”.

3.7. OBJECTIVES OF THE STUDY

In this context, the present study presents the following objectives:

1. To compare personality characteristics between intermediate and advanced sports performers, verifying similarities and differences between groups.

2. To perform comparisons of the personality characteristics between intermediate level athletes (contact and non-contact, men and women) and advanced level athletes (contact and non-contact, men and women).

3.8. HYPOTHESES

It is stated in null form.

Ho₁ There will be no significant difference between kabaddi, cricket and ball badminton players in psychological characteristics motivation, confidence, anxiety control, mental preparation, team emphasis and concentration.

Ho₂ There will be no significant difference between intermediate and advanced players of Kabaddi, cricket and ball badminton players in psychological characteristics motivation, confidence, anxiety control, mental preparation, team emphasis and concentration.

Ho₃ There will be no significant difference between men and women players of Kabaddi, cricket and ball badminton players in
psychological characteristics motivation, confidence, anxiety control, mental preparation, team emphasis and concentration.

$H_o_4$ There will be no significant difference between game and level in psychological characteristics - motivation, confidence, anxiety control, mental preparation, team emphasis and concentration.

$H_o_5$ There will be no significant difference between game and sex in psychological characteristics - motivation, confidence, anxiety control, mental preparation, team emphasis and concentration.

$H_o_6$ There will be no significant difference between level and sex in psychological characteristics - motivation, confidence, anxiety control, mental preparation, team emphasis and concentration.

$H_o_7$ There will be no significant difference between level and sex in psychological characteristics - motivation, confidence, anxiety control, mental preparation, team emphasis and concentration.

$H_o_8$ There will be no significant difference between game, level and sex in psychological characteristics - motivation, confidence, anxiety control, mental preparation, team emphasis and concentration.

$H_o_9$ There will be no significant difference between kabaddi, cricket and ball badminton players on psychological variable motivation.

$H_o_10$ There will be no significant difference between kabaddi, cricket and ball badminton players on psychological variable confidence.

$H_o_11$ There will be no significant difference between kabaddi, cricket and ball badminton players on psychological variable anxiety control.
Ho₁₁ There will be no significant difference between kabaddi, cricket and ball badminton players on psychological variable mental preparation.

Ho₁₂ There will be no significant difference between kabaddi, cricket and ball badminton players on psychological variable team emphasis.

Ho₁₃ There will be no significant difference between kabaddi, cricket and ball badminton players on psychological variable concentration.

Ho₁₄ There will be no significant difference between advanced and intermediate players of kabaddi, cricket and ball badminton players on psychological variable motivation.

Ho₁₅ There will be no significant difference between advanced and intermediate players of kabaddi, cricket and ball badminton players on psychological variable confidence.

Ho₁₆ There will be no significant difference between advanced and intermediate players of kabaddi, cricket and ball badminton players on psychological variable anxiety control.

Ho₁₇ There will be no significant difference between advanced and intermediate players of kabaddi, cricket and ball badminton players on psychological variable mental preparation.

Ho₁₈ There will be no significant difference between advanced and intermediate players of kabaddi, cricket and ball badminton players on psychological variable team emphasis.
Ho$_{19}$ There will be no significant difference between advanced and intermediate players of kabaddi, cricket and ball badminton players on psychological variable concentration.

Ho$_{20}$ There will be no significant difference between men and women kabaddi, cricket and ball badminton players on psychological variable motivation.

Ho$_{21}$ There will be no significant difference between men and women kabaddi, cricket and ball badminton players on psychological variable confidence.

Ho$_{22}$ There will be no significant difference between men and women kabaddi, cricket and ball badminton players on psychological variable anxiety control.

Ho$_{23}$ There will be no significant difference between men and women kabaddi, cricket and ball badminton players on psychological variable mental preparation.

Ho$_{24}$ There will be no significant difference between men and women kabaddi, cricket and ball badminton players on psychological variable team emphasis.

Ho$_{25}$ There will be no significant difference between men and women kabaddi, cricket and ball badminton players on psychological variable concentration.

Ho$_{26}$ There will be no significant difference between game and level in psychological characteristics – motivation.

Ho$_{27}$ There will be no significant difference between game and level in psychological characteristics – confidence.
$H_{o28}$ There will be no significant difference between game and level in psychological characteristics - anxiety control.

$H_{o29}$ There will be no significant difference between game and level in psychological characteristics - mental preparation.

$H_{o30}$ There will be no significant difference between game and level in psychological characteristics - team emphasis.

$H_{o31}$ There will be no significant difference between game and level in psychological characteristics - concentration.

$H_{o32}$ There will be no significant difference between game and sex in psychological characteristics – motivation.

$H_{o33}$ There will be no significant difference between game and sex in psychological characteristics – confidence.

$H_{o34}$ There will be no significant difference between game and sex in psychological characteristics - anxiety control.

$H_{o35}$ There will be no significant difference between game and sex in psychological characteristics - mental preparation.

$H_{o36}$ There will be no significant difference between game and sex in psychological characteristics - team emphasis.

$H_{o37}$ There will be no significant difference between game and sex in psychological characteristics - concentration.

$H_{o38}$ There will be no significant difference between level and sex in psychological characteristics – motivation.
$H_{o39}$ There will be no significant difference between level and sex in psychological characteristics – confidence.

$H_{o40}$ There will be no significant difference between level and sex in psychological characteristics - anxiety control.

$H_{o41}$ There will be no significant difference between level and sex in psychological characteristics - mental preparation.

$H_{o42}$ There will be no significant difference between level and sex in psychological characteristics - team emphasis.

$H_{o43}$ There will be no significant difference between level game and sex in psychological characteristics - concentration.

$H_{o44}$ There will be no significant difference between game, level and sex in psychological characteristics – motivation.

$H_{o45}$ There will be no significant difference between game, level and sex in psychological characteristics – confidence.

$H_{o46}$ There will be no significant difference between game, level and sex in psychological characteristics - anxiety control.

$H_{o47}$ There will be no significant difference between game, level and sex in psychological characteristics - mental preparation.

$H_{o48}$ There will be no significant difference between game, level and sex in psychological characteristics - team emphasis.
There will be no significant difference between game, level and sex in psychological characteristics - concentration.

3.9. SIGNIFICANCE OF THE STUDY

1. This study is unique in exploring the status of selected psychological variables among the elite and sub elite athletes.

2. The study would bring out the differences in selected psychological variables motivation, confidence, anxiety control, mental preparation, team emphasis and concentration among players.

3. The study would be beneficial to sports administrators, physical educationists, coaches and sportsmen to know the psychological state of selected team players.

4. The result of the study would be great use in designing suitable psychological preparation of the players.

5. The findings of this study would form base for further researches in this area.

3.10. DELIMITATION

This study is delimited to the following aspects.

1. This study was delimited only to the college men and women players and their age group was between 20 to 25 years.

2. The players who participated at All India Inter University Tournaments and State Level Tournaments were selected.

3. The following variables were selected for this study.
i) Motivation  
ii) Confidence  
iii) Anxiety Control  
iv) Mental Preparation  
v) Team Emphasis and  
vi) Concentration  

3.11. LIMITATION  

This study is limited in the following aspects and those limitations have to be taken into considerations.  

1. The students were from different social, cultural and economical status which was taken as a limitation for this study.  

2. Heredity and environmental factors which contribute to psychological factors have not been controlled.  

3. The scholar confined himself only to the students studying in different colleges representing their inter university tournament and inter collegiate tournaments.  

4. No effect would be made either to control or to assess the quality of the food ingested, the quantum of physical exertion, life style, physiological factors that effect metabolic functions as those are recognized as a limitations for this study.  

5. No other motivational techniques were followed to assess selected psychological variables.
3.12. DEFINITION OF TERMS

3.12.1. MOTIVATION

1. The term motivation refers to the arousal of tendency to act to produce one or more effects (Atkinson, 1968).
2. The term motivation refers (i) to existence of an organized phase sequence (ii) to its direction and content (iii) to its persistence in given direction or stability of content (D.O.Hebb, 1955).
3. Motivation is constant referring fluctuating and complex and that it is an almost universal characteristic of particularly every organismic state of affairs (Maslow, 1966).
4. Motivation refers to all those phenomena which are involved in the stimulation of action towards particular objectives where previously there was little or to movement towards there goals. (H.W.Bernad, 1972).

3.12.2. CONFIDENCE

Confidence is an emotion or state of mind commonly associated with athletic success. Confidence is usually a result of an athlete anticipating success in their upcoming event. An athlete’s anticipated outcome is the greatest indicator of confidence. (Kauss, 1980). This expectation for success can be based on an athlete’s confidence in themselves, in teammates, emotional readiness, and physical ability, knowledge of the opponent, goals, strategies, physical condition, or in the coach (Kauss, 1980).

3.12.3. ANXIETY CONTROL
Anxiety is a state of emotional tension of uncertain or unknown cause which produces feelings of apprehension and fear, (Freden Brush 1971). Anxiety, an emotional state closely related to fear occurs when a person worries about what might happen in future or when he is fearful about some vague or unknown thing, which he can not explain, (Kalish, 1970). Anxiety refers to a much more diffuse and highly generalized distress in which the source of fear is sometimes not at all identifiable, (Marx, 1976).

3.12.4. MENTAL PREPARATION

The mental preparation is also very important part of personality. One should know that physical fitness contribute much to the development of mental preparation. Sound mind can only be found in a sound body. It is an admitted fact that a person trains sound body can develop the mental power, one can develop his intelligence, thinking power and reasoning power only incase he is having sound body or physical health. Individual who is having good physical health is always quick at taking decisions, but an individual having weak physical health cannot be quick at taking decisions because wavering in control over body, he is wavering in his will power also and wavers while taking decision. Sound mind can only be found in sound body.

3.12.5. TEAM EMPHASIS

Team is the collection of two or more then two inter dependent individuals who normally think, feel and act together for the attainment of some common goal.

The origin of the term cohesion is the Latin word coheesus, which means to cleave or stick together. The concept of sticking
together is contained in the various definitions of cohesion. For example Grass (Motins 1952) perceived cohesion as the resistance of the group to disruptive forces. “While Festinser” et. al., (1950) defined it as the total field of forces causing members to remain with the group.

3.12.6. CONCENTRATION

The ability of an individual to concentrate relates to one’s capacity to maintain focus on a specific task to the exclusion of everything else. The attention ability of an individual relates to awareness of the ever changing environment. The capacities of concentration and attention are key elements in the learning process. Abernethy (1993) states, “It is difficult to imagine that there can be anything more important to the learning and performance of sports skills then paying attention to the task at hand”. Attention processes have been used to explain how information processing affects the learning and performance of both cognitive and motor tasks.