Chapter II

2.0 Review Of Related Literature

The survey of related studies implies locating, studying and evaluating reports of relevant researches. The Researcher had tried his best to collect the information related to the present study. In this Chapter the researcher has focused his attention on the importance of literature related to the study concerned because a study of relevant literature is an essential step to get a full picture of what has been done with regard to the problem under study. Such a review brings new insight and helps the development of research procedure.

The researcher has gathered the related Studies from Research Quarterly, Journals, Magazines and other Thesis and has listed down such studies in this chapter to add further dimensions and scope for study.

A review of the research reports related to the present study that the research scholar could gather is presented in this chapter, in order to provide the background material to evaluate the significance of this study as well as to interpret its findings.

In Carson & Study (1963) the less anxious group performed better on a stabilometer under stress than the highly anxious group early in the learning stages. The nature of the learner and more particular his anxiety level, is also important in determining how much stress should be present in learning situation.
The complexity of task and the anxiety level of the person interact to produce interesting performance expectancies with a complex task (the kind athletics usually have to learn) the expectation would be that highly anxious people would end to perform less under stress than less anxious people. The phenomenon has been observed by a number of researches.

**The result of Nelson & Langer’s (1963) study** support the result of an earlier study on the effects of anxiety on learning. In an extensive review of literature on anxiety (1960) concluded that both high and low level of anxiety tended to disrupt the learning process, whereas moderate level of anxiety tended to create an ideal atmosphere for learning.

**Kroll W. & Carlson B. (1967)** reported no difference between participant of various levels of ability in wrestling and karate. Singer in a previously mention study comparing baseball and tennis players also found no difference between highly successful and less successful tennis players.

**Berham R.M. and Kroll, W. (1967)** conducted study on personality differences between swimmers and non-swimmers. The investigation was made to determine whether there are personality differences between male college freshman swimmers and non-swimmers and to determine the relationship between personality transits and swimmers experiencing a common course of instruction in swimming. Subjects were compared on the basis of swimming, performances, personality tests, biographic data forms and interviews with subjects who failed to learn how to swim. Comparison revealed significant difference between swimmers and non-swimmers and between learners and non-learners.
Peterson et al (1967) reported that Women athletes who participated in individual sports, when compared to women competing in team sports were more dominant, adventures, sensitive, self sufficient and more forthright.

Rushall (1967) while comparing personality characteristics of male swimmers with female swimmers found that females were socially bold, noisy and unrestrained in their behavior, whereas male appeared to be self centered and individualistic. It was also found that novice female swimmers were in general, more introverted than a control group of female athletes, not primarily engaged in swimming. Nearly every concern of human endeavor is thought to be effected somehow by anxiety (Lavit 1967) number of theories exist concerning the effects of anxiety of performance, and while there seems to be an interaction effect between the amounts to anxiety necessary to maximally perform certain specific tasks, all theories seems to agree that maximum performance is reduced by too much anxiety (Duffy, 1962, Null 1943, Wiener 1965) a number of specific management techniques have emerged including cybernetic training (Roman 1978) visual motor behavioral (Sumn 1976) hypnoses (Morgan 1972) Cognitive behavioral training (Horton and Shelton, 1978) and progressive relaxation (Tulko and Topsi, 1976, Dowen and Lanning, 1982) Additional techniques are being used by athletics include transcendental meditation, biofeedback, zen and yoga, autogenic training and sentic cycles (Beson, 1975).

According to the well known hypothesis of Liebert and Morris (1967) and Sarson (1975) the state of anxiety is characterized by the self focusing tendencies leading to self-preoccupation. This is associated with task-irrelevant cognitions, in particular “worry”. For example, an athlete being in a negative prestart tension in increasing concentrates his thoughts on self-concept problem instead of directing his attention to the demands of the task and competition.
Therefore, the control of such tasks-irrelevant cognitions is a first essential approach to anxiety control. Furthermore, anxiety is accompanied by a higher level of activation the athlete feels nervous upset and overacted. This aspect is called “emotionally”, by Liebert and Morris. In second approach to anxiety control is to reduce the activation level with the expectation that an improvement of concentration may follow too. Finally a pre start anxious athlete will tend to avoid the threatening competition in order to prevent failure and potential loss of a social appreciation. In this case, appropriate motivational techniques are required. This third approach to anxiety control is based on controlling behavioral tendencies expecting an additional feedback effect on cognition and emotion as well.

Mulumpy (1968) and Ogilvie (1968) also conducted a related investigation, where four groups of female athletes i.e., athletes in team sports, in individual sports, team individual sports, subjectively judged sports and the non-athletes, differed on various factors, the athletes from individual sports were more extraverted than those from team individual groups. The seemed to be in disagreement with the findings of Peterson, Weber and Trousdale (1967). Malumpy also found that the team sports group as less extraverted than the non-athletes. However, he found individual female athlete to be more anxious, venturesome, tough-minded and extraverted while team athletes were lower in leadership, less venturesome extraverted learns.

In the study made Malumphy (1968) the sport participants were found to be more conscientious and tough minded, but less imaginative and less venturesome than the non-sports participants. Newman (1968) suggested that participation in high level athletic competition provides and adds a dimension to one’s personality.
He found that athletes were found to be more conscientious and tough minded, but less imaginative and less venturesome than the non-sports participants.

He found that athletes were more sociable, more aggressive in their approach to problems, more self-confident, more critical of themselves and more extraverted than non-athletes. Ogilvy (1968) also found that traits like emotional stability, tough madness, consciousness, self control, low energetic tension level, self assuredness and outgoing ness consistently were associated with athletic achievement.

Gupta (1969) Studied the personality characteristics of hockey champions and non-athletes by administering the MMPI test. The result to this test revealed that hockey champions were highest on Ma scale while low on PF scale. Hockey champions were found to have greater ability to concentrate, self confidence, extraversion, tendency to worry less and less intelligence as compared with the group of non athletics.

Singer (1969) compared the basketball players and tennis players on EPPS norms and also the highest and lowest ranked athletes in both sports. The baseball team scored significantly lower than the other two groups, on the interception variable, lower than table tennis group of the achievement variable, lower than the norm group on autonomy and lower than the tennis group on dominance. Both the baseball and tennis groups scored significantly higher than the norm group on the aggression factor. No differences were noted between high and low rated baseball players.
Kane J.E. (1970) found a complex relationship between the second order personality variable “extraversion” and performance of “track athletes” (sprinters) and they were found to be frequently more extraverted than middle distance runners. He claimed that as the distance increased, there was a trend towards introversion.

Kroll W (1970) used the cattle 16 PF to study 387 athletes. The group under study consisted of 81 football players 141 gymnast, 94 wrestlers, 71 Karate participants. On the basis of certain traits the 4 groups seems to fall into 2 groups: the football players and wrestlers, were similar in their psychological profiles, both groups were significantly different from gymnast and karate participants the results are surprising because football is a team sport and wrestling on individual sports. The findings of Kroll & Crenshaw are perhaps explained by the fact that football and wrestling are gymnastic combative activities requiring, strength, endurance, agility. It is common in High school high school & High schools to find football player who are in the wrestling squad or vise-versa. On the other hand few gymnast are also football players or wrestlers. In summary the result showed gymnast to be rather intelligent and relax, possessing weaker super age strength, and with a serious outlook toward life. Karate participants reflected on opposite set of characteristics being tense conscientious and rule bound and independent both groups were man well sufficient more reserved and detached than wrestlers and foot ball players.

Slevin (1970) used the STAI to investigate the effects of anxiety upon the performance novel gross motor task. The results showed that overall high trait anxiety subject had significantly higher state anxiety scores and significantly lower performance scores than low trait subject.
**Dr. Albert Frank (1973-74)** in Zaire study employing 92 Students between the age group of 16-18 Years, the Chess playing experimental group showed a significant advancement in spatial, numerical and administrative – directional abilities, along with verbal aptitudes, compared to the control group. The improvements held true regardless of the final chess skill level attained.

**Hopkins (1973)** studied the self-perception of disabled persons and reported that handicapped children attribute their disability to themselves. Physical appearance serves as a critical variable in the process of personality development for the physically handicapped children. Dreikurs (1948) reported that nearly half of a sample of 40 severely crippled children deliberately used their abilities to appear inferior and more helpless than they really were. All of them showed poor self concept, their self image was distorted and they blamed themselves. They experienced more fears and feelings of guilt than able-bodied children. All these exhibit their poor self concepts. Shakespeare (1975) surveyed those studies of handicapped people where better adjusted and poorly adjusted people were compared. He found that better adjusted people had positive self concept, more self esteem and more readily saw themselves as making a worth while contribution to society. His findings also showed that better adjusted people are less

Kennedy (1971) certifical analyzed the effects of sports participation on the modification of various personality traits possessed by an individual before starting his/her sports career. Here he emphasized on the most commonly found personality traits in the championship athletes as stated by the Ogilvy. These traits are:

1. Emotional Stability  
2. Tough Mindness

3. Self-assurance  
4. Basic trust in people
Earl. R Jones (1973) conducted a theory on the effect of anxiety and need for achievement on the performance of high school wrestlers. Data were obtained by the thematic appreciation test. The anxiety questionnaires, expectancy ratings by the individuals and by their coaches, performance data were obtained from match scores boards and observation. It was concluded that the personality traits of anxiety and need for achievement had a tendency to influence both the expectancy and the actual performances of the High school wrestlers subjects who measured low in anxiety level performed better than those high need in anxiety. The group scoring highest in performance was that of low anxiety and high need for achievement, the lowest level of performance was demonstrated by the group of high in anxiety and low in need for achievement.

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Dr. Adriaan de Groot (1974-1976) in Belgium study a Chess playing experimental group of fifth graders experienced a statistically significant gain in cognitive development over a control group, using Piaget’s tests for cognitive development.
Dorsey (1976) discovered that relaxation training did not load to change in state anxiety or an improvement in gymnastic performance. A study conducted by Blacksmith (1977) systematic desensitization failed to reduce state anxiety collegiate weightlifters.

**Nideffer (1976)** has concluded that flexibility of attention style is also vital to athletic achievement. Mental errors, occurred, he contended, when an individual lost control over attention direction and\or focus.

Martens has described CTA as “a tendency to perceive competitive situation with feeling of apprehension of tension” (Marton, 1977 p.23) while state anxiety refers to stress “characterized by subjective consciously perceived feeling of apprehension and tension, accompanied by or associated with activation or arousal of the automatic nervous system (Spielberger, 1966, p.17). Therefore, trait anxiety is a relatively stable characteristic while state anxiety is predicated by more immediate factors that pose a threat to the individual.

Methods to access both types of anxiety have been established the sport competition anxiety test (SCAT) (Marten, 1977), has produced reliable and valid measures of trait anxiety while Spielberger’s (1970) State Anxiety inventory (SAI) has been proven to be effective means of assessing state anxiety. Further more the STI has been revised into a competitive short from (CASI) (Marten, Burton, Rivkin and Simon, 1980) and utilized successfully by investigators in competitive situation (Gruber and Beauchamps, 1979. Scalan and Ragan 1978).

Dr.Yee Wang Fund (1977-1979) has conducted the study at Chinese University in Hong Kong Chess Players showed a 15% improvement in math and science test scores.
Karp, (1974) first introduced the concept of psychological differentiation in the course of studies of individual differences in cognitive style. “Differentiation” refers to the complexity of structure of a psychological system (Witkin, 1978). In another study of a similar kind Berry (1966) compared the Temne and the Eskimo groups and found that the Temne children who were severely disciplined and physically punished were more field dependent than Eskimo children who were given much freedom, were rarely punished and were encouraged to assume responsibility early in life. A number of studies have given similar results. Studies have shown that family experiences and socialization (Dyk, 1969; Dyk & Witkin, 1965; and Witkin et al., 1974) are important determinants of psychological differentiation. Therefore, there are reasons to believe that children in these two types of families will differ in the extent of psychological differentiation. Families with greater parental involvement were likely to have field independent, children (Busse, 1969; Dawson, 1967; and Dreyer, 1975) and extended family structure was associated with field dependence while a nuclear family structure was associated with field independence (Witkin et. Al., 1974; Holtzman, Diaz Guerrero & Swartz, 1975). The modes of adaptation (Berry & Kim, 1988) and support systems available to individuals (Caplan & Killilea, 1976; Cohen & Wills, 1985) have been implicated as important factors in the experience of stress associated with changes in life style. It is evident that individuals, who adopt integration, coexistence and assimilation strategies, experience less stress while those who adopt separation or marginalization strategies experience greater stress (Berry, 1990; Berry & Kim, 1988; Mishra, Sinha & Berry, 1996). With regard to social support mechanisms, it was found that social isolation of individuals heightens the levels of stress (Cohen & Wills, 1985; Fondacora & Moos, 1987).
Individuals own psychological make up is also an important variable in the experience of stress. For example, field independent individuals, who happen to be cognitively controlled, experience stress to a lesser extent than field dependent individuals, who seem to be less cognitively controlled (Berry & Annis, 1974; Mishra et al., 1996).

**Gruber J. and Perkins S (1978)** found Women who competed in inter collegiate championship to be significantly higher on the factor F (sober), and I (tough minded) when compare to non-anticipant group. William (1978) reported that selected personality traits are frequently associated with the elite female athletes and specifically that the successful female competitor generally tends to be more assertive, dominant, self-sufficient, independent, aggressive, reserved.

**Javet S Breedlone (1978)** predicted gymnastic performance based on personality traits and preferred self concept was determined. Jacksons personality research form and the TN self concept scale wee the administered to 48 women collegiate gymnasts scores form those instruments were compared to performance in four individuals gymnastic events (Vault, balance beam, parallel bars and floor exercises) and the all round events as determined by mid scores, significant results were found between gymnastic ability and self concept measures of physical self, moral ethical self, total variability and column total variability, in the area of personality and frequency additional statistical analysis using R Techniques were applied to determined if selected cluster of personality traits of self concept measure would perfects of gymnastic performance. No significant factor were found.

**Mohan Et. Al. (1979)** found that the players were more extraverted that non-players and low on neuroticism implying more stability of emotionality.
Thakur and Thakur (1980) studied personality characteristics of the athlete and non-athlete Indian College males using projective methods of personality assessment and found that the characteristics associated with athletes were happiness, cordial and affectionate, anxiety, achievement, dominance and superior organization capacity, whereas the characteristics associated with non-athletes were guilt, acquisition, passivity, refection, superior imagination.

Research has been completed showing that CTA is effective in predicting various level of state anxiety (Marten 1977, Marten, Rivkin, Burton 1979). However, the strength of these relationship is inconclusive for example Marten (1977) found an increasing correlation between CTA and the latter measure Weinberg and Genuchis (note I) investigation of male college golfers concluded that CTA was to correlate significantly with basal and pre-competitive state anxiety scores among youth male soccer players.

**Harpreet Shergill (March 1979)** conducted a study on personality differences between low and high anxiety female hockey players the study was conducted to find the personality differences in female hockey players. Total sample of 49 players were taken in divided into two groups on the basis of their scores on state trait anxiety inventory by spielberger 1970. Group one consisted of 28 players which had more state anxiety. Group two which consisted of 21 players had lower state anxiety than trait anxiety. 16 PF cattle 1970 was used to measure their personality traits. Discriminate analysis was applied to analysis the personality difference.
The results showed that players in group two scored in higher on six personality traits namely less intelligent V s I more intelligent, sober V s I happy go lucky, shy V s I venturesome, forthright V s I controlled while subjects in group one scored more on reserved V s I out going, affected by feeling V s I emotionally stable, humble V s I assertive, expedient V s I conscientious, tough minded V s I tender indeed, trusting V s I auspicious, practical V s I imaginative, conservative V s I experimenting group, dependent V s I self sufficient and relaxed V s I tens.

Much of the research regarding expertise involves the studies of how experts and novices differ in solving problems (Chi, M. T. H., Glasser R., & Rees, E., 1982). Mathematics (Sweller, J., Mawer, R. F., & Ward, M. R., 1983) and physics (Chi, Feltovich, & Glaser, 1981) are common domains for these studies.

According to Mudra (1980) with almost half of the variance in the prediction of pre-game state anxiety being accounted for, there is still another 50% which remains, suggesting the need for the future research. In an effort to identify and gain further understanding of the components of the competitive stress, other possible sources such as coach.

One of the most cited works in this area, Chi et al. (1981), examines how experts (PhD students in physics) and novices (undergraduate students that completed one semester of mechanics) categorize and represent physics problems. They found that novices sort problems into categories based upon surface features (e.g., keywords in the problem statement or visual configurations of the objects depicted). Experts, however, categorize problems based upon their deep structures (i.e., the main physics principle used to solve the problem).
Their findings also suggest that while the schemas of both novices and experts are activated by the same features of a problem statement, the experts’ schemas contain more procedural knowledge which aid in determining which principle to apply, and novices’ schemas contain mostly declarative knowledge which do not aid in determining methods for solution.

**Joan, Elise Dud, (Nov.1981)** administered a questionnaire to 250 subjects to compare personality characteristics of adult women athletes. Young women athletes and college women athletes. The aim of the study was to investigate similarities and differences in personality characteristics of college young adults and adult women athletes. The result indicates the absence of significant differences in the overall personality profiles of three groups of women engaged in competitive sports. However, there were significant differences at the 0.01 level between the women engaged in competitive sports and those engaged in non-competitive sports. The capacity for status was significantly lower for college women as compared to with adult women and young adult women. Sociability was significantly lower in the case of young adult college women athlete. Social presences and self acceptance were not significantly different among the groups.

**Eysenek et. Al. (1982)** reported that athletes tend to be high on psychoticism, than the non-athletes. According to them, a high psychoticism scores may be described as being aggressive, troublesome, cruel and inhuman, lacking in feeling and sympathy.

**Sharma and Shukla (1982)** studied the personality characteristics of sportsmen of individual and team sports. They reported that individual sports athletes were higher on these traits: conscientiousness, outgoing, super ego-strength, vigorous and tough mindedness.
Kirkcaldly (1982) found no significant differences regarding the personality dimension of team and individual athletes.

**PD. Tomporowski (1984)** studied that the effect of seven month aerobic type exercise program on physical fitness and intelligence of institutionalized adult mentally retarded person were evaluated. Sixty-five subjects, matched on IQ, CA and sex, were assigned randomly to exercise (PF) attention control (AC) and non intervention control (C) groups. PF and AC group participated in 139 training sessions, three hours per day, five days per week. The exercise consisted of running/jogging, calisthenics and circuit training those in the AC groups received a special education program: the C group continued their normal institutional training programs. Cardiovascular efficiency improved in the PF group. The IQ and adaptive behavior did not improve as a result of any treatment. Even though standardized test reflected little change in adaptive behavior of participants, subjective reports suggest PF training may serve as an effective habituation program for many institutionalized mentally retarded adults.

**P.D. Tomporowski (1985)** studied that institutionalized severally and profoundly mentally retarded adults participated in seven month program to rigorous aerobic type exercises. The effect of treatment on the physical fitness, intelligence and behavior of subjects were assessed. Fifty men and Women were matched in pairs based on IQ, CA and sex and assigned randomly to an experimental (E) or control © group. These in the E group met three hour training per day. Five days per week and received a treatment that consisted of an exercise program that included jogging, running, dance aerobatics and circuit training. The C group continued their institutional training programs.
The treatment produced significant improvements in cardiovascular efficiency of the subjects: although standardized tests reflected little improvement in psychological or behavioral variables due to treatment, subjective reports suggest that exercise training may serve as a more practical habilitation program for severely and profoundly mentally retarded individuals that these typically employed in institutional setting.

Kumar and Thakur (1986) found that athletes were not anxious, tender minded and worrying persons, but had outgoing personality in comparison to non-athletes. These results supports tea finding of Eysenck who reported that athletes tend to be low and neuroticism or anxiety and tend to be extraverted than the non athletes.

Kamlesh et. Al (1986) studied the personality traits of: Genera and Reserved category physical education majors. Eysenck personality inventory was administered on 38 males (28 general and 10 reserved) and 38 female (28 general and 10 reserved) physical education majors. They reported that male and female education majors, within their category groups differed significantly on extraversion and neuroticism.

Sharma and Shukla (1986) found that individual sports athletes were higher on conscientiousness, outgoing, superego, strength, vigorous, relaxed and tough mindness. Singh (1986) found that the players of individual events and team games differed significantly on the extraversion and neuroticism traits of personality. In the case of both male and female, the athletic group was more extraverted and more neurotic than the hockey group.
Singh and Singh (1986) found that neuroticism tendency was significantly in the non sports groups of students, whereas, no significant difference was observed in extraversion scores between the two groups.

Sharma and Shukla (1986) also concluded that athletes in various sports specialties tends to be outgoing, socially confident, emotionally stable, happy go lucky, conscientious (rules bound), venturesome, self-reliant, vigorous, confident, self-sufficient, controlled and relaxed. On the other hand, the non-athletes are reserved less intelligent affected by feelings, weak super ego, shy, tender-mildness, suspicious, doubting, indiscipline and tense.

Agyajit singh (1986) compared the competitive anxiety traits of the top level Indian athletes and hockey players. He found that track and field players had more anxiety traits as compared to the Hockey players whether males or females.

N.S. Mann (1988) conducted a study to assess the competitive anxiety level of team sports, Football, Basketball and Volleyball 44 male Punjab University Blues : FB = 16, VB = 14, BB = 14 were investigated for the study. This differences in level of competitive anxiety on three main situations. Ego threat, physical defeat threat and four main mode of responses Visceral, Muscular Cognitive and Anger of Football, Basketball and Volleyball Groups were compared anxiety based of Endler’s Model person X situation X mode of response. The data were statistically analyzed to find out the inter group differences Analysis of variance technique was applied. Footballers were found higher on all the three situations in comparison to other groups.
In the first three mode of response, Visceral, Muscular and Congestive difference were not found statistically significant. However, in the fourth mode of response i.e., anger, Footballer were higher than other groups the differences statistically significant.

Hare (1988), self-concept relates to the individual’s strength and weakness, and hence is concerned with abilities. Self-concept can include attitudes and beliefs and may extend to temperamental matters. Self concept is highly dependent on the kind of situation a person perceives him or herself to be acting in, “Knowing myself, then involves, not only knowing my dispositions and abilities but the situations and conditions in which I may be able (or liable) to have them”. According to social constructionists, “Self” is a learned construct. They gorward the claim that gender is learned in the same way as learning about the other objects of the world, that is, a human attribute, through inductive process of categorization and classification, serves the function of acquiring social knowledge (Bigler & Liben, 1979; Das & Ghadially, 1988; Gupta, 1994; Heller, 1993; Liben & Signorella, 1980; Slaby & Frey, 1975). Miller (1990) also a writes that even though in infancy both girls and boys are matched in a complex and “interacting” sense of self, ‘Girls are encouraged to augment their abilities to “feel as the others feel”, and to practice “learned about” the other (S)’. Self-concept is the some total of an individuals belief about his or her own personal attributes. Thus, self concept is the set of ideas that a person has about himself. These ideas run through all his emotional experiences, habits, memories, trades and values. It referees to an attitudinal structure, which tends to be self-sustaining. An individual’s evaluation of self-concept as dominant or submissive, emotional or calm, social or exclusive will be dependent to some extent upon the group with which consciously or unconsciously he\she compares himself\herself.
No one is born with a fully framed self-concept. It develops as we experience approval and criticism, success and failure. It goes with our family, our friends, our place in society, and our perception of the world around us, it is modified as our bodies mature and we evaluate our physical, social and emotional characteristics.

**G.S. Bawa and Monika Debnath (1989)** studied the personality traits of female national badminton players, gymnasts and cyclists. All the three groups were found to be an average category on introversion extraversion scale. But when the mean scores were compared the badminton players were found significantly more introverts that other two groups.

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**Harpeet shergili (Feb 1991)** conducted a study on the personality difference of successful and non successful volleyball players. The sample consisted of 24 successful and 24 non successful volleyball players personality characteristics measured using 16 PF and ST AI forms discriminate analysis was applied to study the differences between the two. The results indicate that two group can be discriminated on the basis of given variables. The results also showed that while factor a (easy going), (ego strength), G (superego) and H (venturesome) are the traits of successful players, state anxiety, trait anxiety and dominance were the dominant characteristics of non successful players.
Mishra & Somani (1993) suggested that the coefficient of correlation between scores obtained on mental health and occupational stress of the supervisors turned to be negative.

Diener, Sandvik, Seidlitz & Diener (1993) have found a positive correlation between income and subjective well-being but Clark & Oswald (1994) did not find a statistically significant effect of income in a representative sample from Britain. Smith & Razzel (1975) found that the effects of income often led to an increased level of distress. Thus, even positive changes in income may result in more stress, mitigating the positive effects of wealth on well-being. Recently Dinear et. Al. (1999) in a review article have reported that over the years there is a linear increase in the income in America but did not find any increase in the well-being scores. Therefore, there appears to be a lack of consistency in the findings over the relationship between income and well-being.

Prapavessis and Grove (1994) study revealed that personality was not related to pre-competition mode state pattern, but the magnitude of various mood was influenced by trait sport confidence, neuroticism, the control and commitment component of hardness and self handicapping.

Davis & Mogk (1994) reported that elite athletes could be distinguished from other groups on Extraversion, Neuroticism, Tough-mindedness (Psychoticism). However, they have reported that recreational sports enthusiasts had higher scores than any other groups on psychoticism scale and they were the on groups which has higher extraversion scores than non athletes.
Peter et al. (1995) studied the personality of 312 students of 11th and 12th standard. They reported that sports participants had significantly different personal profiles from non-participants. The result showed the sports participants to be more extraverted and vigorous was found to have significantly greater positive mental health than non-athletes. Positive mental health is characterized by less tension, depression, anger and confusion.

Richard et al (1996) conducted investigation to test the hypothesis that the Chinese athletes participating in the sports of track and field, fencing and gymnastics exhibited differential psychological profiles when compared with college level Chinese athletes. They have reported that elite Chinese athletes exhibited higher anxiety control and confidence scores than collegiate level athletes.

Jagdish and Yadav (1999) indicated that home deprivation was negatively associated with positive self evaluation, perception of reality, integration of personality, autonomy, group oriented attitude, environmental mastery and overall mental health.

Subjective well-being (SWB) is an abstract super ordinate construct causing the affective reactions of individuals to their life experiences along a positive negative continuum (Okun, 1987). Subjective well-being has been operationalized (Okun, Melichar & Hill, 1990) by indicators of happiness, moral and life satisfaction. Diener, Suh, Lucas & Smith (1999) stated that subjective well-being is a general area of scientific interest rather than a single specific construct and is abroad category of phenomena that include people’s emotional responses, domain satisfaction and global judgments of life satisfaction.
**Kothari (2000)** expressed that there was significant mean difference between the T.B. patients, sex, martial status and education and their overall mental hygiene whereas area, income and type of T.B. patients were non-significant.

**Jose Cecchini et.al, (2001),** The Influence of the Physical Education Teacher on Intrinsic motivation, Self-confidence, Anxiety, and Pre- and Post-Competition Mood States One of the fundamental problems facing teachers of physical education (PE) is how to increase pupil’s motivation. From the point of view of goal achievement, guidelines need to be established so that information may be used to greater effect in classes. This study examined the relationship between the motivational climate created by the PE teacher and intrinsic motivation of the preparatory sessions together with self-confidence and anxiety prior to competition and pre and post competition mood states.

The sample was made up of school children (M age = 11.7) from a state school (N = 115), who, after an introduce to an athletics course of 12 sessions, took part in a sports competition.

During this time, a teacher (trained to this effect) manipulated the motivational climate, adapting the strategies of TARGET (11,12, 26, 28). The mastery climate was linked to enjoyment, perceived ability, and effort in the PE classes, as well as to pre-competition somatic anxiety and post competition vigor.

On the other hand, the performance climate was associated with self-confidence, pre-competition vigor, and post-competition stress. The results are discussed in relation to achievement goal theory and motivational climate manipulation.
Yi Ping, (2001), Athletes’ differences in achievement motivation in sports. Motivation inventory, which tests achievement motivation in sports, was administered to 2214 male and female Chinese athletes consisting of students of physical education and professional athletes. The results of ANOVA of gender x events x sport levels in the five subscales (i.e., social recognition, improvement of sports performance, recreation, sensational experience, and choice of effort) of Motivation-C Inventory showed significant differences at three aspects.

1. Male athletes scored higher on the subscales of recreation, sensational experience, and choice of effort than female athletes.
2. Athletes of individual sports scored lower on the subscales of social recognition and sensational experience than athletes of team sports, scored higher on the subscale of improvement of sports performance than athletes of team sports.
3. Athletes with higher sport levels scored lower on the subscales of social recognition, improvement of sports performance, and sensational experience than athletes of athletes with higher sport levels.

For conducting any piece of research study, review and survey of literature related to the study being conducted, is of paramount, significance. Surveying of researches conducted in the field helps the investigator in understanding the problem from different perspectives. Such a review of the studies conducted by the other investigators in the field related to the problem in hand also helps the researcher in framing the objectives and the correspondence hypothesis of the study. However, the most significant contribution of such surveys helps the investigator in interpretation of the results of the study that the researcher investigates.

Before and during competition, the sportsmen are large fearful so some degree with eventful their performance.
This is a nature phenomena. No human being is free from anxiety. In the stressful setting provided by competitive sports; it is usual to observe to a rational appraisal of a real threatening situation and the team anxiety denotes an abnormal apprehension of such a situation.

**According to A pipe (2001)** it is assumed that participation in sports will produce only an array of health benefits. The adverse consequences of sports participations particularly at the elite level are rarely explored. Evidence continues to accumulate of a variety of unfortunate consequences that may accompany elite sport participations. Sports involvement may exacerbate pre existing health problems. Cause injury or even death. The sport environment may be hazardous in a variety of physical, emotional and social ways. The common training and competition practices of certain sport cultures may themselves be harmful. Athletes may sacrifice health, home, education and normal social development in the pursuit of sport “success”. Sport medicine professional and sport scientists have particular opportunities and responsibilities at act as an athlete’s advocate – and to protect their health and well being.

**Bradley and Crowyn (2002)** reveled that for children, SES influences well being at multiple levels including both family and neighborhood. Its effects are moderated by children’s own characteristics, family’s characteristics and external support system. Evans, Kantrowitz and Eshelman (2002) found that elderly residents of higher quality homes, independent of multiple demographic factors (e.g. income, gender), feel more attached to their home, which in turn, appears to account for the relation between housing quality and positive effect of well being.
Ojha (2002) found that social anxiety was significantly higher in orthopedically handicapped group. Orthopedically handicapped females, were found to be more socially anxious as compared to orthopedically handicapped males. However, few dimensions of mental health, viz. group oriented attitude, integration of personality, and positive self evaluation were found to be significant on physically handicapped in general. Lath (2002) revealed that higher Trait Anger scores (22) and high Hostility scores (<9,29) significantly increases the risk for the coronary heart disease (CHD).

Mabass and WK Enachs studied (2002) response to life stressors are associated with negative behavior that may increase risk for illness and injury. The effect of high intensity exercise in reducing reactivity to psychological stress has been well documented among older people. The purpose of their study was to as certain the effect of training versus aerobic danced on psychological stress in college students. 45 students participated in weight training course, 35 students participated in aerobic dance classes and 34 participate as control group. The survey of recent life experiences was used to appraise stressfulness of current experiences before and after exercise intervention. On immediate retest after 8 week of aerobic dance program, but there were no significant differences between the control and the weight training group or the aerobic dance group. These result suggest that a regular routine of low intensity exercise such as weight training may reduce perceived stress on an immediate rest

Khan (2003) said that without mentally healthy teachers we cannot aspire and expect a good society.
Besides it, the teachers should be aware of and will informed about mental health care programmes and practices so that they may guide and direct the students guardian\parent properly and accordingly, whenever it is needed.

**Akhani, rathi & Nath (2003)** showed that hostlers had more religious personal values than day scholars, and day scholars are significantly high on health personal values. There was no significant difference between mental health of the two groups.

**Kaivula, Hassman, and Fallby (2003)** studied with elite Swedish athletes. The study demonstrated that positive or adaptive orientation of perfectionism (setting high personal standards) was associated with higher self-confidence, whereas negative or maladaptive pattern of perfectionism (having high degrees of concern over mistakes and doubts about actions) was related with lower self-confidence (koivula, Hassmen et al. 2002).

**Howard Zhenhao Zeng (2003)** designed to compare the difference on the levels of self-confidence. State sport-confidence and Trait sport-confidence for varsity athletes between team sports (TS) and individual sports (IS). College varsity athletes (N=69, TS=39,IS=30) aged 18 to 23 years were tested and analyzed during the study self-confidence scores were obtained to compare the mean differences in the levels of self-confidence of the participants. According to the independent group t test, the means of state self-confidence. State sport-confidence and Trait sport-confidence scores for TS athletes were significantly (p<.05) higher than the mean scores for IS athletes. In conclusion, team sport athletes have higher levels of state self-confidence, state sport-confidence and trait sport confidence as compared to individual sports athletes when they competed with their opponent (Howard and zeng 2003).
**Butt, Weinberg and Horn (2003)** examined changes in confidence from pre to mid-to post-competition of female field hockey players. The significant changes in intensity of confidence across four different time points pre-game, during first half of the game, during second half of the game, and post-game, were appeared. The follow-up analysis showed that self-confidence was lowest at pre-game, and increased from pre-game to post-game though players self-confidence did not change significantly from the first to second half, from pre-game to first half, or from pre-game to second half. In sum, the study reported that the level of confidence remained stable throughout competition; however, the changes occurred pre to post-game.

Differences in skill levels also seem to influence levels of self-confidence. Skilled or elite athletes have shown higher self-confidence than novice or non-elite athletes (e.g. Cleary & Zimmerman, 2001; Perry & Williams, 1998). For example, Perry and Williams (1998) compared level of confidence in tennis players with different skill levels (novice, intermediate, advanced).

Advanced skilled level athletes reported higher self-confidence than intermediate and novice skilled athletes, though there was no significance difference between intermediate and novice athletes. The aforementioned studies show support for the individual differences in self-confidence. However, there is still need for further investigation regarding these individual differences including gender and cultural background. Furthermore, no study has examined individual differences in multiple types of confidence. Future research is warranted (Butt, Weinberg et al).

**Cresswell and Hodge (2004)** examined the role of self-confidence and anxiety in coping skills of athletes.
The analysis reported a significant negative correlation between trait anxiety and coping skills, and a positive correlation between sport-confidence and coping skills. Besides aforementioned studies, the example findings of the influence of self confidence on behaviors, affect and cognition include, positive correlations with intrinsic motivation (Vealey, et al., 1998) adoptive goal orientation (Hall & Kerr, 1997; Mills, 1996), higher persistence (Cox & Whaley, 2004; Weinberg, 1979) and positive feeling state. Although the numerous researchers have been conducted to study these influence of self confidence most of the studies were conducted using one dimensional conceptual approach of self confidence.

Aforementioned study by Vealey and Knight found that three types of sport-confidence differently predicted cognitive anxiety and coping skills, however, how multiple types of self confidence differently influence athletes’ behavior, cognition and affect remain unclear and need further investigation (Cresswell and Hodge 2004).

As described by self efficacy and sport confidence, self confidence is a dynamic construct, and not a static trait (Vealy and Chase 2008) and there are limited number of studies examining this characteristic of self confidence. However, there are a few sport related and non sport related studies that aimed to understand this phenomenon and its relationship to performance, and might provide useful conceptual framework to studies in this topic. Vealey and Sinclair (1987) studied the changes of self confidence over a season with twenty college female field hockey players. The purpose of the study was to investigate the various factors (trait sport confidence, locus of control, competitive orientation, perceived practice performance, performance expectancy, perceived probability of success) on SC state stability across the course of the season.
Confidence stability measures included: a) across pre-SC-state, b) across post-SC-state, c) pre SC-state and post-SC-state, d) total seasonal pattern of pre-and post-SC-state. The results showed that pre-SC-state stability was predicted by SC-trait, competitive orientation, probability of success, and previous performance. Post-SC-state stability was related to SC-trait, competitive orientation, and performance rating.

In addition, competitive orientation emerged as the only significant predictor for pre-to post SC-state stability. The study suggests that stability of confidence, which can be conceptualized as stable level of self confidence, may be important for successful performances.

Bull, Shambrook, James, and Brooks studied mental toughness in elite English cricketers. The study aimed to understand what mental toughness is within cricket, and examine how mentally tough cricketers develop their mental toughness. Focus group interviews were conducted with twelve English cricketers who were identified as mentally tough. Authors argue that it is the nature of self-confidence that makes athletes mentally tough, which is resilient or unshakable confidence. Authors argue that mentally tough players possess high levels of self confidence that is very hard to undermine. Also they claim that mental toughness is not synonymous to resilient confidence: mental toughness is multifaceted construct and there are many factors involved. This argument contradicts Bandura’s notion that resilient self confidence is defined as mental toughness and indicates that the concept needs further investigation (Bull, Shambrook et al., 2005).

As described in the sport confidence model (Vealey & Knight, 2002), self confidence influences performance through its mediatory effects on athletes behaviors, cognition and affect.
The relationship between self confidence and athlete’s behaviors cognition and affect have been extensively studied in sport psychology. For example, Abma and colleagues examined to see if there are differences in imagery content and imagery ability between high and low confident track and field athletes. The authors found that highly confident athletes used imagery significantly more than less confident athletes, but levels of confidence did not relate to their imagery ability.

Bookwalter and Delenberg (2004) found that important differences exist among groups based upon their economic status. For the poorest quartiles, transportation and housing play the most important role in determining well being while for richest quartiles sanitation, water, energy, education and health are relatively more important.

Marie-Line Germain (Germain, 2006) developed a psychometric measure of perception of employee expertise called the Generalized Expertise Measure (GEM). She defined a behavioral dimension in "experts", in addition to the dimensions suggested by Swanson and Holton (2001). Her 16-item scale contains objective expertise items and subjective expertise items. Objective items were named Evidence-Based items. Subjective items (the remaining 11 items from the measure below) were named Self-Enhancement items because of their behavioral component.

This person has knowledge specific to a field of work. This person shows they have the education necessary to be an expert in the field. This person has the qualifications required to be an expert in the field. This person has been trained in their area of expertise. This person is ambitious about their work in the company.
This person can assess whether a work-related situation is important or not. This person is capable of improving themselves. This person is charismatic. This person can deduce things from work-related situations easily. This person is intuitive in the job. This person is able to judge what things are important in their job. This person has the drive to become what they are capable of becoming in their field. This person is self-assured. This person has self-confidence. This person is outgoing. (Condensed from Germain, 2006).


Kaur et.al, (2007) purposed a study to find out the relationship between achievement motivation and pre-competition anxiety among inter university hockey players. Finding of the results reveals that there was a significance relationship between achievement motivation and pre-competition anxiety of inter university level male hockey players and there was significance difference in the level of achievement motivation of high pre-competition anxiety group and low pre-competition anxiety group of inter university level male hockey players.


It is critically important that those studying the psychological concepts as they apply to the area of physical education, sports and coaching be carefully attentive to the fact that social and cultural forces are operating constantly and a meticulous understanding of these is absolutely necessary in any attempt to unravel many factors causing and revealing behavior and its changes in sports setting.
Hence the present study addresses itself in analyzing the influence of achievement motivation, self confidence and SES on the performance of 300 kho-kho players selected from various national kho-kho teams. The study also attempts to uncover sex differences in kho-kho performance of National players. To achieve the purpose of the study Achievement motivation scale developed by Rao’s (1973), self confidence questionnaire is developed by M. Guillermo Campitelli, Fernand Gobert, Gareth Williams, Amanda Parker (December 2007) Integration of Perceptual Input and Visual Imagery in Chess Players. Evidence from eye movements, this environment is integrated with mental images. Chess players (N= 4) of different skill levels were submitted to a visual imaginary task with familiar stimuli (chess position) and unfamiliar stimuli (boards containing shapes). A position that remained unchanged and a grid in which moves were displayed using a standard chess notation familiar to the participants were visually presented. The participants’ task was to mentally reproduce a sequence of moves from the original position. Retention of updated positions was assessed with a memory task. Eye movements were recorded during the entire experiment. We found that (a) players performed better with familiar than with unfamiliar stimuli; (b) there was a strong correlation between skill level and performance in the familiar but not the unfamiliar conditions; (c) players used the external board as an external memory store; but (d) there was no difference in the extent to which players of different skill levels shifted their attention to the external board.
Using control tasks unrelated to chess, we established that the skilled and unskilled players did not differ with respect to general cognitive abilities. These results emphasize the role of long-term memory in expertise and suggest that players use processes that enable them to smoothly combine information from the environment with mental images.

Thakur et al, (2008) Thakur et.al, studied to assess the personality traits, anxiety and achievement motivation level of volleyball players and non-sportsmen. The result of the study indicated that higher level performance groups was more extrovert than the low performance group and non-sportsmen, whereas, non-sportsmen was more neurotic than those of high and low performance group. Cognitive anxiety and somatic anxiety of non-sportsmen was higher than intervarsity level of performance groups, was also better than non-sportsmen. Achievement motivation level of high performance groups was also better than non-sportsmen.

Howard Z Zeng, Raymond W Leung, Wenhao Liu (2008) examined the relationships between competitive anxiety and self confidence among collegiate varsity athletes. Participants were 96 athletes from a university in the United States, and their sport affiliations included baseball, softball, volleyball, track and field and gymnastics. The following four questionnaires were administered to the participants: Competitive State Anxiety Inventory-2 State Sport Confidence Inventory. Sport Competition Anxiety Test for Adults and Trait Sport Confidence Inventory. Results showed that athletes who possessed a low level of competitive trait anxiety on a regular practice day tended to have low levels of cognitive state anxiety and somatic state anxiety, as well as high levels of state self confidence and state sport confidence on a competition day.
In addition, athletes who possessed a high level of trait sport confidence on a regular practice day tended to have low levels of cognitive state anxiety and somatic state anxiety, and high levels of state self confidence and state sport confidence on a competitive day. The investigation also found that cognitive state anxiety and somatic state anxiety were the predictors to estimate athletes’ self confidence and performance (Howard Z Zeng 2008).

**Levy, A.R. Nicholls, R. C. J. Polman (2009)** investigated the relationship between confidence and subjective performance in addition to exploring whether coping mediated this relationship. Samples filled a measure of confidence before performance athletes also filled a measure of coping and subjective performance after competing. Co relational findings showed that confidence was positively and significantly associated with subjective performance. Furthermore, meditational analysis found that coping partly mediated this relationship. In particular, task-orientated coping (i.e., mental imagery) and disengagement orientated coping (i.e., resignation) had positive and negative meditational effects respectively. Additionally, athletes who employed mental imagery generally coped more effectively than those using resignation. These findings suggest mental imagery has the potential not only to enhance confidence, but also subsequent performance, while resignation coping may have the opposite effect. In general, these results lend some credence to Vealey’s integrated sports confidence model (Levy, Nicholls et al. 2009).

**Raweewat, Rattanakroses et.al, (2009)** Evaluating the Relationship of Imagery and Self-Confidence in Female and Male Athletes. This study examines the relationship between imagery and confidence in athletes.
The Sport Imagery Questionnaire and a Self Confidence Questionnaire were used to collect data. The samples consisted of athletes who are from the Khonkaen Sport School in Thailand and who regularly participated in sports training (5 days a week).

All subjects (n=120) were selected by purposive sampling and consisted of 71 (59.2%) male and 49 (40.8%) female athletes. Our analysis considered two parameters, imagery and self-confidence, which were evaluated with regards to the physical fitness level and experience of the athletes. The data was analyzed using a t-test to determine the difference of the means between imagery and self-confidence measures in males and females. Analysis of variance (ANOVA) (P<0.05) was used to evaluate differences across the groups, and linear regression and correlation analyses (r = 0.71) were used to compare between genders, physical fitness, and experience levels.

The results show that there are significant correlations between males and females in terms of imagery and self-confidence. This result suggests that imaginary and self-confidence. The result suggests that imaginary and self-confidence in male and female athletes are associated with high levels of physical fitness and more experience in sports situations.


Singh et. Al, (2010) studied to compare the sports achievement motivation of male and female north zone badminton players. Results indicated that no significant difference was found between male and female north zone badminton players in their sports achievement motivation at 0.05 level of confidence.
**Pooja, Dureha et. Al, (2010),** studied on comparative study of incentive motivation, achievement motivation and anxiety level between national and international hockey players. As shown by the result of the study there were insignificant difference was found in incentive motivation, achievement motivation, state anxiety and trait anxiety between national and international hockey players and significant difference was found in sports competition anxiety. In order to test t test was used and 0.05 level of significant was used. The hypothesis that international and national players would not differ accepted in achievement motivation and rejected in the case of achievement motivation, state, trait and sport competition anxiety.

**Olga Kouli et al (2010) examined the relationship between emotions and confidence among Greek athletes from different competitive sports.** The participants were 617 Greek athletes from the different sports. Subjects aged 18 to 30 years (M=24.30, SD=3.70). All athletes completed the questionnaire on emotions (IZOF, Hanin, 2000), which was translated into Greek (Hanin, Papaioannou & Lukkarila, 2001). In addition, the results showed significant differences among sports in almost all the questionnaire variables: (a) in optimal-pleasant emotions swimmers had higher scores than Greco-Roman and free style wrestlers, (b) in optimal-unpleasant emotions swimmers had higher scores than taekwondo players and water polo players, and (c) in dysfunctional-unpleasant emotions swimmers had lower scores than taekwondo players and water polo players. On the other hand, in dysfunctional-pleasant emotions and in confidence no statistically significant differences among the sports were found (Olga and al. 2010).

**G S Dhaliwal et.al (2011) Achievement Motivation and attitude towards sports differentia in high and low performance track athletes.**
The present study is focused on to find out the relationship and also to identify the self esteem, achievement motivation, and attitude towards sports which differentiate the high and low performance track events athletes, the investigator used Rosenberg self esteem scale, Rae’s achievement motivation test, Bhagia school adjustment inventory and Singh’s attitude towards sports scale.

The time taken by the athlete in short distance track events i.e., 100 meter 400 meter and 110 meter hurdles, converted into standard points were regard as their performance scores. Scores on the tests referred to above were obtained of 480 athletes, 240 male and 240 females from short distance track events i.e., 100 meter 400 meter a 110 meter hurdles. Quantified data have been arranged in tabular form.

These data were statistically analyzed separately for male, female and total group of athletes. The co-efficient of correlation between achievement motivation scores of athletes and their performance scores in track events were found to be highly significant and positive. The co-efficient of correlation between the athletes scores on measure of attitude towards sports and their scores on measure of track events performance were find to be significant and positive.

Sotoodeh MS. And et al (2012) compared selected mental skills in elite and non-elite taekwondo athletes. 88 male and 54 female taekwondo athletes (elite=60, non-elite=82) answered Ottawa Mental Skills Assessment tools (version 3). This questionnaire assessed three categories of mental skills: foundation skills, psycho-somatic skills and cognitive skills. The results of 2 x2 MANOVA revealed a significant difference between male and female athletes only in activation factor.
Professional athletes significantly used mental training, goal setting, relaxation, self-confidence and commitment more than amateur athletes. However, non-elite athletes were better than elite athletes in refocusing and stress reaction (Sotoodeh, Talebi et al. 2012).

Self confidence has been identified as an important personal factor for successes in sport, and the relationship between self confidence and performance has been extensively studied. Studies conducted in natural competitive settings consistently show support to the positive relationships between confidence and performance. An analysis of past research in assessing each sub-scale in competitive State Anxiety Inventory-2 to predict performance (Craft, et al. 2003) reported only weak relationships between each sub-scales of competitive state anxiety and performance. However, their exploratory modeling showed that self-confidence had the strongest and most consistent relationship with performance. Another meta-analysis studied the relationship between self-efficacy and performance and also supported the confidence performance relationship (Mortiz 2000).

Much of the self confidence research in 1970s and 1980s was conducted in controlled laboratory settings with non-athletes participants and these studies also support he causal relationship between confidence and performance. For example, Weinberg, Gould and Jackson (1979), using a muscular leg-endurance task, found that individuals who were experimentally manipulated to have higher self confidence showed better persistence and performance (extended their legs longer) than the individuals who were manipulated to have lower self-confidence.
Similarly, Feltz’s (1982) experimental study using a modified back dive task reported a positive relationship between confidence and performance, and it also demonstrated that confidence is a stronger performance predictor than anxiety. Though results of these experimental studies are not directly generalizable to sport field settings; they provided a conceptual foundation for subsequent field research (Vealey 2008).

Studies examining personality characteristics of athletes suggest that confidence is one of the common characteristics possessed by successful athletes, and that athlete and coaches recognize self-confidence as a critical factor for success in sport. The studies of mental toughness in international-level athletes (Bull, Shambrook, James & Brooks. 2005; Jones, Hanton & Connaughton, 2002) seem to consistently identify confidence as an important factor for mental toughness and successes of these athletes. Also, in a study by Gould and colleagues examining the personality characteristics of Olympic champions, confidence was identified as a shared characteristic of these athletes. In addition, the results from the qualitative interviews showed that participants including athletes, coaches and significant others regarded confidence as an important factor for their successes.

At the elite level, self-confidence can be a factor that distinguishes successful and less successful athletes. Mahoney and Avenener (1977) found that the level of pre-competition self-confidence was one of the significant differences between US gymnasts who were the Olympic qualifiers and who were not. Similarly, a study with elite Canadian wrestlers (Highlen & Bennett, 1979) demonstrated that the level of self-confidence differentiated Olympic qualifiers and non-qualifiers.
Also, confidence has been shown to affect performance indirectly. Hardy and colleagues suggest that confidence can be a bias factor or a modifier to the anxiety-performance relationship in the cusp catastrophe models. Self-confidence was shown to moderate the interactions between cognitive anxiety and physiological arousal. That is, when they experience high level of cognitive anxiety, high level of self-confidence provides performers higher tolerance to increasing physiological arousal before a decrement in performance occurs.

The preliminary study by Vealey and Knight showed that three types of sport-confidence predicted performance differently, and the situational factors may influence the confidence and performance relationship. Sport-Confidence Inventory (SCI) (Vealey and Chase 2008) was administered to male intercollegiate swimmers across seven consecutive meets.

Moderate to strong relationships between performance and sport-confidence about physical skills and training (SC-Physical Skills and Training) emerged in the meet 3,4 and 5. There were moderate to strong correlations between performance and sport-confidence about cognitive efficiency (SC-Cognitive Efficiency) in the meet, 3 and 4. And confidence about resilience (SC-Resilience) significantly predicted performance only in the meet 4 and 5. These results demonstrated that confidence more significantly predicated performance in the middle of the season than the beginning and the later in the season. The authors interpreted the results in relation to the social-cognitive context of the swimming season. They explained that Meet 1 and 2 were early in the season and against weak opponents, and the main focus of these swimmers were to prepare themselves (e.g. stroke mechanics, fitness training) for the season. However, after Meet 2, swimmers started intense winter training program.
Upon this intense training period, Meet 3 was the beginning of their outcome-oriented dual meet. Meet 4 was against a strong opponent, and Meet 5 was against their main rival, and it was the start of the conference season. The authors argue that the intense competitive demands in these three meets created a socio-environmental context in which confidence was more predictive of performance. As mentioned in the previous section, the study also showed that SC-Physical Skills and Training was the stronger predictor of performance in the earlier of the season (Meet 3 and 4) while SC-Cognitive Efficiency and SC-Resilience were the stronger predictors of performance in the later of the season (Meet 5). It demonstrates that SC-Physical Skills and Training was more important type of confidence after the intense winter training and going into new season, and SC-Cognitive Efficiency and SC-Resilience were more important when the meets were perceived to be highly emotional and competitive. The results of this study implicates that confidence-performance relationship is complicated and needs further investigation.

Eric Thomas (2012) studied anxiety and self-confidence in relation to individual and team sports. Athletes, 49 men and 35 women, were divided by sport context and asked to complete the Competitive State Anxiety Inventory (CSAI-2). The analysis showed individual sport athletes exhibit significantly higher levels of cognitive and somatic anxiety and lower levels of self-confidence than team sport athletes who report less cognitive and somatic anxiety and more self-confidence. These findings were consistent with the conclusions of previous studies and support that sport context influences athletes’ precompetitive cognitions (Eric. P. et al. 2012)