CHAPTER-II

Review of Related Literature
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The reviews of related study, certain reports of experts, a host of eminent researchers evidences and their findings provide substantial background not merely in selecting unexplored area of research, it provides a logical, meaningful, innovative and scientific feedback which helps the researcher in updating his area of knowledge and highlights the direction to carry out the current investigation.

Competitive State Anxiety

Competitive anxiety and the effect it can have on a participant in sport performance has been the source of many research investigations (Burton, 1988; Krane & Williams, 1987; Martens, Burton, Vealey, Bump & Smith, 1990). How an athlete copes with competitive anxiety and how it affects his/her performance is important for the success of that athlete. It is important to help athletes reach a level of precompetitive arousal that will result in the best possible performance and also minimize harmful anxiety. Additionally, coaches and athletes could take advantage from research and clarifies the relationship between competitive anxiety and performance.
Lenamar, Cesar, Jose and Albertino (2011) conducted a study and analyzed self-efficacy in relation to anxiety level in young track and field athletes from Parana state. The total sample consisted of seventy five (75) athletes of both genders with a mean age of 16.76 years old. The Competitive State Anxiety Inventory (CSAI-2) was used to assess competitive state anxiety and a structured questionnaire was used to identify self-efficacy. Their results showed that there was no significant difference found in anxiety levels between men and women. For women, no significant differences were observed between outcome expectancy and anxiety level. Men who achieved a better result than expected presented a higher anxiety level.

Patel (2011) made a study and compared the competitive state anxiety levels of individual sports, dual sports and team game players. Sixty (60) male students of LNUPE, Gwalior were selected as the participants for the study. All subjects were divided into three main group’s individual sports, dual sports and team games depending on their activities. They conclude that individual, dual and team games did not differ significantly in competitive state anxiety components from each other, no significant difference between individual sports, dual sports, and team games and finally the interaction effect with regard to the individual, dual and team games indicates insignificant difference.
Khan and Ali (2011) conducted a study on twenty-five (25) male and female elite wrestlers, carried out and examine possible significant differences in cognitive state anxiety, somatic state anxiety, and self confidence among elite male and female wrestlers. Twenty-five (N=25) medalist (12 male and 13 female) randomly selected in different weight categories from All India interuniversity wrestling competition. Competitive State Anxiety Inventory - 2 (CSAI-2) was used for data collection, after collected data was analyzed by using t-test to find out the significance differences between male and female elite wrestlers on above mentioned sub-psychological variable. The obtain result advocated that each sub-variable (cognitive state anxiety, somatic state anxiety, and self confidence) findings in contrast and that found insignificance difference among elite male and female elite wrestlers.

Nigam (2011) examined the effects of self-efficacy on sports competition anxiety. A total of Forty (40) students of psychology belong to D. P. Vipra College, Bilaspur (CG) affiliated to Guru Ghasidas University, Bilaspur were randomly selected for the purpose of study. Sports Competition Anxiety and the Physical Self-Efficacy Scale were administered upon all subjects who volunteers to participate in the experiment. The results of their study revealed that females who are high in self-confidence will have low levels of competitive trait anxiety. The
findings of their study also indicated that private and public self-consciousness and social anxiety are all contributing factors in predicting competitive trait anxiety.

Murtaza, Imran, Bari and Najeeb (2011) made a study and compare the anxiety state on different levels of weight lifters. Total hundred (50 State level and 50 All- India intervarsity level) male weight lifters were selected for this study. The age of the subjects were ranged between 18 to 25 years. The data on anxiety state of the subjects were obtained by using a questionnaire developed by Neary and Zuckerman (1976). They found that there was a significant difference between different levels of weight lifters at 0.05 level of significant with 98 degree of freedom. Study showed that All- India intervarsity level weight lifters have higher level of anxiety state as compared to State level weight lifters.

Tsopani, Dallas and Skordilis (2011) conducted a study on competitive state anxiety and performance in young female rhythmic gymnasts and examine the competitive state anxiety and self-confidence of rhythmic gymnasts participating in the Greek national competition. Only eighty six (N=86) participants selected, ages 11 and 12 years, completed the Competitive State Anxiety Inventory-2, 1 hr. before competition. Subject were categorized by performance (high and low performance) and
participation in the finals (finalists and no finalists), responded to the 3 subscales e.i. Cognitive Anxiety, Somatic Anxiety, and Self-confidence. Statistical analyses indicated differences in Self-confidence between high versus low performance groups and finalists versus no finalists, and no significant differences were found on Cognitive and Somatic Anxiety. In a regression analysis, Self-confidence was the only significant predictor of performance for this sample.

Yadav (2011) investigated pre-competitive state anxiety of university badminton players. Ninety one (91) badminton players (54 men and 37 women) who participated in the West Zone University Badminton Tournament held at Jabalpur University were randomly selected as subjects for this study. The men and women badminton players who participated in any of their matches from their teams from I round to quarter finals, were randomly selected for the study. The criterion measure for testing the hypothesis was the scores obtained in the Sports Competition Anxiety Test (SCAT) by Rainer Martens. Pre-competitive state anxiety had significant difference between winners and losers of West Zone University women badminton players in semi-final league matches and had no significant difference between winners and losers of West Zone University men and women badminton players in semi-final league and I round to quarter final matches.
Sharma (2011) had studied on multidimensional pre-competitive state anxiety of university badminton players. The sample consisted of 49 male players and 41 female players who had competed in the badminton competition organized by the Manipur University, Imphal. The revised Competitive State Anxiety Inventory-2 (CSAI-2) was used to examine their multidimensional pre-competitive state anxiety and they found that there was no gender difference in pre-competitive somatic anxiety, however, gender difference was found with male players experienced higher than female players in pre-competitive cognitive anxiety.

Khan and Ali (2010) examined the competitive state anxiety (cognitive anxiety, somatic anxiety and self confidence) in elite and non elite Indian university high jump athletes prior to competition and to investigate any possible differences between elite and non elite high jump athletes, as well as in relation to their athletic experience, among 30 elite and non elite high jumpers. Measuring instruments was used for this investigation Competitive State Anxiety Inventory-2 (CSAI-2). The finding of the statistical analysis has been revealed that each encounters finding in contrast and that found a significance difference among elite and non elite high jumpers.
Esfahani and Soflu (2010) conducted a study on “The Comparison of Pre-Competition Anxiety and State Anger between Female and Male Volleyball Players”. The statistical population consisted of all male and female volleyball players (N=214) who participated in Iran volleyball university matches. It must be noted that the questionnaires were distributed among whole population either 30 minutes before competition started in the hall where competition was supposed to be held or at the time the athletes went to the hall to start the competition and finally 88 questionnaires were collected from male volleyball players and 82 questionnaires were collected from female ones. In this research, the CSAI-2 questionnaire was used to measure cognitive state anxiety, somatic state anxiety and self-confidence. The State-Trait Anger Expression Inventory (Spielberger, 1991) was also used to provide a measure of the anger experience as an emotional state (state anger), the disposition towards anger as a personality trait (trait anger) and the expression of anger. K-S (p=0.05) was used to ascertain data normality. Descriptive statistics (mean, standard error), t test and Pearson coefficient were used to analyze the data (p=0.05). The results showed a significant difference in all pre-competition anxiety subscales: cognitive state anxiety (t=3.62), somatic state anxiety (t=4.76) and self-confidence (t=3.06) (p=0.05).
Vincent and Mahamood (2010) examined competitive anxiety level as influenced by gender, levels of skills, and performance. The main aim of the study was to describe and compare the anxiety differences before and during competition among different categories of skills of athletes and genders. All data were collected from nine hundred two (902) athletes using a 27 item Competitive State Anxiety Inventory-2. After analysis of collected data, their results showed that national level and male athletes obtained the lowest score on competitive state anxiety variable. Based on the current results, it is recommended that sport psychologists, sport counselors, and coaches in Malaysia use the findings to design appropriate training programmed to help athletes acquire suitable coping strategies so as to reduce their state anxiety levels and enhance their performance.

Powell (2009) investigated the impact of pre-competition anxiety on athlete’s performance in track runners and found that the nature of the event (sprint, mid-distance, long distance) differentially predicted the relationship between precompetitive anxiety and performance. Results showed that the interpretation of anxiety intensity as either facilitative or debilitative, the directional component of anxiety, is a more sensitive predictor of performance than anxiety intensity alone. Findings indicated that best predictor of performance for sprinters and distance runners were
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their somatic anxiety direction. The performance of the mid-distance runners was best predicted by self-confidence direction. The results are interpreted as lending support to the multidimensional model of anxiety.

Mullen, Lane and Hanton (2009) examined the intensity and direction of the competitive state anxiety response in collegiate athletes as a function of four different coping styles: such as high-anxious, defensive high-anxious, low-anxious and repressors. Specifically, this study predicted that repressors would interpret competitive state anxiety symptoms as more facilitative compared to high anxious, defensive high-anxious and low-anxious performers. Separate Multivariate Analyses of Variance (MANOVA) was performed on the intensity and direction subscales of the modified Competitive State Anxiety Inventory-2 (CSAI-2). A significant main effect was identified for trait worry revealing that low trait anxious athletes reported lower intensities of cognitive and somatic anxiety and higher self-confidence and interpreted these as more facilitative than high trait anxious athletes. The prediction that performers with a repressive coping style would interpret state anxiety symptoms as more facilitative than performers with non-repressive coping styles was not supported.
Awolframm and Micklewright (2008) examined the effects of anxiety and self-confidence on equestrian performance. Forty riders (12 male, 28 female; 15 elite, 25 non-elite; 12 dressage, 17 show jumping and 11 eventing) completed the Revised Competitive Sport Anxiety Inventory-2 (CSAI-2), which measures the levels of somatic and cognitive anxiety as well as levels of self-confidence. Two-way between-subjects MANOVA tests were used to examine competence-by-discipline interactions and gender-by-discipline interactions in CSAI-2 scores. Post hoc analysis was conducted using one-way univariate ANOVA tests. Spearman’s rank correlation tests were conducted between each of the CSAI-2 subscales according to competence, discipline and gender. Most important findings include lower somatic arousal and higher self-confidence in elite compared with non-elite riders. Negative correlations between cognitive arousal and self-confidence were found among elite riders, non-elite riders, show jumpers and female riders. Greater riding-specific skills in the elite rider may result in increased self-confidence. Lower levels of somatic anxiety may further increase fine motor skills in elite riders. Practical implications are that non-elite riders would benefit from sport psychological interventions increasing levels of self-confidence and reducing symptoms of somatic arousal to improve performance.
Neil, Mellalieu and Hanton (2006) examined the intensity and direction of competitive anxiety symptoms and psychological skill usage in rugby union players of different skill levels. Total 115 (Elite and non elite) elite ($N=65$) and non elite ($N=50$) participants selected and completed measures of competitive anxiety, self-confidence, and psychological skills. The elite group reported more facilitative interpretations of competitive anxiety symptoms, higher levels of self-confidence, lower relaxation usage, and greater imagery and self-talk use than their no elite counterparts. The findings suggest that no elite performers primarily use relaxation strategies to reduce anxiety intensity. In contrast, elite athletes appear to maintain intensity levels and adopt a combination of skills to interpret symptoms as facilitative to performance. Potential mechanisms for this process include the use of imagery and verbal persuasion efficacy-enhancement techniques to protect against debilitating symptom interpretations.

Mellalieu, Neil and Hanton (2006) examine whether self-confidence mediated the relationship between competitive anxiety intensity and direction. Elite ($N=102$) and no elite ($N=144$) participants completed the self-confidence subscale of the Competitive Trait Anxiety Inventory-2 and the worry and somatic subscales from the Sport Anxiety Scale. The findings for elite athletes revealed worry intensity to significantly predict
self-confidence and worry direction. However, when self-confidence was controlled, worry intensity did not predict worry direction over that which was significantly predicted by self-confidence. Within the analysis for somatic symptoms, only self-confidence was found to predict somatic symptom direction. For the no elite athletes, worry and somatic symptom intensity predicted both self-confidence and direction, and direction when self-confidence was controlled. The findings for the elite athletes suggest self-confidence mediates the relationship between performers' worry symptoms and subsequent directional interpretations. However, the findings suggest that high levels of self-confidence and low symptom intensity are needed for no elite athletes to demonstrate a less debilitative interpretation.

Bekiari, Patsiaouras, Kokaridas and Sakellariou (2006) examine the relation of verbal aggressiveness and state anxiety (somatic, cognitive, and self-confidence) in sports settings based on the ratings by volleyball coaches and their athletes. The sample consisted of volleyball athletes (N=208; 98 men and 110 women) and their coaches (N=20; 16 men and 4 women). Analysis showed that male volleyball players rated somatic anxiety higher and were more affected by the verbal aggressiveness of their coaches than female volleyball players. No mean differences were significant for male and female coaches on somatic or cognitive anxiety,
self-confidence, or verbal aggressiveness. Also, correlation between subscale scores for male and female volleyball players and coaches was found. The correlations of verbal aggressiveness with self-confidence and anxiety were positive for these athletes, leading them to better behavior. This relationship needs further examination in sport settings.

Kais and Raudsepp (2005) examined the relationship between the intensity and direction of competitive state anxiety, self-confidence, and performance in basketball and volleyball players prior to different matches. Male basketball (N=12) and volleyball players (N=12) completed a modified version of the Competitive State Anxiety Inventory-2 (CSAI-2) prior to 11 different matches, and 132 questionnaires overall. The inventory included an intensity subscale as well as direction sub-scale for somatic and cognitive anxiety. The findings revealed a moderate level of state anxiety and very high self-confidence of the players before the matches. The cognitive and somatic anxiety and self-confidence were stable prior to the different matches. Correlation analysis showed that the intensity and direction of somatic and cognitive anxiety and self-confidence of the players were not related to their athletic performance. However, the intensity of cognitive anxiety was positively.
Jones and Uphill (2004) conduct a study and examine the capability of the Competitive State Anxiety Inventory-2 in distinguishing between anxious and excited states. Total athletes (N=188) were randomly assigned to one of two groups and asked to complete the CSAI-2 as if they were either excited (excited group) or anxious (anxious group) prior to the most important competition of the season. Data were initially analyzed using Multivariate Analyses of Covariance, with gender as the covariate. Participants in the anxious group reported higher scores on the cognitive and somatic anxiety intensity subscales, while the participants in the excited group reported a more facilitative perception of their symptoms on the somatic anxiety subscale. A logistic regression correctly classified 62.9% of the participants as belonging to either the anxious or excited group on the basis of the scores from the CSAI-2. It is possible to observe differences in scores on the CSAI-2 from participants asked to complete the inventory as if they were either excited or anxious. However, differences in scores were typically small with 37.1% of participants incorrectly classified on the basis of these scores. Accordingly, caution is advised in interpreting the results of the CSAI-2 in research and applied settings.
Thatcher, Thatcher and Doring (2004) conducted a study on “Gender differences in the pre-competition temporal patterning of anxiety and hormonal responses”. Six (male) and 6 (female) field hockey players completed the modified Competitive State Anxiety Inventory-2, including both intensity and direction subscales, and provided saliva and urine samples 24, 2, and 1 hour before the competition. These samples were analyzed for cortisol, and nor adrenaline and adrenaline, respectively. Two x 3 repeated measures ANOVA revealed significant gender x time interactions for cognitive and somatic anxiety intensity and adrenaline and nor adrenaline, but not cortisol. While males' anxiety and hormonal responses demonstrated no significant changes, significant increases in females' anxiety, and significant decreases in their adrenaline and nor adrenaline were observed over time. Moreover, while males' anxiety and hormonal responses mirrored each other, this was not the case for the females with increases in females' cognitive and somatic anxiety intensity levels accompanied by decreases in adrenaline and nor adrenaline. Although this study has extended this line of research by adopting a psycho-physiological approach and measuring anxiety intensity and direction in male and female athletes, replication is required with larger samples from a greater diversity of sports.
Zeng (2003) conducted a study with four intercollegiate athletes' teams from a Division III college. Sixty-nine (69) varsity athletes from team and individual sports participated in this study. It targeted the constructs of three self-confidence variables State Self-Confidence, State Sport-Confidence, and Trait Anxiety as well as levels of Cognitive State Anxiety, Somatic State Anxiety, and Competitive Trait Anxiety variables. The results demonstrated for college varsity athletes, team sport athletes had lower levels of cognitive state anxiety and somatic state anxiety compared to individual sports in a competition. On the other hand, the level of competitive anxiety demonstrated similar results. The increased levels of state self-confidence, state sport-confidence, and trait sport-confidence were found in the team sports during competition.

Jones and Hanton (2001) examined differences in feeling states indicated by performers who reported being facilitated or debilitated by symptoms associated with competitive anxiety before completion. A sample of high standard swimmers (N=190) competed a modified version of competitive state anxiety inventory 2, including both intensity and direction subscales, and an exploratory checklist of feeling state levels, which compare positive and negative feeling state labels these finding supported the general hypothesis that facilitator’s report significantly more positive feeling than debilitator’s, who report significantly more negative feelings.
Descriptive frequency counts of the largest percentage differences between facilitator’s and debilitator’s resulted in the selection of the confident feeling state level of the positive sub scales with it being, identified most frequently by the facilitators. Furthermore, of the negative feeling, the groups indicated the label MGS most frequently this study has extended previous research into the nation of positive and negative anxiety and has revealed individual differences in the combination of feeling states experienced by performers during competition.

Kirkby and Liu (1999) had studied on pre-competition anxiety and self confidence in a sample of 132 male and 103 female Shanghai college athletes. The participants were administrated the competitive state anxiety inventory- 2 of marten, at al. 30 to 40 minute before the competing important track and field events and basketball games. Analysis by independent t- test shows that there were no sex differences in scores on the cognitive anxiety, somatic anxiety, or self confidence sub scales; however, compared to those in team sports (Basketball), athletes competing individually (track and field) scored significantly higher on the somatic anxiety scale and significantly lower on the self confidence sub scale. Comparisons with data form comparable North American samples indicated that Chinese athletes reported lower score on cognitive anxiety and somatic anxiety but similar score on self confidence.
Parfitt and Pates (1999) conducted a study to consider the influence of competitive anxiety and self-confidence state responses upon components of performance. Basketball players (n = 12) were trained to self-report their cognitive anxiety, somatic anxiety and self-confidence as a single response on several occasions immediately before going on court to play. Performance was video-recorded and aspects of performance that could be characterized as requiring either largely anaerobic power (height jumped) or working memory (successful passes and assists) were measured. Intra-individual performance scores were computed from these measures and the data from seven matches were subjected to regression analyses and then hierarchical regression analyses. The results indicated that, as anticipated, somatic anxiety positively predicted performance that involved anaerobic demands. Self-confidence, and not cognitive anxiety, was the main predictor of performance scores with working memory demands. It would appear that different competitive state responses exert differential exerts upon aspects of actual performance. Identifying these differences will be valuable in recommending intervention strategies designed to facilitate performance.

Barr (1997) examined in twofold: first to examine the effects of a nontraditional sport course on the general physical self-efficacy and components of competitive state anxiety of participants and second to...
examine the association between nontraditional sport performance, general physical self-efficacy and components of competitive state anxiety. Eighteen males (18) (54.5%) and 15 females (45.5%) enrolled in noncredit whitewater kayaking courses constituted the subjects in this study. Each participant completed a short questionnaire along with the Physical Self-Efficacy and Competitive State Anxiety Inventory-2 as pretest measures. Next, participants received 17 hours of whitewater kayaking instruction as the treatment. During a river experience, participants' whitewater kayaking performance was measured using the Kayaking Performance Checklist (KPC). Following the treatment, participants completed the pretest inventories, excluding the questionnaire, as posttest measures. Paired samples t tests and Pearson product correlations were performed to test twelve null hypotheses. Two of the twelve null hypotheses tested for significance were rejected. Findings suggest a significant increase in cognitive state anxiety for participants after receiving the treatment. In addition, findings suggest a significant association between physical self-efficacy and whitewater kayaking performance.

Wiggins and Brustad (1996) conducted a study to examine acceptation of performance and the directionality of anxiety. Directionality refers to the facilitative or debilitative aspect of anxiety. Subjects were 91 athletes
competing in soccer, swimming and track and field. Competitive state anxiety inventory-2 with an added facilitative and debilitative scale and expectation of performance scale was employed. Analysis shows that athletes with lower scores on cognitive and somatic anxiety and higher score on self-confidence perceived their anxiety as more facilitative of performance these athletes also had significantly higher scores on the expectation of performance scale.

Bejek and Hagtvet (1996) examined between two existing groups of females gymnasts, Top level (N=20) and lower level (N=50), were administered the Martens Competitive State Anxiety Inventory-2 and a reduced version of the Spielberger State-anxiety scale prior to a national competition. The study was carried out to examine in what respect pre-competitive state anxiety is different in top level and lower level gymnasts. The results displayed no differences in mean values of the included anxiety-oriented state measures. However, the top level group reported higher mean value of self-confidence. A most salient finding indicated a positive relationship between pre-competitive state anxiety and gymnastic performance in the top level group, while no relation could be detected in the lower level group. A path analysis within each group of gymnasts suggested that their pre-competitive state anxiety was
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differently composed in terms of the state parameters cognitive anxiety and self-confidence.

Swain and Jones (1993) investigate the intensity and frequency of symptoms of competitive state anxiety. Total, Forty-nine track and field athletes (27 males, 22 females) responded to a modified version of the Competitive State Anxiety Inventory-2 (CSAI-2) on four occasions during the period leading up to an important competition: 2 days, 1 day, 2 h and within 30 min of competing. The questionnaire included the existing CSAI-2 (intensity) scale as well as a frequency scale for each of the 27 items of the CSAI-2. The intensity and frequency dimensions of each of the CSAI-2 sub-scales were then compared between the four conditions by means of two-way analyses of variance (gender x time-to-competition). In the case of cognitive anxiety, time-to-event effects were observed for intensity and frequency for both males and females. The intensity of the response was significantly greater at the final stage of testing than it was 2 days before competition, while the frequency of the response increased progressively throughout the experimental period. This dissociative patterning for the cognitive anxiety dimensions is discussed in the light of multidimensional anxiety theory predictions. For somatic anxiety, the time-to-event effects that emerged for intensity and frequency revealed that both values increased progressively as the time to
compete neared, for both male and females. The results for self-confidence revealed no effects for intensity or frequency for either gender. The findings from structured follow-up interviews served to corroborate these quantitative findings by providing information that supported the conclusions drawn from the questionnaire data. In particular, the athletes reported that they experienced considerable increases in the frequency of intrusive anxiety cognitions. While these findings clearly need to be substantiated, they do provide evidence of the existence of an additional dimension of anxiety that may assist our understanding of this complex concept.

Finkenberg, Dinucci, McCune and McCune (1992) conduct a study on 77 cheerleader participating in a national collegiate championship competition were administered the competitive state anxiety inventory 2 immediately prior to the performance significant correlation were found between cognitive and somatic state anxiety, a finding consistent with previous research. Negative correlation was found between both cognitive and somatic anxiety and self-confidence, also as previously reported. Canonical discriminate analysis indicated that significant discrimination between the teams could be accomplished by a combination of the state anxiety variables. Groups, 36 men and 41 women, differed significantly from normative scores on the somatic
Matheson and Mathews (1991) examine the changes in cognitive anxiety, somatic anxiety and self confidence as measured by the competitive state anxiety inventory 2 in a sample of fifty (50) female high school gymnasts prior to their performances at a practice session, dual meet, and district championship meet. Analysis shows that the dual meet athletes experienced significantly greater cognitive and somatic anxiety and lower self confidence than at the practice or district championship. State anxiety did not vary significantly with the athletes over all experience or the difficulty of the routines which they performed. The unexpected finding that the dual meet was most anxiety-provoking was attributed to the greater uncertainty of outcome in a competition and that fact that the dual meet occurred yearly in the session.

Rodrigo, Lusiarod and Pereira (1990) examined how the component of the Spanish version of the competitive state anxiety inventory (CSAI-2) are related to each other and their relationship with performance in 51 male soccer players from our professional team. The results indicate a moderate relationship between cognitive worry and somatic anxiety, confirming that these are separate, but related components of state anxiety. Also, cognitive worry was the more consistently and inversely
related to performance. Finally, alpha coefficients of this Spanish version indicate that it is an internal reliable measure.

Caruso, Dzewaltowski, Gill and McElroy (1990) confirmed that state anxiety is multidimensional and revealed that its psychological and physiological components change over time. Somatic anxiety tends to increase rapidly as the start of an event approach, while cognitive anxiety increases more gradually. Self-confidence tends to decrease in females on the day a competitive event is to occur (Jones & Cale, 1989 as cited in Swain & Jones, 1992). As an event approaches, negative thoughts and feelings associated with competition increase (Swain and Jones, 1992). This accounts for the increase in cognitive anxiety.

Bowger (1989) conducted a study and compares the state anxiety levels, age, gender and skill at practice and pre-competition. The study included 137 athletes. Each subject completed the Spielberger State Anxiety Inventory, A-State twice, one just prior to a practice session and again just prior to the state age group swimming meets. Mean comparisons were made using the Newman Keuls Multiple Range Test which indicated that 15-18 age groups. Females had significantly higher state anxiety than males and significantly higher state anxiety was found at the pre-competition situation than at the practice situation.
Taylor (1987) examine the ability of certain psychological attributes to predict performance in six National Collegiate Athletic Association Division I collegiate sports. Eighty-four (84) athletes from the varsity sports teams of cross country running, alpine and nordic skiing, tennis, basketball, and track and field at the University of Colorado completed a questionnaire adapted from Martens (1977, Martens et al 1983) that examine their trait levels of self-confidence (Bandura, 1977), somatic anxiety and cognitive anxiety (Martens, 1977 Martens et al, 1983) In addition, at three to six competitions during the season, the members of the cross country running and tennis teams filled out a state measure (Martens et al 1983) of the three attributes from one to two hours prior to the competition. Following each competition, subjective and objective ratings of performance were obtained, and for all sports coaches' ratings of performance and an overall seasonal team ranking were determined as seasonal performance measures. The sports were dichotomized along motor and physiological dimensions. Results indicate that all three psychological attributes were significant predictors of performance in both fine motor anaerobic sports and gross motor, aerobic sports. Further, clear differences in these relationships emerged as a function of the dichotomization. In addition, unexpected sex differences emerged.
Scalan (1978) assessed perceptions and responses of high and low competitive trait-anxious males to competition. He assessed competitive A–state in 27 high and 27 low competitive a trait men performing a ring peg task in three conditions, Based (at rest) non competitive (performance evaluation deemphasized), and competitive (competitive against an opponent of equal ability). A significant interaction was obtained between situation and competitive A–trait, as competitive A–state was higher in the competition condition that in the basal and non competitive, A-trait subjects exhibited the greatest increase in competitive A-state in competitive conditions

Self-Efficacy

Khan and Ali (2012) examined the psychological differences between high and low performance track and field athletes. Total (N=200) athletes who were randomly selected from the 70th all India inter university Championship. The tool used for this General Self- Efficacy Scale (Ralf Schwarzer, & Matthias Jerusalem (1995) was developed to assess how dose athletes generally believe in different condition. The collected data was analyzed using t-test to find out the significance of difference among the high and low performance track and field athletes on self-efficacy. The finding of their study shows that significant difference between high
and low performance athletes. High performance track and field athletes have higher level of self efficacy than low performance athletes.

Kumar (2011) conducted a study on self-efficacy between National and International basketball player. A total of 40 (fourth) basketball players (20 National and 20 International) from different states of India were randomly selected as subject of the study during Sr. National Basketball championship and the range of age were 20 to 30 years. To assess an athlete’s general self-efficacy, the tool constructed and developed by S. Sud, R. Schwarzer along with M. Jerusalem (1995) was used. The results of their study shows insignificant difference between international and national level basketball players with regard to self efficacy and expose that both the groups of players had same level of self-efficacy.

Jackson (2011) examined the effects of increased self-efficacy on three separate jump tests. Total 47 students (18 females & 29 males) from Utah State University were randomly allocated to a treatment or control group. Subject performed a vertical jump test, a standing broad jump test, and a 30-s Bosco test on three separate days over a span of 1 week. The treatment group (N = 24) were given false, positive feedback about their performance while the control group (N = 23) were told their true results. Self-efficacy was measured pre and post using the Physical Self-Efficacy
scale (PSE) and was found to increase more for the treatment group than the control group. A 3 x 2 ANOVA showed a significant improvement for the Bosco test but no significance for the other two tests, suggesting that self-efficacy has an effect on power endurance but not explosive power.

Khan and Khan (2010) conducted a study and find out the difference among high and low performer athletes. Total number of athletes who were randomly recruited from the 68th All India Inter University Athletic Championship, Trait Sports Confidence Inventory (R. S. Vealey, 1986) was developed to assess how confident athletes generally feel when they compete in sport. The collected data was analyzed using t-test to find out the significance of difference among the high and low performance female athletes on mentioned psychological variable. Their finding shows that significant difference in both track and field among high performance and low performance of University athletes when compared to different condition of participants. High performance athletes are greater sports self efficacy than low performance athletes.

Maryam (2010) examined the efficacy of relaxation training and imagery training (motivational general-mastery imagery) on self-efficacy, competitive anxiety and performance in (skate) athletes. The procedure of
this study is experimental (pretest, post-test with control group). Total 75 skate adolescence athletes in three groups (relaxation training, imagery training and control group) randomly displaced. The instruments of study are self-efficacy, competitive anxiety and performance scales. For group 1 relaxation training and for group 2 imagery training applied and for group 3 not applied any training. Results of analysis of variance indicated that meaningful different between three groups in post-test scores of self efficacy, competitive anxiety and sportive performance (p<0.05). That means, the scores of self efficacy and performance in group 2 (mental imagery training) higher than group 1 and in group 1 higher than group 3 (control group), and the scores of competitive anxiety in group 1 lower than group 2 and in group 2 lower than group 3.

Chu and Tingzon (2009) conducted a study and investigate the effect of coaching efficacy on athlete’s self-efficacy and hope, and whether self-efficacy of the athlete’s mediate the effect of coaching efficacy on their hope. The subjects were the athletes from different varsity teams in Metro Manila schools. There were three instruments used: Coaching Efficacy Scale, the Generalized Self-Efficacy Scale, and the Hope Scale. The study was based on the social cognitive theory since it provides a framework for explaining athletes’ behavior. A longitudinal panel design was used to account for the effect of coaching style on self efficacy and
hope. Path analysis was used to determine the effect of coaching efficacy on self-efficacy, and hope. The goodness of fit of the model was also being tested.

Singh, Bhardwaj and Bhardwaj (2009) made a study and investigated the effect of the psychological trait self-efficacy on the sports performance of the male and female athletes in the age group of 13 to 19 yrs from the schools of Punjab and Chandigarh. The subjects comprised of 200 athletes from the disciplines of Cricket, Kho-Kho, Volleyball, Softball and Athletics. Out of them 100 belonged to Inter-School level and 100 to School National level. The data was collected using Self-efficacy Questionnaire developed by Bandura (1977). The result showed that School National Level athletes were significantly better on perceived physical ability and self-efficacy than the School District Level athletes.

Fraser and Polito (2007) examined the difference in the level of self-efficacy between men and women with relapsing-remitting multiple sclerosis (RRMS) and progressive forms of multiple sclerosis (MS). A quantitative, descriptive, comparative design was used. The convenience sample included 556 individuals with MS, of which 124 were men (73 RRMS and 51 progressive MS) and 432 women (348 RRMS and 84 progressive MS). Participants completed the Multiple Sclerosis Self-
Efficacy Scale (MSSE), and found gender differences in self-efficacy among those living with MS. The women had a significantly greater belief in their ability to function with MS. The women also had a greater belief in their ability to control their MS than the men, although the difference was not significant. This study also found significant differences in self-efficacy between those with RRMS and those with progressive forms of MS. When men were compared by type of MS, those with RRMS had significantly greater belief in their ability to control their disease and function with it than those with progressive forms of MS. For women, those with RRMS had significantly greater belief in their ability to control their MS and function with it than women with progressive forms of MS. Individuals with MS could benefit from strategies that enhance self-efficacy. Such strategies include providing skills for self management of MS, providing education and support of the patient and family, introducing the patient to a role model with MS, encouraging physical reconditioning, and referring to a support group that will meet individualized needs.

Hale (2006) conducted a study on Sixteen (16) University Students (8 male, 8 female) volunteered for this study which purpose was determine the influence of stretching before exercise on affective states such as state anxiety and acute self-efficacy. Participants completed two experimental
trials which included a maximal effort cycling time trial. Each subject completed sessions, one with a stretching intervention and one with a control intervention. Subjects completed an STAI questionnaire to measure state anxiety during pre- and post- the cycling time trial on both experimental sessions. An Acute Self-Efficacy questionnaire was also administered before the cycling time trial in both experimental sessions within subjects’ differences were analyzed using a general linear model ANOVA and a paired samples t-test. There was no influence of pre-exercise stretching on state anxiety and acute self-efficacy. Therefore, acute stretching before a bout of exercise does not influence self-efficacy and/or state anxiety.

Luszczynska and Gutierrez-Dona (2005) examined whether perceived self-efficacy is a universal psychological construct that accounts for variance within various domains of human functioning. Perceived self-efficacy is not only of a task-specific nature, but it can also be identified at a more general level of functioning. General self-efficacy (GSE) is the belief in one’s competence to tackle novel tasks and to cope with adversity in a broad range of stressful or challenging encounters, as opposed to specific self-efficacy, which is constrained to a particular task at hand. The study aimed at exploring the relations between GSE and a variety of other psychological constructs across several countries.
Relations between general self-efficacy and personality, well-being, stress appraisals, social relations, and achievements were examined among 8796 participants from Costa Rica, Germany, Poland, Turkey, and the USA. Across countries, the findings provide evidence for associations between perceived general self-efficacy and the selected variables. The highest positive associations were with optimism, self-regulation, and self-esteem, whereas the highest negative associations emerged with depression and anxiety. Academic performance is also associated with self-efficacy as hypothesized. The replication across languages or cultures adds significance to these findings. The relations between self-efficacy and other personality measures remained stable across cultures and samples. Thus, perceived general self-efficacy appears to be a universal construct that yields meaningful relations with other psychological constructs.

Jones, Bray, Mace, Macrae and Stockbridge (2002) examined the impact of an imagery script intervention on the levels of perceived stress, self-efficacy and climbing performance of volunteer female participants. Novice climbers were randomly select to either a control group, or to an imagery intervention group. Every individual attended four sessions, during which they practiced basic climbing techniques and took part in either a light exercise program (control group) or a scripted imagery
training program (experimental group). The imagery script comprised both motivational general-mastery and motivational general-arousal types of imagery. During the testing session the participants climbed a 5.1 meter climbing wall following a designated route. Pre-climb levels of self-efficacy and perceived stress were measured. Perceived stress levels were also assessed on three occasions during the climb itself. The experimental group reported significantly lower levels of perceived stress before and during the climb and higher levels of self-efficacy in their ability to execute the correct technique during the climb. There was no significant difference in climbing performance between groups.

Mills, Munroe and Hall (2001) examined whether a relationship exists between self-efficacy and the use of imagery by athletes involved in individual sports. It was expected that athletes who were high in self-efficacy would more likely use imagery than those who were low in self-efficacy. Fifty (50) varsity athletes involved in wrestling, rowing, and track and field completed both the Sport Imagery Questionnaire [1] and a self-efficacy questionnaire. Results revealed that athletes who are high in self-efficacy in competition situations tend to use more motivational imagery than their low self-efficacy counterparts. No such differences were found for cognitive imagery use in competition, or for the use of either motivational or cognitive imagery in practice.
Treasure, Monson and Lox (1996) examined the relationship between self-efficacy, wrestling performance, and affect prior to competition. 15 minutes prior to competition, 70 male high school wrestlers (M = 16.03 years) completed a self-efficacy assessment, the Positive and Negative Affect Schedule (Watson, Clark, & Tellegen, 1988), and the Cognitive and Somatic Anxiety Inventory-2 (Martens, Burton, Vealey, Bump, & Smith, 1990). Self-efficacy was found to be significantly associated with positive and negative affect and cognitive and somatic anxiety. Consistent with social cognitive theory, self-efficacy was a stronger predictor of performance when the measure was process oriented rather than win-loss. The findings suggest that confusion and equivocality in the literature could be removed if researchers assessed self-efficacy in a micro analytical fashion. Future research investigating the affective antecedents of performance should go beyond merely assessing negative stress and recognize the potential role positive affect may play in sport behavior.