CHAPTER - II

REVIEW OF RELATED LITERATURE
2.0 Introduction

In the words of Mouly (1970), “an essential aspect of any research project is the review of the related literature”.

Best and Kahn (1993) defines review of related literature as “a brief summary of previous research and the writings of recognized experts provide evidence that the researcher is familiar with what is already known, and with what is still unknown and untested. Since effective research must be based upon past knowledge, this step helps to eliminate the duplication of what has been done, and provides useful hypotheses and helpful suggestions for significant investigation”.

The review of related literature is an exacting task, calling for a deep insight and clear perspective of the overall field. It is a crucial step which invariably minimizes the risk, helps to select a topic, helps to know the trail and error activities that are oriented towards approaches already discarded by previous investigations and also helps to find out erroneous findings based on faulty research designs. It promotes greater understandings of the problems and its aspects and ensures the avoidance as unnecessary duplications; it provides comparative data on the basis of which to evaluate and interpret the significance of one’s findings and in addition, it contributes to the scholarship of the investigator.

The published literature is a fruitful source of hypotheses. Not only it presents suggestions made by previous investigations and writers concerning problems in need of investigation, but it also stimulates the research worker to device hypotheses of his own. As he reacts to the designs, findings and conclusions of other investigations, he can get insights which he can
incorporate into an improved research design. Capitalizing on the success and errors of others is certainly a more intelligent approach to a problem especially one as broad as a thesis or dissertation than in imaging that one is born equipped with the radar system that will guide him unerringly on target and at the same time, guard him against pitfall. No experienced researcher would think of undertaking a study without acquainting himself with the contributions of previous investigations.

In the first chapter, Rationale along with Objectives has been given. The present chapter is devoted for reviewing researches conducted related to different aspects of Anxiety and Self-Esteem. For better understanding the reviewed literatures have been classified and presented under different headings as follows:

1. Studies related to Relationship between Anxiety and Fear
2. Studies related to Anxiety and Anger
3. Studies related to Anxiety & Depression
4. Studies related to Health Habits and Anxiety and Anxiety and Dietary Habits
5. Studies related to Association between Parental Control and Child Anxiety
6. Studies related to Gender differences in Anxiety Manifestation
7. Studies related to Anxiety and Academic Achievement
8. Studies related to High and Low self esteem
9. Studies related to Gender and self esteem
10. Studies related to Academic Achievement and Self Esteem
11. Studies related to Depression and Low Self Esteem
12. Studies related to Effects of Family on Self Esteem
13. Studies related to Relationship between Self Esteem and Psychological Well Being

14.1. Breathing Exercise
14.2. Relaxation Therapy
14.3. Behavioural Relaxation Therapy
14.4. Behavioural Assignment
14.5. Rational Emotive Therapy
14.6. Exercise
14.7. Yoga
14.8. Counseling
14.9. Goal Setting

2.1 Studies related to the Relationship between Anxiety and Fear

Ollendick et al. (1989) found that females and pre-adolescents reported more fear than did males and adolescents. However, in a later study, no age effect was found (Ollendick, Yule, & Oilier, 1991).

King et al. (1992) examined the anxiety-fear relationship with a sample of Australian children aged 8 to 16 years. They found that children exhibited more fear with high anxiety than with low anxiety. It is only recently that research has focused on the relationship between fear and anxiety in pre-adolescents and adolescents, in which fear expresses itself as panic attacks.

The study by Muris et al. (2001), investigated the relationship between anxiety sensitivity and fear of pain in a large group of healthy adolescents (N=200). Participants responded to the childhood anxiety sensitivity index for children-revised, a questionnaire measuring four specific domains of anxiety sensitivity: fear of cardiovascular symptoms, fear of respiratory symptoms, fear of cognitive dyscontrol, and fear of publicly observable anxiety symptoms, and a simplified version of the pain anxiety symptoms scale, a self-report instrument assessing pain-related anxiety and avoidance (i.e. fear of pain). In
line with previous research in adult populations, it was found that anxiety sensitivity is substantially and positively related to fear of pain. Even when controlling for other potential predictors of fear of pain (i.e. pain symptoms, other somatization symptoms, trait anxiety, and panic disorder symptoms), anxiety sensitivity appeared to declare a unique proportion of the variance in pain anxiety symptoms.

2.2 Studies related to Anxiety and Anger

Knox and Pamela (1998) measured that the relationship between anxiety and outwardly expressed anger within a naturally occurring anxiety evoking situation. A total of 204 subjects from Tennessee State University responded to the State-Trait Anxiety Inventory (STAI) and the State-Trait Anger Expression Inventory (STAXI). In addition, a biographical questionnaire was designed for this study that included demographic items that focused on age, marital status and race, a manipulation check, the anger-related background of subjects, the previous legal experiences of subjects and their family members and the utilization of psychological services. It was found that a relationship does exist between both state and trait anxiety and outwardly expressed anger. As expected, the relationship generally appears to be stronger between trait anxiety and outwardly expressed anger. Other significant findings in this study related to significant effects between the basic demographic variables, manipulation checks and anger-related background of subjects and family members, which reinforces the correlational findings that a relationship does appear to exist between anxiety and anger.

Carver (2004) Lazarus (1991) Stein et al. (2000) inferred that anger arises in response to a negative event that frustrates a personally relevant or desired goal and is intensified when the event is caused by a specific agent and viewed as unjust or illegitimate.

Lerner and Keltner (2000) found that anxiety increased the perceived risk of dying from various common causes whereas anger decreased risk
estimates. This is consistent with evidence summarized that angry people lead more risk-prone lives and tend towards greater optimism. They are, in fact, just as optimistic as happy people when contemplating the future. Lerner and Keltner (2000) examined the striking differences in the behavioral consequences of anxiety and anger and suggested that the widely reported link between general negative feelings and increased pessimism is caused by anxiety not anger.

Relationships between anger and anxiety have been examined by Howell et al. (1999) in adults but less frequently in children. This investigation explored relationships among trait anxiety, trait anger, anger expression patterns, and blood pressure in children. The participants were 264 third-through sixth-grade children from five elementary schools who responded to the Jacob's Pediatric Anger and Anxiety Scale and Jacob's Pediatric Anger Expression Scale and had their blood pressure measured. Data were analyzed using descriptive and correlational statistics and hierarchical regression. Results have implications for the way in which anxiety and anger are perceived in children and the importance of teaching children to deal with emotions.

The main research question of the study by Vierhaus and Lohaus (2008) is whether children's emotional responses to specific stress-evoking situations (anger or anxiety) and the coping strategies they would use are related. Furthermore, it is asked if these relationships are consistent over a specific age range. A total sample of 432 second graders participated in a longitudinal study with repeated measurements at grades 3, 4 and 5. The children were presented with four short descriptions of everyday stressors. They were requested to indicate the intensity of their feelings of anger and anxiety, and to assess the coping strategies they would use in each of the four situations. The results show that anxiety is related to the use of seeking social support, palliative coping, and avoidant coping, whereas anger is associated to externalizing...
emotional coping. Problem solving appears to be unrelated to the experience of both anxiety and anger.

The findings of a series of studies carried out by Tanzer and Spielberger (1995), with lower secondary school and university students from Austria, Singapore, and the United States who were asked to report their experience of anger and anxiety during tests. Following the second author’s state-trait distinction, trait measures of examination anger and anxiety were administered immediately after written tests. In a second series of studies, three intelligence/aptitude tests were administered to Austrian and U.S. university students, who were instructed to rate the intensity of their feelings, including anger and anxiety at the beginning of the experiment and immediately after each intelligence test. In all 11 studies, anger and anxiety emerged as distinct but correlated factors during examination situations. Some subjects frequently experienced intense anger while others experienced more intense anger. Like test anxiety “test anger” appears to hinder effective test-taking behaviour.

2.3 Studies related to Anxiety and Depression

Bruce et al. (1997) tested the hypothesis that symptoms of anxiety and depression increase the risk of experiencing hypertension, using the National Health and Nutrition Examination I Epidemiologic Follow-up Study. A cohort of men and women without evidence of hypertension at baseline were followed up for 7 to 16 years. The association between 2 outcome measures (hypertension and treated hypertension) and baseline anxiety and depression was analyzed using Cox proportional hazards regression adjusting for hypertension risk factors (age; sex; education; cigarette smoking; body mass index; alcohol use; history of diabetes, stroke, or coronary heart disease; and baseline systolic blood pressure). Analyses were stratified by race and age (white persons aged 25-44 years and 45-64 years and black persons aged 25-64 years). A population-based sample of 2992 initially normotensive persons. Incident hypertension was defined as blood pressure of 160/95 mm Hg or more.
or prescription of antihypertensive medications. Treated hypertension was defined as prescription of antihypertensive medications. In the multivariate models for whites aged 45 to 64 years, high anxiety (relative risk [RR], 1.82; 95% confidence interval [CI], 1.30-2.53) and high depression (RR, 1.80; 95% CI, 1.16-2.78) remained independent predictors of incident hypertension. The risks associated with treated hypertension were also increased for high anxiety (RR, 2.36; 95% CI, 1.73-3.23) and high depression (RR, 1.89; 95% CI, 1.25-2.85). For blacks aged 25 to 64 years, high anxiety (RR, 2.74; 95% CI, 1.35-5.53) and high depression (RR, 2.99; 95% CI, 1.41-6.33) remained independent predictors of incident hypertension. The risks associated with treated hypertension were also increased for high anxiety (RR, 3.24; 95% CI, 1.59-6.61) and high depression (RR, 2.92; 95% CI, 1.37-6.22). For whites aged 25 to 44 years, intermediate anxiety (RR, 1.62; 95% CI, 1.18-2.22) and intermediate depression (RR, 1.60; 95% CI, 1.17-2.17) remained independent predictors of treated hypertension only. Anxiety and depression are predictive of later incidence of hypertension and prescription treatment for hypertension.

Strauss et al. (2005) stated the relationship between anxiety and depression with the examination in a sample of 106 children and adolescents referred to an outpatient anxiety disorder clinic for children. Twenty-eight percent of them having anxiety disorders displayed a concurrent major depression. Children with anxiety disorders plus major depression were found (1) to be older, (2) to demonstrate more severe anxiety symptomatology, and (3) to be diagnosed with different rates of certain anxiety-disorder subtypes, when compared to anxious children without major depression.

2.4 Studies related to Health Habits: Anxiety and Dietary Habits

Mary et al. (2008) in their studies on eating habits in relations to anxiety symptoms among apparently healthy among adults from the Attica study with 453 men and 400 women of Greek adults, the dietary intakes of human has been investigated with Spielberger State-Trait Anxiety Inventory. The effect of
anxiety on dietary intake of humans has been investigated through a number of laboratory, clinical and cross-sectional studies; no prior study, however, has examined potential associations between anxiety and overall dietary patterns. Aim of the present work was to describe dietary patterns in relation to anxiety trait in a nationally representative sample of Greek adults. Dietary habits, socio-demographic and lifestyle characteristics were recorded for all participants.

Principal component analysis was used for the extraction of dietary patterns. More anxious, compared to less anxious, men and women exhibited different dietary patterns. In particular, the "light" dietary patterns that were emerged in the less anxious men and women did not appear as distinct patterns among men and women in the upper anxiety tertile. In women, a "Western-type" diet explained two times greater variance of food intake of those in the upper-anxiety tertile, compared to their counterparts in the low tertile. A vegetarian pattern was found only among the less anxious women, who also exhibited the lowest consumption of red meat and sweets. Regression analysis supported and further elucidated previous results: after adjusting for potential confounders, sweets intake, as well as meat and products intake, were positively associated with anxiety score in females; in males a negative association was found with legumes/cereals intake. From a public health point of view, given the increased prevalence of anxiety and other mental disorders, these findings should be taken into account when designing and evaluating interventions for the general population.

2.4.1 Studies related to Anxiety and Eating Disorder

Anxiety disorders were examined by Pulse (1994) in research studies aimed at determining the comorbidity of anxiety and eating disorders. However, some have been found to play a great role than others. Wonderlich and Mitchell (1997) inferred that Social phobia, obsessive-compulsive disorder, and specific phobias have the highest rates of co-occurrence with bulimia
nervosa, while social phobia and obsessive-compulsive disorder have the highest rates of co-occurrence with anorexia nervosa. The anxiety disorders which have been found to occur most often with eating disorders.

Kendler et al. (1998) found that childhood anxiety disorders may share a biological or temperamental predisposition with bulimia nervosa, or they may be independent conditions, but the childhood anxiety disorders could increase vulnerability to development of an eating disorder later in life.

Saccomani et al. (1998) examined long-term outcome and comorbidity of children and adolescents with anorexia nervosa. Their sample was made up of 76 females and 11 males.

They looked at different psychiatric disorders to see if they had any prognostic value in terms of the outcome of these eating disorder patients. No statistical difference was found for anxiety disorders between diagnosis and follow up.

Anxiety disorders did not seem to be prognostic indicators. Whereas Bulik et al. (1996) found that childhood anxiety disorders may be a potential pathway to bulimia nervosa, this study demonstrates that when looking at anorexia nervosa, comorbid anxiety disorders have no predictive value in terms of the outcomes for these patients. This is an interesting finding in comparison to what Brewerton et al. (1995) predicts. Even though the two diseases studied are different, they do have some overlapping characteristics such as anxiety about weight gain and body image. It seems interesting that the presence or absence of an anxiety disorder does not seem to have predictive value for anorexics in this study, but they suggest that treating the anxiety may decrease bingeing and purging in bulimics.

The study on family functioning in anxiety and eating disorders carried out by Woodside et al. (2004) examines ratings of family functioning in families of origin and current (marital) families by patients with anxiety
disorders and compares them with known population means and with similar ratings by patients with eating disorders. Subjects were drawn from the anxiety disorders and eating disorders clinics of the Toronto Hospital, each group consisting of a consecutive sample. Family functioning was assessed using the general and self-rating scales of the Family Assessment Measure (FAM). Patients with anorexia nervosa rated their families of origin less favorably than established population norms (general and self-rating scales, \( P < .001 \)). Ratings by patients with anxiety disorders did not differ from comparable ratings by patients with eating disorders. Anorexia nervosa patients' less favorable ratings of family of origin suggest a perception of significant family dysfunction. However, the similarity in ratings between anxiety disorders and bulimia nervosa (BN) subjects suggests that this is unlikely to be specific to having an anxiety disorders.

Adolescent girls with eating disorders may be at risk of developing anxiety disorders, and vice versa, according to a study out of the University of Iowa. Zbogar and Hema (2005) examined the simultaneous occurrence of eating disorders and mood disorders among 672 female twins, age 16-18, from the Minnesota Twin Family Study.

Participants completed structured interviews that determined the presence of anorexia or bulimia, and assessed mood, anxiety and substance use. Eating disorders were highly likely to co-exist with major depression, anxiety disorders and nicotine dependence.

The effect of anxiety on dietary intake of humans has been investigated through a number of laboratories, clinical and cross-sectional studies: no prior study, however, has examined potential associations between anxiety and overall dietary patterns. Aim of the study by Mary et al (1996), work was to describe dietary patterns in relation to anxiety trait in a nationally representative sample of Greek adults from the ATTICA Study. A sample of 453 men and 400 women were randomly selected from various areas of Attica
region, Greece. Anxiety levels were assessed through Spielberger State-Trait Anxiety Inventory. Dietary habits, socio-demographic and lifestyle characteristics were recorded for all participants. Principal component analysis was used for the extraction of dietary patterns. More anxious, compared to less anxious, men and women exhibited different dietary patterns. In particular, the "light" dietary patterns that were emerged in the less anxious men and women did not appear as distinct patterns among men and women in the upper anxiety tertile. In women, a "Western-type" diet explained two times greater variance of food intake of those in the upper-anxiety tertile, compared to their counterparts in the low tertile. A vegetarian pattern was found only among the less anxious women, who also exhibited the lowest consumption of red meat and sweets. Regression analysis supported and further elucidated previous results: after adjusting for potential confounders, sweets intake, as well as meat and products intake, were positively associated with anxiety score in females; in males a negative association was found with legumes/cereals intake.

2.5 Studies related to the Association between Parental Control and Child Anxiety

The findings of Rutter (1990) and Ginsburg et al. (1998) ascertained that anxiety disorders occur in families. That children whose parents have anxiety disorders are at risk for developing and anxiety disorder.

Beidal and Turner (1997) studied children of parents with anxiety disorders, depressive disorders, mixed anxiety/depressive disorders and no disorder. Those children of anxious parents primarily had anxiety disorders were more likely to have a variety of disorders.

Clark (1993) found the family aggregation of anxiety disorder. That is, parents, whose children have anxiety disorders, had significantly higher rates of anxiety disorders. Corino (2008) investigated that the association between parental control and child anxiety. Parental control may enhance child anxiety and parents may exert control in anticipation of their child's anxiety-related
distress. Moreover, high levels of anxiety in parents could influence the development of parental control. Reviews have solely examined the relation between child anxiety and parental control. This meta-analysis in the study focuses on the associations between both child and parent anxiety and parental control. The associations of parent anxiety and child anxiety with observed parental control with 305 parent-child dyads were investigated using a meta-analytic approach. A substantial association between child anxiety and parental control \( (d = 0.58) \) was found.

Guttmann (1987) in his study examined the level of test anxiety of adolescent children of divorced parents. Results indicated children of divorced parents had significantly higher anxiety scores than children of intact families.

Masia et al. (2001) conducted a study to provide preliminary estimates of feasibility and effectiveness for school-based behavioural treatment in adolescents with social anxiety disorder. Six adolescents with social anxiety disorder were treated in a 14 session group treatment programme conducted at their school.

### 2.6 Studies related to Gender Differences in Anxiety Manifestation

Bruce (2000) in the study on Relationships Between Anxiety, Fear, Self-Esteem, and Coping Strategies in Adolescence, investigated the relationships between anxiety, fear, self-esteem, and coping strategies in a sample of 224 post primary students (years 7, 9, and 12) in Australia. In particular, it sought to determine whether there were any significant changes between years 7 and 12 and, if so, whether these changes were gender specific. The results indicated that the girls had consistently low levels of self-esteem. The boys showed a significant decrease in both anxiety and fear by year 12. For the coping strategies, a three-factor solution accounted for 64.2\% of the variance. Finally, the findings suggested that, by year 12, boys and girls were using different coping strategies, with boys more successfully reducing both fear and anxiety.
The Kuwait University Anxiety Scale (Abdel-Khalek, et al. 2004) was used in its Arabic form for all groups except the Pakistan group, for which the English version of KUAS was used. This study investigated gender differences in anxiety among volunteer undergraduates recruited from sixteen Islamic countries; Algiers, Egypt, Emirates, Iraq, Jordan, Kuwait, Lebanon, Morocco, Oman, Pakistan, Palestine, Qatar, Saudi Arabia, Sudan, Syria and Yemen (N=7,506). There are significant gender differences in 11 Islamic countries out of 16 in which females tended to be higher on the anxiety scale.

2.7 Studies related to Anxiety and Academic Achievement

Yi.Chun Yeh et al. (2007) examined the correlations between academic achievement and levels of anxiety and depression in medical students who were experiencing curriculum reform. The differences in academic achievement and the directions of correlations between academic achievement and anxiety and depression among the medical students with different levels of anxiety and depression were also examined. Grade 1 students from graduate-entry program and grade 3 students from undergraduate-entry program in their first semester of the new curriculum were recruited to complete the Zung's Anxiety and Depression Scale twice to examine their levels of anxiety and depression. The results indicated that no significant correlation was found between academic achievement and global anxiety and depression. However, by dividing the medical students into low, moderate and high level anxiety or depression groups, those who had poorer academic achievement in the first learning block were more likely to have higher levels of depression in the first psychologic assessment. The results of this study indicate that there are both positive and negative correlations between academic achievement and anxiety and depression in medical students, regarding differing levels of severity of anxiety or depression.

El-Anzi and Owayed (2005) examined the relationship between academic achievement and the following variables: anxiety, self-esteem.
optimism, and pessimism. The sample consisted of 400 male and female students in the Basic Education College in Kuwait. The salient findings of the investigation were the significant positive correlation between academic achievement and both optimism and self-esteem - whereas the correlations were negative between academic achievement and both anxiety and pessimism.

Durbrow et al. (2000) in their study with 61 children between the age of 6-12 on St Vincent suggested that learning-related behaviours, anxiety and attention may influence academic performance. This research, however, has been limited to children from industrialized countries. Teachers provided academic scores and rated children using the Learning Behaviours Scale and using a modified version of the Revised Behaviour Problem Checklist. Children's cognitive ability was assessed using the Raven Colored Progressive Matrices and their academic skills were assessed using a locally standardized achievement test. Stimulating home experiences, caregiver involvement, affluence and caregiver education were assessed using the MC-HOME Inventory and by interviews. Hierarchical regression indicated that anxiety, attention and learning-related behaviours explain 32-35 percent of the variance in academic scores. In contrast, home background and cognitive ability.

Lucangeli and Scruggs (2003) in the investigation examined the relationship among perceived competence, anxiety, and mathematical and verbal achievement in a population of male and female Italian middle school students. One hundred and eighty students were administered the measures of trait anxiety, and measures of state anxiety were administered immediately prior to administering achievement tests in mathematics and literature. In addition, students were administered six subscales of a perceived competence scale. Analyses of these data yielded a moderate negative correlation between mathematics achievement and state anxiety for the mathematics test, and a descriptively smaller negative correlation between the literature scores and state anxiety for the literature test. Significant correlations were also observed
between achievement and perceived competence for academic ability. The two state anxiety measures were found to be highly correlated; however, trait anxiety was not statistically related to academic achievement in either mathematics or literature. A moderate negative correlation was observed between perceived competence for academic ability and state anxiety for mathematics and a somewhat lower correlation between perceived competence for academic ability and literature achievement. Males scored higher than females on the test of trait anxiety; however, females and males did not differ on any other anxiety or academic measures, including perceived competence for academic ability, mathematics achievement, or literature achievement. Implications for future research are discussed.

2.8 Studies related to High and Low Self Esteem:

Moretti and Higgins (1990) and Brown (1998) inferred that high self-esteem is related to many positive behaviors and life outcomes. People with high self-esteem are happier with their lives, have fewer interpersonal problems, achieve at a higher and more consistent level, and are less susceptible to social pressure, and are more capable of forming satisfying love relationships. In contrast, people with poor self images are more prone to psychological problems such as anxiety and depression, to physical illness and to poor social relationships and underachievement.

Gottschalck (1995) found that subjects exhibited more shame when describing scale items that indicate lower self esteem. High self-esteem responses, however, had, on average, a slightly higher shame magnitude than would be expected for a linear correlation.

Robert (1996) found that low self-esteem seems to operate as a predisposing and contributing factor in the development of depression, anxiety, eating disorders, alcohol abuse and drug abuse.
2.9 Studies related to Gender and Self Esteem

Zimmerman et al. (1997) through the study used a cluster analytic approach to identify self-esteem trajectories among adolescents over a four-year period from sixth to tenth grades (N=1,160). Four self-esteem trajectories were identified that replicated previous research: (1) consistently high, (2) moderate and rising, (3) steadily decreasing, and (4) consistently low. Female adolescents were more likely to be in the steadily decreasing self-esteem group while male adolescents were more likely to be in the moderate and rising group.

Block and Robins (1993) in a longitudinal study of 47 girls and 44 boys, developmental change in self-esteem (SE) was examined from early adolescence through late adolescence to early adulthood. Males tended to increase and females tended to decrease in SE over time. There was appreciable rank-order consistency in SE over time. Within each gender, the considerable individual differences in developmental trajectories were coherently related to personality characteristics independently assessed in early adolescence.

Baumeister (1993) and Pipher (1994) concluded that gender and self-esteem studies in a wide range of western countries have determined that adolescent girls, on average, have a lower sense of self-esteem than adolescent boys.

Bower (1991) found a gender difference in levels of self-esteem, with girls more likely to report lower self-esteem during adolescence. Some of the reasons that girls have lower levels are greater concerns than boys about personal appearance, more dissatisfaction with their weight, more problems associated with becoming sexually mature, less confidence in their academic abilities and fewer aspirations to professional careers.

Gender, is generally asserted to impact upon the growth, demonstration and manifestation of self-esteem. Several researchers studied self-esteem and
gender among students. There is a significant difference in self-esteem between males and females (SarAbadaniTafreshi, 2006).

Hossaini (2002), however, gained a different result in his research. Her research entitled "Forecasting between self-esteem, parenting and gender among pre-university of students in Shiraz" included 240 students. Cowper Smiths self-esteem test was used for data collection. The result shows that gender is not a predictor of self-esteem of pre-university of students.

However, Zareh (1994) in his study with 150 students (75 boys and 75 girls) analyzed the relationship between achievement of motivation, Self-esteem and gender among high school of students found that there is significant relationship between self-esteem and gender.

Seifert and Miller (1988) found that there was no significant difference between males and females on their levels of self-esteem.

2.10 Studies related to Academic Achievement and Self Esteem

Holly (1987) compiled a summary of many studies related to academic achievement and self esteem indicated that most supported the idea that self esteem was more likely the result than the cause of academic achievement. However, he acknowledged that a certain level of self esteem is required in order for a student to achieve academic success and that self esteem and achievement go hand in hand.

Before the 1980's, most researchers typically computed correlations between children's self-esteem and academic success. One comprehensive review of research up to them found that most studies reported positive correlations, usually form 0.20 to 0.40 on a 1.00 scale. But since correlations between IQ and academic performance range from 0.50 to 0.70, such results show, at best, a moderate relationship between self-esteem and academic performance (Moeller 1994).
Malhi (1999) referred to the following numerous studies on positive correlation between self-esteem and academic achievement conducted by Barker, 1979; Brookover, Thomas and Patterson, 1964; Burns, 1979; Campbell, 1967; Caplin, 1966; Irwin, 1967; Lawrence, 1981; Mortimore, et al. 1988; Piers & Harris, 1964; Purkey, 1970; Williams, 1973. However, correlation does not imply causation. There is considerable disagreement among experts as to which come first - high self-esteem or academic achievement. It does appear that the relationship between self-esteem and academic performance is bidirectional i.e. self-esteem and academic achievement influences each other.

Several studies show that self-esteem influences academic performance (Haarer, 1964; Jones and Grieneekz, 1970; Lamy, 1965; Morse, 1963; Smith, 1969; Wattenberg and Clifford, 1964). Research has shown that self-esteem is a better predictor of academic success than measured intelligence (Morse, 1963; Smith, 1969; Wattenberg and Clifford, 1964). Indeed, research does show that underachievers are generally less confident and less ambitious, (Goldberg, 1960), less self-accepting (Shaw and Alves, 1963), and lack a sense of personal worth (Durr and Schmatz, 1964). Research also shows that feeling worthless can be depressing (Battle, 1990; Bhatti, 1992; Hokanson, Rubert, Welker, Hollander, & Hedeen, 1989) and depression generally inhibits performance. As stated by Mark R. Leary and Deborah L. Downs(1995) “People who feel worthy, able, and competent are more likely to achieve their goals than those who feel worthless, impotent, and incompetent.”


Rubin et al. (1976) Scores on the Coopersmith Self-Esteem Inventory were related to scores on achievement and intelligence tests, and to
socioeconomic level and to teachers' ratings of student behavior, in order to test the hypothesis that student self-esteem would have a positive effect on academic achievement. There was a small but statistically significant positive relationship for self-esteem scores when they were added to intelligence test scores and socioeconomic status to predict achievement test scores for 12 year old students. The self-esteem scores were also similarly related to teacher ratings of school behavior. The School-Achievement subscale of the Coopersmith inventory related more strongly to achievement test scores than did the other three subscales (General Self, Home-Parents, and Social Self-Peers). Self esteem scores showed a stronger relationship to achievement test scores than did socioeconomic status or teachers' ratings of student behavior.

2.11 Studies related to Depression and Low Self-Esteem

Kathie (1995) reported that there is a strong correlation between a person's emotional reactions and their involvement in social relationships. Therefore, to increase one's self-esteem, one needs to improve one's standing in interpersonal relationships rather than trying to fix some perception about themselves. Research has shown that it doesn't have to be the actual rejection of a person by a social situation, it can simply be the imagined or anticipated rejection.

Davila et al. (1995) found out that depression and self-esteem may be viewed as a vicious cycle. The inability to relate positively in social situations may lead to low self-esteem which leads to depression. The depression then leads to further inability to relate with others or be fully accepted in social groups which then adds to the feelings of low self-esteem.

Major depression effects one in fifty school children countless others are affected by milder cases of depression which may also effect school performance (Lamarine, 1995). The peak age of depression correlates with the peak years of low self-esteem.


2.12 Studies related to Effects of Family on Self-Esteem

Schmitz (2006) examined the influence of social and family contexts on the self-esteem of Mexican (n=287), Mexican American (n=558) and Puerto Rican (n=212) children. Using data from the National Longitudinal Surveys of Youth, tests of a longitudinal path model show significant social and family effects on the academic self-esteem.

Mandara and Murrey (2000) measured family functioning using the family environment Scale (FES), which includes a moral-religious subscale and other subscales such as cohesion and conflict, which are associated with family support. It was found that family functioning 90% of the time predicted self-esteem. This study supports the theory that the quality of family functioning/support is directly related to the children's self-esteem.

James (1989) found that perceived family support by parents and self-esteem were significantly positively correlated. In a joint family because of high load of work and other duties of the adult members of the family, they might not give proper attribution to the children, which could decrease their self-esteem. High family support provides adolescent with a sense of stability and security. This allows them to have a positive self-perception.

Studies by Yabiku et al. (1999) also found that children have higher self-esteem when their parents are loving, supportive and deeply involved in their lives. Self-esteem has also been found to have a direct correlation with quality and strength of parent child relationships.

Viktor and Michael (1986), relating adolescent self-esteem to parental support, control, and participation is extended in the present investigation, which examines the effects of parent-adolescent communication and investigates dimensions of parent-adolescent interaction that predict parents' self-esteem. The findings suggest that (a) adolescents and their parents have similar but distinct perceptions of their relationships; and (b) self-perceptions
of these relationships, especially self-judgments of communication, are important in predicting levels of self-esteem for both adolescents and their parents.

A study by Crocker and Park (2003) found that people seek to maintain, protect and enhance self-esteem by attempting to obtain success and avoid failure in domains on which their self worth has been staked. A clear cut highly significant relationship was found between self-esteem and the type of girls and whether the family is nuclear or joint, it does affect the self evaluation of the individual.

2.13 Studies related to Relationship between Self Esteem and Psychological Well Being

Blascovich and Tomaka (1991) found that there is a well-established relationship between self-esteem and psychological well-being (e.g. Depression, social anxiety, loneliness, alienation).

Bernard et al. (1996) found high correlations among self-esteem, self-efficacy, ego strength, hardiness, optimism, and maladjustment, and all of these constructs were significantly related to health.

Abood and Conway (1992) found a relationship between self-esteem and health values, and between self-esteem and general wellness behaviour, but not between self-esteem and tobacco or alcohol use. The relationship between self-esteem and general wellness behaviour remained significant even health values were controlled for.

Rivas and Fernandez (1995) examined the relationship among self-esteem, health values and health behavior for both young and older adolescents, and that self-esteem accounted for a significant percent of the variance in mental health behaviour, social health behaviour and total health behaviour.
2.14 Studies related to Management of Anxiety and Enhancement of Self Esteem through Positive / Relaxation Therapy

Jackson et al. (2001) investigated whether therapeutic discussion of culturally relevant themes enhanced treatment engagement of African American male youths with an inner city Philadelphia sample. Exploration of anger and rage, alienation, and the journey from boyhood to manhood were associated with both increased participation and decreased negativity by adolescents in the very next treatment session. In addition, the more fully that an adolescent participated in a given therapy session, the more likely that in the subsequent session, the therapist and youth would have an extensive discussion about the journey from boyhood to manhood. These results suggest that articulation of particular, culturally meaningful themes are directly linked to adolescent investment in the treatment process.

2.14.1 Studies related to Breathing Exercise

Gaines (2008) contributed to the identification of effective interventions in the area of male adolescent aggressive behavior. Existing research includes both group- and single-case studies implementing treatments which typically include an anger management component and its attendant relaxation and stress-reduction techniques. The design of this study was single-subject with multiple baselines across 6 subjects on 2 behavioral measures. The setting was a residential juvenile justice program for male adolescents, and the treatment was a relaxation breathing exercise. The results of the study were mixed, with improvement on both behavioral measures in 2 of the 6 participants.

Johnson et al. (2009), at the conclusion of the 5 weeks, participants in both the experimental and control groups completed the Westside Test Anxiety Scale (post-test). Pre-test differences in mean scores between the experimental and control groups showed no significant difference (t (102) = 0.67, ns) indicating no real differences in anxiety levels between the groups prior to
initiating the experimental treatment. A significant difference between pre- and post-test mean scores was found for the experimental group \( t(49) = 2.39, p<.05 \). There was no significant difference found between pre- and post-test mean scores for the control group \( t(53) = 1.62, \text{ns} \). The results showed a significant decrease in mean anxiety scores due to the relaxation training.

### 2.14.2 Studies related to Relaxation Therapy

Tiffany et al. (1996) studied that depression is one of the most prevalent medical disorders and has been recognized as a distinct pathologic entity from early Egyptian times. Goldman (1988) found that Anxiety is one of the primary features of depression in adolescents. Richter (1984) found that relaxation therapy (RT) is usually noted to decrease anxiety. Using the State-Trait Anxiety Scale, for example, anxiety levels were found to be lower in psychiatric patients following nine sessions of relaxation therapy (Hosmand, Helmes, Kazarian, & Tekatch, 1985). Even following one brief RT session, mood was elevated on the Profile of Mood States Scale (Matthew & Gelder, 1969).

In a longer term outcome study, RT was as effective as psychotherapy and pharmacotherapy in reducing anxiety (McLean & Hakistan, 1979) and even more effective than cognitive behavior therapy (Reynolds & Coats, 1986). Similarly, in a study of depressed child and adolescent psychiatric patients, both groups benefitted from as little as one hour of relaxation therapy (Platania-Solazzo, Field, Blank, Seligman, Kuhn, Schanberg, & Saab, 1992). In that study, self-reported anxiety as well as anxious behavior and fidgeting decreased, and increases were noted in positive affect.

Brauer et al. (1979) studied twenty-nine patients who had been treated with antihypertensive medication for at least the preceding 6 months were randomly assigned to (1) therapistconducted, face-to-face progressive, deep-muscle relaxation training for 10 weekly sessions, or (2) progressive deep-muscle relaxation therapy conducted mainly by home use of audio cassettes, or
(3) nonspecific individual psychotherapy for 10 weekly sessions. No differences between the groups were found immediately after therapy; however, the therapist-conducted relaxation therapy group showed the greatest changes: -17.8 mm Hg systolic, -9.7 mm Hg diastolic at 6 months follow-up. Some significant trends in results among the three therapists were also found. No correlation existed between blood pressure changes and changes in dopamine-hydroxylase (DbH) levels.

Egbochuku (2005) investigated the effect of Systematic Desensitisation (SD) therapy on the reduction of test anxiety of some identified test anxious students. In addition, three secondary independent variables were studied along. These were entry test anxiety level, sex, and locus of control. A 2 x 2 x 2 way factorial design was employed. SD was found effective in the reduction of test anxiety of the students who were test anxious F-ratio = 9.261 with df (1,74). Entry test anxiety level of subjects was found to be significant on the level of reduction of test anxiety students F = 27.458 with df (1,74). Sex had no significant effect on the reduction of test anxiety of students F = 0.079 with df of (1, 74) and p > 0.05. There was no significant interaction effect of therapy and secondary independent variables. However, there was a significant interaction effect of entry test anxiety level and therapy at the end of treatment. Since SD has been found to be effective in the reduction of test anxiety among adolescents in Nigerian schools; it is recommended that this therapy be used in the treatment of test anxiety. It should be noted that before the treatment of test anxiety, the entry test anxiety level of subjects must be considered so as to set a baseline for the therapy.

Progressive muscle relaxation is a process that involves decreasing the physiological aspects of anxiety while distracting the individual from their awareness of anxious feelings (Nassau, 2007).
2.14.3 Studies related to Behavioural Relaxation Therapy

Department of Neurology; Johns Hopkins School of Medicine, Baltimore, Maryland, USA (2002) evaluated the feasibility and efficacy of behavioral relaxation therapy as treatment for Tourette syndrome, 23 patients were recruited from a university-based pediatric Tourette syndrome referral clinic. Individuals were randomized and stratified according to initial tic severity and the presence of attention-deficit hyperactivity disorder into either relaxation therapy or a minimal therapy (control) group. Sixteen patients, mean age 11.8 years (S.D. 2.8 years), completed the 3-month study, which included weekly, hour-long, individual training sessions for 6 weeks. Individuals (n = 7) in the relaxation therapy group demonstrated a significantly increased ability to relax, compared with the minimal therapy (awareness and quiet time training) group.

Zaichkowsky (1984) found that even 4th-grade children can learn stress control in a short period of 6 weeks. Children were taught progressive muscle and imagery-based techniques to control physiological arousal (i.e., heart rate, respiration, and skin temperature). The authors found decreases in all three of the children’s physiological responses to anxiety.

Rasid and Parish (1998) conducted a study examining the effects of two types of relaxation training with 55 high school students’ levels of anxiety using an experimental-control group design. Results showed that both behavioral relaxation and progressive muscle relaxation techniques produced significantly lower anxiety scores in the experimental group as compared to the control group.

In a more recent study, Lohaus and Klein-Hessling (2003), utilized progressive muscle relaxation in an effort to reduce test anxiety in 160 fourth- and sixth-grade students. They found that relaxation techniques can have a more significant calming effect in children over the short-term (i.e., five sessions) as compared to additional training sessions (i.e., ten sessions).
2.14.4 Studies related to Behavioural Assignment

Nick (2005) studied the evaluation of a group programme designed specifically to meet the anger management needs of a group of individuals with various levels of intellectual disability and/or complex communication needs. Twenty-nine individuals were randomly assigned to an intervention group or a waiting-list comparison group. The intervention comprised a 12-week anger management program, based on Novaco's (1975) cognitive-behavioural conceptualisation of anger, which incorporates adapted content and pictographic materials developed for clients with a range of disabilities. On completion of the program, clients from the intervention group had made significant improvements in their self-reported anger levels, compared with clients from the comparison group, and relative to their own preintervention scores. Treatment effects were maintained at 4 month follow up. In contrast, there was an absence of measured improvements in quality of life. The results provide evidence for the program's effectiveness as an intervention for anger problems for individuals with a range of disabilities.

Humprehy (2006) determined an increasing number of children and young people are being excluded from school as a direct result of anger management problems. This literature suggests that short cognitive-behavioural intervention programmes may be effective in helping young people understand and control their anger. The aim of this study was to evaluate the effectiveness of a short cognitive-behavioural anger management intervention in reducing problem behaviours in school, and to identify factors that may facilitate or impede participant progress on such a programme. The sample comprised 12 young people (mean age 14y 2m) referred for anger problems in an inner-city school in the north-west of England. A phase change (baseline, intervention, follow-up) design was implemented to measure changes in problem behaviours using the Revised Rutter Scale for Teachers. This was augmented by qualitative data gathered in interviews and non-participant observations.
Significant improvements in behaviour were observed as a result of the intervention.

Systematic Desensitisation (SD) is a therapy that has been used with recorded successes among adolescents (Ellis, 1977; Kraft, 1992; Egbochuku, 1998). This is a behaviour modification therapy that involves the use of classical conditioning methods in relaxing an individual who is anxious. It is a kind of counter conditioning whereby an established habit can be weakened or off-set by learning something else. The goal is to get the feeling of relaxation to dominate over the feeling of fear and anxiety for certain critical situations in a person’s life.

2.14.5 Studies related to Rational Emotive Therapy

Larry and Paul (2002) reported the results from a meta-analysis of 70 Rational-Emotive Therapy (RET) outcome studies. A total of 236 comparisons of RET to baseline, control groups, Cognitive Behavior Modification, Behavior Therapy, or other psychotherapies are examined. The results indicate that subjects receiving RET demonstrated significant improvement over baseline measures and control groups. Effect-size was significantly related to therapist experience and to duration of the therapy, but there were no significant differences in effect-size between those studies that used psychotherapy clients compared to those using students as subjects. Those comparisons that were rated high in internal validity (random assignment, low attrition, and outcome measures low in reactivity), had significantly higher effect-sizes than medium validity studies. Outcome measures rated as low in reactivity (i.e., those measures which did not have an immediately discernable relationship with the treatments being assessed) had significantly higher effects than more reactive measures. Contrary to other reviews using the narrative review method, RET was found to be an effective form of therapy.

The study by Obodo and Obadan (2008) established the efficacy of Rational Emotive Behaviour Therapy on the reduction of test anxiety on
identified test anxious students. The study was quasi experimental in nature. Two independent variables were involved in the study namely, treatment, and entry test anxiety level. The independent variable of primary interest is the Rational Emotive Behaviour Therapy (REBT). Instrument used for assessment was Test Anxiety Inventory. Entry test anxiety level was studied. Total scores from pre-test anxiety Inventory (TAI) were used to block subjects into groups with low entry test anxiety level, moderate entry test anxiety level and those with high entry test anxiety level. REBT was found effective in the reduction of test anxiety $F = 22.751$, $df (1,76)$. Entry test anxiety level was significant on the level of reduction of test anxious students; $F=83.566$, $df(1,76)$. F- ratio of interaction of treatment by entry test anxiety level was $10.347$, $df (1,76)$. It is recommended that REBT be used in the treatment of test anxious adolescents in schools.

2.14.6 Studies related to Exercise

Michael (2006) stated that, exercise can be a powerful method of relaxation, and it can help people deal effectively with the stress of daily life. In various studies, researchers have found that exercise can decrease anxiety and depression, improve an individual's self-image, and buffer people from the effects of stress. The research strongly supports the common experience that exercise can elevate mood and reduce anxiety and stress. Some early studies even suggest that the stress-reducing effect of exercise-not just its cardiovascular benefits-may help improve physical health.

Iannos and Tiggeman (1997) concluded that excessive exercises were similar to moderate or light exercisers in personality and showed a much higher self-esteem than predicted. Young adults were asked to either sit quietly or exercise lightly for 7 minutes. In addition, participants reported the amount of exercise in which they engage in on a regular basis. The Researcher hypothesized that a large amount of long-term exercise would be related to higher self-esteem than a small amount. It was further hypothesized that
participants who exercised during the experiment would indicate an increase in self-esteem as compared to the control group. Also, the researcher hypothesized that participants who exercise a large amount on his/her own and who exercised during the experiment would have the highest self-esteem of the four groups tested.

Larun et al. (2006) assessed the effects of exercise interventions in reducing or preventing anxiety or depression in children and young people up to 20 years of age. 16 studies with a total of 1191 participants between 11 and 19 years of age were included. Eleven trials compared vigorous exercise versus no intervention in a general population of children. Six studies reporting anxiety scores showed a non-significant trend in favour of the exercise group. Five studies reported depression scores showed a statistically significant difference in favour of the exercise group.

De Moor et al. (2006) investigated whether regular exercise is associated with anxiety, depression and personality in a large population-based sample as a function of gender and age. The sample consisted of adolescent and adult twins and their families (N=19,288) who participated in the study on lifestyle and health from The Netherlands Twin Registry (1991-2002). Exercise participation, anxiety, depression and personality were assessed with self-report questionnaires. The result revealed the overall prevalence of exercise participation (with a minimum of 60 min weekly at 4 METs (Metabolic Energy Expenditure Index) in the sample was 51.4%. Exercise participation strongly declined with age from about 70% in young adolescents to 30% in older adults. Among adolescents, males exercised more, whereas, among older adults, females exercised more. Exercisers were on average less anxious (-0.18 SD), depressed (-0.29 SD) and neurotic (-0.14 SD), more extraverted (+0.32 SD) and were higher in dimensions of sensation seeking (from +0.25 SD to +0.47 SD) than non-exercisers. These differences were modest in size, but very consistent across gender and age.
Research has focused on how exercise affects levels of state anxiety. Findings have reported an overall decrease in state anxiety following moderate and vigorous aerobic exercise (U. S. Department of Health and Services, 1996). However, Morgan (1987) found a decrease in state anxiety following only vigorous aerobic exercise. On the other hand, Steptoe, Edwards, Moses, and Mathews (1989) focused on members of the population with high trait anxiety levels and found that this population showed a decrease in anxiety following only a moderate level of aerobic exercise. Other research has shown that moderate, vigorous, and the combination of the two levels of aerobic exercise will result in anxiety reduction following exercise (Taylor et al. 2004). Contrary to all this research, Morgan (1985) found cases where an individual’s anxiety was not reduced following exercise, mainly in those individuals with initially lower levels of anxiety.

Tekin (1998) found a significant difference between athlete and non-athlete student according to the scores of physical perception and self-esteem. He administered a physical exercise programme to some of students participated in same summer camp and had different psychological outcomes from control and exercise group.

2.14.7 Studies related to Yoga

Quilty et al. (2009) studied the benefit of yoga by women to manage stress, one-hundred and ninety-nine yoga students (82% female) were surveyed via an on-line tool upon registering in a 4-week beginner yoga program in Austin, Texas. A subgroup of seventy-five female respondents (mean age 36 years, s.d. 11) completed study surveys and a 10-item Perceived Stress Scale (PSS) at baseline and endpoint. The results indicated that 75% of respondents reported stress management as a reason for practicing yoga. Mean baseline and endpoint PSS scores were 16.9, s.d. 6.2 and 13.5, s.d. 5.5, respectively, demonstrating an average decrease of 3.4. This result shows a statistically significant improvement as evaluated by a paired t test with 74 d.f. (p<.0001.
It was concluded that women view yoga as a way to manage stress; and that yoga may be an effective technique for significantly reducing stress.

Kauts et al. (2009) conducted a study with 800 adolescents students: 159 high-stress students and 142 low-stress students were selected on the basis of scores obtained through Stress Battery. Experimental group and control group were given pre test in three subjects, i.e., Mathematics, Science, and Social Studies. A yoga module consisting of yoga asanas, pranayama, meditation, and a value orientation program was administered on experimental group for 7 weeks. The experimental and control groups were post-tested for their performance on the three subjects mentioned above. The results show that the students, who practised yoga performed better in academics.

The study further shows that low-stress students performed better than high-stress students, meaning thereby that stress affects the students' performance.

The study by Goldberg (2004) was designed with that purpose using the SF-36 questionnaire in 107 volunteers [44 males and 63 females, mean age 34 (standard deviation 7) years] who attended yoga classes for 6 months. They responded to the questionnaire before and after the yoga practice. There was significant improvement in scores for all health items. The differences according to age, sex and education level were not significant. It is concluded that yoga can improve physical and mental health, and promote well-being.

Pradhan (2009) conducted a study with 253 school students, 156 boys, 97 girls, in the age range 13-16 years, who were attending a 10-day yoga training course during summer vacation. The selected subjects had English as their medium of instruction in school and they acted as their own controls. They were classified into two groups, and tested on the Digit-Letter Substitution Task, immediately before and after 22.5 minutes practice of Cyclic Meditation on one day, and immediately before and after an equal period of
Supine Rest on the other day. The first group performed Cyclic Meditation on day 9 and Supine Rest on day 10. For the second group, the order was reversed. The results showed that within each group pre-post test differences were significant for both the relaxation techniques. The magnitude of net score improvement was greater after Supine Rest (7.85%) compared to Cyclic Meditation (3.95%). Significance levels were $P < 0.4 \times 10^{-9}$ for Supine Rest and $P < 0.1 \times 10^{-3}$ for Cyclic Meditation. The number of wrong attempts also increased significantly on both interventions, even after removing two outlier data points on day 1 in the Supine Rest group. Both Cyclic Meditation and Supine Rest lead to improvement in performance on the Digit-Letter Substitution Task.

The physiological of yoga and meditation have been demonstrated in numerous studies. The research results show that meditation alters the brain so that there is greater activation in the left prefrontal cortex as compared to the right, a state associated with elevated moods (Davidson and Kabat - Zinn, 2003). Studies have demonstrated meditation’s effect on anxiety and panic disorder (Edwards, 1991; Miller, Fletcher, & Kabat - Zinn, 1995); substance abuse (Gelderloss, Walton, Orme-Johnson, & Alexander, 1991); and reduction of depressive symptoms in nonclinical populations (Shapiro, Schwartz, & Bronner, 1998).

Yoga has been shown effective in improving body image and preventing eating disorders, due to the emphasis on feeling the body, one’s tendency to objectify it is lessened (Boudette, 2006; Daubenmier, Jennifer, 2003; Daubenmier, Jennifer, 2005).

Kaci et al. (2007) studied increases in self-esteem of eight-grade students after participation in regular physical education and yoga - enhanced physical education classes. Self-esteem was measured by the Coopersmith Self-Esteem Inventory. The Coopersmith Self-Esteem Inventory was given pre, mid, and post test in both the experimental and control group. The results
showed that over the course of the eight-week intervention, self-esteem did increase in both the experimental and control groups. There was no significant difference in self-esteem between regular physical education activities and yoga. The study revealed the importance of physical activity, including yoga, for enhancing self-esteem.

2.14.8 Studies related to Counselling

A quasi-experimental pre-test, post-test, follow-up and control group design was used in the study by Sharif and Armitage (2003) to investigate the effect of psychological and educational counselling in reducing anxiety in nursing students. From the Faculty of Nursing at Shiraz University of Medical Sciences, Iran, they were randomly assigned to either an experimental group ($n = 50$) or a control group ($n = 50$). The experimental group received a 12-week intervention programme. Quantitative analysis of data was undertaken using $t$-test and analysis of variance for repeated measures to test differences between and within groups. The results indicated that from pre- to post-test there was no statistically significant reduction in anxiety between groups, but there was a statistically significant reduction in anxiety after one semester (in the follow-up). Student self-esteem was increased significantly from pre-to post-test. This increase was statistically significant and remained the same in follow-up. A statistically significant difference was seen in the student grade point average from pre-test to follow-up in the experimental group but not for the control group. The implementation of an intervention programme reduced their anxiety, increased their self-esteem and improved their grade point average over time.

A research was designed by Samorajczyk et al. (1971) to investigate the possibility of differences in suggestibility between white middle-class children and Negro inner-city children. A random sample of 30 Negro first-grade students was presented with imagination suggestions of the Barber suggestibility scale. These results were compared to reported data for white
first-grade S8 of a suburban community. No significant effects due to sex, group, or interaction effects were detected. In addition, 30 Negro S8 were given motivational suggestions to enhance their performances on a hand dynamometer. A significant difference was detected in comparison to 30 S8 in a control group who received no motivational suggestions. Correlations were also reported between those who were more or less influenced by both imagination and motivational suggestions. The results are discussed in terms of role enactment ability, role playing, and the teaching of task-oriented behaviors.

2.14.9 Studies related to Goal Setting

Parrott and Hewitt (2006) studied self-esteem under the little “Increasing self-esteem through participation in a goal attainment program”. High and low self-esteem students were placed in one of the 3 treatment conditions. Those in the goal attainment condition were instructed to keep a daily list of the extent to which complained to each of 10 goals. The goals concerned increasing sociability, improving interpersonal relations and enhancing individual enhancement. A self-esteem questionnaire was administered before and after 3 weeks of engaging in this activity. Low self-esteem students showed a significant increase in self-esteem. Students did not show an increase in self-esteem in other two conditions, one that is labeled an indulgence condition and one in which people went through the three counseling sessions. High self-esteem students enjoyed the goal attainment condition the most of the 3 activities. Low self-esteem students enjoyed it the least even though it was the only condition to increase self-esteem.

Brown (1998) studied the conditions that foster the development of high self-esteem. Children develop higher self-esteem when their parents communicate unconditional acceptance and love, establish clear guidelines for behaviour, and reinforce compliance while giving the child freedom to of these methods for positive development are seen in the form of self-esteem
development programs, which are commonly delivered through schools and clubs.

Helen et al. (2003) investigated children's conceptions of happiness and wellbeing in relation to goal choice. It examines the prevalence and impact of Conditional goal setting (CGS) on levels of wellbeing and depression. Conditional goal setting describes commitment toward an important goal resulting from a conception that happiness is an end-point achieved through the attainment of this goal. Conditional goal setting has been identified as a significant factor in the development and maintenance of depression in adults. This study examines these same concepts among children. Thirty-six children aged 10-12 years participated in six focus groups discussing their understandings of happiness, important goals and beliefs concerning CGS. They also completed CGS and depression questionnaires. The results revealed that the majority of participants conceptualized happiness as a goal dependant upon something extrinsic to themselves (such as an achievement or event). Statistical analyses suggested a significant relationship between goal setting styles, conceptualizations of happiness and depression. Depressed children were more likely than non-depressed children to be conditional goal setters.

Li-Ping and Reynolds (2002) examined the interaction effects between self-esteem and perceived goal difficulty on subjects' self-set goals, certainty, performance, and attributions. Perceived goal difficulty was manipulated by asking subjects to compete on the same task against themselves, a difficult competitor, and an easy competitor. Subjects were divided into two groups characterized by high or low self-esteem. Analysis showed that certainty, ability attribution, and task satisfaction for groups with low self-esteem were affected by perceived goal difficulty especially in the difficult condition, whereas groups with high self-esteem were not. Further, groups with low self-esteem had lower goals, certainty, and task performance than groups with
high self-esteem. Subjects set higher goals and had higher performance in the difficult condition than in the easy one.

Linda and Margaret (2002) investigated the effects of a goal-setting intervention on students' perceptions of their use of different types of self-regulatory skills (General Organization/Planning, Task Preparation Strategies, Environmental Structuring, Recall Ability, and Typical Study Strategies). Using students' accuracy in predicting final course grade as a blocking variable, the 2 (calibration accuracy) X 2 (treatment) ANCOVA indicated a significant main effect for Task Preparation Strategies. In addition, accurate calibrators in the goal-setting condition earned significantly higher course grades than control group students who were inaccurate calibrators.

Vansteenkiste et al. (2004) studied the effect of intrinsic or extrinsic goal condition to learn a new sport. Results indicated that intrinsic goal framing promoted graded performance and persistence compared to extrinsic goal framing. Other research has demonstrated that extrinsic goal framing is better than not referring to any goal (Eccles & Wignfield, 2002; Feather, 1992).