CHAPTER II
REVIEW OF LITERATURE

The review of earlier studies conducted in related areas is of prime importance in any research to form an effective methodology. The literature pertaining to the research on, ‘Management of Stress, Behaviour Problems and Academic Problems in Adolescents through Positive Therapy’ has been reviewed and presented under the following heads:

- Stress in Adolescents
- Correlates of Stress in Adolescents
- Effects of Stress in Adolescents
- Management of Stress in Adolescents
- Behaviour Problems of Adolescents
- Academic Problems of Adolescents
- Positive Therapy and Stress

STRESS IN ADOLESCENTS

High Trait Anger and Stress, ineffective patterns of Anger Expression and Coping are risk factors for the development of disease and negative social behaviour in children and adults. School connectedness may be protective against negative consequences in adolescents, but less is known about this in school-aged children. The purpose of the study by Rice, Kang, Weaver and Howell (2008) was to characterize relationships between trait anger, stress, patterns of anger expression, resources for coping and school connectedness and to determine if race and gender moderate these relationships in elementary school-aged children. Using self-report, standardized instruments, a convenience sample of 166 fourth graders in Four Elementary Schools in 1 US School District was assessed in the fifth week of the school year. Results revealed that school connectedness was positively associated with social confidence and behaviour control and negatively associated with trait anger, anger-out and stress. Multiple Regression was computed to test for interactions and gender did not moderate the effects of school connectedness in any of the models, while race moderated the relationships between school connectedness and both stress and social confidence. Students with higher school connectedness had lower trait anger and anger-out and higher behaviour control, regardless of gender and/or race. White students higher in school connectedness had lower stress and higher social confidence. Findings indicated that the protective effect of
school connectedness on trait anger, anger-out and behaviour control in school-aged children, regardless of race or gender. The protective effect of school connectedness on stress and social confidence may depend on race.

Suldo, Shaunessy, Hardesty and Robin (2008) investigated the relationships among stress, coping and mental health of 139 students participating in an International Baccalaureate (IB) high school diploma programme. Mental health was assessed using both positive indicators (life satisfaction, academic achievement and academic self-efficacy) and negative indicators (psychopathology) of adolescent social-emotional and school functioning. Findings indicated that students in an IB programme perceived significantly more stress than a sample of 168 of their general education peers and that specific coping styles are differentially related to mental health outcomes in this subgroup of high-achieving high school students. Further, coping styles (specifically, anger and positive appraisal) moderated the influence of stress on global life satisfaction and internalizing symptoms of psychopathology.

Meijer and Joost (2007) identified the student and teacher characteristic that determines the stress experienced by students in Dutch Secondary Education. The sample consisted of 3300 students with an average age of 16 years 5 months (standard deviation of seven months) who entered their first year of secondary education in The Netherlands in 1995. Students' cognitive ability levels were assessed by means of a cross-curricular skills test. Their level of fear of failure was assessed by means of an achievement motivation questionnaire. Student stress was categorized as "experienced study workload" and "perception of lack of teacher guidance". Data suggested that fear of failure was associated with experienced workload as well as perception of lack of teacher guidance; cognitive ability was associated only with workload. Teaching style, as reported by teachers, was not associated with student stress. Only teachers' age was associated with student stress. The older the teacher, the heavier was the workload experienced by students along with strong lack of teacher guidance. Student support should be differentiated depending on student need, some students may need cognitive support and others emotional support. It may be that if those perceiving a lack of teacher guidance were given support at the socio-emotional level, the possibility of their withdrawal from education would be reduced.
Suzuki (2006) explored the cognitive process in selection of stress coping behaviour. One hundred and eighty two undergraduate students were asked to answer the questionnaire about their own stress experience and coping behaviour. Factor analysis showed that the cognitive process in selection of coping behaviour included four factors: expectation of positive outcome, expectation of emotion regulation, selection of habitual coping and selection in the elimination. Regression analysis showed that the score of expectation of positive outcome was negatively correlated with stress response whereas; the score of selection in the elimination was positively correlated with stress response. Furthermore, interaction between the individual differences of cognitive process and coping behaviour was found. People who engaged in emotion focused coping style with elimination thinkers felt more stress than the others.

Hampel and Petermann (2006) investigated age and gender effects on perceived interpersonal stress, coping with interpersonal stressors and psychological adjustment among early and middle adolescents. The sample included 286 Austrian adolescents aged 10 to 14 years who attended the fifth to seventh grade. Self-report data on perceived stress, coping as well as, emotional and behaviour problems, were assessed. The results showed that Fifth graders scored lower on maladaptive coping strategies and externalizing problems and reported more adaptive coping strategies than sixth and seventh graders. Compared with boys, girls evaluated a higher amount of perceived interpersonal stress and used more social support. Additionally, girls scored higher on maladaptive coping strategies and emotional distress and scored lower on distraction than boys. Problem-focused and emotion-focused coping were negatively related to emotional and behaviour problems, whereas perceived stress and maladaptive coping was positively associated with adjustment problems. These relations were stronger in female than in male adolescents.

A study was carried out by Liu, Tein and Zhao (2004) to describe the strategies used to cope with stress and to explore the association between coping strategies and behavioural/emotional problems in a community sample of adolescents. Results indicated that Chinese adolescents often used multiple coping strategies when faced with stress. Principal factor analysis followed by oblique rotation revealed two dimensions of coping strategies in Chinese adolescents, active coping and avoidant coping. A series of logistic regression analyses showed that avoidant coping was significantly associated with increased risk for internalizing and externalizing problems but active coping was associated with
reduced risk. These findings provided evidence of the association between coping and mental health problems in Chinese adolescents.

Govaerts and Grégoire (2004) conducted a study on, Adolescents’ Cognitive Appraisal Processes and their relationships with academic stress. A sample of 100 adolescents in the mean age of 16.9 years reported 145 academic stressful situations. Girls granted greater importance to the stressful situation, while boys perceived themselves as having more resources for coping with it. Five appraisal patterns were identified using cluster analysis. Subsequent analysis showed that the groups differed in their perceived degree of stress. One group was labelled at-risk appraisal group, demonstrating a high level of perceived stress and two groups showed a favourable appraisal pattern associated with low level of perceived stress.

Problems with conceptualizations of stress, variability in measurement of stressors and lack of theory driven research, led Grant, Compas, Stuhmacher, Thurm, McMahon and Halpert (2003) to propose a general conceptual model of the relation between stressors and adolescent psychopathology. The authors examined basic tenets of this general model by testing a specific model in which, negative parenting mediated the relation between economic stressors and psychological symptoms in young people.

The study by Romero and Roberts (2003) from middle school students of Mexican Descent (N = 881) reported their perceived stress from intergenerational acculturation gaps, within-group discrimination, out-group discrimination and monolingual stress. Folkman and Lazarus's theory of stress and coping was used to develop a measure assessing the perceived stress within a bicultural context. Although immigrant youths reported more total number of stressors, U.S. born youths reported more stress from want of better Spanish and impact of parents’ culture. Immigrant youths reported more stress from lack of better English in school. Higher stress was associated with more depressive symptoms for both U.S. born and immigrant youths. Although, some elements of stress was identified but it has not identified positive coping mechanisms of the bicultural context for Latino youths.

Andrew, Patel and Ramakrishna’s (2003) study aimed to elicit the needs of adolescents in higher secondary schools in Goa, India, in 1999–2000. The objective was to generate information, which could guide the development of adolescent-friendly health services by integrating the health, needs identified by adolescents themselves. The study
began with free listing, followed by focus group discussions and in-depth interviews to elicit areas of concern. Then, a survey of 811 students with a self-report questionnaire was carried out. The findings demonstrated that there was clearly an unmet need for information about sexual and reproductive health but also a large, unmet need for psychosocial support for health issues ranging from violence in schools to poor relationships with parents, stress-related health complaints and educational difficulties, which are often perceived by adolescents to be of primary importance. Integrating these issues into programmes are likely to be an essential element in developing health services and programmes which can reach out to the majority of adolescents in school settings in India.

Associations between stress and dietary practices were investigated by Cartwright, Wardle, Steggles, Simon, Croker and Jarvis (2003) on a sample of 4320 school children, 2578 male and 1742 female in the mean age of 11.83 years. Pupils completed questionnaire measures of stress and 4 aspects of dietary practice (fatty food intake, fruit and vegetable intake, snacks and breakfast consumption). Multivariate Analyses revealed that greater stress was associated with more fatty food intake, less fruit and vegetable intake, more snacking and a reduced likelihood of daily breakfast consumption. These effects were independent of individual (gender, weight) and social (socio-economic status, ethnicity) factors. Stress may contribute to long-term disease risk by steering the diet in a more unhealthy direction.

Hall's view that adolescence is a period of heightened ‘storm and stress’ is reconsidered by Jeffry (2002). The author examined 3 key aspects of this view: conflict with parents, mood disruptions and risk behaviour. In all 3 areas, evidence supports a modified storm-and-stress view that takes into account individual differences and cultural variations. Not all adolescents experienced storm and stress but storm and stress is more likely to occur during adolescence than at other ages. Adolescent storm and stress tends to be lower in traditional cultures.

Lassarree (2002) analyzed the difficulties of relations inside schools and reveals the points of view of the students as well as of their parents, teachers and the public authorities. Several models of stress episodes are presented in order to approach and understand the situation experienced by the students. The expectations and disappointments of the students and families are discussed briefly in order to situate the origins of the stress those students face in their schools.

**CORRELATES OF STRESS IN ADOLESCENTS**
Xie et al. (2006) investigated weight perception and related psychological factors in Chinese adolescents, in which, 6863 middle and high school students completed a questionnaire on weight perception, academic performance, stress, hostility and depression. Results showed that overweight perception was related to school-related stress and depression in both girls and boys (P<0.01) and to hostility in boys (P<0.01).

Nottelmann, Susman, Cutler, Loriaux and Chrousos (2006), conducted a study on ‘Developmental processes in early adolescence, relationships between adolescent adjustment problems and chronological age, pubertal stage and puberty-related serum hormone levels’. Relations between adolescent psychosocial adjustment problems and markers of biologic development were examined in 56 normal boys and 52 normal girls, aged 9 to 14 years. Overall, findings were stronger, consistent and more generalized for boys than for girls. Adjustment problems in boys were associated with characteristics of late maturation and higher chronological age, which included problems like relatively low sex steroid levels or lower pubertal stage and relatively high adrenal androgen levels. Adjustment problems for girls were relatively high levels of gonadotropins, relatively low levels of dehydroepiandrosterone sulfate and relatively high levels of androstenedione on their own or in conjunction with lower pubertal stage. Higher levels of androstenedione, a steroid particularly responsive to stress were associated with adjustment problems in both boys and girls. This relation reflects the stress in later maturation, which could result from environmental factors, such as adolescent self-comparisons with same-age peers or endogenous effects of hormones.

The study by Mattews et al. (2006) compared emotional intelligence and the personality factors of the Five Factor Model as predictors of task-induced stress responses. Participants (N = 200) were randomly assigned to 1 of 4 task conditions, 3 of which were designed to be stressful. Results confirmed that low emotional intelligence was related to worry states and avoidance coping, even with the Five Factor Model statistically controlled. However, emotional intelligence was not specifically related to task-induced changes in stress state. Results also confirmed that neuroticism related to distress, worry and emotion-focused coping and conscientiousness predicted use of task-focused coping.

Fishbein et al. (2006) examined a sample of adolescents (N=125) considered to be at high risk for stress exposures and drug use by virtue of their environment and low income levels to identify possible neuro-cognitive and social competency mechanisms that may
mediate this relationship. Risky decision-making and poor social competency skills were related to previous stressful experiences; however, only social competencies mediated the effect of stressors on reports of past year marijuana, alcohol and poly drug use. Interventions that directly address the effects of stress on social competencies may be especially important for children who have experienced adversity including those exposed to parental divorce, parental psychopathology, neglect or abuse, parental death and poverty.

The factorial validity and dimensionality of a dispositional measure of stress appraisal was examined in the study by Rowley, Roesch, Jurica and Vaughn (2005). Using a multiethnic adolescent sample, both exploratory and confirmatory factor analyses resulted in a three-factor representation of appraisal. The three factors included two primary appraisal dimensions (Threat and Challenge) and one secondary appraisal dimension (Resources). Thus, these findings suggested that the cognitive appraisals made by adolescents are less complex or differentiated than those of adults. Moreover, these findings suggested that dispositional measures are relevant for adolescent sample and should be incorporated into stress and coping paradigms.

Parker, Saklofske, Shaughnessy, Huang, Wood and Eastabrook, (2005) examined the generalizability of the youth form of a widely used self-report measure of emotional intelligence in a sample of 384 aboriginal youth from several rural areas in Canada (mean age = 12.5 years). This sample was matched (by age and gender) with a second rural Canadian sample of non-aboriginal youth (N= 384). The four-factor model for the measure, namely, interpersonal, intrapersonal, adaptability and stress management abilities was tested using confirmatory factor analysis with both sample. Multiple goodness-of-fit indicators revealed that the model had good fit to the data from both sample. The aboriginal respondents were found to score significantly lower on the interpersonal, adaptability and stress management dimensions compared to the non-aboriginal children.

Storksen, Rovsamb, Holman and Tambs (2005) investigated the long-term effects of parental divorce on adolescent psychological adjustment and well being. The sample included 8984 adolescents (13-19 years) and their parents. Outcome variables were symptoms of anxiety and depression, subjective well-being and three areas of school problems. Parental divorce was found to be associated with adolescent problems. Divorce and parental distress contributed independently to adolescent distress. The prevalence of adolescents with substantial distress symptoms was 14% among those with non-distressed non-divorced
parents and 30% among those with divorced and distressed parents. Long-term effects of divorce on symptoms of anxiety and depression were stronger among girls than among boys.

Compas (2004) conducted a study on ‘Stress and life events during childhood and adolescence’. Cross-sectional studies have found a consistent, although modest, correlation of stressful events with psychological, behavioural and somatic problems. However, recent prospective studies provide greater support for the role of chronic strains and daily stressors than major life events in the development of psychological and behavioural difficulties during adolescence.

Larson and Ham (2002) conducted a study on the relationship between the early adolescence of the distressed and their experience of stressful life events. A sample of 483 students from 5th to 9th grades provided experience-sampling reports on their daily emotional states. Data on recent major events in the child's life were obtained from the child and a parent. Findings indicated that older students in this age range encountered more negative events than younger ones, including more peer, school and family events and that experience of multiple negative events had a stronger association with daily negative affect. These findings suggested that the higher rates of daily distress in adolescence may be partly attributable to the greater number of negative life events in youths.

Gogen and Anshel’s (2002) examined sources of acute stress and related coping processes following stressful events in competitive sport for 65 adult (37 male and 28 female) and 74 adolescent (39 male and 35 female) athletes. MANOVA results indicated that stress intensity was a function of the type of stressful event. Male adults experienced significantly higher acute stress intensity than female and adolescents, respectively, following performance-related stressors (e.g., making a physical or mental error). However, females reported higher stress intensity than males for the stressor, social evaluation; adolescents had more of stress than adults due to events related to the actions of others (e.g., coach and parents hassling or criticizing, spectators booing). Chi-square analyses indicated significant age and gender differences in the frequency with which selected coping strategies were used as a function of the stressor. For example, males preferred problem-focused coping and females used emotion-focused coping after the stressors, experiencing pain and injury, being intimidated by opponents and parental criticism. However, emotion-focused coping was more common among adolescent males than adolescent females in response to a cheating opponent.
Rowlison and Felner (2002) conducted a study on major life events, hassles and adaptation in adolescence confounding in the conceptualization and measurement of life stress and adjustment. Of particular concern in their work were (a) the source and method of assessment (b) conceptual overlap between life stress and resource items and symptoms of disorder and (c) induced response bias through the instructional sets of the stress measures. A second goal was to extend the understanding of life stress adjustment linkage in groups for whom little data of this type exist. By using multi-trait-multi-method procedures, they found that both distal major life events and proximal daily stressors had important degrees of unique and shared variance with adaptive functioning, whereas the effects for social support were inconclusive.

Conger, Ge, Elder, Lorenz and Simons (2001) conducted a study on ‘Economic Stress, Coercive Family Process and Developmental Problems of Adolescents’. The authors proposed a model of family conflict and coercion that links economic stress in family life to adolescent symptoms of internalizing and externalizing emotions and behaviour. The study included 180 boys and 198 girls from an area characterized by economic decline and uncertainty. These adolescents and their parents were interviewed each year for 3 years. The theoretical model proposed that economic pressure experienced by parents increased parental dysphoria and marital conflict as well as conflicts between parents and children over money. High levels of spousal irritability, coupled with coercive exchanges over money matters was expected to be associated with greater hostility, in general, by parents toward their children. These hostile/coercive exchanges were expected to increase the likelihood of adolescent emotional and behavioural problems.

The study by Cynthia (2000) investigated the relationship of source, recency and degree of stress to the suicide ideation of high school students. Probability sampling was utilized. Students were randomly selected from five Knoxville, Tennessee schools, from the ninth through twelfth grades to ensure equal representation of all age groups. The composition of the sample was 52% male and 48% female. The results revealed that overall recency of stress and percentage of students experiencing each stressor within the past month and the most recently occurring stressors involved being tiredness, family conflict, parental expectations regarding school and making new friends. The highest ranked stressors involved conflict with parents and siblings. The study called for the need for parent workshops that focus on how to reduce family problems and developmental issues of adolescence.
The study by Shatl and Petersen (2000) explored the direct and interactive effects of family relations and control-related beliefs on depressive symptoms during adolescence. The sample included 471 adolescents who were surveyed in VI grade and again in VII grade. Analyses revealed that negative life event, active coping, family relations and control beliefs all correlated with concurrent reports of depressive symptoms. Control beliefs buffered the effects of stress on adolescents’ reports of depressive symptoms. Both control beliefs and family relationships significantly predicted depressive symptomatology.

**EFFECTS OF STRESS IN ADOLESCENTS SMOKING**

Finkelstein, Kubzansky and Goodman (2006) examined the relation between social status and perceived stress that could explain the association between lower social status and increased risk of smoking. Data was collected from 1021 adolescents. Hierarchical logistic regression estimated the effects of parental education, subjective social status and stress on smoking risk. At baseline, students from families without a college-educated parent were at greater risk of current smoking in high school. Subjective social status decreased the risk of current smoking. Stress increased smoking risk. There was no evidence that the effects of parental education were mediated through stress. These findings indicated that higher stress and lower social status increase the risk of smoking but that stress does not explain the association between lower social status and smoking.

Wills, Sandy, Yaeger, Cleary and Shinar (2001) attempted to derive predictor variables from stress coping theory, social influence theory and problem-behaviour theory. In addition to groups of abstainers and experimenters, cluster analysis of smoking data indicated 3 groups who showed onset either in 7\(^{th}\) grade (early onset), 9\(^{th}\) grade (intermediate onset) or 10\(^{th}\) grade (late onset). Almost all study variables discriminated the smoking groups from the abstainers. The onset groups were discriminated by Group X. Time interactions showed differential changes in predictors (increases in risk factors and declines in protective factors), which occurred just prior to onset. The results generally supported a contextual model of the onset process.

The study by Liu (2003) investigated a sample of 1360 Chinese Adolescents. About 31\% of boys and 3.7\% of girls reported of smoking. Smokers experienced more life stress than non-smokers. Smoking was associated with increased risk for internalizing and
externalizing behaviour problems but the association was markedly reduced after controlling their life stress.

Adolescent stress has been retrospectively associated with various measures of smoking behaviour in school-aged samples. The study by Byrne and Mazanov (2003) extended this to a prospective investigation in order to examine the possibly formative influences of stress on the onset of smoking in adolescents. A 12-month follow-up study related to sources and degree of adolescent stress measured at study commencement with the onset of smoking behaviour 12 months later in a large cohort of adolescents attending Australian secondary schools. Results showed that the adolescent stress was only weakly related to smoking onset in adolescent males and even this could possibly be explained by other factors. In adolescent girls, however, prospective associations were stronger and more broadly represented across the various domains of adolescent stress, suggesting that stress may exert a formative influence on smoking onset for girls. Management strategies for adolescent stress may be an affective target for smoking prevention programmes among adolescent girls.

Wills, Sandy and Yaeger (2002) carried out a comparative test of the hypotheses that stress is an etiological factor for smoking and cigarette smoking increases stress. Participants were a sample of 1,364 adolescents, initially surveyed at mean age 12.4 years and followed at 3 yearly intervals. Measures of negative affect, negative life events and cigarette smoking were obtained at all 4 assessments. Latent growth modelling showed that negative affect was related to increase in smoking over time. Comparable results were found for negative life events, with no evidence for reverse causation.

Smoking by adolescents is best studied by following a cohort of children as they proceed through adolescence. In the analysis of the first stage of such a study, Koval and Peterman (2000) analyzed the psychosocial factors that may modify the initiation of smoking. They examined 1,552 adolescents aged 11-12 years from a school system in Scarborough, Canada. Investigation of the stress-coping hypothesis and other possible effect modifiers as they relate to ever-smoking revealed that stress (measured by number of life events) was important for both males and females. However, the mechanisms underlying smoking appear to be different for males and females, even at the young age. In models adjusting for several factors simultaneously, rebelliousness was found to be the most important factor, followed by
attitudes toward the effect of second-hand smoke for males, whereas for females, mother’s smoking was the most important factor followed by rebelliousness.

SUBSTANCE ABUSE

The progression and associations among problem behaviours may vary with gender. Some research suggests that involvement in delinquent behaviour places females at higher risk for substance use and problem use than it does males (Costello, Armstrong and Erkanli, 2000). However, there is also evidence that delinquent activity is equally likely to increase risk for substance use and problem use in males and females (Disney, Elkins, McGue and Iacono, 2000). Delinquency as early as age 11 is a positive predictor of alcohol use at age 16 for both males and females, and alcohol use at age 16, in turn, is a strong predictor of problem substance use at age 18. Mason and Colleagues found a positive correlation between delinquency and problem substance use as young as age 11 that remained consistent throughout adolescence for males (Mason, Hitchings and Spoth, 2007).

Bates and Pandine (2002) tested a community sample (N = 1380) of 12, 15 and 18 year old males and females and 95% were retested at the ages of 15, 18 and 21. Stable, moderate and changing personality groups were identified. Repeated measures revealed that males with substantially changing personalities experienced significantly more stress due to a perceived lack of personal and social competence and self-acceptance than others. They also reported reliably greater involvement in all substance use behaviours than those who maintained relatively stable personality needs. In contrast, no relation between personality needs stability, stress and substance use was found with females.

Wagner (2002) examined the relationship between delay of gratification and substance use in middle adolescence. Predictor variables included impulsivity, delay of gratification, stress and perceived peer substance use. Multiple regression path analysis supported the hypotheses that impulsivity, emotion-focused relief-oriented coping, stress and peer substance use are each related to adolescent substance use. Delay of gratification and problem-focused coping were unrelated to substance use. Neither coping nor impulsivity was significantly related to substance use and peer substance use proved to be the most powerful predictor of adolescent substance use followed by perceived stress.

The study by Butters (2002) estimated the direct impact of family stressors on the progression to problem cannabis use, as well as their indirect effects via the youth's school
experience among adolescents in Ontario. The results suggested that family stressors have
direct and indirect effects increasing the probability of cannabis use outcomes.

Wagner, Myers and McIninch (2000) conducted a study on stress coping model of
addiction. Their study used a sample of 332 public high school students. Results supported
the model that stress coping and temptation coping, each accounted for statistically unique
and significant variance in teenagers’ substance use. In addition, substance abusing
adolescents reported engaging in significantly more avoidance stress-coping and significantly
less temptation-coping than demographically matched non substance abusing adolescents.

Problem behaviours covary over time as well. For example, trajectories of alcohol and
cigarette use correlate with trajectories of marijuana use, delinquency and academic problems
across adolescence. A study of 1,000 youth aged 11 to 17 followed annually for 5 years found
that the mean level of alcohol use was correlated with levels of marijuana use and
delinquency ($r = 0.69$ and $r = 0.16$, respectively; $p < 0.05$) and that increases in alcohol use
were highly correlated with increases in marijuana use and delinquency over time ($r = 0.66$
and $r = 0.49$, respectively, $p < 0.05$). Levels of marijuana use and delinquency were also
related ($r = 0.62$, $p < 0.05$), as well as the slope of marijuana use and delinquency over time
($r = 0.47$). Notably, alcohol use, marijuana use and delinquency were also related to academic
problems: greater substance use or delinquency was associated with more academic problems
($r's = 0.03-0.24$, $p < 0.05$), and increases in substance use or delinquency were linked with
increases in academic problems over time ($r's = 0.31-0.36$, $p < 0.05$) (Duncan, Duncan and
Strycker, 2000).

Huang and Colleagues (2001) found that aggressive behaviour and alcohol use were
correlated concurrently across time (i.e., age 14 aggression and alcohol use $r = 0.55$; age 15
aggression and alcohol use $r = 0.44$; age 16 aggression and alcohol use $r = 0.37$; and age 14
agression and alcohol use $r = 0.37$). Furthermore, aggression and alcohol use were
correlated over time. For example, alcohol use at age 14 was significantly correlated with
subsequent aggression at age 15 ($r = 0.36$), age 16 ($r = 0.24$), and age 17 ($r = 0.21$).

In a study of 257 youth followed for a year and a half (range 14 - 17 years at
baseline), similar correlations were noted between alcohol use and other substances over
time, but findings also were extended to substance use. Level of alcohol use was correlated
with risky sexual behaviour ($r = 0.24$; $p < 0.05$), but rate in change of alcohol use was
unrelated to changes in risky sexual behaviour. However, increases in cigarette use were related to increases in risky sexual behaviour ($r = 0.43$, $p < 0.05$) (Duncan, Strycker and Duncan, 1999).

**GAMBLING**

Bergevin, Gupta, Derevensky and Kaufman (2006) examined the central variables of stress, coping and gambling severity in adolescents. A sample of 2156 high-school students in the age range of 11 to 20 years, completed instruments assessing gambling involvement, gambling severity, stressful life events and coping styles. Results indicated that adolescents with gambling-related problems reported more negative life events when compared to social gamblers and non-gamblers. When negative life events were further separated into major and minor events, results revealed that problem gamblers reported more major negative life events but not more minor negative life events relative to others. Adolescents with gambling-related problems used less task-focused coping and more avoidance-focused coping. Males who experience gambling-related problems reported using more emotion-focused coping strategies. Finally, emotion-oriented coping was found to mediate the relationship between negative life events and gambling severity.

**SUICIDAL IDEATION**

Liu and Tein (2005) conducted a study on, ‘Life Events, Psychopathology and Suicidal Behaviour in Chinese Adolescents’. A total of 1362 adolescent students in a rural prefecture of China completed a self-administered questionnaire concerning suicidal behaviour, psychopathology, life events and demographics. Multivariate Logistic Regression Modelling was used for data analysis. Females were more likely to report suicidal ideation than males (22% vs. 17.5%). Academic stress and family conflicts were the major stress domains of adolescents at risk for suicidal behaviour. Negative life events were also associated with increased risk for internalizing and externalizing problems. Both internalizing and externalizing problems were significantly associated with elevated risk for suicidal behaviour after negative life events were controlled.

Hopelessness, depression and suicidal ideation are risk factors for a suicide attempt Horesh, Orbach, Gothelf and Apter (2003) studied 65 depressed and borderline adolescents (ages 13-18 years) and found that depression and hopelessness were equally related to
suicidal behaviour in both borderline and Major Depressive Disorder groups but that aggression and impulsiveness were positively correlated with suicidal behaviour only in borderline adolescents.

Youth suicide is nearly five times more likely in the offspring of mothers who have completed suicide and twice as likely in the offspring of fathers who completed suicide (Agerbo, Nordentoft and Mortensen, 2002). Twin data from all age groups show that first-degree relatives of suicide completers have more than twice the risk of the general population. The relative risk was increased among the identical twins of suicide completers to 11 fold. The estimated heritability for completed suicide was 43% (McGuffin, Marusic and Farmer, 2001).

High rates of parental psychopathology, particularly depression and substance abuse are associated with suicidal behaviour in adolescence (Fergusson and Lynskey, 2000). Fergusson, Woodward and Horwood (2000) have found that the association is mediated by the youth’s psychological problems.

Johnson, Cohen and Gould (2002) found that childhood physical abuse was associated with an increased risk of suicide attempts in late adolescence or early childhood. The authors suggested that physically abused children might have difficulty in developing the social skills necessary for healthy relationships, leading to social isolation and/or antagonistic interactions. This would lead to increased risk for subsequent suicidal behaviour.

An association between physical abuse and suicide has been reported in a psychological autopsy study (Brent, Baugher and Bridge 2000) and replicated in prospective longitudinal community studies (Johnson, Cohen and Gould, 2002). Some have reported that youth suicide attempters have higher rates of socioeconomical disadvantage compared with community samples (Fergusson, Woodward and Horwood, 2000). However, Agerbo, Nordentoft and Mortensen (2002) reported that socioeconomic disadvantage is not a major risk factor for suicide.

Wunderlich, Bronisch and Wittchen (2000) reported that high school dropouts were at significant risk for suicidal behaviour.

MANAGEMENT OF STRESS IN ADOLESCENTS
Zeegers, Kraag, Hosman and Sad (2005) evaluated the effect of school programmes targeting stress management and coping skills in school children. The standardized mean difference between baseline and final measures were computed for experimental and control groups. Experimental group received either an intervention of relaxation training, social problem solving, social adjustment and emotional self-control or a combination of these interventions. The overall pooled effect and stress coping, social behaviour and self-efficacy were calculated by random effects meta-analysis. It was tentatively concluded that school programmes targeting stress management or coping skills are effective in reducing symptoms of stress and in enhancing coping skills.

In a clinical project by Wall (2005), a combination of Tai Chi and mindfulness based stress reduction was used as an educational programme. The 5-week programme demonstrated that to sustain interest in this programme in middle school–aged boys and girls was possible. The statements of boys and girls during the programme suggested that they experienced well-being, calmness, relaxation, improved sleep, less reactivity, increased self-care, self-awareness and a sense of interconnection or interdependence with nature. The curriculum has been described in detail for nurses, teachers and counsellors who want to replicate this type of instruction for adolescents. This research inferred that Tai Chi and mindfulness based stress reduction are transformational tools that can be used in educational programmes appropriate for middle school aged children.

Hampel (2003) aimed to evaluate a multimodal patient education programme that was carried out during inpatient rehabilitation. The efficacy was examined in comparison to an education programme without stress management. A total of 68 patients aged between 8 and 16 years were included in the post-treatment and 46 patients in the 6 months follow-up assessment. The experimental treatment elicited significant improvements in adaptive coping in adolescents, aged 14 to 16 years. In contrast, substantial effects were not yielded for the control treatment. The results suggested that the multimodal patient education training has beneficial effects on stress management in adolescents with asthma.

Patterson and McCubbin (2002) performed a research with the aim to answer the following questions: Do Coping Strategies vary according to Age and Gender? And do relationships between coping and mental health vary according to age? Participants were a community sample (N = 140) of 73 girls and 67 boys in the age range of 11 to 15 years. The sample was divided into two groups: 70 subjects with a mean age of 12.25 years (early adolescents) and 70 subjects with a mean age of 13.75 years (mid-adolescents). Findings
showed that there are less family-oriented coping strategies and more relaxing strategies in mid-adolescents compared to early adolescents. Girls more often used social relationships as well as ventilating feelings and self-reliance, whereas boys more often used leisure. It appeared that coping strategies are more useful in mid-adolescents. The buffer hypothesis was confirmed in the latter group, but not in the early-adolescent group.

Plancherel and Bologmini (2002) explored the protective factors and mental health in early adolescence. The sample consisted of 276 adolescents. Significant relations between coping strategies and mental health were found, which were different according to gender: girls invest more in social relations, express more negative feelings and more commonly adopt consumption habits such as shopping or eating; boys often use sense of humour or practice a hobby or sport. Many of these strategies protect girls and boys from distress.

Shulman (2002) attempted to study the role of close relationships during adolescence and their contribution to individual coping. Data from a series of studies conducted mainly on early adolescents showed that the availability of family and peers combined with support of a youngster's independence contributed to individual adaptive coping. In addition, data showed that the contribution of close relationships to coping differs for male and female. It was suggested that though close relationships are crucial for coping with stress, their significance changes across context (family, peers) and gender during adolescence.

Meijer, Sinnema, Bijstra, Meilenbergh and Wolter’s (2002) examined the way coping styles and locus of control contributed to the prediction of psychosocial adjustment in adolescents with a chronic illness. Psychosocial adjustment of 84 adolescents aged 13–16 years with a chronic illness was assessed with measures of social adjustment, global self-esteem and behaviour problems. Linear regressions were performed with demographic factors (age and gender) and stress-processing factors (coping style and locus of control) as predictor variables. Results indicated that coping styles were related to most aspects of social adjustment. The coping styles ‘seeking social support’ and ‘confrontation’ were important predictors for positive social adjustment, the coping style ‘depression’ was a predictor for poor adjustment, particularly, low social self-esteem and high social anxiety. Avoidance and locus of control were not strongly associated with psychosocial adjustment.

Levitt, Franco and Levitt (2002) explored the effects of social support in childhood and adolescence at three grade levels (1–2, 4–5, 8–9) from a multiethnic public school population.
Measures of social support, life stress, loneliness and academic self-concept were included. Support was related to achievement both directly and indirectly through self-appraisal but specific effects varied by grade level. Support effects strengthened and stress effects declined significantly in adolescence, suggested increased ability to utilize support resources in coping with stress.

Adolescence has been described as a period where normal developmental stresses are dealt with depending on past experiences and current demands. Foster care inherently brings with it many additional stresses, which must be dealt with at a period where many young people find even normal developmental tasks overpowering. Bryant and Coleman (2002) examined problem disclosure and coping strategies in 21 foster adolescents. Highly significant results indicated that teenagers who have experienced crisis foster placements were more likely to disclose concern over parent and authority control over their lives. Additionally, these young people seemed more likely to use non-productive coping strategies when dealing with everyday problems.

The study by Krenke, Weidemann, Fentner, Aegenheister and Poeblan (2002) compared stress perception and coping style in 77 early and late adolescents differing in psychological health. Coping with two normative, age-specific stressors, namely, school-related stressors and conflicts with parents was investigated via the Coping Process Interview, which assessed coping immediately after an event had happened. Both stressors were not perceived as structurally similar events. Differences were obtained with respect to the appraisal of the stressor, causal attribution, amount of thoughts, feelings and actions in order to cope with these stressors, but not achieved effects and reappraisal. Clinically referred adolescents, independent from diagnosis experienced higher levels of school-related stress and family stress and also exhibited a more dysfunctional coping style when dealing with both types of stressors.

In the study by Torsheim, Aaroe and Wold (2001), a representative sample of 1592 grade VI, 1534 grade VIII and 1605 grade X students completed measures on sense of coherence, school-related stress and subjective health complaints. A test of nested structural models revealed that both stress-preventive stress-moderating and main health-enhancing effects of sense of coherence were consistent with the data. Age-group comparisons revealed that the association between sense of coherence and stress grew weaker with age whereas the direct association between sense of coherence and health complaints grew stronger. The main
effect of sense of coherence accounted between 39% (11 year olds) and 54% (15 year olds) of the variance in subjective health complaints. Findings indicated that sense of coherence may potentially be an autogenic factor in adolescents’ adaptation to school-related stress and that relationship between sense of coherence and healthy adaptation may be evident in younger age-groups.

Pritz, Shermis and Wehb (2001) tested a conceptual model of adolescent stress and coping to determine the relationships between the key components of the model. Four factors were investigated such as students’ perceptions of stress, both major life events and daily hassles, self-reported problem solving, perceptions of social support and psychological adjustment. A total of 122 high school students participated in the study. The results supported the notion that an accumulation of stressful experiences significantly increased an adolescent’s vulnerability to negative outcome. The results also indicated that available coping resources, including social support and problem solving, significantly buffer the effects of stress on maladjustment. In looking at the influence of support from family and peers, family support appeared to be more critical for healthy functioning than support from friends. In respect to problem solving, an adolescent’s appraisal of how effective he or she is at solving problems appeared to have a greater buffering effect than actual problem-solving skill.

Williams and Lissi (2000) examined the coping strategies used by male and female students in early, middle and late adolescence when they were coping with two different types of stressors: daily hassles and major life events. Older adolescents used a greater variety of coping strategies and used methods that directly reduced the impact of the stressor and involved a cognitive component (e.g. planful problem solving and reappraisal) more often than younger adolescents. Adolescents in all age groups varied their strategies in relation to the type of stressor, but there were no significant gender differences. The findings suggested that significant changes during a relatively short period during adolescence may affect adaptive processes and have implications for intervention efforts aimed at reducing the negative effects of stress.

Chandra and Batada (2000) conducted a study on, ‘Exploring Stress and Coping among African American Adolescents’. The purpose of the study was to explore perceptions of stress, sources of social support and use of coping strategies among Urban African American ninth graders. The sample consisted of 26 students. Results showed that in contrast
with existing literature that emphasized the influence of violence and neighbourhood factors on stress among teens, teens prioritized other sources of stress, particularly from school, friends and family. For support, they relied on different individuals, depending on the source of the stress, such as friends for romantic relationship stress and family for school and family stress. Girls reported more frequent use of support-seeking and active coping strategies than boys.

Bowker, Bukowski, Hymel and Sippola (2000) were interested to study how adolescents cope with peer hassles and how coping varies as a function of peer status and social behaviour. A total of 249 VII graders reported on their experiences with peer hassles (e.g., peer conflict), their coping behaviours and the degree of control they felt they had over these events. Additionally, subjects were asked to rate each of their participating peers in terms of various social behaviours (i.e. aggressive vs. socially withdrawn behaviour) and in terms of how much they like each person. The authors found that withdrawn adolescents, particularly girls, were more likely to use coping strategies aimed at minimizing the emotional impact of the event (e.g., avoidance) versus active problem-focused (e.g., negotiation to reach agreement) or negative coping (i.e., negative actions towards others). Aggressive and unpopular adolescents were also more likely to use negative coping strategies. Interestingly, for girls, higher levels of aggression were associated with greater use of active problem-focused coping and this relationship was stronger at high levels of popularity. Greater perceived control in aggressive subjects was related to more frequent use of negative coping.

BEHAVIOUR PROBLEMS OF ADOLESCENTS

Concerns about the heightened prevalence of behaviour problems among adolescents from low-income families have prompted researchers to understand the processes through which economic variables influence functioning within multiple domains. Guided by a stress process framework and social contextual theory, Ginger and Mark (2009) examined the economic hardship and adolescent problem behaviour in a sample of urban families. It hypothesized that stress process variables experienced by mothers contributed to adolescents' functioning within the family, academic and peer domains, which ultimately predicted behaviour problems. Results showed a good fit of the models to the data, suggested that the integration of stress process and social contextual approaches may be of particular use for scholars interested in understanding economic influences on adolescent problem behaviours.
Boras and Zuckerman (2008) measured the influence of the Monitored Youth Mentoring Programme (MYMP) for adolescents with Behaviour Problems and Behaviour Disorders. The MYMP commenced in 1997 and was completed in 2003. The model of the programme was for one university student of Pedagogy to mentor one pupil between the ages of 13 and 17 years demonstrated and risk-seeking behaviours for a whole school year. The specimen group was made up of 141 pupils, approximately 20 pupils from each year level. The short-term goal was to influence positive change in participants who demonstrated risk-seeking behaviour. The long-term goal was to enhance the respective school’s programmes to enable preventative approaches to lessen negative and risk-seeking behaviours amongst pupils with behaviour problems and behaviour disorders. The results demonstrated statistically significant success of the applied programme in two measured variables. Firstly, learning success (p < 0.05) and secondly, a decrease in truancy and disciplinary misdemeanours (p < 0.05), both of which were observed in participants with behaviour problems.

Krupa, Saraswati and Gaonkar (2008) conducted an exploratory research during the year 2006-07 in Dharwad City, to know the prevalence of behaviour problems among early adolescents (N=216). The standardized questionnaire, Emotional Problem Scale (EPS) developed by Prout and Strohmea in 1985 was used. The study revealed that majority (81.48%) of the adolescents was found to have normal behaviour. About 9% to 18% of adolescents were found to have a difficult behaviour. Further, the study revealed that boys had significantly more externalizing problems ($\chi^2=6.7$) while girls had significantly more of internalizing problems ($\chi^2=12.92$).

Musitu, Lopez and Emler (2007) conducted a study on, ‘Adolescents’ adjustment problems in the family and school contexts, attitude towards authority and violent behaviour at school’. One thousand and sixty eight students in the age range of 11 to 16 years (47% male) drawn from secondary schools in the Valencian Community (Spain). Structural equation model was used for analysis. Results showed a direct association between quality of communication with father and teacher’s expectations of the student with the adolescent’s involvement in violent behaviour at school.

Little is known about behavioural and emotional adjustment in children in Sri Lanka. The study by Prior, Virasinghe and Smart (2005) was the first to assess the Mental
Health Problems in this population. They used the Strengths and Difficulties Questionnaire, a modified version of the Rutter Parent Questionnaire, in a large sample of 10 to 13-year-old school children from Colombo. They found rates and types of problems consistent with other International Studies of Child Mental Health. Problem rates were higher in boys and were associated with lower socio-economic status and poorer academic performance. Relationships between Behavioural Adjustment and Tamil Ethnicity and Hindu Religion emerged in the sample and could possibly be associated with the experience of longstanding ethnic conflict in Sri Lanka. The study confirmed the need for development of Child and Adolescent Health Services in Sri Lanka.

The developmental model of adolescent antisocial behaviour advanced by Patterson and colleagues appeared to generalize the development of a diverse set of problem behaviours. Dennis, Terry, Anthony, Carol, John and Keith (2004) studied the structural equation modelling methods. They collected 18-month longitudinal data from 523 adolescents. The problem behaviour construct included substance use, antisocial behaviour, academic failure and risky sexual behaviour. Families with high levels of conflict were less likely to have high levels of parent-child involvement. Such family conditions resulted in less adequate parental monitoring of adolescent behaviour, making associations with deviant peers more likely. These were strong predictors of engagement in problem behaviour and accounted for 46% of the variance in problem behaviour. Although association with deviant peers was the most proximal social influence on problem behaviour, parental monitoring and family factors (conflict and involvement) were key parenting practices that influenced this developmental process.

Liu, Tein and Zhao (2004) examined associations of life events and locus of control with behaviour problems among 1365 Chinese Adolescents by using the Youth Self Report (YSR), Adolescent Self Rating Life Events Checklist (ASLEC) and the Nowicki-Strickland Locus of Control Scale for Children. Results revealed that the overall prevalence of behavioural and emotional problems was 10.7%. Logistic-regression analysis showed that a total of 13 negative life events mainly coming from academic domain and interpersonal relationships, high life-stress scores and high external locus score significantly interacted with behaviour problems.

The study by Luis, Marianela, Christopher and James (2003) examined the association between behavioural problems and tobacco smoking among adolescent students
in Chile. Data were drawn from a study that included questionnaire surveys of 6,907 school-attending adolescents in all 13 of the administrative regions of Chile. Assessments were based on an adapted, Spanish-language version of the Drug Use Screening Inventory. The conditional form of the logistic regression model was used for analysis, with matching of students on individual schools and with further statistical adjustments for sex, age and selected risk factors. The prevalence of tobacco smoking among the adolescents was very high across all of Chile, with a level between 56% and 65% in each of the 13 regions. The estimated odds of tobacco use in youths at the highest level of behaviour problems was about twice that for youths at the lowest levels, both before and after controlling for sex, age, lack of participation in recreational activities, level of irritability and levels of problems with school, family attention and mental health.

Gupta, Verma, Singh and Gupta (2001) conducted a study on 957 school children using Rutter B Scale, which was to be completed by the Class Teachers in Ludhiana, India. A sample of 141 children (14.6%) scored more than 9 points and was included in the second part of the study. An equal number of sex matched children scoring less than 9 points served as controls. Both these groups were called for an interview with a Child Psychiatrist along with their Parents. Only 117 and 124 children turned up and were included in the analysis. Based on the screening instrument results and parental interview, 45.6% of the children were estimated to have behaviour problems, of which 36.5% had significant problems. It was noticed that neither the screening instrument nor the interview was able to detect all the problems. Scholastic Under-achievement was found to be associated with maximum problems. Scholastic Under-achievement can be a useful starting point for identifying children with behaviour problems. Close cooperation between school teachers, parents and health care providers is essential to ensure healthy development of children.

ACADEMIC PROBLEMS OF ADOLESCENTS

Seiffge (2008) conducted a research on ‘Stress in German Schools: Frequencies, Causes and International Comparison’. An overview about studies on academic stress, including anxiety before examinations, decrease in achievement, bad grades as well as aggression and rivalry among pupils was given. Findings on several studies were reported, including German Adolescents (N = 1393) and adolescents from 18 countries (N = 9778), who have been investigated with respect to school related problems. Clinically disturbed
adolescents (N = 77) reported the highest levels in academic stress, compared to non-conspicuous adolescents.

The study by Kosmala-Anderson and Wallace (2007) investigated pre-examination anxiety and emotional control strategies as possible mediators of gender differences in self-reported intensity and type of psychosomatic reactions to examination stress. Sample comprised 150 male and 150 female high school senior students and university students who voluntarily participated in the survey. Questionnaires measured the intensity and the type of psychosomatic reactions to Examination Stress (Psychosomatic Reaction Inventory), Pre-examination Anxiety Level (State-Trait Anxiety Inventory) and the application of Emotional Self Control Strategies (Emotional Self Control Strategies Questionnaire). Pre-examination Anxiety level was positively correlated with self-reported intensity of psychosomatic reactions to examination stress. Female students experienced higher pre-test anxiety level, stronger psychosomatic reactions to examination stress, as well as a greater range of those reactions. High pre-examination anxiety in female students was shown to be a factor mediating their experience of more intense psychosomatic reactions to examination stress. There was no moderating influence of application of certain emotional self-control strategies by each gender on self-reported intensity of psychosomatic reactions to examination stress.

Recent research proposes that human beings have a limited capacity for self-regulation. Self-regulatory efforts may fail because this capacity is depleted and such depletion is exacerbated by stress. The study by Oaten and Cheng (2005) tested whether academic examination stress would impair regulatory behaviour by consuming self-control strength. An exam-stress group was assessed at baseline and then during the commencement of exams; a control group was assessed at two unstressful times. Perceived stress, emotional distress and regulatory behaviour were assessed by a questionnaire. During the exam period, the exam-stress group showed impaired performance on a lab task (Stroop) following thought suppression, a form of self-regulatory activity. They also reported significant increased in perceived stress, emotional distress, smoking and caffeine consumption; a decrease in healthy eating, emotional control, frequency and duration of physical activity, maintenance of household chores and self-care habits, attendance to commitments and monitoring of spending and a deterioration in sleep patterns and study habits. The control group showed no systematic changes in the lab task, perceived stress, emotional distress or regulatory behaviour across sessions.
Lien (2004) conducted a study on 10th grade pupils from Oslo, Norway. The objective of the study was to test the hypothesis that relatively younger adolescents in the multi-ethnic population of Oslo have poorer school performance and more mental health problems than their relatively older classmates within the same school year. The results showed that the youngest one-third of pupils had significantly lower average school grades than the middle one-third and oldest one-third of their classmates. Of the mental health problems identified in the questionnaires, the groups differed only on peer problems; the youngest one-third reported significantly more problems than the middle and oldest group.

Like Adolescents in East Asia, Indian Middle-class Adolescents face a highly competitive examination system. The study by Suman, Deepali and Reed (2002) examined the influence of school demands on the daily time use and subjective states of Indian Young People. A sample of 100 urban, middle-class, 8th grade students carried alarm watches for 1 week and provided 4764 reports on their activities and subjective states at random times, following the procedures of the Experience Sampling Method. These adolescents were found to spend one third of their waking time in school-related activities, with girls spending more time than boys. Schoolwork generated negative subjective states as reflected in low affect state, below-average activation levels, lower feeling of choice and higher social anxiety. These negative states were most frequent during homework. The trade-off faced by Indian Adolescents were evident in the findings that those who spent more time doing homework experienced lower average emotional states and more internalizing problems, while those who spent more time in leisure experienced more favourable states but also reported higher academic anxiety and lower scholastic achievement.

**POSITIVE THERAPY AND STRESS**

A study on, ‘Management of Stress in Parents of Special Children through Positive Therapy’ was conducted by Thenu and Hemalatha (2009). From the Special Education Department of Avinashilingam University for Women, Coimbatore, Tamil Nadu, 40 parents of mentally retarded children were screened using Case Study Schedule (Hemalatha, 2008) and Stress Inventory (S.I.) (Hemalatha and Nandini, Revised, 2005). Out of them, 35 subjects (10 male and 25 female) were selected by Purposive Sampling. They were in the age range of 25-50 years. The sample was divided into 3 batches of around 12 in a batch for Positive Therapy. Six sessions of Positive Therapy was given in two weeks. Each session lasted for one hour. After two weeks, the subjects were reassessed using the Case Study Reassessment
Schedule and S.I. Initially, 86% of the sample had ‘High’/‘Very High’ stress. After Positive Therapy, none of them had ‘High’/‘Very High’ stress. Before Positive Therapy the mean stress was ‘High’ (16.47) and it decreased to ‘Moderate’ level after Positive Therapy. The entire sample had worry; the other common negative emotions being depression, fear, irritation, anxiety, anger and hatred. The symptoms reported by majority of the sample were sleep disturbance, confusion, fatigue, loss of appetite, headache, weakness and body pain. After Positive Therapy, there was a drastic reduction in the negative emotions and symptoms of the sample.

Mary and Hemalatha (2009) conducted a study on, ‘Management of Stress in Nurses through Positive Therapy’. From K. G. Hostel, Coimbatore, Tamil Nadu, India, 40 female nurses were screened using Case Study Schedule (Hemalatha, 2008) and Stress Inventory (Hemalatha and Nandini, Revised 2005). Out of them, 32 subjects with ‘Very High’/‘High Stress’ were selected by Purposive Sampling and were given the psychological intervention called, Positive Therapy. Positive Therapy was given for 6 sessions thrice a week for 2 weeks. The duration of each session was 1 hour. After 2 weeks of Positive Therapy, they were reassessed using Case Study Reassessment Schedule (Hemalatha, 2008) and Stress Inventory. The results revealed that initially, most of subjects had ‘High’/‘Very High’ stress. After Positive Therapy, the stress in most of the subjects had come down to ‘Low’ level. The mean stress reduced from ‘High’ (M=17.69) to ‘Low’ (M=4.25) after Positive Therapy. The results clearly indicated not only the efficacy of Positive Therapy in the Management of Stress but also in minimizing the Symptoms and Negative Emotions of the Selected Nurses.

‘Management of Stress in Diabetic Patients through Positive Therapy’ was conducted by Saranya and Gayatridevi (2009). From Sri Sai Trust, Coimbatore, 50 Diabetic Patients were screened using Case Study Schedule (Hemalatha, 2008) and Stress Inventory (Hemalatha and Nandini, Revised 2005). Out of them, 35 were selected by Purposive sampling. They were in the age range of 34-78 years. The Case Study Schedule was used to obtain information on demographic details, risk factors, negative emotions and effects of stress. Stress Inventory was administrated to the sample to assess their level of stress. The entire sample was provided with the Psychological Intervention, called Positive Therapy. Six sessions of Positive Therapy was given in two weeks. Each session lasted for one hour. After two weeks, the subjects were reassessed using the Case Study Reassessment Schedule and Stress Inventory. Initially, the sample had either ‘High’ (83%) or ‘Very High’
(17%) Stress. But after Positive Therapy, none of them had ‘High’/‘Very High’ stress. There was a significant reduction in the Mean Stress from ‘High’ (15.77) to ‘Low’ (2.69) after Positive Therapy, which was significant at 0.01 level. The entire sample had fear; the other common negative emotions experienced by the sample were worry, hostility, hopelessness and anger. The symptoms reported by majority of the sample were pain, sweating, sleep disturbance, swelling of legs, general weakness, excessive hunger, frequent urination, giddiness, itching and stiffness. After Positive Therapy, there was a drastic reduction in the negative emotions and symptoms of the sample.

Vandana and Hemalatha (2008), in their research on, ‘Management of Stress and Pain in IT Professionals through Positive Therapy’, screened 78 IT Professionals from ORACLE and Customer Driven Company, Bangalore, Karnataka, using Case Study Schedule (Hemalatha, 2007), Occupational Stress Index (Srivatsava and Singh, 1981) and Patient Pain Questionnaire (Ferrell, 1998). Out of them, 30 subjects (18 male and 12 female) were selected by purposive sampling. Positive Therapy (Hemalatha, 2004) was used as the psychological intervention, which was given for 6 sessions to help the sample manage job stress. The results revealed that initially, the entire sample had ‘High Job Stress’ and ‘High Pain’. After the administration of Positive Therapy, 53% had ‘Low Job Stress’ and 47% had ‘Moderate Job Stress’. There was a statistically significant reduction in the mean job stress from ‘High’ (M=162.85) to ‘Moderate’ level (M=124.5). Similarly, 73% had ‘Low’/‘Very Low Pain’ after Positive Therapy and there was a significant reduction in the mean pain of the sample from ‘High’ (M=45.51) to ‘Low’ (M=23.5) after Positive Therapy.

In the study by Divya and Hemalatha (2007) on, ‘Management of Job Stress in IT Professionals through Positive Therapy’, 50 IT professionals from Hewlett Packard, Bangalore, Karnataka, were screened using Case Study Schedule (Hemalatha, 2006) and Occupational Stress Index (Srivastava and Singh, 1981). By purposive sampling, 32 subjects (23 male and 9 female) were selected. They were in the age range of 24-38 years. The sample was divided into 3 batches of 10 to 11 in each batch and were given Positive Therapy for one hour per session. Five sessions were given on 5 consecutive days. Two weeks after the therapy, the sample was reassessed using Case Study Reassessment Schedule (Hemalatha, 2006) and Occupational Stress Index. Initially, the entire sample (100%) had ‘High’ job stress. The main sources of job stress were work and procrastination. The symptoms of stress reported by most of the sample were insomnia, loss of concentration and
anxiety. The negative emotions experienced were fear, worries, anger and anxiety. But after the administration of Positive Therapy, most of the subjects (81%) had ‘Low’ job stress. There was a statistically significant reduction in the mean job stress of the sample from ‘High’ (M=181) to ‘Low’ (M=92). There was an enormous reduction in the number of subjects experiencing symptoms and negative emotions due to stress. Initially, coping strategies were used to the minimum extent, which improved after they underwent Positive Therapy. In short, there was a great influence of Positive Therapy in reducing the job stress, symptoms and negative emotions of the selected IT professionals.

Rajakumari and Hemalatha (2006) conducted a study on ‘Management of Stress in Nurses through Positive Therapy’. From Sri Ramakrishna Hospital, Coimbatore, Tamil Nadu, 60 registered female nurses were selected as sample. Initially, stress was high in both the groups. After the administration of the Positive Therapy for ten sessions in five weeks, there was a significant reduction in the mean stress of the experimental group; there was also significant reduction in their symptoms and negative emotions, whereas, no such improvement was found in the control group.

Umamaheshwari and Hemalatha (2006) conducted a study on ‘Management of Stress in Bank Employees through Positive Therapy’. From Bank of Baroda, Coimbatore, 30 Officers and Clerical Staff were selected. There were 18 male and 12 female in the age range of 26-56 years. Using Stress Inventory (Hemalatha and Nandini, Revised 2005), it was found that 60% had ‘High’ stress and 3% had ‘Very High’ stress. The remaining 37% had ‘Moderate’ stress. Positive Therapy was used as the psychological intervention for six sessions given on alternate days in two weeks. Results showed that after the administration of Positive therapy 47% had ‘Low’ stress, 50% had ‘Moderate’ stress and only 3% had ‘High’ stress.

In the study, ‘Management of Stress in Accident Patients through Positive Therapy’ by Prashanthi and Hemalatha (2006), 30 accident patients (20 male and 10 female), in the age range of 20-80 years from Rex Ortho Hospital, Coimbatore, were assessed using Stress Inventory (Hemalatha and Nandini, Revised 2005). Initially, the entire sample had ‘High’ or ‘Moderate’ stress. Positive Therapy was given for one hour, on alternative days for 2 weeks. After the administration of the Positive Therapy, stress had reduced drastically to ‘Low level’ in the entire sample.
‘Management of Stress and Enhancement of General Well-being in Recovered Alcoholics through Positive Therapy’ was carried out by Suchitra and Hemalatha (2006). From Bangalore, 46 recovered male alcoholics, 37 with ‘High’ stress and 9 with ‘Moderate’ stress were selected. They were in the age range of 24 to 47 years. After the administration of Positive Therapy for ten sessions in two weeks, stress had reduced remarkably in most of the subjects. The mean stress, which was ‘High’, had reduced to ‘Low’. The general well-being had also improved in most of the sample and the mean, which was ‘low’ initially, had increased to high, indicating the beneficial effects of Positive Therapy.

Latha and Rohini (2006) conducted a study on the ‘Management of Stress in Wives of Alcoholics through Positive Therapy’, 35 wives of alcoholic patients from Krishna Rehabilitation Centre for Alcoholics, Coimbatore, Tamil Nadu, served as the sample. The sample was in the age range of 30-50 years. Results revealed that initially, majority of the sample (51%) had ‘High’ stress. But after the administration of Positive Therapy for 6 sessions in 2 weeks, on alternate days, there was a significant reduction in the mean stress from ‘High’ (M=19.09) to ‘Low’ (M=4.09) level.

To find out the efficacy of Positive Therapy in the Management of Stress in Stress-induced Diabetes, Yogatha and Gayatridevi (2006) selected 50 diabetic patients (15 male and 35 female) from SKY Spiritual Trust, Coimbatore. The age range of the sample was 25-65 years. Using Stress Questionnaire (Latha, 1984), it was found that the entire sample had ‘High’ stress. The subjects were provided with the psychological intervention called Positive Therapy for one hour per session, thrice a week, for one month. Results showed that Positive Therapy had reduced stress to ‘Low’ level in 10% and to ‘Very Low’ level in 90% of the sample.

Kavitha and Hemalatha (2005) conducted a research on, ‘Management of Stress and Enhancement of General Well-being in Haemodialysis Patients through Positive Therapy’. From K.G. Hospital, Coimbatore, 36 haemodialysis patients, in the age range of 20-65 years, served as the sample. Initially, the entire sample had ‘High’/’Very High’ stress. Positive Therapy was administered for one hour per session, on alternate days for two weeks. Results revealed that after the administration of Positive Therapy, the mean stress of the sample reduced to ‘Low’ level.
The research on, ‘Assessment and Management of Stress in Working Women through Positive Therapy’ was conducted by Praveena and Hemalatha (2004). Out of 100 women from selected small-scale industries in Coimbatore, Tamil Nadu, 60 women who had ‘Very High’/‘High’ stress were selected for the research. The age range was 18-50 years. Out of the 60 subjects, 30 were assigned to the experimental group and 30 to the control group. Positive Therapy was given to the experimental group in smaller batches of 10 in a batch, for one hour per session; 6 sessions were given in three weeks. Results revealed that Positive Therapy had helped to bring down the mean stress from ‘Very high’/‘High’ to ‘Moderate’/‘Low’ levels in the experimental group. There was a significant difference in the mean stress of the experimental group before and after treatment. The mean stress of the control group had increased slightly in the reassessment and continued to be ‘High’.

To study the effects of Positive Therapy in the Management of Stress in Primary School Teachers, Dhara and Hemalatha (2003) selected 60 female teachers in the age range of 25-36 years, from Mani Feeder’s School and Vivekalaya School, Coimbatore, Tamil Nadu. Thirty were assigned to experimental group and 30 to control group. Initially, the mean stress was ‘High’ in both the groups. Positive Therapy was given to the experimental group in two batches of 15 subjects in each batch, for 6 sessions, on alternate days; the duration of each session was 40 minutes. Results revealed that Positive Therapy had helped in bringing down the mean stress significantly to ‘Low’ level in the experimental group, whereas in the control group, the mean stress continued to be in ‘High’ level.

Preetha and Hemalatha (2002) conducted a study on ‘Management of Stress in IT Professionals through Positive Therapy’. From Bangalore, Karnataka, 60 Information Technology (IT) Professionals, 30 male and 30 female, in the age range of 23-36 years served as the sample. All the subjects had ‘High’ stress initially. Administration of Positive Therapy for seven days, involving two sessions per day, for 35 minutes, had proved to be effective in reducing the level of stress, symptoms of stress and negative emotions of the selected IT professionals.

The literature reviewed clearly indicated that various researches have been carried out on adolescents such as, stress in adolescents, correlates of stress, effects of stress, management of stress, behaviour problems and academic problems of adolescents. The researches on management of stress through Positive Therapy have also been documented.
The studies presented throw light upon the need for management of stress, behaviour problems and academic problems of adolescents. Hence, in the present action research, an attempt will be made to administer Positive Therapy on selected adolescents to help them manage their stress and overcome their behaviour problems and academic problems.