CHAPTER - II
REVIEW OF LITERATURE

Review of existing studies in the area of investigation enables the researcher to be familiar with the trends of research practices and directions of the findings, which is pre-requisite and a crucial aspect of planning of the new investigation. Citing studies that show substantial agreement and those that seem to present conflicting conclusions help to sharpen and define the understanding of existing knowledge in the problem area. This provides a strong background for the research project and makes the reader aware of the status of the issue. It is rewarding as it promotes greater understanding of the problem, ensures the avoidance of unnecessary duplication and also provides basis to evaluate and interpret the significance of one’s findings (Gupta, 2002).

Best and Kahn (1996) observe that although the research for reference material is a time consuming process but it is fruitful phase. A familiarity with the literature of any problem helps the students to discover what is already known, what others have attempted to find out, what methods of attack have been promising or disappointing and what problems remains to be solved.

Review of research relevant to the present problem that is interest relating to an Academic Stress, Coping Strategies, Parental Attachment and Social Support has been given in this chapter with a view to later on formulating hypothesis on the basis of the trends drawn from the review. The review has been discussed under the followed sub-headings.

2.1 Academic Stress among Adolescents
2.2 Coping Strategies and Academic Stress
2.3 Parental Attachment and Academic Stress
2.4 Social Support and Academic Stress
2.1 ACADEMIC STRESS AMONG ADOLESCENTS

Adolescence is frequently described as a period of development during which dramatic life changes and transitions occur. One of the crucial concerns at this stage is the academic stress. While reviewing research on adolescent’s academic stress it was found that some studies deal with stress as a holistic area whereas in others, sub areas of stress were taken singularly or conjointly. Academic stress in the present study has been taken as a multidimensional concept including certain dimensions such as frustration, anxiety, conflict and pressure, adjustment and mental health. Hence researches related to academic stress or its components have been reviewed under this section. Likewise, in view of the sample of present studies being a mixed one (boys and girls) studies related to stress and gender have been considered relevant in the present section. While reviewing these studies attempt has been made to focus more on studies conducted on during last two to three decades on account of rapid changes in the type of stressors adolescents come across in their academic life.

Kagan and Squires (1984) developed and administered three sub-scales assessing sources of stress to 723 college students in two studies. Among other results findings in experiment I with 423 subjects; analysis of data from anxiety, stress and eating behavior indicated that most important sources of stress are related to grades, finances and self-confidence.

Sowa and Lustman (1984), found that men reported experiencing more stressful life changes. However women rate the impact of stressors more severely and have higher depression ratings while men exhibit greater distortions in cognitive content. Women have been reported to obtain higher scores on stressful life events and on anxious reactivity.
**Heins et al. (1984)** point out that intense anxiety in student arises from two areas of stress, namely that associated with academic expectations and performance and that related to social factors such as developing and maintaining interpersonal relationships. Investigations carried out with medical students by Kohn & Frazer (1986), Mallinckrodt (1989), & Fitzgibbon (1992) show that in the academic area the heavy workload, examinations and meeting deadlines for assignments were the most common causes of stress.

**Archer and Lamnin (1985)** conducted a survey of 1,247 students at a Mid Western University. Results revealed that tests were the number one source of stress among these students, accounting for 35% of all responses. It was found that tests, grades, competition, time demands, professors and the class environment and concern about future careers were major sources of academic stress.

**Elias et al. (1985)** studied 158 children entering middle school on the type of stressors they encountered, their perception of the school and sources of support during transition. The results showed distinct set of stressors and prototypical pattern of linkage and impact of stress. Academic stress is the worst as it fends off all the other problems in life.

**Badhwar and Pratap (1987)** found that the sociological bias, which has changed the value of education, is reflected in the way the adolescents are brain washed from childhood and that computer science, engineering and medicine are considered the only worthwhile professions. Hence a lot of academic stress is generated in competing for these courses. According to Badhwar and Pratap (1987), besides the above-mentioned professions presently one could add I.A.S., M.B.A., and other competitive examinations to the list of most sought after professions. These professions have become more of status symbols and ensure secure future. But the competition for and
in these subjects has not precipitated a corresponding increase in the number of junior schools, universities and colleges. And this is the primary cause of academic pressure cooker existence of today. It is basically a question of demand and supply, the mad scrambling for the extra mark to give an adolescent competitive edge in a good college.

**Friedrich et al. (1988)** examined sex difference in the self report of depression in early adolescence. Results showed that depression in boys was correlated with several types of social support and lower grades.

In a cross-cultural study conducted on stressful experience of Japanese students returning from extended periods of residence in US, **Patrick (1989)** administered questionnaire to 87, VII and IX grade students. Academic concerns were found more stress generating than either social or cultural concerns. Boys showed more academic stress than girls. On the same lines, **Balasubrananiam (1994)** reported that male students studying in private schools show higher level of achievement anxiety than female students.

The objective of **Cooper and Robinson (1989)** study was to examine the influence of gender and anxiety on performance in Mathematics. He conducted the study on 298 male and female undergraduates. Subjects completed measures that included State-Trait Anxiety Inventory and Test Attitude Inventory. No significant gender differences were found in Mathematics ability, anxiety and performance.

**Verma and Gupta (1990)** explored some aspects of high academic stress and symptoms. The sample comprised of 60 students (12-15 years old) high on academic stress, matched on age, sex and IQ. The subjects were administered an open-ended interview schedule cum checklist developed by the investigator. The results indicated that academic stress was caused due to the examination system, burden of homework and attitude of parents and
teachers. The symptoms included a variety of indicators that were classified into physiological, psychological and behavioral ones.

Moshe (1992) examined socio-cultural and gender group differences in perceptions of major sources of academic stress among first year college students, in addition to seeing the relationship between reported academic stress and college achievement. Data were collected via self administered student inventory among a sample of 184 Israeli and 209 Arab college undergraduates studying in major Israeli University. The results showed that Arab students, lower social status students and female students were found to be more stressed than their counterparts. As a whole students appeared to be more stressed by pressures originating from course overload and academic evaluation procedures. Inverse correlation was found between stress and academic performance of students.

According to Campbell and Stevenson (1992) also college students experience high stress at predictable times each semester due to academic commitments, financial pressures and lack of time management skills. When stress is perceived negatively or becomes excessive, it can affect both health and academic performance. Students often try to reduce their stress through avoidance, religion and social support, and positive reappraisal.

Groer, Thomas and Shoffner, (1992) conducted a longitudinal study on adolescent stress and coping to investigate developmental and gender influences of stress. Data were collected from the same 167 subjects during their freshman year and again during the senior year attending suburban high school. Girls reported more life events stress than boys. Life events stress was greater at senior testing for both boys and girls, but girl’s score increased more.
In a cross-cultural study, Crystal et al. (1994) investigated psychological maladjustment and its relation to academics on a sample of 1,386 American, 1,633 Chinese, and 1,247 Japanese 11th grade students. Indices of maladjustment included academic stress, depressed mood, aggression and somatic complaints. Chinese subjects reported less stress and aggressive feelings than their American counterparts but reported higher frequencies of depressed mood and somatic complaints. In the U.S., high achievers indicated more frequent feelings of stress than did low achievers.

Abouserie (1994) examined sources and levels of academic stress and self-esteem in University students. The sample consisted of 202 males and 473 females second year undergraduate students. Results showed students experienced academic stress at predictable times each semester with the greater source of academic stress resulting from taking and studying for exams, grade competition, and the large amount of content to master in a small amount of time. Female students were found to be more stressed than male students.

A disturbing trend was noticed in a study by Juon, Nam and Ensminger (1994). The purpose of this study was to estimate the prevalence of suicidal behaviors and their relation to background characteristics, social integration, academic stress, psychological distress and substance used in a stratified random sample of 9886 high school students in Korea. In a multiple logistic regression it was found that depression was the strongest predictor of suicidal behaviors. The other factors significantly associated with suicidal behavior were gender, academic stress, hostility and substance use. The results indicated that early identification of risk factor for suicidal behavior might have potential for reducing future suicides.

In another study by Patri (1995) it was indicated that there was an over emphasis on academics on schools. According to the researcher, inadequate
method of teaching leads to emphasis on memory. This academic stress leaves the overburdened students listless and suicidal.

Janet (1995) studied the perceived stressors and coping strategies of occupational therapy students. A questionnaire was used to survey 1095 occupational therapy students. The results revealed that at least 86% of the subjects reported their top stressor to be examination, amount of class work, lack of free time, long hours of study and grades. 62% of the subjects said that the stress they experienced strengthened their commitment to their professional education.

Mann (1995) conducted a comparative study on Govt. and Public school children with regard to academic stress. She took 120 eleventh class students. Results revealed that the public school students are more stressed than Govt. school students.

In yet another investigation Trivedi (1995) studied anxiety level and academic achievement of under graduate students belonging to different streams. He found significant differences between mean scores of students of commerce, science and humanities with regard of their academic stress. Similarly, Sharma (1999) in a study of personality, family and attitudinal determinants of academic stress revealed that majority of the science students had moderate academic stress, and a small percentage of them had high academic stress whereas in case of Humanities students, majority of them had low academic stress.

Psychological distress is reported especially among those who fail to succeed academically (Essandoh, 1995). According to Thoits (1995), reactions to stressor refer to the state of physical or psychological arousal that usually results from the perception of stress. Students experience physical and psychological reactions to stressors when they perceive excessive or negative
stress. Excessive stress induces physical impairments and it is not uncommon to find students afflicted with persistent lack of energy or loss of appetite, headaches or gastrointestinal problems. Additionally some students may somaticise their feelings of stress to avoid the stigma of seeking psychological assistance. For example students’ experience of headaches, loss of appetite, or sleep problems may be attributed to physical illness even though the complaints have no clear organic basis (Khoo, Abu-Rasain and Hornby, 1994; Mori, 2000).

In a study Katyal (1996) examined academic stress in relation to parental aspiration and attitudes among adolescents aged 17-18 years. The study revealed that majority of boys and girls experienced moderate to high level of academic stress. A positive correlation was also found between high parental aspiration and academic stress. Academic stress also increased with the hostility – rejection and authoritarian attitude of parents.

Russel (1996) investigated the factors contributing to academic stress within an adolescent population of science students aged from 8 through 12 years, and also examined whether these factors vary across ethnicity, sex and grade. The academic pressure scale for adolescents was administrated to 550 science students. Four significant factors were found to contribute to academic stress namely peer pressure, parental pressure, importance of school and fear of failure. Peer pressure was found across ethnicity and grade, but not across sex. Parental pressure was found to be consistent across all variables. Importance of school and fear of failure were found to vary across ethnicity, sex and grade.

Stress in Southeast Asian adolescents was studied in 70 students by Duong Tran et al (1996). The subjects were 30 female and 40 male Cambodian, Laotian and Vietnamese Americans (mean age 15 years). Hmong and Vietnamese reported doing household chores and academic pressure to do
well as most stressful. Females reported higher stress in 8 out of 10 life events than males. Personal pressure to get good grades had the highest percentage mean for females. For males, worrying about where to live or getting a job after graduation were the two most endorsed stressful life events.

Sax (1997) observed a disturbing trend in college students’ health; increase in student stress nationwide was noticed. Stressors affecting students were found to be categorized as academic, financial, time or health related and self imposed. Academic stressors included the student’s perception of the extensive knowledge base required and the perception of an inadequate time to develop it.

Bolger (1997) conducted an exploratory investigation of college student stress. The goal was to identify student stress patterns throughout the course of semester and effectiveness of stress management exercise. Participants of the study consisted of nine undergraduate male and female college students enrolled full time in a 15-week spring semester. Analysis of the data revealed specific patterns of stress over the semester including peaks at the beginning, middle and end. Academic pressure was the stressor that most commonly led to high stress.

In another research done on Hispanic student nurses by Maville and Heurta (1997), the effect of stress on academic achievement was examined. Data analysis revealed a relationship between negative stress and academic achievement. Student level and ethnicity were found to be predictive of stress. Ethnic origin and age also had an effect on academic achievement. Qualitative data indicated that students experienced stresses as a result of academic environment.

Tertiary education has always been regarded as highly stressful. Usually only the cream of the population is eligible. Yet, a stressful
environment can often exert a negative effect on academic performance, physical health and psychological well being of undergraduates. A study by SMKo, Kua and Fones (1999) on first year law and medical under graduates revealed that the commonest life events experienced by the students were difficulty in keeping up with the tutorials, increased amount of academic work, little time for personal activities, difficulties in lectures as well as peer competition.

In a study on college students, Misra et al. (2000) compared the perceptions of academic stress among male and female college students and also perception of faculty and student’s of student’s academic stress. The sample consisted of 249 students and 67 faculty members from a Midwestern University. Results indicated a considerable mismatch between faculty and students in their perceptions of student’s stressors and reactions to stressors. The faculty members perceived the students to experience a higher level of stress and show reactions to stressors more frequently than the students actually perceived. This possibly resulted simply from the faculty observing the students only during their moments of stress in the classroom. Results also supported the hypothesis that stress varied across year in school and by gender.

In a survey conducted on difficulty encountered by students in handling stress over pervious academic year 23.1% males reported anxiety as contrast to 39.3% females, moreover gender based differences were found to be statistically significant (Bulletin 2000). In another study (Science world 2002), it was found that 42% of male students experiencing problems in getting good grades reported difficulty in handling stress as compared to 69.8% of females. 21.9% of male students reported difficulty in coping with stress as compared to 37.2% of females.
Qureshi et al. (2002) conducted a study on forty-one 18-20 years girl students of Women Medical College; Abbotabad in Pakistan. Selection was done one month prior to their terminal examination. Blood samples were taken before and during exams. The study showed that examinations in the medical school were stressful enough to produce changes in the blood cell parameters.

Sarladevi and Deuraj (2001) examined the gender differences in examination stress and manifest anxiety of class 10th, 12th and M.Sc. and vocational students. 50 students (25 boys and 25 girls) were selected in the final sample. Findings revealed that girls had more examination stress as compared to boys.

School related stress was also noticed in a study by Torsheim and Wold (2003). This study investigated the relationship between shared psychosocial school environment and subjective health complaints. A representative sample of 1585 Norwegian grade 8 students (mean age 13.5 years) from 82 school classes completed scales on health complaints, academic stress, the teacher and class mate support scale, decision control and noise and disturbance in class. Multilevel analysis revealed that level of health complaints varied across school classes. Tests of cross level interaction showed a statistically significant interaction between mean school class level of classmate support and individual level of academic stress. Findings suggested that shared school class contextual factors may have main stress moderating affects on adolescent health complaints.

A study was conducted by Hashim and Zhiliang (2003) to examine cultural and gender differences in perceiving stressors. The study was aimed to provide basic information about stress perceptions among overseas college students in China. To attain the research goals a sample of 82 African and 74 Westerners in eleven Universities in Beijing, Shanghai and Guangzhou were
taken. Results indicated that academic and interpersonal sources of stress were the most common stressor perceived by the two groups. There were no gender differences; both male and female students tend to experience the highest levels of stress.

Misra and Castillo (2004) compared academic stressors and reactions to stressors among American and international students using Gadzella’s life stress inventory. The sample consisted of 143 international students and 249 American students from two Midwestern Universities. Five categories of academic stressors (i.e. frustration, conflicts, pressures, changes and self imposed) and four categories describing reactions to stressors (i.e. physiological, emotional, behavioral and cognitive) were examined American students reported higher self imposed stressors and greater behavioral reactions to stressors than international students.

Hughes, B.M (2004) conducted a study on Academic college examinations and stress. The research comprised of three brief experiments investigating different aspects of student’s samples. In experiment 1, students’ (n=30) academic fear of failure was found to be negatively correlated to systolic blood pressure reactivity. In experiment 2, students’ (n=13) blood pressure was found to be significantly elevated two weeks before the college examinations, compared to the post examination level. Finally in experiment 3 students’ (n=19) examination performance was positively related with pre examination cardiovascular reactivity. These findings suggest specific college related factors that influence the cardiovascular stress responses among students. Stress arising from academic performance affects many college students.

Dusselier et al. (2004), in a study on personal health, academic and environmental predictors of stress for resident students undergraduate students, examined contributors to stress. They took a sample of 964 students.
randomly from Midwestern Land University. 462 students responded to a 76-item survey consisting of personal health, academic and environmental questions and one qualitative question as to what stressed them most. It was found that women and U.S citizens experienced greater stress than did men and non-U.S. citizens. Frequency of experiencing chronic illness, depression, anxiety disorder, and seasonal affective disorders were significant predictors of stress.

**Poonamdeep (2004)** conducted a comparative study on Govt. and Public school children with regard to academic stress. She took a sample of 200 children of class 10th students and administered Anxiety Scale to children. Results revealed that there was no significant difference in academic stress of Govt. and Public school children. In other words the academic stress is almost at equal level among the Govt. and Public school children.

**Oppedal (2004)** investigated differences in level of mental health, life stress and social support among adolescents with immigrant and domestic background. 653 students aged 13 years were taken in Oslo, Norway. Immigrant boys reported highest level of problems with 28% prevalence of anxiety/depression. There were no significant differences in prevalence of anxiety among girls.

A study by **Deo.A.K (2004)** showed that twelfth standard boys did not differ significantly from girls in stress. The researcher contributed it to the equal emphasis given by urban Indian culture on the education of boys and girls. Parents in the contemporary educated urban society do not discriminate among the opportunities that are provided for both boys and girls.

Students stress and coping among Pakistani Medical students was examined by **Shaikh et al. (2004)**. A total of 246 students out of 300 filled in the questionnaire. Inability to cope, hopelessness, increased psychological
pressure, mental tension and too much workload were stress factors for students. 94% of the males reported these symptoms. The senior students of the fourth and final year felt more stressed. Low moods, inability to concentrate, loss of temper were perceived to be the most common symptoms felt by them. Females reported more of these symptoms. Academics and exams were the most powerful stressors.

A study by Chambel (2005) assessed the relationship between work characteristics, student well being and performance. A sample of Portuguese University students (N = 825) answered a questionnaire comprising measures of academic work demands and control, peer support, satisfaction with academic life, anxiety/depression and academic performance. Results revealed that student’s satisfaction with academic life and anxiety/depression levels are strongly dependant on their perception of work characteristics. Levels of satisfaction have direct impact on student performance and mediate the relationship between academic work control and performance.

Kumar and Jejurkar (2005) studied the stress level among occupational therapy students during their academic curriculum. They took a sample of 100 with equal participation for different levels from various occupational therapy colleges from Mumbai. Stress questionnaire was administered which contained questions from various areas including academics, competence in profession etc. Stress levels were found to be more in undergraduate students than the P.G. students. Academic factors were responsible for higher levels for stress.

A study by Rosa et al. (2005) on a sample of 209 first and second year medical students was conducted with a view to analyze some psychological variables related to susceptibility to mental disorders in medical students. It was revealed that 30 percent of the students suffered from emotional distress, showed significantly higher scores on trait anxiety, sensitivity to punishment
and reward and high levels of stress both in academic environment and their personal life. Women scored significantly higher than men on trait anxiety.

Ang and Huan(2006) examined relationship among academic stress, depression and suicidal ideation among 12-18 years old Asian adolescents (N=1,108) from a secondary school in Singapore. The study revealed significant relationship between academic stress and suicidal ideation, which was significantly reduced in magnitude when depression was introduced in the model. This provided the evidence in the sample that depression was a partial mediator.

From the studies as reviewed above following trends of results can be identified that:

- A sizeable number of student populations suffer from academic stress at various levels of education.
- Academic pressure concurs with academic environment as also the classroom contextual factors.
- There is a mix trend of results with regard to academic stress and gender. Some researches show boys having greater stress than girls while others indicate girls having greater stress.
- There is a paucity of researches of analytical studies involving separate analysis of various components of stress among adolescents.

2.2 COPING STRATEGIES AND ACADEMIC STRESS

Stress is inevitable but the degree of stress can be modified in two ways: by changing the environment and by changing the individual. If coping attempts are unsuccessful, adverse consequences will result. Performance may decline, life satisfaction fades, burnout symptoms emerge or accidents happen, further social relationships at work may become tense or mental and
physical health could deteriorate, leading to sleep problems, substance use etc.

Investigations with school-aged population over the last two decades have demonstrated the adverse impact of the all frequent but familiar changes, stresses and losses in the lives of children and their families. These stressful life events have been associated with maladjustment as reflected in such indices as aggression, hostility, withdrawal, depression, school misbehavior and physical illness (Siddique and D’Arcy, 1984; Swearingen and Cohen, 1985). Recognition of magnitude of the stress effects has fueled renewed interest in the potentially sheltering influence of coping (Garmezy and Rutter 1983).

Academic Stress includes academic demands, grade competition; lack of time and issues relating to time or task management (Macan, Shahani, Diphoye & Philipss, 1990; Truemen and Hartley, 1996), the need to adapt to new learning environments (Van-Rooijens, 1986) in terms of the increased complexity of the material to be learned, the greater time and effort required to do so; and the need to constantly self regulate and to develop better thinking skills including learning to use specific learning techniques (Fram & Bonvillian, 2001). Emotional stress such as anxiety, student’s appraisal of the stressfulness of the role’s demands and of their ability to cope with those demands (Wan 1992) are also connected to academic stress.

Thus, academic stressors cover the whole area of learning and achieving and adjusting to a new environment in which a great deal of content must be assimilated in a seemingly inadequate period of time. Student’s endeavor to adapt them to academic life, positive adaptation and well being factors are associated with fewer experienced stress symptoms (Van-Rooijen, 1986; Tobin & Carson, 1994).
It is presumed that coping strategies have two primary functions; managing the problem causing stress and governing emotions relating to these stressors (Folkman & Lazarus, 1980, 1986; Lazarus & Folkman 1984). Interpreting their results in terms of this assumption, studies by Karasek & Theorell (1990), indicate that a situation is evaluated as stressful, in part, whenever the individual perceives a lower ability to cope with it. Studies by Anshel & Kaissidis (1997; Compas, Malcarne & Fondacaro, (1988); Roecker, Dubow & Donaldson, (1996) reveal that stressors are perceived as uncontrolled elicit more avoidance strategies.

McCrae (1989) found that women are more likely than men to use avoidance coping processes such as hostile reaction, distraction passivity and wishful thinking (Endler & Parker, 1999). But when compared with men Moos (1992) found that women reported self reliance on both approach and avoidance coping.

Nolen, (1991) stated that women have a higher tendency to respond to depressed mood with high level of attention. These different response styles may grow out of socializing process that contribute to gender stereotypes. Greater emphasis is placed on autonomy and independence for boys and social relations for females (Gilligan, 1982). Differences in self-concept and coping actions were found to be consistent with traditional sex role stereotypes for example masculine role has been described as instrumental emphasizing rationality and independence while the feminine role has been accepted as expressive characterized by supportiveness and emotional orientations (Bem, 1974). Thus children learn that there are different expectations of them and receive reinforcement for different coping actions, for example boys rather experience the change as challenge and develop as active coping strategy, while girls often withdraw and take a resigned attitude (Peterson et al. 1991). Females were more likely to assess a situation
threatening and perceive themselves more negatively and pessimistically in a study by Gjerde & Block, (1991) and Bunnel, Cooper, Hertz & Shanker, (1992). A study by Piko (1996) revealed that there were no significant differences between the means of risky coping behavior by gender.

In studies by Wan (1992), Hammer, Grigsby and Woods (1998) the researchers found that college students perceive academic life as stressful and demanding. Misra and Mckean, (2000) found college students experiencing emotional and cognitive reactions to this stress, especially due to external pressures and self imposed expectations. They reported numerous stressors during term time, including academic demands and social adjustment.

Groer et al. (1992) studied adolescent stress and coping on 167 subjects during the freshman year and again during the senior year. Gender differences were reported in both boys and girls resorting to coping with stress mostly through active distraction techniques such as exercise. However girls’ use of active distraction decreased over time, while aggressive coping behavior increased in boys. On the contrary Stern et al. (1993) reported no gender differences in coping with stress.

Aspinwall and Taylor (1992) studied 672-college freshman at a large Western University. They found that positive mood, higher optimism and an active coping orientation (as measured by the ways of coping instrument; Folkman and Lazarus, 1980) upon entering college had direct positive effects on later adjustment to college. Avoidant coping predicted worse adjustment to life whereas greater social support was related to better adjustment. Valentiner, Holahan and Moos (1994) found that initial parental support was associated with later psychological adjustment both directly and indirectly through adaptive coping strategies.
A cognitive – transactional model of stress was used to study the process by which medical students cope with stress. Stern et al. (1993) examined the coping responses employed by male and female first and fourth year medical students as a function of those situations they appraised as most stressful. Multivariate analyses of variance revealed that preferred coping strategies varied by stressor type and year of turning. In dealing with medical school related stressors, first year students used self blame and problem solving styles of coping more than did fourth year students. When dealing with interpersonal stressors, however fourth year students tended to use confrontive coping more than did first year students.

Halstead’s (1994) in a study on the transition from elementary school to high school, found similar results with adolescents. Those students who employed avoidance coping most of the time adapted poorly to high school. Halstead contrasted avoidance coping with problem focused coping in that avoidant copers tend to isolate themselves from others and denied the existence of problems. He also found that students who used more problem focused coping strategies experienced less anxiety and he further inferred that students who are less anxious may be more inclined to actively participate in university and get tasks done on time.

However, when Hobfall, Dunahoo, Ben-Porath and Monnier (1994) used the strategic approach to coping scale to study differences in coping strategies among male and female students, they found that women tended to prefer assertive and pro-social strategies. Men preferred aggressive and antisocial strategies. Active coping was related to lower levels of psychological distress for both men and women.

Schreier & Abramovitch (1996) explored the perceived stress and coping ability of student of the New York State/American programme at Sackler School of medicine, Tel Aviv University. Students were surveyed
using the ways of coping checklist. The result showed that students having difficulty adapting to their new cultural environment also had difficulty at medical school. This pattern is a negative spiral in which anxiety and depression impair cognitive performance, which leads to academic difficulties and emotional distress.

Leong, Bonz and Zachar (1997) found that active coping predicted both academic success and personal/emotional adjustment among sample of freshman at a small Eastern College. Results of other researches supported the notion that active coping strategies are associated with better adjustment to stressful events (Cronkite & Moos 1984; Holhan and Moos, 1986, 1987; Dunkel – Schetter et al. 1992).

Mahat. (1998) identified perceived stressors and ways of coping among junior baccalaureate nursing students during clinical component of nursing education and made comparisons across different ethnic backgrounds. Data were collected from 107 junior nursing students enrolled in the first clinical course. Results revealed students frequently perceived stressors in the clinical setting. The findings also revealed that students utilized two problem focused coping strategies- problem solving and seeking social support coping strategies, more frequently than two emotion focused coping strategies - tension reduction and avoidance coping. Additional findings revealed that as compared to Caucasian and African, American students used more problem focused than emotion focused strategies.

It is usually observed that medical students undergo tremendous stress during various stages of the MBBS course. Supe (1998) tried to determine the incidence of stress among medical students at various stages of MBBS course at Seth G.S. Medical College. 238 students were taken. Stress was more common in medical students who used dominant strategy of coping as positive re-appraisal, accepting responsibility and planful problem solving.
than in students who had dominant strategy of coping as escaping and distancing from difficult situation. Emotional factors were found to be significantly more in first year MBBS.

Another adaptive way of coping is having hope that one will succeed in University; hope may be associated with staying in school. **Chang (1998)** found that students who had high hope versus students who had low – hope copied differently in stressful academic situations. For example high hope students were found to use significantly less wishful thinking self-criticism and social withdrawal strategies compared to low hope students. Overall high hope students used problem focused coping more often.

**Printz, et al. (1999)** tested conceptual model of adolescent stress and coping and determined the relationship between the key components of the model. A total of 122 high school students participated in the study. The results showed that the influence of support from family and peers, 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 great buffering effect than actual problem solving skill.

**Benesek, (1999)** examined forty-one psy D and 25 Ph.D clinical psychology students to assess differences in self reported stress levels and coping styles utilized while enrolled in their respective program of study. The analysis indicated that the Ph.D. participants perceived and reported significantly greater levels of academic stress as compared to their psy. D. counterparts while no significant difference were found regarding emotional and financial stress. It was also found that there were no significant difference in the reported use of avoidance, problem solving and social support seeking as general coping strategies between the Ph.D. and Psy. D students.
William (1999) studied coping strategies in relation to predictors of suicide ideation, depression and hopelessness in high school and college students. A sample of two hundred and ninety three high school students (grade 9–12) completed questionnaire. Results showed that interaction between life stress and problem focused strategy were not a significant predictor of suicide ideation. Regression analysis showed that emotion focused coping was a significant positive predictor of suicide ideation.

Lee-Tarver (1999) examined adolescent coping strategies in high school students with reference to gender and race. Adolescents studying in rural southern Georgia high school in grades 8 through 12 were taken. 343 adolescents completed ways of coping questionnaire by Folkman and Lazarus. Results revealed significant gender differences. Females reported using more wishful thinking strategies than males. However males reported more manipulation and escape strategies than females.

Some students tend to deal with academic stress by striving for perfection. Striving for high grades is perceived as an admirable quality by many which could explain why some students become perfectionists. Unfortunately striving for perfection can lead to students constantly and harshly criticizing themselves and being pre-occupied with disapproval and rejection from others. These characteristics have been termed self-critical perfectionism. Research has been found self –critical perfectionism to be related to maladaptive coping such as self-blame fantasizing reactions and avoidance (Dunkley & Blankstein, 2000). This is an important finding because it points out that not only students with poor grades may be at risk of dropping out but also those who are perfectionists and get good grades. They may also use dysfunctional coping strategies, which could lead these students to become over stressed and eventually leave school.
Struthers et al. (2000) examined the extent to which college student’s academic coping style and motivation mediate their academic stress and performance. A structural equation analysis showed that the relationship between college students academic stress and course grade was influenced by problem focused coping and motivation and not emotion focused coping. As expected, greater academic stress co-varied with lower course grade, however students who engaged in problem focused coping were more likely to be motivated and perform better than students who engaged in emotions focused coping.

There are positive factors associated with the use of positive coping strategies; Nelson (2000) conducted a study of correlates of health and success among psychology graduate students. She had also studied stress, distress, coping well being and social support. The results of the study indicated that more successful were likely to report lower blood pressure and heart rate, less stress regarding spirituality and relationships with friends, less distress, higher levels of social support from family, close friends and peers. These students were also more likely to report increased use of coping style.

In a similar study, Kaplan and Jonathan Samual (2000) examined the coping strategies of English-speaking college students in the United States and Japan. The results showed that direct coping predicted a positive emotional outcome for students in United States and indirect coping predicted benefit emotions for students in Japan.

In contrast to problem focused coping, avoidant coping may be linked to depression. Seiffge-Krenke and Klessinger’s (2000) longitudinal study on depressed adolescents indicates that those adolescents who employed approach oriented coping strategies reported lower depressive symptoms. It
seems reasonable to assume that depressed students may not be motivated to commit to school and thus may not stay in school.

Rao., Maudud and Subbakrishna (2000) studied appraisal of stress and coping in college students. They took a sample of 258 male and female undergraduates; Gender differences were not found to be significant. For both stressors, the coping responses were a combination of problems and emotion-focused strategies including support utilization. Gender differences in the emotion-focused coping were present. Females preferred distress – reduced strategies and social support utilization, while males reported active behavioral methods including high risk coping behavior.

A study by Shields (2001) included comparisons of stress, active coping and academic performance of college students who persisted through an academic year with the same measure among a group of students who left after the fall semester. The hypothesis that stress is related to active coping efforts among persisters, but not among non-persisters was strongly supported. It was revealed that active coping was strongly related to retention and men were more likely to persist. The study also provided support for the idea that social support is an active form of coping and that behavioral measures of coping may be beneficial in studying relationship between stress and coping.

Piko (2001) found an important gender difference that support seeking coping proved to be less significant correlate of psychosocial health among girls as compared to boys, though social interactions and social supports were more central as coping method for them. The support seeking way of coping was related to the better psychological well being in both sexes. Social support is the single strategy that is consistently reported as being used more frequently by females than males as a way of coping. However, they may use
it in a different way. (Rauste – Von-Wright, 1987). Girls use social support more readily and directly. Boys seem to have less trust and greater reluctance to turn to others as a source of support and try to manage their conflicts by themselves. Literature also suggests that female may be better social support resources and they are better in providing as well as receiving support though they usually are less satisfied with obtained levels of support (Vaux, 1985). Despite the fact that girls generally use social support more, boys may benefit more from this strategy of coping (Parsons, Fryedenberg & Poole, 1996). Further more they may benefit from different dimensions of social support, girls more frequently use social support as emotional and tension reducing help, while boys emphasize more rational material type of support.

In a study by Anuradha (2001) of 262 (130 females and 132 males) college and university students, it was found that while countering the academic stress female’s problem focused coping showed a significant negative association with stress. It was confirmed in case of females but not in case of males.

Daily stress and coping styles in adolescent girls was explored by Carr & Debra (2001) in relation to locus of control among girls aged 15-17 years. It was found that participants who had higher stress used coping styles that were more avoidant as compared with participants who reported lower stress.

Dalaviras, and Joseph (2001) studied coping with an academic stressor among college athletes and non-athletes. Data was collected from 82 college athletes and 99 college non-athletes. The ways of coping questionnaire measured coping strategies. Findings indicated few significant differences across the eight coping strategies between athletic status, race and gender. Non-Caucasian college athletes and non-athlete were found to score
Chemers, Hu and Garcia (2001) found that students who are high in optimism and self-efficacy tend to perceive stress in first year as a challenge rather than a threat. A challenge occurs when students perceive their coping resources as inadequate to meet these demands. Those students who were optimistic, confident and perceived stress as a challenge had high academic performance and adjustment.

In a study by McCance & Pychyl (2003) avoidance coping was associated with lower academic and social self-concepts and higher levels of anxiety. Avoidance coping also predicted a significant decrease in the GPA (grade point average) in the Ninth grade. Students who utilized avoidance coping most likely avoided making friends and contacting professors with a possibility of procrastination. It can be assumed that these characteristics influence student’s academic performance.

Herman (2004) evaluated the salutogenic model, support resources, coping styles and stressors among Israeli University students and found that women used more emotional and avoidance coping strategies.

To meet the prospective demands of technical manpower, not only do nursing students in college and vocational schools pursue further studies, but they also take competitive entrance exams. Using a descriptive cross sectional design Wang & Yeh (2005) studied the entrance exam stress and use of coping behavior in nursing students in vocational high schools. They also measured coping function to determine which coping behavior works best for buffering the impact of stress on psychological health. The subjects were 441 third year nursing students of vocational high schools in Northern Taiwan, recruited by convenience sampling. Students generally used problem focused
coping strategies including optimistic action and social support to deal with entrance exam stress, but use of emotion focused coping strategies including avoidance and emotional disturbance was significantly increased as perceived level of stress rose. Two-way analysis of variance revealed that problem focused coping had positive main effect for alleviating psychological distress. A significant interaction was observed between stress perceived and problem-focused coping used for psychological health. Further examinations of the interaction effect showed that problem focused coping behaviors were potentially more adaptive in relation to psychological health at the lower and moderate stress levels. Conversely emotion focused coping had a negative main effect impairing psychological health. No interaction effect was found between stress perceived and emotion focused coping used, suggesting that the relationship between emotion focused coping and psychological distress was consistent across various stress levels.

**Kariv (2005)** examined the relationship between stress and coping strategies among 283 college students. Participants completed questionnaire relating to their stress perceptions, actual academic loads and their coping strategies. The main objective was to explore the effect of stress perceptions on coping behavior while accounting for objective loads and demographic parameters. Multilevel analysis revealed several indications. First, students coping behavior could be predicted from their reported stress perceptions and their appraisals of their academic related stress levels; second students employed mainly task –and emotion oriented coping strategies and finally students’ age was a significant factor in determining their coping behavior. The study also revealed that significant gender differences come into play only with respect to the avoidance coping strategy, with men reporting significantly higher usage of avoidance as a coping tool. This finding is inconsistent with much of the stress and coping literature, in which distinct
gender based coping behavior are well established for all coping strategies and with women reporting a significantly higher level of use of avoidance than men (Haar & Morash, 1999). Other researchers found that males favour the use of task oriented methods and physical coping resources, and are more likely to endeavor to solve problems, while females are inclined to make more use of emotional and social coping resources (Rawson, Palmer & Henderson, 1999). Undergraduate male students who use task oriented coping techniques reported experiencing less distress (Higgins & Endler, 1995), while the use of emotion oriented coping strategies was a significantly positive predictor of distress in both men and women.

The findings from the research reviewed leads to the inference that:

- Situation is seen as stressful whenever the individual perceives a lower ability to cope with it.
- Active coping strategies generally lead to better adjustment, whereas avoidant coping strategies are linked to depression. Likewise some coping strategies are associated with better performance under stress whereas others lower down the performance of stressed individuals.
- The use of different types of coping strategies varies across ethnicity, age and gender.

2.3 PARENTAL ATTACHMENT AND ACADEMIC STRESS

There has been increasing interest in life span approaches to the study of attachments (Lerner and Ryff, 1978, Kahn and Antonucci, 1980). Investigations in infancy have shown that individual difference in infant-parent attachment can be reliably assessed and demonstrate substantial stability during the second year (Ainsworth et al, 1978; Waters, 1978). But there is paucity of research studies directly involving the investigation into the relationship of stress and parental attachment. There is also evidence that the
existence and perceived quality of intimate relationships during the earlier year affect such outcomes as mental health, physical health and reactions to traumatic life events (Mueller, 1980). In additions to showing a direct relationship between attachments and health, a growing body of literature suggests that attachments may also buffer the relationships between stress and illness (Nuckolls et al. 1972) and job stress (Gore, 1978). Henderson (1977) has shown the efficacy of using Bowlby’s model of attachment (1969, 1973) to explain such phenomena.

In their theorizing as well as researches, Bowlby and his colleagues (Ainsworth, Blehar, Waters and Wall, 1978, Bowlby, 1969, 1973, 1980) have proposed and evidenced that for infants, at least, there is an inherent connection between attachment behavior and stress/distress. The process underlying the development of attachment with caregivers, family and friends are believed to be governed by an “internal working model” of the relationship between quality and quantity of caregivers /attachment figures and one’s self (Bretherton, 1985). Such a model is used not only to guide interactions with others, but also to appraise present and future situations, to assess the viability of various means to deal with perceived difficulties and formulate the plan to deal with life events (Bowlby, 1969 and Bretherton, 1985). For example, a child with a secure pattern of attachment with his or her family will have experienced high levels of support in the past and will continue to expect support in the future. Individuals who have developed avoidant or anxious/ambivalent patterns of attachment will similarly come to expect a continuation of same type of familial support to which they become accustomed. In the light of these above observations, proposals and the evidences, some of the researches having indirect bearing on the attachment and stress, such as attachment and adjustment, feeling of security, physical and mental health have also been included in this section.
Further there is a growing interest in extending the study of attachment beyond early childhood (Lerner and Ryff, 1978, Kahn and Antonucci, 1980; Greenberg, Siegal and Leitch, 1984). Weiss (1982) observes that while there are increasing intervals during which parental accessibility is not necessary for adolescents felt security, confidence in their parent’s commitment to them remains crucial. The interview studies suggests that as adolescents mature the sense of security fostered by their parents becomes less due to their actual presence and more due to their capacities to function as competent allies. Clinical observation suggests that the ease with which adolescents cope with the conflicts involved in achieving independence from parents and identity formation is critically influenced by the elements of trust, mutual respect and good rapport in relationship with parents (Blos, 1975).

Weiss (1982) found that adults attachment to their peers are characterized by seeking out attachment figures when under duress, by experiencing anxiety when these figures are inaccessible and by feeling comforted in their company.

Earlier, Sullivan and Sullivan (1980) also found that adolescent male reported increased feelings of affection and communication towards parents after leaving home to attend a residential college.

Following Bowbly’s attachment theory Greenberg and his colleagues (1984) developed a self-report measure of behavioral and affective/cognitive dimensions of adolescent’s attachment to their parents and peers. Their findings that 12 to 19 year old adolescents attachment to both parents and peers were related to self esteem and life satisfaction (correlation coefficients were between .30 and .40) suggest the role of attachment in psychological well being as postulated by attachment theories.
Arora, Verma and Agarwal (1985) conducted a study to find out the levels of conformity to parents and peers of 592 Indian adolescents in the age group of 14-18 years with respect to age, sex and sociality (urban and rural areas) selected via stratified random sampling from schools and colleges. Results reveal that adolescents in general are more conforming to parent than to peer views with early adolescents in general showing more adherences to parental views, and late adolescents favoring peers. Boys as compared to girls and rural as compared to urban are more conforming to both reference group settings.

Kenny (1987) studied the extent and function of the parent–child attachment as conceptualized by Ainsworth’s model of attachment. The sample consisted of 173 first year college students. Overall student’s descriptions of their parental relationships were positive and resembled Ainsworth’s secure attachment type. Most students viewed their parents as a secure base, encouraging independence and remaining available as a source of support when needed. Furthermore students indicated that they sought parental help more than in a moderate amount in situations of stress. For female students close parental relationships were found to be positively associated with self-reports of assertion.

Armsden and Greenberg (1987) reported the results of their study wherein 179 college students aged 16 to 20 years were taken. As hypothesized, perceived quality of both parent and peer attachments were significantly related to psychological well-being. Results of development of a theoretically focused, exploratory classification scheme indicated that adolescents classified as highly securely attached reported greater satisfaction with themselves; a higher likelihood of seeking social support and less symptomatic response to stressful life events. Females reported less stress and were more closely attached to parents than males. Lapsley et al. (1990) also
found that college student’s scores on the communication and trust subscales of the IPP were significantly higher for females compared to males.

**Le Croy (1988)** studied impact of parent – adolescent intimacy on adolescent functioning. Intimacy for both adolescent males and females was assessed in relation to their mothers and fathers. Adolescent development was measured using two scales namely Self-esteem and Problem Behavior. No significant differences were found between males and females on measures of self-esteem, problem behavior and intimacy. However mothers were found to have greater degree of intimacy than did fathers for both male and female adolescents. A regression analysis revealed that father’s intimacy was a better predictor of positive adolescent functioning than was mother’s intimacy.

**Pfeffer (1989),** in a study, found that stabilization of increased attachment shows considerable individual variation. Adolescents with excessively strong parental attachment may experience greater emotional distress and dysphoria, placing them at risk for academic, emotional and interpersonal difficulties. For example, high attachment based distress could increase adolescent’s vulnerability to peer and romantic dissolution, a significant precipitant in adolescent suicide. Clearly late adolescence and college is a period of significantly increased risk for psychopathology, especially depression and suicide.

**Masselam, Marcus and Stunkard (1990)** studied parent-adolescent communication, family functioning and school stress. The sample included one set of families (n = 40) consisting of adolescents who had been unsuccessful in public school and were attending alternative schools, while the other (n = 52) was a matched group of public school adolescents and their families. Results showed predicted differences in the direction of greater balanced functioning (i.e., optimal cohesion and adaptability) and more positive communication in the public school families. Public school families
also perceived greater congruence between perceived and ideal family functioning. Congruence and differences between adolescent and parent perceptions indicates the importance of positive communication for optimal functioning.

Berman and Sperling (1990) examined the intensity of attachment to parents at the transition to college. This voluntary separation from parents was expected to elicit heightened attachment for college students, especially residential students, which would decrease over time. In addition, it was expected that high levels of parental attachment at the beginning of college would predispose students to later depression. Results indicated that parental attachment decreased during the first semester of college only for residential students. In addition, maternal attachment was significantly higher for females than for males. Finally, high levels of parental attachment in males at the beginning of college were predictive of high levels of depressed mood at the end of the first semester, while no relationship was found for females.

Findings from a study of 953 adolescent's perceived attachments to their parents and peers, and their psychological health and well being by Raja, McGee and Stanton (1991) showed that perceived attachment to parents did not significantly differ between males and females. Relative to males, females had higher anxiety and depression scores suggesting poorer psychological well-being. The findings also suggested that high-perceived attachment to parents might be a critical variable associated with psychological well being in adolescence.

Lau and Leung's (1992) study examined how relations with parents and school were related to Chinese students' psychosocial and cognitive development in self-concept, delinquency, and academic performance. A total of 1668 secondary school students were studied. Results showed that better relation with parents was associated with higher general, academic, social,
and physical abilities and self-concepts. Better relation with school was associated with higher academic performance, as shown in higher-class rank, higher grand total exam scores, and higher scores in Chinese, English, mathematics, physical education, and music. Both poorer relations with parents and school were found to be associated with more self-reported delinquency as well as more school records of misconduct.

Harrist, Petit, Dodge and Bates (1994) examined utility of dyadic conceptualization of parent-child interaction. Thirty kindergartens were observed at home for four hours. Each mother-child interaction was rated in terms of dyadic interaction style exhibited. These patterns were used to predict school adjustment rated by teachers, peers and observers. Healthy dyadic interactions were found to be effective predictors of school adjustment.

Field, Lang and Bendell (1995) examined adolescent’s intimacy with parents and friends. It was found from the results that students with higher self-esteem, lower depression and lower risk taking scores reported greater intimacy with their mothers and fathers. The greatest number of relationship with positive variables involved intimacy with mothers.

O'Koon (1997) examined older adolescents' (ages 16-18) perceived levels of attachment to parents and peers and explored their relationship with self-image. Four high school samples were the source of 167 questionnaires. Levels of attachment were measured using the Inventory of Parent and Peer Attachment, and self-image was assessed using the Offer Self-Image Questionnaire. An ANOVA identified significant gender differences, and a multiple regression was used to measure the relationship between attachment and self-image. It was found that attachment to parents continues to remain strong into late adolescence for males and females. Females had significantly stronger attachment to peers. Males had a significantly higher level of self-
image in a variety of areas of functioning. Attachment to parents was found to have a significant relationship with coping aspects of self-image, while peer attachment had a strong effect with self-image particularly in areas that gain prominence during this developmental period, such as body image, vocational goals, and sexuality attitudes. In examining how institutional groups could enhance attachment relationships, it was found that, especially among females, groups that focus on self-expression and self-discovery might enhance attachment relationships and self-image.

Nicholas (1998) did a research on the relationship between one’s family and well-being which showed that positive bonds serve as protective buffers and sources of security throughout the life time. Subjects were selected from a longitudinal study. The results revealed that quality of attachment buffers the child from anxiety and depression and is strongly related to feelings of well-being. Adolescents who feel strongly and positively attached perceive themselves more positively and competently secure than adolescents who report weaker or negative attachment with parents.

Mikulincer (1998) found that a secure attachment style is positively related to the level of trust an adolescent feels in the relationship with significant others. In addition, securely attached adolescents have been found to maintain high levels of trust overtime, whereas those low on attachment have been found to show deterioration of trust overtime.

Cooper, Shaver and Collins (1998) examined the attachment styles, emotional regulations and adjustment of 13 – 19 years old adolescents using Hazan and Shaver’s (1998) three category measures of attachment. Results revealed that secure adolescents were the best-adjusted group and anxious adolescents were the worst adjusted group, reporting the poorest self-concept and highest levels of risk behavior.
Parke and Buriel (1998) claimed that fathers provide the model for separateness; mothers the model for connectedness. Thus fathers may convey to their adolescent children a sense of identity and autonomy by their more playful and egalitarian exchanges. Fathers also help their children to consolidate their striving for independence. Mothers on the other hand provide cushioning effect to the adolescent in time of upheaval and distress.

Hartos and Power (2000) conducted a study of 82 adolescents between the ages of 13 and 15 and their single mothers. Responses to interview questions answered by both adolescents and their mothers suggested that a single mothers’ monitoring of their adolescents’ daily activities might enhance their awareness of sources of stress and ultimately healthy adolescent adjustment.

A study by Megan and Byrd (2000), examined the relationship between university student’s perceptions of their familial attachment and the manner in which their families cope with life’s difficulties. It was found that individuals with high levels of secure attachment would perceive their families as using more active coping strategies. Further individuals with high levels of anxious/ambivalent attachment perceived their families as using a passive appraisal coping strategy, possibly because of a desire to avoid confrontation for fear of disturbing family accord.

La Guardia et al (2000) found that adolescents high on attachment displayed less emotional distress, better coping with stressors, fewer physical symptoms, and more willingness to seek support when needed. They have close relationships characterized by more positive effect, more stability and greater trust, commitment, satisfaction and interdependence.

In another study, Laible, Carlo and Raefaclli (2000) examined the relationship between parent and peer attachment and adolescent adjustment.
on a sample of 89 adolescents in the age range of 14-16 years. They were divided into 4 groups on the basis of their parent and peer attachment scores: those high on both, those low on both, those high on peer but low on peer attachment. Results revealed that adolescents high on both, peer and parent attachment are the best adjusted (i.e. least aggressive and depressed) and those low on both are least well adjusted.

In a study conducted by Kreppner (2000) of parent-adolescent relationship, a complex pattern was identified when identity strength and communication patterns were examined. Adolescents who rated highest in both identity exploration and role taking skills had at least one parent with whom they had an individual relationship. When difference between mothers and fathers in their relationship with their adolescent children was considered, attachment patterns, degree of involvement, trust level and modeling of autonomy and independence were highly differentiated. Females were found to be more attached to both their mothers and fathers and were found to be more communicative within the family microcosm.

Grolnick and Kurowski (2000) examined the transition from elementary to junior high school and explored whether enhanced maternal involvement and the support of autonomy prior to and during this transition eases the adjustment for adolescents. Analysis of scores on questionnaires completed by 60 students, their mothers and teachers indicated that adolescents whose mothers are highly involved thereby generate a sense of belongingness both cognitively and personally during the adolescents’ 6th grade year. Adolescents did not decrease in their perceived competence during 7th grade as severely as those whose mothers were less involved. Adolescents whose parents supported autonomy to a high degree exhibited fewer learning and behavior problems than parents who are not supportive of autonomy.
Murfin (2001) found that very few males had been characterized as securely attached and few females as insecurely attached. Females also scored higher on parent trust. Mikulincer et al (2001) reported that adolescent high on attachment security have weaker physiological arousal during stressful events. Moreover adolescents high on attachment security tend to acknowledge negative emotions without being overwhelmed by the arousal of negative effect or to distance them from emotion-laden material. Self-reports of securely attached adolescents have also been found to be associated with positive feelings towards the self during stress.

Rempel et al (2001) found in their study, that individuals low on stress trusted their parents more than individuals high on stress. High trust individuals feel secure and confident that their parents can be counted upon to care for them and be responsive to their needs, whereas low trust individuals had little confidence in their parent’s ability to satisfy their needs or desires.

Field, Diego and Sanders (2002) conducted a study on high school seniors (N=89) from a suburban private high school. Comprehensive questionnaire was administered to determine differences between adolescents who rated the quality of their parent and peer relationships as high or low. Adolescents with high parent and high peer relationship scores had more friends, greater family togetherness, lower levels of depression and drug use, and a higher grade point average.

Soroku and Weissboard (2003) conducted a study on men and women’s attachment and contact patterns with parents during the first year of college. Results were consistent with attachment theory which said that parent-child need and non-need based interactions were related to one’s later on perceived quality of attachment. It was also revealed that adolescent males and females might show attachment in different ways.
Xie et al. (2004) studied Mainland Chinese adolescents’ decision making and examined the relationship among their decision-making involvement, parent-adolescent communication and relationship variables by using Structural Equation Modeling. Results demonstrated that good parent-adolescent communication was positively associated with cohesion and negatively associated with conflict. It also mediated the relationship between adolescent age and parent-adolescent conflict. The relationships between parent-adolescent communication and cohesion as well as the relationship between adolescents’ age and decision involvement were significantly different for boys and girls.

A study by Wainright, Russel and Patterson (2004) examined associations among family type (same-sex vs. opposite-sex parents); family and relationship variables with psychosocial adjustment, school outcomes behaviors of adolescents. Participants included 44, 12 to 18 year-old adolescents parented by same-sex couples and 44 same-aged adolescents parented by opposite-sex couples, matched on demographic characteristics and drawn from a national sample. Normative analyses indicated that, on measures of psychosocial adjustment and school outcomes, adolescents were functioning well, and their adjustment was not generally associated with family type. Regardless of family type, adolescents whose parents described closer relationships with them reported better school adjustment.

Allen et al (2004) examined both continuity and familial, intrapsychic and environmental predictors of change in adolescent’s security across a two-year period from middle to late adolescence. Assessments included the Adult Attachment Interview, observed mother adolescent interactions, test based data and adolescent self reports obtained from an ethnically and socio-economically diverse sample of moderately at risk adolescent interviewed at ages 16 and 18. Substantial stability in security was identified. Beyond this
stability, adolescents, however, enmeshed, overpersonalising behavior with their parents, depressive symptoms and poverty status, predicted relative declines in attachment security. Results that although security may trend upward for non-stressed adolescents, parents do not easily assuage stressors that overwhelm the capacity for affect regulation and that predict relative declines in security over time.

**Shirk, R (2005)** studied links among attachment related cognitions and adolescent depressive symptoms. Role of self-evaluative and support seeking processes was assessed as mediators of the reaction between maternal representations and depressive symptoms in a sample of 168 young adolescents. Representations of mother as unavailable, unresponsive and unsupportive were associated with depressive symptoms measured by semi-structured interview and self-report. Results also revealed association between maternal representations and depressive symptoms varied as a function of stress level for self reported symptoms only.

**Ackard et al. (2006)** examined teen perceptions of mother-child and father-child connectedness, perceptions of parental communications and caring with behavioral and emotional health of teenagers. A population-based sample of 4746 in public schools completed the survey. The results revealed that the majority of girls and boys reported valuing their parents' opinion when making serious decisions and believing that their parents cared about them. Yet, one fourth of girls and boys felt unable to talk to their mother about problems, and over half of girls and one third of boys felt unable to talk to their father. Valuing friends' opinions over parents' opinions, and perceiving low parental communication and caring were associated with unhealthy weight control, substances use, suicide attempts, body dissatisfaction, depression, and low self-esteem.
Seiffge-Krenke and Beyers (2006) evaluated the coping strategies and development of 112 girls and boys, from age 14 to 21. At 21 years of age, study participants completed the Adult Attachment Interview, a test designed to evaluate how a person feels about his or her past and present attachment experiences, including childhood relationships with parents. Results revealed that teenagers who have a secure relationship with their parents show faster development of coping skills than their peers with insecure parental ties. The study also presents the first evidence that secure individuals seek support and reflect upon possible solutions more frequently and become increasingly competent in dealing with a variety of stressors from early adolescence to young adulthood. Less securely attached teens, they found were more likely to withdraw from their problems and were less likely to seek support from others, increasing their risk of depression and other mental and physical health problems.

Based on the results of the above given research studies following trends can be drawn:

- Secure attachment of adolescents with their parents leads to high levels of trust and better coping skills in distress.
- Quality of attachment the child and early adolescent has with parents serve as psychological well-being even later in late adolescence.
- Mixed trends of results have been found on gender differences in parental attachment. Generally females were more securely attached to their parents than males, but the opposite has also been observed.

2.4 SOCIAL SUPPORT AND ACADEMIC STRESS

Many researchers have suggested that children are able to increase their capacity to deal with aversive stressors through the use of social support (Thoits, 1986; Sandler, Miller, Short & Wolchik, 1989; Cauce et al, 1990;
Cutrona, 1990; Wills, Vaccaro & Mc Namara, 1992). Thoits (1986) has attempted to reconceptualise social support as coping assistance in an effort to understand underlying mechanisms. Coping assistance and social support appear to have several common factors. Both are aimed at managing or changing stressful situations, alleviating or reducing negative feelings that usually accompany exposure to stress, and attempting to resolve problems.

Cohen and Wills (1985); Wethington & Kessler (1986) and Cummins (1988) clearly reveal that perception of availability of support serves to protect the individual from negative consequences of stress. Social support protects persons from the potentially pathogenic effects of stressors when support is defined as perceived availability of social resources. In contrast, social support is beneficial for health irrespective of stress levels when support is defined as integration of social network.

Consistent with the above studies Gad and Johnson (1980); New Comb et al. (1981) found that perceived social support is inversely related to the level of symptoms. That is higher levels of disorder is associated with lower levels of perceived social support.

Vaux (1985) found that girls use social support more readily and directly. Boys seem to have less trust and greater reluctance to turn to others as a source of support and try to suggest that females may be better social support resources and they are better in providing as well as receiving support though they usually are less satisfied with the obtained levels of support.

In a study by Wright (1987), the support seeking way of coping was related to better psychological well being in both sexes, however it correlated significantly with psychosomatic symptoms and self perceived health only in boys. Support-seeking coping proved to be less significant correlate of psychosocial health among girls, though social interactions and social
supports were more central as a coping method for them. Social support is the single strategy that is consistently reported as being used more frequently by females than males as a way of coping. However they may use it in a different way.

Hoffman et al. (1987) assessed contingencies in the effect of social support from parents and friends on adolescent self-esteem. Questionnaires were administered to 76 Israeli adolescents regarding self-esteem, stressful life events and perceived level of support from mother, father and friends. Maternal support had a strong effect on self-esteem. Aid from friends was influential primarily when that of mothers was absent. Paternal support had little effect, once other support sources were controlled.

Jermott and Magloire K(1988) examined the relation of academic stress and social support to salivary concentration of immunoglobulin A. They took a sample of 15 healthy undergraduates 5 days before their final examination period, during their examination period and 14 days after last final examination for S-IgA concentration. Students who reported more adequate social support at the pre examination period had consistently higher S-IgA levels than did their peers reporting less adequate social support. These findings state that social support enhances health outcome irrespective of whether the individual is exposed to stressful experience.

In another investigation, Dubow & Tisak (1989) explored the relation between stressful life events and adjustment in elementary school children with particular emphasis on the potential main and stress buffering effects of social support. The sample consisted of 361 third through the fifth graders. Hierarchical multiple regressions revealed significant stress buffering effects for social support, that is higher levels of social support moderated the relation between stressful life events and behavior problems.
Jung & Khalsa (1989) examined black and white American college students to determine how daily hassles, coping strategies and social support related to depression. Mean scores of seeking social support were similar as were reported levels of depression. There was no support for the notion that social support serves as a buffer against depression.

The research problem of stressful negative experience symptoms and coping in early adolescence was addressed by Oh and Hans (1990). The subjects consisted of 1090 high school students of the metropolitan city of Seoul. The study was limited to freshman and sophomore adolescents aged 15 to 18. Social support was found to mediate the relationship between stress and health symptoms in adolescents.

Cauce et al (1990), in a study on life stress and social support during early adolescence, were interested to examine the potential stress-buffering effects of social support and communicative effects of social support on adjustment. Examination of the buffering hypothesis suggested that both family and school support served to moderate the relationship between negative events and school competence.

DuBois et al. (1992) employed a 2-year longitudinal design to examine the relation of stressful events and social support to psychological distress and school performance among 166 early adolescents (mean age – 13.5 years). Both stress and support variables made a significant contribution to prediction of subsequently psychological distress.

Carolyn and Cutrona (1994) tested as to which parental social support predicted college grade point average among undergraduate students. A sample of 418 undergraduates completed the study. Parental support, especially reassurance of worth predicted college grade point average.
Rospenda et al. (1994) studied the effects of social support on medical students performance. A cohort of 153 third year students at the university of Illinois College of Medicine at Chicago were asked to complete a questionnaire assessing role stress, social support and sources of support. The results suggested that contrary to the study’s hypothesis, social support in general is related to lower level of academic performance for both men and women and that the negative effects of support and supportive social relationship were seen as associated with the alleviation of psychological stress.

Cutrona et al. (1994) tested the extent to which parental social support predicted college grade point average among undergraduate students. A sample of 418 undergraduates completed the Social Provisions Scale-Parent Form (C. E. Cutrona, 1989) and measures of family conflict and achievement orientation. American College Testing Assessment Program college entrance exam scores (ACT; American College Testing Program, 1986) and grade point average were obtained from the university registrar. Parental social support, especially reassurance of worth, predicted college grade point average when controlling for academic aptitude (ACT scores), family achievement orientation, and family conflict. Support from parents, but not from friends or romantic partners, significantly predicted grade point average.

In a 10-year follow up of a survey by Dalgard, Bjork and Tambs (1995), 503 persons were interviewed using the same questionnaire. The study confirmed the buffer hypothesis that social support protects against the development of mental disorder only when individuals are exposed to stressors like negative life events.
Eileen and Steven (1995) examined the relationship of family social support and social conflict to stressors and depression. Fifty-seven caregiving women were interviewed regarding caregiving stressors, social support, and social conflict. Three dimensions of social support and social conflict were assessed: instrumental, informational, and affective. The findings supported the importance of distinguishing between social support and social conflict, and among the three dimensions of support and conflict. Respondents reported higher levels of support than of conflict, but consistent with earlier research, social support was not related as strongly to outcomes as social conflict was. Although instrumental support was related significantly to depression, informational and emotional support was not. Social conflict, however, was significantly related to depression. Both emotional conflict and informational conflict were significant predictors of depression.

Akhondi (1996) studied the relationship between perceived social support and social adjustment on a sample of Iranian high school students (N = 336: 167 girls and 169 boys) and found positive relationship between social support and social adjustment.

In a study by Parsons, Frydenberg & Poole (1996) it was found that girls use social support more generally but boys may benefit in providing more from this strategy of coping. Furthermore, they may benefit from different dimensions of social support: Girls more frequently use social support as emotional and tension reducing help, while boys emphasize more rational material type of support.

Steptoe et al. (1996) assessed the effects of academic examination stress on health behavior in university students. It was hypothesized that the anticipation of examinations would lead to increases in cigarette smoking and
alcohol consumption, and to decreases in physical activity, and that effects would be particularly salient in students with low social supports. One hundred eighty students were divided into exam-stress (51 women, 64 men) and control (49 women, 16 men) groups, and were assessed at baseline and then within 2 weeks of exams, or an equivalent point for the control group. Perceived stress, emotional well-being and health behaviors were assessed by questionnaire and interview. The exam-stress group reported significant increases in perceived stress and emotional distress between baseline and exam sessions, but responses were not affected by social support availability. The controls showed no systematic changes in health behaviors. In the exam-stress group, smoking increased by an average of 54.7% between sessions in women with few social supports, but remained stable in men. There was a decrease in alcohol consumption of 17.5% in students with high social support between sessions, while those with low social supports showed an average increase of 18.5%. Physical activity decreased between baseline and exam sessions in the exam-stress group, but was not affected by social support.

Gross et al. (1997) examined in their study of middle school stress, social supports, and adjustment among 482 sixth-, seventh, and eighth-grade adolescents. Multiple regression analyses were used to relate differing types of stress and social support to students' self-concept, feelings of depression, and liking of school. The effects of adolescent characteristics (gender, grade level, grade point average, and education placement status) also were assessed. Results showed that higher academic stress and less emotional support from the family were related to lower academic self-concept, and higher peer stress and less companionship support from peers were associated with lower social self-concept. Emotional support from the family moderated
the influence of peer stress on feelings of depression. Problem-solving support from adults outside the family moderated the effects of teacher/rules stress on adolescents' liking of school.

Maville and Huerta (1997) studied stress and social support among Hispanic students nurses. Effect of social support was measured by Norbeck Social support Questionnaire. No significant relationship was found. Qualitative data revealed less than desired social support in lower achieving students.

Sumi (1997) examined the relationship between self-reported scores on optimism, social support and stress on physical and psychological well being among 176 Japanese female college students. The significant interactions was found among scores on social support and stress, suggesting thereby that individual who reported higher on social support also rated themselves higher with respect to physical and psychological well-being regardless of their reported stress. Similarly in a study of mixed sample of male and female adolescents, Valery (1997) reported that male and female adolescents did not differ in their perceptions of parental support. However females were more likely to request and more likely to receive emotional support from mothers and fathers. These important findings describe college women as more sensitive to relationships than are college males. Furthermore a positive correlation was found for females between actual and perceived instrumental and emotional support for both parents; whereas for males such a relationship existed only for instrumental support from mothers. Males were found to benefit more from problem focused or instrumental support, suggesting that they may not perceive emotional support as helpful.
Minoru Wada (1998) investigated how undergraduates coped with stressful events and also confirmed sex differences in their coping. The participants were 258 undergraduate (114 males and 171 females) in third grade. The results confirmed that females were more stressful than males and they got more social support than males. High stressful persons adopted more patience than low stressful person. Low stressful persons adopted more passive escape than high stressful person.

In a separate study by Ystgaard, Tambs, Dalgard (1999), data were collected on 211 adolescents. Follow up data recorded 18 months later, were employed to test main effects and stress buffering effects of negative life events on going stressors and social support from family and friends on mental health. There was evidence in favour of buffering hypothesis for boys; negative life events, had a significantly stronger effect when social support from peers was low, and long lasting adversities had significantly stronger effect when social support from parents was low.

A theoretical model of adolescent stress and coping, with social support and social problem solving proposed as a moderator was investigated using path analysis by Printz et al. (1999). The study was conducted on 122 ninth and tenth grade non-referred high school students. Overall findings revealed direct relationships among stressful life events, social support, problem solving and adolescent adjustment. These factors buffer the impact of stressful negative experiences.

Mooney (1999) conducted a study on 200-college student with a view to examine the relationship among loneliness and coping strategies preference. The researcher indicated that lack of social skills wholly accounts for lonely people’s disinclination to seek social support and fear of their
failure to use support seeking may not only exacerbate loneliness, but also prelude effective coping.

According to Piko (2000) there are some gender differences as well as similarities in adolescent’s coping. In a study while girls reported more passive and support-seeking ways of coping, this latter proved to be a more significant correlate of psychosocial health among boys. No differences were found between the means of risky coping by gender.

Markstrom et al. (2000) studied social support and coping in relation to resiliency among a sample of 53 African-American and 60 white races. 10th grade students aged 14-17 years were taken for the study. Utilizing regression analysis, it was shown that social support from family significantly predicted resiliency. Race and gender distinction were minimal in respect to measured variables in the study.

Torsheim, Leif and Bente (2003) investigated the reciprocal relationships among school-related stress, school-related social support, and distress in a cohort of 767 secondary school students (mean age 13.9 years). Stress, support, and distress were measured at three occasions with six-month lags between. Reciprocal relationships were analyzed with multivariate multilevel modeling (MLwiN). Each of the three factors at baseline predicted change in one or two of the other factors at subsequent measurements, indicating a complex pattern of reciprocal relationships among stress, support, and distress across time. A high level of distress at baseline predicted a lower level of support and a higher level of stress six months later. High levels of stress at baseline predicted a higher level of distress and a lower level of support 12 months later. The results were consistent with a transactional and
dynamic model of stress, support, and distress, and indicated the need to view school-related stress, support, and distress as mutually dependent factors

Bellman et al. (2003) studied gender differences in the use of social support. Multiple regression revealed that for both males and females, social support moderated the effects of stressors on energy levels, social support had a significant interaction effect on original commitment for males only, and for females only a significant interaction effect on state of mind. These results suggested that social support intervention would provide different results for males and females.

Geckova et al. (2003) explored influence of social support on health among gender and socioeconomic groups. The sample consisted of 2616 Slovak adolescents (52.4% male, 47.6% female, man age 15 years). The results showed significant gender differences in social support, which are unfavorable for males. Low social support was significantly related to worse health. Female adolescents from lower socio-economic groups reported low social support; less frequently consider their health as excellent or very good than males from higher socio-economic groups. The reverse was true in case of males. Males from lower socio-economic group reported lower social support than females from higher socio-economic group.

Kenneth et al. (2005) studied sex differences in the relationship between social support and risk for major depression among opposite sex twin pairs. It was a longitudinal study. The results showed that compared to men, women have larger and more intimate social networks and higher rates of major depression. Women reported higher level of global social support than their twin brothers. Emotionally supportive social relationships were
substantially more protective against major depression for women than for man.

*Adebayo (2006)* examined the relationship among students with respect to workload, social support, and work-school conflict. Using a cross-sectional survey, data were collected from 126 students. Results of the correlation analysis revealed that work-school conflict had a significant positive relationship with perceived workload and a significant inverse relationship with social support. Furthermore, results of the hierarchical multiple regression analysis showed that perceived workload, supervisor, and coworker support were found to be significant predictors of work-school conflict after controlling for the possible influence of sociodemographic variables. The discussion of these findings is anchored on multiple roles and social support models.

The studies reviewed in this section lead to the following trends of results:

- Social support acts as a buffer against stressors.
- Stress and support predicts subsequent psychological distress.
- Girls use social support more readily and directly as compared to boys.