Chapter 3
Review of Literature

Adolescence is a prolonged, not necessarily smooth, transitional period (Eisenberg and others, 1961, 1965, 1968, 1974). A modern invention, adolescence has been recognized as a separate and unique phase since the early 20th century, when it became an object of scientific study. Early theories proposed biological or cultural views to explain the phenomenon of adolescence. With time, other views were put forward. These did not align themselves as totally biologically or culturally based, and gave rise to several intermediate theories.

Several theorists also began to focus on specific aspects of adolescence. In review of empirical literature, L'abate (1971) reports that between 1927 and 1966 there were a total of 3283 publications dealing with adolescence. These publications cover a wide range of topics—peer relationship, family interactions, academic performance, sexual identification, personality development, and so on.

Thus, adolescence has been studied from different viewpoints. This enormous research reflects society's growing concern over this age group. The present chapter reviews some of the literature that has emerged in this field.

Among the many institutions that affect a child's development, the school is of utmost importance. The school occupies an important place in a child's life as the primary source of information. Education today, is a source of high drama and tension for both parents and children, as they grope through the educational maze from admissions to obtaining a degree and then to a job. However, schools or academia are not the only reasons students experience stress.

Each stage of life is governed by activities associated with that age. An adolescent undergoes physical, cognitive, emotional, social and behavioral changes. It is required that they adapt appropriately to these changes. Different periods of life represent certain prototypic
challenges and competency demands for successful functioning. Changing aspirations, time perspectives and societal systems alter how people structure, regulate and evaluate their lives. Psychosocial changes with age do not represent lock-step stages through which everyone must inevitably pass as part of a preordained developmental sequence.

To fully understand the modern use of the term "stress", it is necessary and instructive to review the evolution of the concept of stress. The first scientific study of stress was conducted by Galilei (1633), who observed that rods when pulled in tension, had strength proportional to their cross-sectional areas. Hooke (1679) discovered the Law of Elasticity, which states that, within the elastic limits of a body, force is proportional to extension.

Over a century later, Young (1807) developed Young's Modulus of Elasticity, a constant that denotes the stiffness of a material within its elastic limits. It was not until the 19th century, that Cauchy (1822) coined the terms "stress" and "strain". He defined stress as the pressure per unit area and strain as the ratio of the increase or decrease in the length of an object, when compared to its original length.

In the 20th century, the concept of stress entered the field of biological sciences. Cannon (1915) conducted physiological research, which resulted in his describing the stress response as a "fight or flight response". Selye (1936) began the current trend of describing pressures with the term "stressors" and biological responses as "stress". He defined biological stress as the sum of non-specific changes in the body caused by function or damage.

**Achievement Related Beliefs**

In situations that involve performance and competition, we formulate a set of beliefs about their competence. We make judgments about what causes success or failure, and how competent we are in various demands. Self-esteem for example is highly associated with
perceptions of competence (Harter, 1987). Research has shown that individuals who believe that they lack competence have low expectations to succeed, those who attribute past failures to factors that they do not control, avoid achievement tasks when they can. When they cannot avoid them, they exert less effort and persist less than individuals than individuals who have positive beliefs (Stipek, 1988).

Studies have shown that students' perceptions of the classroom environment can have a direct impact not only on their achievement but also on their personal-social behaviors (Vasquéz, 1988). Furthermore, depressed rates of student classroom participation predict lowered achievement as early as the first three grades (Finn & Cox, 1995). According to Scott-Jones and Clark (1986), academic achievement is dependent on more than individual abilities and aspirations. The social environment in which learning takes place can enhance or diminish the behaviors that lead to achievement.

Weinre (1986) proposed a three-dimensional model to differentiate the causes. The first dimension, locus, refers to the source of the cause. The control dimension concerns the degree of control the individual has over the cause. The stability dimension differentiates causes on the basis of their duration. Ability, for example, is usually considered a stable trait, whereas effort, luck, or mood may vary for time to time.

Dweck (1973) and her colleagues have shown that individuals who attribute achievement failure primarily to controllable causes—such as effort or strategy—typically persist and use effective problem-solving strategies to overcome failure. Individuals who attribute failure to causes they do not control e.g. lack of ability or biased teacher—tend to react to individual failure with maladaptive or helpless behavior. They may employ strategies that have already failed or they may give up (Diener and Dweck, 1978, Dweck, 1975, Dweck and Elliott, 1983, Dweck and Repucci, 1973).
Bora (1988) found that very few subjects were very happy with their current educational status, for many failures led to frustration and obviously they blamed others for their failure. They did not admit defeat. They were able to give reasons for any wrong they did.

Grover (1977), reports a very high correlation between father and mother’s aspiration for their sons. School achievement of son of low aspiring parents was better than the sons of high and average aspiring parents.

Gadiali and Verma (1980) conducted a comparative study of men and women over the choice of science as a career. They found that three-fourths of the men and women considered pursuing a career in science before or during high school. They found having a model in one’s life is crucial in career choice for both men and women, more so for women. Gadiali and Kazi (1978) also found that money and standard of living were also important factors for choice of a career.

**Stress performance relationship**

The inverted U- hypothesis (Hebb, 1965) suggests that at extreme high and low levels of stress performance become poor, moderate level of stress would produce optimal level of performance. The positive linear hypothesis (Dewe, 1983), suggests that problem, difficulties, anxieties and challenges should be treated as the occasion for constructive activity and high performance. The model suggests that since at low levels of stress an individual faces little challenge, he would not display improved performance. The negative linear hypothesis suggests that stress is a force or a situation that leads to a negative outcome and thus leads to a decrease in performance level.

The type of school, or classroom the child is in can be a source of stress to the child, it has been found that stress is greater and the average level of anxiety higher in traditional classes than in open classrooms (Papey et. al., 1975). The difficulty level of the subject or the material to be learnt, personality of the student and intelligence level were also found to be a source of stress.
Mandler and Sarason (1952) attributed the worsening of performance among test anxious subjects to the arousal of feelings of inadequacy, helplessness, heightened somatic reactions, anticipation of punishment or loss of status and esteem, and implicit attempt at leaving the test situation.

Prince (1960) observed a lot of stress loaded somatic complaints like headache, insomnia, lack of concentration, blurred vision and poor memory. He called this the 'Brain-Fag' syndrome. He explained this as caused by the unusually high expectations of economic improvement based on the successful outcome of the student's academic endeavors.

Empirical studies conducted in American Medical Association, Association for advancement of health education, Carnegie Council on Adolescent development, have documented the epidemic proportion of children and youth who experience serious problems in adaptation and the enduring effects these difficulties have on later development (Pynoos, Fredeick, Nader 1987 and DuBois 1986). Similar reports have been supported by Kellam, Branch, Agrawal, and Ensminger 1975; Newcomb and Bentter, 1988; Shure and Spivak, 1982.

Chronic daily stress, such as those associated with poverty, as well as more acute elevations in stressful circumstances, such as those associated with major life transactions, have shown to be strongly associated with a wide array of psychological problems, behavioral problems at home and school, poor academic performance and drug use. (Fenber, and Primavera, 1983; Compas, 1987a; Jonson 1986; Compas, Howell, Phaser, William, and Giunta, 1988; Wills 1986).

Grobel,-Jo; Schwarzer,-Ralf (1982) studied the Social comparison, expectations and emotional reactions in the classroom. Results show that a growing competition within a reference group with relatively high academic standards led to higher levels of anxiety.
They concluded that school anxiety is mediated by the student's specific perception of the interaction between personal position and social surroundings.

Chandwani (1984-85) found in the pre-exam period students who were hypnotized were found to have higher significant improvement in their general well being, appetite, control over sleep, mental relaxation, pleasant mood, self-confidence, motivation, and concentration.

Appropriate management for such a condition includes supportive counselling, instructions in relaxation techniques, and other psychotherapies (Smith 1986). Studies with adolescent subjects have shown that teaching them problem solving skills, stress management techniques, and role playing help subjects to effectively help subjects recognize and express their emotions in acceptable ways (Jones, Peacock, Christopher, 1992). Smith and Womack (1987) have studied stress management techniques in adolescence: Relaxation Training, Meditation, Hypnosis, and Biofeedback, and their appropriate clinical applications.

Schinke, Schilling, Snow (1987), studied stress management with adolescents at the junior high transition. At posttest and relative to posttest condition subjects, intervention condition subjects scored more positively on measures of problem solving, assertive direct refusals, adequacy of information-about junior high school, ability to handle stress, ability to deal with peer pressure, and general readiness for junior high school.

In reviewing the literature it was found that several studies have been done to correlate self-esteem and stress. High self-esteem may result in active and effective coping and enhanced motivation in response to stress (Abel, 1996). In an article by Kreger (1995), hypothesized, scores on self-esteem may act like attribution style in predicting the effects of stress and that perceived stress may be more related to self-esteem than to actual stressfulness of a situation.
Monashkin (1953) reported a positive correlation between participation in social activities and increased self-esteem and school performance. Membership in clubs and athletic groups increases feelings of inclusion, thus diminishing aggressive behaviour (Leary, Schreindorfer, & Haupt, 1995).

Springer (1999) reports authoritarian and permissive disciplinary styles are related to child maladaptive behaviours; parental stress was associated with permissive disciplinary style and with internal as well as external behavioral problems.

**Cross Cultural Studies**

It has been increasingly clear that the general level of academic achievement of American elementary and secondary school subjects fall below their peers in other developing countries. Chinese and Japanese subjects have consistently been among the top performers while their average score of American subjects have been at or below the mean for the participating countries (Lapointe, Mead and Askew, 1992; Mocknite, et. al., 1987; Stevenson, Lee, Stigler, 1986; Stevenson et. al. 1990).

Holman (1991), Watanabe (1992) reported that in East Asian subjects, especially those in high school report nervousness, depression, and are generally overburdened by the pressures of trying to maintain high levels of academic achievement.

Weisz, Suwanlert, Chaiyasit, and Walter, (1987) studied children from Thailand and the United States. They suggested the problem suppression model. According to them certain characteristics of the culture, such as values, beliefs, and child-rearing practices, may suppress the manifestation of certain behavioral problems and promote or facilitate the manifestation of other types of problems.

The traditional emphasis on harmony, social order, non-aggression, and un-emotionality among East Asian cultures would be
expected to suppress the development of uncontrolled symptoms - aggressive feelings, and thus facilitate the development of psychological problems related to over controlling behavior, like stress, depression, anxiety and other somatic complaints.

The cultural proscription of the Chinese (Bond, and Wang, 1983) and Japanese (Reischawer, 1977) against open conformation and outward display of anger added to the tendency to practice self-blame and introspection (Lebra, 1986). Asian child rearing practices that encourage self-control, inhibition of feelings, and strict discipline, combined with limited outlets for non-academic socializing; suggest that stress could be higher among Asian subjects than American subjects (Breiner, 1980; Hess, et al 1986; Role, 1983). Role, 1983; Schneider and Lee (1990) report American subjects receive less social support for scholastic achievement from peers and family than do Asian counterparts.

The Measurement of Stress

Researchers have used a wide variety of indicators of stress. These include self-reports of perceived stress, life change, emotional distress, behavioral measures such as task performance under stress, psychological measures of arousal- such as skin conduction, heart rate and blood pressure, and bio-chemical markers, specially blood levels and urine levels of 17-hydroxycortico steroids (specially cortisol), and catecholamines (Baum, Grunberg, and Singer, 1982; DimSdale, Young, Moore, and Strauss, 1987).

Leigh, Festein, and Reiser (1980) have presented the Patient Evaluation Grid (PEG). This grid provides an analysis of biological, personal, and environmental factors to be handled in stress management for psychological reactions.

Most people may be able to adapt to moderate or predictable stressors. At first any novel, threatening situation may produce stress, but such reactions subside overtime (Laeuser, 1975; Stokols, Novaco, Stokols, and Campbell, 1978)
Cohen et. el. (1980) reports researches on children show that children exposed to long-term stress give up on tasks easily, than those not exposed to too much stress. This suggests that children may have learned to be helpless; they may experience repeated unsuccessful attempts to master a task or make themselves understood. Consequently, even when they are placed in a new environment where control is possible they may not recognize this possibility and still give up more quickly.

Adverse after effects of stress, such as decreases in performance and attention span, are well documented. The after effects of stress can be even more devastating then while it is going on (Cohen 1980). Although many stressors produce aftereffects, unpredicted and uncontrolled stressful events are more stressful than predictable or controlled ones. Accordingly they are particularly likely to produce deleterious aftereffects (Glass and Singer, 1972).

Schaling (1975) stated that there are systematic differences not only in the degree of anxiety (intensity and frequency), but also in the type of anxiety and the type of stressors (situations that evoke anxiety), and that these differences are related to personality dimension.

Herbert and Cohen (1993) report long-term naturalistic stressors continue to be related to alterations in immune outcomes. Habitations may not occur when the stressors are long term. Effortful self-destructive coping behavior may lead to immune altercation. Long-term stressors seem to erode the social support to the individual experiencing them. Effect of the stress is stronger for objective life events.

Bernard (1920) talked of the 'Milieur Interiur' of the body the concept that the body was always working to maintain a delicate balance in its chemistry and functioning of its parts. When this balance is disturbed sickness occurs.
Cannon (1930), a physiologist tried to discover the elements that kept the internal environment harmonious. The body maintains hemostat, which acts as a kind of a bodily gyroscope keeping the internal environment stable. One system vital to hemostats is biochemical defense against disease and infection.

**Personality and stress**

Lewis (1972) described a series of personality studies that revealed how individuals handling of their emotions can determine his susceptibility to diseases. Lazarus (1966) theorized that the greater the degree to which a person perceived himself in-control of a situation less severe would be his stress reaction the patterns of behavior can adversely affect health. Evidence strongly suggest that the manner in which one chooses to interact with one's surroundings can play a major role in determining weather one develops health problems.

Evidence indicates that a positive, healthy self concept is related to overall adjust. Those with a relatively high self concept do significantly better in school than those with a low or negative self concept (Glasser, 1969). Underachievers have lower self concepts and self esteem, are more withdrawn, and feel more isolated that overachievers or achievers (Caplin and other, 1964, 1967, 1969).

The distinction between connotative (self concept) and evaluative (self esteem) component of self- perception were examined by Greene and Reed (1992). Their analysis revealed that the relation between self concept and self esteem is highly correlated with the social context in which the individual is embedded, and that social context significantly differentiates self concept and self esteem. Bolognini and other (1996) investigated self esteem and mental health in early adolescence in a longitudinal survey. Although global feeling of self worth changed little over the years, significant changes occurred in the area of social competence as a result of the growing importance of peer acceptance.
Birth order and spacing were found to be important factors in sibling relations. The long term impact of sibling relations depends on the sex of the older child and the spacing of the sibling (Longstreth and other, 1971, 1975). In families where there is an older brother, the younger children are more likely to be aggressive and bold and less likely to be dependent and timid. A study on sibling relations by Bigner (1974) found that firstborns were viewed by themselves and their siblings as possessing greater power. They tend to boss, command and reprimand their younger siblings.

Sullivan and Sullivan (1980) revealed in a study that conflict and age are related in an inverted U-shape function, i.e. conflict increases during early adolescence, stabilizes during mille adolescence and declines in late adolescence.

Buhrmester and Furman (1990) studied sibling relationships in children from grades 3, 6, 9 and 12. They found that relationships were progressively more egalitarian across the four grade groups, with adolescents reporting less dominance and nurturance by their older siblings than younger participants. Adolescents also reported less companionship, intimacy and affection with siblings than younger participants reported.

Buysse (1997) explored behavior problems and relationships with family and peers during adolescence. Results showed a significant correlation between internalizing behavior problems and antisocial behavior.

Coping research

Coping is best considered as a form of problem solving in which the stakes are the persons well being. It specifically refers to what the person does to handle successfully or unsuccessfully emotionally charged situations.
From an analysis of the psychological stress literature on how people respond to danger signs, Mam and Janis (1977) have defined five different coping patterns. The conflict theory model specifies the psychological conditions for each of the five coping patterns, which were inferred from the research literature on stress and anxiety. Unconflicted inertia is ascribed to ignorance, which may be the reason for delay in a small minority of cases defensive avoidance helps the person ward off distressing conflicts by shifting responsibility for the decision to someone else, by constructing rationalizations to bolster the least objectionable alternative, or by procrastinating.

Unconflicted change occurs when the person is aware of the threat and wants to avoid anticipated loses by taking protective action but does not recognize the new course of action could also lead to potential loss. Hyper-vigilance is dominant when a person is in a state of panic or near panic. The person becomes obsessed with the thoughts of horrible things that may happen and engages for a frantic way out of the dilemma.

Vigilances lead to effective problem solving behavior that reduces or minimizes the threat. When this pattern is dominant, the decision-maker searches painstakingly for relevant information, assimilates new information in an unbiased manner, and appraises alternatively carefully before making a choice.

**Coping and Personality Factors**

A variable that influences how much stress a person experiences is 'sensation seeking' stimulation. Research suggests that people who have a low need for stimulation experience more distress when they encounter stressful life events (Jonson, Sarason, Siegel, 1979).

Scheire, and Carver (1985) began their research by developing a measure of dispositional optimism aimed at identifying generalized expectations that outcomes will be positive. In a study with undergraduates, subjects who reported being highly optimistic was
less likely to be bothered by physical symptoms by the end of the semester than those scoring less on the optimism scale.

Scheier, Weintraub, and Carver (1986) found that optimism was associated with more use of problem focused coping, seeking of social support, and emphasizing on the positive aspects of the stressful situation. Pessimism in contrast was associated with focusing on stressful feelings, and disengagement from the goal with which the stressor was interfering.

Self-efficiency has been suggested as a variable that may facilitate coping. It is the belief that one is the sort of person who can accomplish ones goal (Bandura, 1977; Cohen and Edwards, 1989; Meclelland, 1989). High self-esteem (Leventhal and Nerenz, 1982), self-confidence (Holahan, and Moos, 1987a), affective trust in others (McClelland, 1989), and ego-strength (Worden and Sobel, 1978) a measure of an individuals capacity to adapt to threat, are other variables that have been suggested that may facilitate coping.

Morrison (1991) suggests instead of assuming that coping styles are protection for self-esteem, they are just as likely to protect weak facets of the self. Optimists coping strategies coincide with less stress. Males, with the exception of the optimists feeling less stressed than those without consistent coping strategies, coping style differences do not reflect differences in satisfaction (Morrison, 1991).

Short, Sandler, Roosa, (1996) found that esteem threat was associated with psychological symptoms independent of stress, social support, and demographic variables. Both esteem enhancement and esteem threat made independent contributions to predicting global self-esteem after controlling for initial levels of global self-esteem

Coping and social support

Research demonstrates that social support effectively reduces distress during times of stress (Cohen, and Wills, 1985; Kessler and Mcleod, 1985; Wallston, Alanga, De Villis, and De Villis, 1983). Social
support also lowers the likelihood of illness, and to speed recovery from illness if it does occur.

The effectiveness of social support depends on how well a person uses the social support network. Some people may be ineffective in extracting the support they need from others, promoting researchers to wonder if the effective use of social support is more of personality difference than resource (Dunkel, Schetter, Folkman, Lazarus, 1987).

Hovant (1986) reported gender differences in the coping styles among male and female undergraduates. Schill, Ramanaiah, and O'Laughlin (1984) compared the behavior of stressed, low anxious and stressed high anxious subjects. Individuals who coped effectively dealt with life stress primarily by trying to analyze their problems and taking direct action.

Seth and Bhatnagar (1979) examined the differences in personality factors and areas of adjustment between boys and girls of working and nonworking mothers. Girls were found to be socially and educationally more adjusted while boys more emotionally adjusted. Girls of nonworking mothers were found to be more adjusted in the home and educational area in contrast to boys. Boys were more socially adjusted.

Ohannessian and other (1984) studied perceived family adjustment and emotional adjustment in early adolescence. Results indicate that perceived family adjustment and emotional adjustment are reciprocally related. Bukowski and his associates (1993) reveal that although popularity and friendship are both associated with adolescent emotional adjustment, popularity is related to adolescent feeling of being part of a group, while friendship is related to affective aspects of adjustment, e.g., closeness, an requires a relationship between two individuals.
Gupta (1996) reports a significant relationship between inferiority feeling and emotional, social, educational and general adjustment. The severity of inferiority feeling significantly worsened social adjustment. Moderate and severe levels of inferiority feeling did not have a differential impact on general, emotional and educational adjustment.

Singh and Pandey (1985) explored coping styles used to face problematic conditions relating to economic, family, personal and social aspects of life in 45 male students. Results revealed that use of coping dimensions varied with the nature of the problems, which the individual faced.

The patterns of coping and defenses in relation to well-being were examined by Caplan, Naidu and Tripathi (1984). Their data showed that coping was generally and positively correlated with positive effects such as satisfaction, whereas defense was primarily and positively co-related with somatic complaints and negative effects.

To summaries, in recent years, there has been considerable interest in the role that coping plays in facilitating adjustment and buffering the potentially detritus effects of stress. Apart from studying effects of sources of stress and support that effect adolescent adjustment, it is also important to consider the extent and nature of their effects in combination with one another.