CHAPTER V
The World Health Organization's study into the Global Burden of Disease (Murray & Lopez, 1996) demonstrates clearly that depression is the most prevalent disability and this disability plays a central role in determining the overall health status of a population. Depression covers an extremely wide spectrum of experience, from the almost universal experiences such as grief and bereavement, to apparently inexplicable despondence and melancholy. Depression as a psychological disorder is replete with symptom characteristics that are internal to the individual. These features include symptoms of cognitive, emotional, behavioral, and physiological impairment or dysfunction.

According to the first US Surgeon General's report on mental health and mental illness, childhood is characterized by periods of transition and reorganization, making it critical to assess the mental health of children and adolescents in the context of familial, social, and cultural expectations about age-appropriate thoughts, emotions, and behavior. Approximately one in five children and adolescents experiences the signs and symptoms of a DSM-IV disorder during the course of a year (David Satcher, 2000). Historically, many researchers and clinicians have described adolescence as a tumultuous developmental period, a time of physical and emotional upheaval, and various authors have indicated that mental disorders and deviant behaviors appear more frequently during this time than in any other period of life (Rabichow & Slansky, 1980; Erikson, 1968; Blos, 1962; Freud, 1958). The view that all adolescents experience turmoil led to the view that normal adolescents display frequent changes in mood and these moods are more extreme than those experienced by children and adults. Pubertal hormones frequently have been portrayed as the impetus for adolescent turmoil,
moodiness and emotionality \cite{Hall1904}. Although much has been examined about the biological aspects of puberty, few research studies have explored the psychological effects of puberty.

Contemporary interest in the study of depression in children and adolescents began in the early 1980s. Prior to this, the predominant perspectives were that depression in children were nonexistent, masked, or expressed in symptoms that were significantly different from those found in depressed adults \cite{Reynolds1985}. According to Cicchetti and Toth \cite{Cicchetti1998}, the overall prevalence of depressive symptoms increases appreciably for both the sexes at some point in early-to-middle adolescence, with girls manifesting significantly higher rates of symptoms. The lifetime prevalence rate of Major Depression in adolescents has been estimated to range from 15% to 20%, which is comparable to the adult lifetime rates \cite{Birmaher1996}. Nair et al. \cite{Nair2004} reported a prevalence rate of severe and extreme depression in Indian adolescents as 9.5% and 1.7% among school dropout girls, 2.6% and 0.2% among school going girls and 1.4% and 0.2% among school going boys. Among both children and adolescents, depressive disorders confer an increased risk for illness and interpersonal and psychosocial difficulties that persist long after the depressive episode is resolved; in adolescents there is also an increased risk for substance abuse and suicidal behavior \cite{Purper2002, Weissman1999}. Emotional disturbances are no longer considered to be transient and self-remitting and if untreated, demonstrate considerable continuity from adolescence into adulthood \cite{Kovacs1998}. This is particularly problematic and in some cases leads to death or physically disabling outcomes. Although some youngsters who demonstrate suicidal thoughts and behaviors do not manifest clinical levels of depression, the majority of suicidal youngsters who are depressed view suicide as a way of ending their intense psychological distress. Children and adolescents with internalizing disorders are often under-identified as needing
assistance by adults (Reynolds, 1990), and are underserved by school and community based mental health services (Cuffe, Waller, Cuccaro, Pumariega, & Garrison, 1994).

In general clinical practice and in a multitude of research applications, the assessment of depression in children and adolescents is typically accomplished using self-report severity measures or clinical interviews, the latter including diagnostic measures and severity measures. There are several characteristics of depression that support the use of self-report assessment procedures, given linguistic and metacognitive competence in the child. Depression as an internalizing disorder includes primary symptoms that are internal to the youngster and are not easily observable. Cognitive symptoms of guilt, self-deprecation, suicidal ideation, hopelessness, and feelings of worthlessness are depressive symptoms that are subjective to the child. Some vegetative symptoms such as insomnia, appetite loss, and other problems are sometimes difficult for others to observe and may go undetected by parents and significant others (Reynolds, 1998). Self-report severity measures typically evaluate a range of depressive symptoms with the assessment format specific to the depth of symptom expression (e.g., frequency of occurrence, severity, etc.). In this manner, many severity measures of depression allow for the evaluation of a clinical level of depressive symptomatology, assuming an adequate coverage of the symptom domain (Reynolds, 1994). Thus, self-report scales are not designed as diagnostic measures.

Keeping in view the salience of depression in adolescents, the main aim of the present investigation was to study the influence of negative cognition, stress and gender on depression at different levels of social support in a non-clinical sample of 300 high school adolescents (150 male and 150 female adolescents) in the age range of 15 - 17 years (period of mid-adolescence). To accomplish this purpose, the subjects were assessed on various self-report instruments i.e., Zung's Self-Rating Depression Scale yielding a measure of depression,
Automatic Thought Questionnaire providing a measure of negative cognition, Social Support Questionnaire pertaining to a measure of perceived social support and the Perceived Stress Scale pertaining to a measure of perceived stress.

The following hypotheses were generated in keeping with the review of literature:

I. Adolescents high on negative cognition would score higher on depression than adolescents low on negative cognition.

II. Adolescents higher on stress would score higher on depression than adolescents lower on stress.

III. Female adolescents would score higher on depression than male adolescents.

IV. Relatively strong social support will moderate the role of negative cognition, gender and stress in depression.

The prominent results of the present study have been discussed under the following headings:

1. Role of negative cognition in adolescent depression
2. Role of stress in adolescent depression
3. Role of gender in adolescent depression
4. Role of social support in moderating the influence of negative cognition, gender and stress in adolescent depression

1. ROLE OF NEGATIVE COGNITION IN ADOLESCENT DEPRESSION

The psychological phenomenon of depression is complex and irreducible to any one psychological dimension (Sedeka & Kofta, 1990). Intrigued by its complexity, scientists have been conducting extensive research about this topic. One particular aspect of depression that has been studied frequently and the subject of many debates is the role of cognition in depression. The idea that men can control their emotional reactions by the process of thought is ancient, being, for example, a central tenet of stoic philosophy (Bebbington,
In recent years, these ideas have entered the empirical realm of psychopathology. The review of research lays emphasis on the importance of cognitions in the development and maintenance of disorders characterized by depressed mood. In particular, many depression theorists have disagreed about the role of accuracy and distortion in depressive and non-depressive cognition (Albright & Henderson, 1995). The cognitive theory of depression suggests that depressed people distort reality due to their negative perception of the world. The theory of depressive realism asserts that non-depressed people are the ones who have a distorted view of the world while depressed people are not depressed at all; their pessimistic perception is the accurate view of the world.

Beck postulates that people have relatively stable styles of cognition which he terms “schemas”. They form the structural organization of depressive thinking and Beck locates their origins in early, usually childhood experience. They underlie the selective attention and abstraction which result in a particular interpretation of circumstances. Beck emphasizes the reciprocity of thought and circumstance. He goes on to argue that in depression, there are ‘prepotent dysfunctional schemas’ which are evoked by a wide range of inappropriate stimuli and ‘the patient loses much of his voluntary control over his thinking processes’ (Beck et al., 1980, p.13). The final limb of Beck’s cognitive model describes the mechanism behind this in terms of faulty information processing, typified by one stimulus set and five types of response sets. The stimulus set is the process of ‘selective abstraction’ whereby a negative circumstance is removed from its context. The response sets include: ‘arbitrary inference’ i.e., drawing a specific conclusion in the absence of evidence or when the evidence is contrary to the prediction and jumping to conclusions; ‘overgeneralization’ i.e., drawing a general conclusion on the basis of one or more isolated incidents and applying across the board to related and unrelated situations, ‘magnification/ catastrophizing’ is exaggerating the significance or importance of an event in a negative...
direction; 'personalization' is inappropriately relating external events to oneself and 'dichotomous thinking' is judging events as either good or bad, black and white thinking. The dysfunctional assumptions are highly individualized, conditional and generalized rules, e.g., If I am nice to everyone, I will be liked. They are rigid, overgeneralized, absolute and extreme. They are dysfunctional in preventing goal attainment and often are culturally reinforced.

Accounts derived from Bower's (1981) associative network theory of mood and memory suggest that depressed patients think more negatively because their depressed mood selectively increases the activation, or accessibility, of all negative interpretative constructs and memories, previously associated with depressed mood. On this view, experiences are interpreted negatively because depression lowers the threshold for use of negative interpretative constructs such as 'failure', 'no good', or 'hopeless'. It is as if such negative constructs are 'put on a hair trigger' by the depressed state, and so are more likely to be used to interpret experience. As mood recovers, activation to the construct from the depressed state will reduce and so endorsement of the dysfunctional attitude is less likely.

Hypothesis I takes cognizance of the role of negative cognition (negative automatic thoughts leading to self-depreciation) in depression among adolescents. It is evident from the results of the present study that negative cognitions alone may also predict increases in negative affect and depressive symptoms among mid-adolescents and thus lend support to Hypothesis I. It was found that adolescents higher on negative cognition scored higher on depression (Mean:47.70) in comparison to adolescents lower on negative cognition (Mean:41.20). Social support failed to moderate the role of negative cognition in depression. It implies that negative cognitions comprising of schemas and dysfunctional assumptions play an important role in depression regardless of social support. The cognitions of depressed adolescents are marked by distortions in attributions, self-
evaluations, and information processing. Depressed youths are more likely to interpret positive events as occurring in response to external factors of which they have no control, and interpret negative events as entirely their own fault. The depressed adolescent’s thoughts are dominated by a negative view of self as worthless, the world as bleak, and the future as hopeless (the cognitive triad). Through this negative view of the world, they distort experiences and display information processing errors such as overgeneralizing predictions of negative outcomes, catastrophizing the consequences of negative events, and selectively attending to the negative features of the events.

Because adolescents are somewhat prone to errors in logical thinking due to inexperience and undeveloped abstract reasoning, depressed teenagers may be unaware that their thought processes are faulty. They fail to recognize their ability to impact the environment positively, resulting in a passive or helpless attitude. Their self-perceptions and self-evaluations reflect these information-processing distortions, and as a result, they display some deficiencies in problem solving. Depressed youths set more stringent standards for their performance, evaluate themselves more negatively, and tend to self-reinforce positively less than their nondepressed peers. The “depressogenic” thought patterns postulated in the cognitive theory of depression are thought to be relatively stable in the depressed individual.

This finding is different from what has been reported elsewhere in literature (Barnett & Gotlib, 1988b; Lewinsohn, Steinmetz, Larson & Franklin, 1981) as the cognitive diathesis-stress models of depression (Abramson et al, 1978; 1989; Beck, 1967) have argued that cognitive vulnerability increases the likelihood of depression after a stressor occurs and in the absence of stressors will not necessarily predict depression.

The symptom model holds that maladaptive cognitions are merely symptom-related (i.e., they reflect changes in the clinical state of depression rather than pre-existing vulnerability, and do not act
synergistically with stressful events). Our findings corroborate with this model, providing empirical evidence that our measure of cognitive style revealed more maladaptive attitudes among the depressed mid-adolescents than the non-depressed, regardless of the presence or absence of an event. This is an interesting finding and deserves replication in a cross-cultural perspective since it has important implications for a clinician/researcher making use of self-report instruments of negative cognition as well as depression. Further, the possibility that negative cognitive style is independent provoking factor rather than being event-related (stressful life events) must prompt a re-examination of its role. Perhaps measures of negative cognitive style reflect some other aspects of self perception which is not closely tied to stressful life events as measured in this study. Though there is scanty research that explains the main effect model of negative cognition in the development of depression among adolescents, the number of explanations that have been put forward over the years to explain this finding are put forth in the following paragraphs.

Results of the present study have lent support to the previous findings and there is sufficient literature depicting the influence of negative cognition on adolescent depression such as studies by Blumberg and Izard (1985), Asarnow and Bates (1988), Kashani et al. (1989), Thurber et al. (1990), Sanders et al. (1992), Pinto and Francis (1993), Garber et al. (1993), Stark et al. (1996), Hankin et al. (1997), Schwartz et al. (2000), Muris et al. (2001), Me Grath and Repetti (2002), Pomerantz and Rudolph (2003) and Papadakis et al. (2006), who all concluded that when compared with nondepressed controls, depressed children reported significantly more hopelessness, more negative self-perceptions, and negative self-perceptions across a wide variety of domains, and they displayed more dysfunctional attributional styles. Adolescents who reported depression also reported significantly more internal attributions for negative events and less internal attributions for positive events,
evidenced a more external locus of control, and described themselves as significantly more hopeless than did the nondepressed adolescents.

In a cross-cultural investigation of cognitions and depressive symptoms in adolescents, Stewart et al. (2004) found that cognitions were associated with concurrent depressive symptoms and predicted depressive symptoms 6 months later in both cultures. The “reverse” model was also supported with more variance predicted by depressive symptoms to later cognitions than from cognitions to depressive symptoms. There was some support for the hypothesis that self-efficacy is less salient in collective compared with individualistic cultures.

Kennard et al. (2006) found that self-efficacy, cognitive errors, and hopelessness were associated with concurrent depressive symptoms at baseline among African American, Caucasian, and Hispanic adolescents. In addition, cognitive errors at baseline, controlling for baseline depressive symptoms and the occurrence of stressful events, predicted depressive symptoms at follow-up. The findings demonstrate support for the cognitive model of depression across ethnic groups.

Another strong line of evidence comes from a study by Alloy et al. (2006) who suggested that on negative cognitive styles high risk participants had 3.5-6.8 times greater odds than the low risk individuals of major, minor, and hopelessness depression. Negative cognitive styles were similarly predictive of first onsets and recurrences of major depression and hopelessness depression but predicted first onsets of minor depression more strongly than recurrences.

According to Charoensuk (2007), negative thinking was the best predictor of depressive symptoms in Thai adolescents. Negative thinking also mediated the effects of parental bonding, everyday stressors, and self-esteem on depressive symptoms.
2. ROLE OF STRESS IN ADOLESCENT DEPRESSION

Life events affect human development in both positive and negative ways, facilitating positive growth and adaptation as well as contributing to illness and disturbance (Compas, 1987). Numerous factors such as the quality of early relationships, resources for coping both within the individual and within the family, age, temperament, frequency and intensity of stress and social support all affect the impact of the event. Past research has shown a significant relationship between negative life events and emotional problems in adolescents. Stressful events of both minor and major magnitude (e.g., moving to a new school, loss of loved ones, disasters, and family violence), leading to stress, have been found to be predictive of subsequent internalizing and externalizing problems in adolescents.

Studies have even shown that stressful events are predictive of increment in depressive symptomatology after controlling for initial levels of maladjustment. However, the amount of variance in maladjustment explained by stressful events has been relatively small (Compas et al, 1993; de Wilde, 1992). This means that not all adolescents who are exposed to stressful life experiences develop emotional problems. Knowledge and understanding of the reasons concerning why some children are not damaged by the disadvantage and deprivation that prevent so many of their peers from reaching their optimal social and emotional level of functioning would certainly provide much needed information from which to derive strategies for preventive programming.

Clearly in this regard the occurrence of negative events can have a profound effect on the development of the child’s cognitive and affective neural structures, and in the connections between them (Goodman & Gotùb, 1999; Ingram et al., 1998). The extent that such events are (a) frequent, (b) occur in the context of multiple and likely interacting domains (e.g., divorce, high levels of poverty, problematic peer relationships), (c) extremely traumatic, and/or (d)
significantly deprive the child’s emotional needs, cognitive and affective development, will be proportionally affected (Ingram, 2003).

Indian studies have also linked depression to the onset of life events and precipitation of psychiatric illness (Bhatti & Channabasavanna, 1988; Prakash et al., 1980; Venkoba Rao & Nammalvar, 1976). Satija et al. (1998) observed that depressives experienced significantly more stressful life events and were also using significantly more avoidance coping strategies as compared to their non-depressed counterparts. The moderate and severely depressed were exposed to more stressful life events and were using more avoidance coping strategies as compared to mildly depressed patients. They found that the occurrence and not the severity of depression was linked to the life events. This is line with the earlier studies (Singh et al., 1984; Saxena et al., 1983; Prakash et al., 1980; Venkoba Rao & Nammalvar, 1976; Brown et al., 1973; Paykel et al., 1969,1975) and with the studies linking life events and first episode of depression (Ghaziuddin et al., 1990; Dolon et al., 1985). But there is lack of reported studies on school going middle adolescence period.

In this context, another key finding of the present study is that mid-adolescents higher on perceived stress reported higher levels of depression (Mean : 46.02) as compared with adolescents lower on perceived stress (Mean:39.87). These results evince and highlight the influence of perceived stress as a crucial variable in triggering mid-adolescent depression and is consonant with the proposed Hypothesis II, which states that adolescents higher on perceived stress would score higher on depression than adolescents lower on perceived stress. This period of mid-adolescence pertaining to the students in Grades 10th, 11th and 12th, associated with immense difficulties and coping with daily hassles in terms of achievement of academic goals, conforming to peer group beliefs and habits, parental attitude towards them, punishment by teachers, etc could predispose them towards developing feelings of inferiority, low self-esteem, depressive tendencies, substance abuse and suicidal behavior. One of
the plausible explanations that can be offered in terms of our finding is that adolescence is said to be a period of stress and strain, whims and vigour, problems and perspectives. It is period when the individual begins to attain maturity of the intellect and the body. Rational thinking and judgment ability just find a place in the system of his behaviour. Ego observes a functional role in the enactment of norms and values. Thwarting of any of these values produces stress among the adolescents. As such, the greater goal-discrepancy between ability and aspiration generates frustration; and ultimately develops 'feeling of fear of failure' among the adolescents. Over estimation of ability becomes a primary source of stress to them. Most of the stress-stimuli of the adolescence find their source not in affective component, but in their intellect that provides ability which rules their life. As such, the disturbance in intellect of adolescents correspondingly arouses emotional disturbance in them. Inability to deliver proper and effective reasoning, judgment, decision-making and such other ability-based behavioural outcomes produce stress in them. Thus, the role of intellect is more pronounced in adolescents in generating stress (Sharma and Shukla, 1993).

The emerging consensus within the literature is that the experience of stressful events during childhood greatly increases an individual’s vulnerability to behavioral and psychological maladjustment, in addition to physical illness. Pearson correlation coefficients have been found to range from .10 to .68, with the majority of studies reporting coefficients between .20 and .30 (Compas, 1987b). Printz et al. (1999) found a similar correlation for major events ($r = .33$ p< .05), but a higher correlation for daily events ($r = .46$, p<.001). This suggests that adolescent maladjustment is influenced less by discrete events than by chronic stressors leading to more stress. In general, major life events were predictive of daily hassles, which in turn were associated with adjustment.

In Western cultures, it has been consistently found that academic failure leading to stress is associated with depressed affect
(Fauber, Forehand, Long, Burke, & Faust, 1987; Kellam, Brown, Ruhin, & Ensminger, 1983). Several studies have revealed that Chinese children tend to feel more depressed than North American children (Crystal et al., 1994; Shek, 1991). It is contended that the relatively high level of depressed feelings in Chinese children may be related to stressful social and academic circumstances in Chinese schools (Chen, Rubin, & Li, 1995).

The obtained finding in the present study is by and large consistent with the earlier research and fairly extensive literature revealing the significant contribution of stress in development of depression among adolescents such as Corcos et al. (1996), Reuter et al. (1999), Rudolph et al. (2000), Adams et al. (1994), Trangkasombat and Likanapichitkui (1997), Schraedley et al. (1999), Takakura et al. (2003), O’Sullivan (2004), and Phillips et al. (2005).

3. ROLE OF GENDER IN ADOLESCENT DEPRESSION

Adolescence is assumed to be the developmental period in which these differences emerge and intensify, creating a pattern which continues with gender differences in depressive symptoms and disorder in adulthood (Leadbeater, Blatt, & Quinlan, 1995). What is less clear, however, is the magnitude and pervasiveness of these differences during adolescence; that is, how large are the effects of gender on depressive symptoms in adolescence? Are gender differences characteristic of the general population, or are they limited to a subgroup of youths, such as those who may be referred for or receive mental health services?

Gender is a dauntingly complex variable because it varies with so many other biological, psychological and social variables. Gilbert (1992) states, “Gender refers, not only to biological sex, but also to the psychological, social and cultural features and characteristics that have been strongly associated with the biological categories of the female and male” (p.385).
Gender role orientation refers to a person's belief that he or she possesses certain gender-typed characteristics. Traditional measures of gender role orientation define masculinity as the perceived possession of instrumental personality traits (e.g., assertiveness, independence) rather than the entire spectrum of masculine attributes and behaviors. Hence, the terms masculinity and instrumentality often are used interchangeably. Similarly, femininity typically is defined as the possession of expressive personality characteristics (e.g., emotionality, compassion), so that the term expressively often is used instead of femininity. Although the traits discussed generally refer to gender-typed personality characteristics, the term gender roles will be used in keeping with previous research.

Gender stereotypes concerning the experience of emotions are sometimes found to be less strong than gender stereotypes concerning the expression of emotions (Brody & Hall, 1993). Sex role constructs have been repeatedly linked with mental health in adults (Spence, 1984), and since the years following puberty are important in their development (Maccoby, 1982) it seems plausible that the development of sex role traits and differential vulnerability to depression in the sexes may be somehow inter-related. Two important alternative hypothesis link feminine attributes to mental health, postulating that the feminine sex role heightens the tendency to respond to stressful episodes with depressive symptoms (Gove & Herb, 1974) or that overly empathic relationships with persons who are under stress 'creates structures and demands that lead to psychological impairment' (Kessler, Me Cleod, & Wethington, 1984).

Studies of adults from several countries have emphatically documented that women have 1.5 to 3 times more current and lifetime unipolar depression than men (Blazer et al., 1994; Weissman et al., 1993, 1996; Kessler et al., 1993, 1994; Wittchen et al., 1992; Cheng, 1989; Hwu et al., 1989; Wells et al., 1989; Bland et al., 1988 a,b; Canino et al., 1987; Lee et al., 1987;
Bebbington et al., 1981; Weissman & Klerman, 1977). Results of these studies indicate that women have more psychological symptoms and distress than do men. Men show a higher incidence of behavior disorders such as alcohol abuse (Offrd et al., 1987; Myers, 1984).

Radloff and Monroe (1978) summarized a number of findings which indicate that in difficult situations, women experience loss of control, helplessness and feelings of failure earlier and more often than men. In a series of experiments, Baucomb and Danker - Browne (1979, 1984) found that sex - role orientation, rather than sex per se, was the crucial variable determining feelings of failure and helplessness in their experimental tasks. They found that women low in masculinity were particularly susceptible to developing a range of helplessness symptoms, and argued that ‘to the extent that helplessness is an analogue of depression, they may be susceptible to depression’ (Baucomb & Danker - Browne, 1984 p. 248).

The incidence of behavioural problems and psychological disorders increases during adolescence, and striking sex difference become apparent in the pattern of disorder (Rutter & Garmey, 1983). Using retrospective data, some of these have pointed to adolescence as the time when this gender difference first appears. The child and adolescent epidemiological literature generally agrees that rates of depression are similar in pre pubertal boys and girls, and that rates of depressive disorders begin to rise in girls at sometime between childhood and age 15 (Lewinsohn et al., 1995; Reidherz et al., 1993; Angold & Rutter, 1992; Nolen-Hoeksema et al., 1991; Fleming & Offord 1990; Me Gee et al., 1990; Kashani et al., 1989; Guyer et al.,1989; Bird et al., 1988; Andersen et al., 1987; Rutter et al., 1976). The Epidemiological Catchment Area (ECA) studies (Burke et al., 1990) suggested that unipolar depression onset rates were equal in males and females until age 15-19, while the National Co-morbidity Survey (NCS) (Kessler et al., 1993) provided evidence for the emergence of an onset differential by age 10-14.)
In a recent study, Wade et al. (2002) presented a cross-national examination of the emergence of the gender gap in depression during adolescence using national longitudinal panel data from Canada, Great Britain, and the United States. Results revealed that females have significantly higher rates of depression, the gender gap in depression consistently emerges by age 14 across all the three national samples and the age group of 16 and 17 year-old adolescents had the highest reported prevalence of depression among females at time 1 (13.3%), which is 2.5 times higher than males at that age.

Several theories have been proffered to explain the adolescent emergence of the gender difference in depression. Changes in circulating gonadal hormones during puberty are often implicated as exerting direct or potentiating effects on the central nervous system that relates to disturbance in mood (Susman et al., 1987). Some have argued that pubertal change in female morphology (e.g., breast development and increase body fat) may be experienced negatively by some adolescent girls, particularly if the timing of these changes occurs before that their peer group (Stattin & Magnusson, 1990). Two recent studies, however, indicate that pubertal status has a greater influence on female depression rates than either age (Angold et al., 1998; Fatten et al., 1997) or timing of puberty (Angold et al., 1998).

One of the most influential hypotheses proposes that androgynous individuals are less vulnerable to depression because their relatively high levels of both instrumental and expressive traits give rise to more flexible coping processes than sex-typical traits (Spence & Helmreich, 1978). If there are links between variations in androgens, psychological masculinity and vulnerability to depression, early adolescence, during which there is a marked divergence between males and females in androgen levels, is a period during which correlated changes in masculinity and depression would be expected.
As girls enter adolescence and gender role socialization intensifies, in addition to being encouraged to downplay traditionally masculine characteristics (Ecdes 1987; Block, 1983). As girls discard masculine qualities, they may display fewer behaviors that typically elicit positive reinforcement from others (Burnett Anderson, & Heppner, 1995). Consequently, when masculine characteristics are emphasized, females with low levels of masculine traits are at particular risk for low self-esteem.

A number of studies to investigate how gender roles are socialized provide evidence for the early emergence of gender-role consistent behavior and suggest some ways in which such behaviors may be "passed on" from parents (Adams et al., 1995; Kuebli, Butler and Fivush, 1995). The results indicated that mothers talked for a longer amount of time about sadness, and more often emphasized the causes of sadness, with daughters than with sons. It may be that gender roles and stereotypes lead women into internalizing problems because internalizing problems are expected and reinforced for women while externalizing problems are not.

Estimates of the prevalence and magnitude of gender differences in depressive symptoms may be influenced by several methodological factors, foremost of which are the source of information, the types of symptoms that are measured, and sample characteristics (Compas et al., 1997). Informant differences in reports of internalizing problems in adolescence are well documented, especially the relatively low correspondence between parents and children or adolescents in their reports of depressive symptoms (Kazdin, 1994). To the extent that many symptoms of depression are not readily observed by parents, they may also be less sensitive to gender differences in these symptoms in their children. Thus, gender differences would be expected to be smaller in parents' reports than in adolescents' self-reports. Hinden et al. (1997) found significant gender differences and interactions of age and gender in analyses of parents' and adolescents' reports of depressed mood and a syndrome of mixed anxiety and
depression. Several studies have reported statistically significant
differences between male and female adolescents in depressive
symptoms, but most have not considered the magnitude of these
effects.

The results of the present study revealed a nonsignificant
difference between males and females on depression which is in
contradiction to the expectation and previous research that
consistently documented the higher prevalence of depression among
females compared to males. Thus, Hypothesis III i.e., stands
rejected. The evidence is less compelling that gender plays an
important etiological role in depression among students in middle
adolescence. It is difficult to draw definite conclusion concerning the
reasons for no difference between male and female mid-adolescents on
depression. Further probe is required into this lack of gender
difference in depression among this mid-adolescence developmental
stage. Our finding needs further exploration and replication as it has
important implications for studies aiming to examine gender
differences in depression among adolescents by using self-report
instruments. It is suggested for future research to consider multi-
informant ratings such as parents’ ratings, peer group ratings, teacher
ratings, etc to measure the depressive symptoms to draw conclusions
regarding this issue.

Results do not fall in line with the previous findings by Kandel
Ruble et al. (1993), Koenig & Gladstone (1998), Galal et al. (2001),
Ge et al. (2001), Sweeting & West (2003), Sen (2004) and
Gorenstein et al. (2005) who all concluded that there exists a higher
preponderance of female adolescents as compared with male
adolescents in depression.

Though a large number of clinical and epidemiological evidences
suggest a significant gender difference in depression with females
reporting a much higher rate of depression as compared to males,
there are few studies which support a non- significant gender
difference in adolescent depression. For example, Makaremi (1992) who investigated sex differences on a depression scale for Iranian adolescents in a sample of high school students who completed the Zung Self-rating Depression Scale as used in the present investigation. Analysis showed no significant differences on the live subscales of Zung's depression scale for boys and for girls. Also, there were no sex differences on the total score for depression.

According to Joiner et al. (1999) who conducted a preliminary examination of sex differences in depressive symptoms among adolescent psychiatric inpatients (aged 12 to 16) found that sex differences were not found for adolescents with specific depressive symptoms and specific anxious symptoms (i.e., the absence of comorbidity). Findings supported the possibility that sex differences in pure forms of depression are overestimated and that comorbid internalizing conditions may be more prevalent in adolescent girls than boys.

On similar lines, Silverstein (1999) reported that female subjects exhibited a higher prevalence than male subjects on somatic depression but not a higher prevalence of pure depression. In three categories of somatic symptoms, i.e. sleep disturbance, fatigue and appetite disturbance, female subjects exhibited twice the prevalence of somatic depression as male subjects but a prevalence of pure depression was very similar to that of male subjects (3.0% vs 2.3%).

Another strong line of evidence comes from a study by Kovacs (2001) who determined whether there are gender differences among psychiatrically referred young patients in the presenting features and subsequent course of major depressive disorder (MDD) through adolescence. Results showed that salient features of MDD did not differ for girls versus boys, including age at MDD onset, recovery from the index episode, risk of a new episode, and rates of various comorbid disorders in the index and recurrent episodes. Rates of selected symptoms and severity of the depressive syndrome also were comparable for boys and girls throughout their development.
The plausible explanation can be proffered is that at the developmental stage of mid-adolescence, probably the females and males respond in a similar fashion to the pubertal changes, unlike the previously held belief about the increased distress reported among girls in maladaptive and dysfunctional ways of handling these changes that take place in contrast to boys. Our sample seemed to respond in the same way to the changes in their physical appearance i.e., responses regarding their height, weight, appearance or looks. Also, in light of the academic pressures faced by the adolescents in this developmental period i.e., the sample (aged 15 to 17 years) belonged to the Grades 10th, 11th and 12th, and are coping with the problems such as the students are about to embark upon a new professional career after completion of their schooling and clearing the entrance tests for the various Institutes to undertake the professional courses. Infact a number of studies have reported that heightened fear of failure, not meeting educational goals, etc leads to increased negative affect, distress and maladaptive ways of coping, resulting in extreme behavior like delinquency, substance abuse, or suicide. The additional multiple stressors faced by them in relation to the conforming to the belief patterns of the peer group, disappointments in romantic relationships, identity crisis, role confusion, parental pressures, parental marital discord/conflicts, parental depressive/psychiatric/physical illnesses etc. Keeping these factors in view, it seems that both the sexes do not seem to differ in respect to their dealing with such micro (focusing on the day-to-day minor stressors that people experience, i.e., daily hassles) and mezzo level stressors (life changes of some major significance to the individual i.e. death of a loved one, serious financial problems, etc) that refers to the irritating, frustrating, distressing demands made by everyday transactions with the environment! All these factors contribute to the development of psychopathology among mid-adolescents in a similar manner irrespective of their gender in this age group. Moreover, our study utilized a self-report instrument to assess
the depressive symptoms per se and not a depressive disorder. Findings need further probe regarding diagnosis of a depressive disorder and gender differences in that context.

Another possible explanation is in terms of the gender role socialization patterns followed by their parents. In a world of vast social and technological changes, the educated professional parents seem to follow similar parenting and rearing techniques for both the genders. In face of the academic pressures of these adolescents striving to reach their goals and heightened competitiveness and associated stress, the present day scenario seems to favor females with as much compassion and strong social support by the parents to deal with these stressors as provided to the male mid-adolescents. As a result, they are both socialized to experience and express affect as intensely and externalizing coping strategies are reinforced in girls as much as in boys. Considering the fact that girls are proving their worth and hold better positions in the academic and professional spheres of life. In terms of psychological masculinity and vulnerability to depression, there may be reduced divergence between males and females in mid-adolescence, a period during which correlated changes in masculinity and depression would be expected. As girls are encouraged to adopt masculine characteristics unlike the traditionally held belief and they may display behaviors that typically elicit positive reinforcement from others.

These reasons are speculative in nature and warrant further replication of the results of this study to generalize them. As the importance to document the extensiveness of gender differences in depressive problems is in determining their role in overall models of adolescent development. If boys and girls in the general population differ in symptoms of depression, then this difference may represent a pervasive feature of normative adolescent development. Alternatively, if gender differences in these symptoms are limited to clinically referred youths, they may reflect processes that characterize only a subgroup of high-risk adolescents. Gender differences limited to only
high-risk groups suggest that adolescence is not intrinsically associated with such differences in depressive symptoms. Also, if gender differences are small in the general population, process-oriented research (Nolen-Hoeksema & Girgus, 1994) will need to focus on samples of high-risk or clinically referred adolescents to achieve sufficient statistical power. The patterns of gender differences in community versus clinical samples would suggest that prevention and treatment programs need to be tailored differently for boys and girls, depending on the nature and scope of gender differences in the general population as opposed to selected, high-risk subgroups.

The literature on adolescent depression is quite inconsistent concerning gender differences. Some studies find no differences in depression between adolescent males and females (Mitchell et al., 1988; Baron and Joly, 1988; Kaplan et al., 1984; lacohson et al., 1983; Fnedrich et al., 1982). Although this may be due to differences in results that compare untransformed scale scores with categorical cut points (Roberts and Chen, 1995; Roberts et al., 1995; Ten., 1982), inconsistencies in findings likely result from the variability in age ranges across studies. Ten (1982) examined 14- to 17-year-old adolescents with the BDI. She found significant differences across gender and age using categorical cutoffs, but no differences when comparing mean scores.

Another methodological issue involves the types of symptoms that are measured, as gender differences may be more pronounced in some types of internalizing symptoms than others. All of the manifestations of depressive problems are clinically meaningful (Compaa, Ey, & Grant, 1993), but there may be considerable variance in the magnitude of gender differences across these different types of symptoms and disorders. Silveratein et al. (1995) found that female adolescents reported more symptoms of mixed anxiety and depression than did male adolescents, but no gender differences in more “pure” symptoms of depression.
A review of literature reveals that adolescents who are referred for mental health services are not surprisingly, expected to manifest higher levels of depressive symptoms than nonreferred adolescents sampled from the community. Gender differences could be greater in referred samples for two reasons. Referrals for mental health services could reflect gender stereotype assumptions of parents, teachers, and other adults who are likely to initiate this process. This may include an assumption that girls are more likely than boys to manifest internalizing problems, including symptoms of depression. Gender differences may also be greater in referred samples because these youths represent an extreme subgroup of adolescents who are more vulnerable to internalizing problems, and girls may be more vulnerable than boys to such problems (Nolen-Hoeksema and Girdus, 1994). Alternatively, if parents and others assume that girls are more likely than boys to experience depressive symptoms, this could lead them to minimize gender differences among referred youths, as boys may have to exceed a much higher threshold of depressive symptoms to be referred (Compas et al., 1997).

Compas et al. (1997) reported that adolescence is not characterized by pervasive gender differences in depressive symptoms in the general population; rather gender differences are limited to a subgroup of adolescents who have been referred for mental health services, with referred girls consistently highest in depressive symptoms. It appeared that most adolescent girls and boys do not differ substantially in the amount of sadness, unhappiness, fear, and anxiety that they experience. When the simple effects of gender were examined separately from referral status, nonreferred male and female adolescents did not differ in parents’ ratings of mood, syndrome, or analogue, or in adolescents’ ratings of the analogue of major depression.

This is consistent with the findings reported by Silverstein et al. (1995) in a community sample of adolescents in which significant gender differences were found for self-reports of mixed symptoms of
anxiety and depression but not for a more "pure" index of symptoms of major depression. This suggests that the largest gender differences occur in symptoms of affective distress (depressed and anxious mood), and smaller differences may exist in other symptoms of depression (e.g., sleep and appetite disruption, concentration problems).

In another study, Laliiner et al. (2002) examined gender differences in rates of comorbid psychiatric disorders among adolescents (aged 12 to 19) with 1 or more psychoactive substance use disorders. They found that rates of dysthymia, double depression (i.e., major depression and dysthymia), and bipolar disorder were equivalent between genders.

Though a few studies have failed to report gender differences in the severity or symptomatology of depression in a highly representative sample of patients with depressive disorders, Hildebrandt et al. (2003) found that the severity of depression was similar for men and women i.e., 22% mild, 56% moderate and 23% severe depressive episodes and the mean number of symptoms presented was 6.6 of 10 for both genders.

On similar lines, Maharajh, Neuro, and Ali (2004) investigated the prevalence of depressive symptomatology, major depression and dysthymia in Tobagonian adolescents (aged 14 to 18 years). They found that though females were more likely to have depressive symptomatology and major depression than males, there were no gender differences in dysthymia.

Another important study by Bennett et al. (2005) examined whether gender differences in depressive symptoms are present during adolescence at an outpatient clinic. Results indicated that depressed girls and boys had similar symptom prevalence and severity ratings for most depressive symptoms. However, depressed girls had more guilt, body image dissatisfaction, self-blame, self-disappointment, feelings of failure, concentration problems, difficulty working, sadness/depressed mood, sleep problems, fatigue, and health worries than depressed boys on some comparisons. In contrast, depressed
boys had higher clinician ratings of anhedonia, depressed morning mood, and morning fatigue.

Given the strength of stereotypes and self-expectations about the said differences in the mood and related behaviors, experimental and observational studies seem to have clear advantages over self-report and correlation studies. All studies in this area, however, must contend with the fact that a fundamental component of mood. It is the subjective experience of mood supports the use of self-report instruments to assess the depressive symptoms. Therefore, the multimethod programs of research using self-reports, experimental and observational methods to explore the viability of existing and newly proposed explanations for gender differences in depression should be encouraged.

4. INTERACTION BETWEEN NEGATIVE COGNITION AND STRESS IN PREDISPOSING ADOLESCENTS TOWARDS DEPRESSION

The cognitive diathesis-stress model of depression (Monroe & Simons, 1991; Abramson, Metalsky, & Alloy, 1989; Beck, 1967) postulates that negative cognitions are a vulnerability factor that interacts with negative life events to contribute to the onset and maintenance of depression. According to this perspective, individuals who have a negative cognitive style are more likely to become depressed when they experience stressful life events than are individuals who do not have such a style.

Beck (1967, 1976, 1987) has proposed that depressed individuals have a cognitive triad of negative views about the self, the world, and the future, and negative information-processing biases and distortions. In addition, Beck hypothesized that depressive schemas or dysfunctional attitudes are activated by important stressors within a domain of personality vulnerability, leading to negative automatic thoughts and depression. Beck defines schemas as stored bodies of knowledge that affect the encoding, comprehension, and retrieval of information. Schemata exert this effect by guiding
attention, expectancies, interpretations and memory searches. The content and organization of different individuals’ schemata vary idiosyncratically according to their particular experiences.

Beck (1967, 1983) hypothesizes that depressogenic schemata are typically latent in individuals vulnerable to depression and must be activated by relevant stressors in order to exert their influence on information processing. In the absence of such aversive life events, depressogenic schemata remain inactive and do not exert an influence on patterns of thinking. Several studies conducted within the framework of Beck's theory support this line of reasoning by showing that dysfunctional thinking in individuals vulnerable to depression (as defined by past history of depressive disorder) appears when activating stimuli (mood and life events) have primed otherwise latent underlying cognitions. Such dysfunctional thinking, however, does not appear in non-vulnerable individuals following priming procedures (Dykman, 1997).

The reformulated learned helplessness (Abramson, Seligman, & Teasdale, 1978) and hopelessness (Abramson et al., 1989; Alloy, Abramson, Metalsky & Hartlage, 1988) models of depression also are cognitive diathesis-stress models. According to the reformulated learned helplessness model, when people experience a negative event, those who attribute the causes of negative event to stable, global, and internal factors are more likely to become depressed than are individuals who do not have such a negative explanatory style. The hopelessness theory of depression (Abramson et al., 1989; Abramson, Metalsky, & Alloy, 1988) is also a diathesis-stress model in which explanatory style is hypothesized to be a more distal contributory cause that interacts with an important negative life event to create a hopelessness belief.

The results of the present investigation are in consonance with Hypothesis IV. The results of the current study revealed that mid-adolescents with high stress and high negative cognition reported higher scores on depression as compared with those low
on stress as well as negative cognition. This finding supports the cognitive diathesis- stress model and suggests that the occurrence of stressful life events in the presence of cognitive vulnerability will tend to produce a depressive reaction, whereas stressful events or vulnerability on their own may be relatively much less depressogenic. In other words the operation of vulnerability is event-related and it should not be associated with depression in the absence of an event. From this it follows that among those suffering from depression, there should be evidence for pre-existing cognitive vulnerability in individuals who have experienced a stressful event. Lower levels of vulnerability should be evident in both depressed people who have not experienced an event and in the non-depressed.

In terms of our sample, the plausible explanation that can be proffered is that when faced with a seemingly overwhelming accumulation of micro-stressors (i.e., daily hassles), the mid-adolescents may feel less capable of solving their problems, despite having the necessary skills. Instead, they often resort to avoidance shift, causal attributions to factors beyond their control, or adopt irrational beliefs. It may be that a poor self-concept acts as vulnerability factor that in combination with a stressor further decreases self esteem or makes the negative aspects of the self more salient and thus increases the risk of depression. According to hopelessness theory, stressors are particularly likely to lead to pessimistic expectations about the future among individuals who tend to explain such negative events in terms of internal, stable, and global causes, and who have more negative views of themselves. Therefore, interventions that focus on improving adolescents’ orientation to problems - helping them effectively resolve daily stressors are recommended for reducing the symptomatology.

Ingram et al. (1998) have suggested in this regard that cognitive factors serve as the final common pathway to depression, at least for depression that is primarily psychologically mediated (as opposed to that which may be primarily biologically mediated, such as
bipolar disorder). The final common pathway hypothesis therefore proposes that the interpretation of stressful events, and interactions with others, are dependent upon the processing functions of depressogenic cognitive structures. Hammen (1991b) summed up this perspective nicely in a discussion of stress generation in depression:

*Negative cognitions about themselves and events may alter their responses to circumstances or may contribute to an inability to cope with emergent situations and may also determine reactions to personally meaningful events [i.e., stress-generation]. In a sense, therefore, depression causes future depression through the mediation of stressors and cognitions about the self and circumstances, (p. 559)*

Empirical tests of cognitive vulnerability-stress models have provided compelling evidence for the identification of attributional styles that may alter the impact of stressors on psychological adjustment; however, in many studies this model has been applied without consideration of developmentally salient stressors that may have an important influence on adaptation. In contrast, some developmental studies have largely focused on the impact of significant life stressors (e.g., peer rejection), but have not considered predisposing vulnerabilities that may mitigate or magnify the effects of these stressors on development (Prinstein and Aikins, 2004).

Social-cognitive theories of depression (e.g., Abramson et al., 2002; Hankin & Abramson, 2001) offer a promising framework for understanding individual differences in the way people respond, both cognitively and affectively, to negative life events. Generally, these theories posit that some people explain stressful and negative life events in a more optimistic way and consequently may be relatively unscathed by them. In contrast, other people interpret such stressors in a more pessimistic manner and as a result may respond to these events with strong and enduring negative emotions.

In particular, the hopelessness theory of depression (HT; Abramson Metalsky, & Alloy, 1989), a prominent social-cognitive-
stress model of depression posits that individuals have characteristic ways of understanding negative life events. According to HT people are more likely to become depressed when a negative event is (a) attributed to stable (persisting over time) and global (i.e., affecting multiple areas of life) causes, (b) perceived as leading to other negative consequences in the future, and (c) viewed as implying something negative about the self (e.g., worthlessness). When made in response to stressors in the flow of daily life, these cognitions defined in HT as event-specific inferences. HT postulates that these are individual differences in the way people make event-specific inferences, such that those who exhibit a dispositional depressogenic cognitive style are more likely than others to make negative inferences about events and thus are at a greater risk for becoming depressed (Abramson et al., 1989). In other words, not only it posited that event-specific inferences lead to depression but some people are more likely to make these kinds of inferences about others.

Hankin, Fraley, and Abela (2005) suggested two reasons why it is necessary to determine which of these structures best characterize the way that attributions and inferences about the negative life events are made across time. First, if the nature of the inferences that people make about life events is not an enduring facet of their personalities but only a temporary response to current circumstances, then contemporary theories of cognitive vulnerability to depression need to be reevaluated. Second, if these inferences do not conform to a trait like model, then future research may profit by focusing more on the situational contexts that confer vulnerability to depression and less on the dispositional cognitive styles that are hypothesized to serve as a stable vulnerability for depression.

Additionally, exposure to disappointments, losses, failures, and other negative events over the course of development can affect an individual’s outlook on life, particularly if these experiences are pervasive and severe (Jannoff-Bulman, 1992). Chronically aversive life circumstances (e.g., abuse, poverty, parental discord) or major
traumatic life events (e.g., parental death, physical assault) are especially likely to affect individuals' sense of themselves, their world, and their future (Janoff-Bulman, 1992; Rose & Abramson, 1992). Aversive events that result in multiple and severe bad outcomes are likely to lead to cognitions of universal helplessness and hopelessness (Abramson et al., 1989); individuals who believe they were responsible for the negative events are more likely to develop cognitions of personal helplessness and low self-esteem (Abramson, Seligman, & Teasdale, 1978). Thus, stressful life experiences can provide the foundation for the formulation of negative beliefs.

The results of the tests of the cognitive diathesis-stress model have been inconsistent. The various studies have differed with regard to the duration between the stressor and the assessment of depressive symptoms, the type of stressor and their measurement of attributions (e.g., general attributional style, specific attributions).

Results of few studies that have examined negative cognition as a diathesis interacting with stressors in children and adolescents have also been mixed. Hammen (1988) reported that in children self-concept and stressors each significantly predicted depressive symptoms, whereas their interaction did not. Hammen, Adrian, and Hiroto (1988) failed to find that attributional style interacted with stressors to predict later depressive diagnoses in a sample of offspring of medically ill, depressed, and normal mothers. In a longitudinal study of children in the third through eighth grades in which depressive symptoms and life stressors were assessed every 6 months, Nolen-Hoeksema, Gergus, & Seligman (1992) and Nolen-Hoeksema et al. (1986) found that the interaction of negative life events and depressogenic explanatory style predicted depressive symptoms at two of nine time points, and more so for older rather than younger children. These interactions of the form that children with a more depressogenic attributional style were at a greater risk for depression when they experienced a negative event than were children without such a cognitive style. Their test of the cognition-stressor
interaction was limited, however, by a relatively narrow range of life events and possible problems with multicollinearity. In a cross-sectional study, Cole and Turner (1993) reported that attributional style and negative cognitive errors mediated the relation between stressful events and depressogenic symptoms in children, although they found little evidence that the interaction of cognitions and stressors predicted depressive symptoms.

Within the context of having a depressed mother, Goodman and Gotlib (1999) suggest a variety of factors that may be associated with the development of negative cognitive structures (e.g., modeling negative cognition and interactions, and exposure to depressive behaviors and affect). Likewise, Cole et al. (2001) have pointed to the “looking glass” hypothesis to conceptualize the development of depressive cognitive structures, Suggested by Cooley (1902) and Meade (1934), the looking glass hypothesis proposes that views of oneself are constructed from the perception of others. Hence, as children develop self-schemas, a lack of care or rejection by important attachment figures (i.e., caregivers) appear likely to generate personal themes of derogation and unworthiness that become deeply encoded in these self-structures. Also encoded are concepts linked to the experience of disrupted attachment such as representations and memories about the behavior of significant others. In the terminology of attachment theory, these experiences should not only determine the working models (or schemas) of oneself, but should also determine how people are generally inclined to see others, as well as expectations for how to interact with others.

Other studies that have found less support for the cognitive diathesis-stress model include a study by Follette and Jacobson (1987) who reported that specific attributions about an exam interacted with the stressor in the expected direction, but general attributional style did not predict depressive symptoms. In another replication study, Hunsley (1989) found that negative attributional style interacted with subjective stress to predict changes in depressed
affect immediately after an exam, although the interaction did not predict affect after grades were received.


In another study, Joiner (2000) suggested that in the presence but not the absence of negative life events, negative attributional style relates to the onset and exacerbation of depressive (not other) symptoms. Moreover, negative attributional style relates to depression onset or exacerbation specifically via changes in hopelessness (not other mediators). Abela (2001) also indicated that a depressogenic attributional style and depressogenic inferential style about consequences interacted with negative events to predict increases in depressive symptoms in seventh-grade children but not in third-grade children.

Another line of evidence comes from a study by Abela and Alessandro (2002) who found that consistent with the diathesis-stress component of Beck’s theory, dysfunctional attitudes predicted increases in depressed mood immediately following in negative outcome. In addition, consistent with the causal mediation component of the theory, in negative outcome students, the relationship between dysfunctional attitudes and increases in depressed mood was mediated by negative views of the future.

An important challenge for future researchers is to identify the processes by which cognitions in the presence of stressors produce such enduring emotional distress. That is, how do negative cognitions about the cause of events or about one’s competence make individuals vulnerable to depression once a stressor occur and most important why does the distress continue? Do individuals with a negative cognitive style engage in different coping responses when negative
events occur? For example, are they more likely to ruminate about the negative meaning of these events concerning the self and their future, thereby maintaining their depressive symptoms (Nolen-Hoeksema, 1991; Abramson et al., 1989)? Future tests of the cognitive-stress model need to assess individuals’ cognitive vulnerabilities and coping repertoires at multiple points both before and after the negative event occurs.

5. INTERACTION BETWEEN STRESS AND GENDER IN PREDISPOSING ADOLESCENT TOWARDS DEPRESSION

Adolescence is not an easy developmental period for many teenagers. When children enter adolescence, they are suddenly exposed to a variety of new experiences and challenges. Some of these experiences and challenges originate from within, such as dealing with pubertal changes, while others are associated with external forces such as peer pressure (Cummings, Greene, & Karraker, 1991). Consequently, adolescents cope with these challenges and the impact this has on their adjustment has been the impetus for a large amount of research.

Research has indicated that stress is a contributory factor in a variety of physical and mental health problems (Brantley & Jones, 1993; Newberry, Baldwin, Madden, & Gerstenberger, 1987; Holmes & Masuda, 1974). The notion that life events contribute significantly to the development of physical and psychological disorders has spawned a diagnostic category called “psychological factors affecting physical conditions” in the Diagnostic and Statistical Manual of Mental Disorders (Third Edition, Revised).

One period of life characterized by rapid physiological, social, and cognitive changes that may generate stress is adolescence. According to Nielsen (1987), the adolescent is faced with numerous demands (e.g., family, school, peer groups) and “microscoping” responses to these demands (e.g., truancy, drug abuse, isolation) can intensify the stressful transition to adulthood. Although most adolescents are free of serious health problems, studies have
consistently shown a positive correlation between the accumulation of recent negative life events and reported psychological and physical health problems (see review by Johnson, 1986). For example, Greene, Walker, Hickson, and Thompson (1985) found that life stress was positively associated with recurrent pain and behavioral problems among adolescents seen at an outpatient clinic.

Besides the developmental stresses there are other stressful undesirable life events which also place new demands and effect a child's adjustment (Goodyer et al., 1985). The main attributes of stressful life events that affect children's adjustment are their (a) undesirability (Sarason et al., 1978) (b) recency (Sandier & Block, 1979) and (c) frequency of occurrence (Myers et al., 1974). Moreover the effect of a chronic adversity is much different from an impact of a specific isolated event (Rutter, 1981). Homes and Rahe (1967) assumed that the stressful life events have an additive effect on the psychological well being of an individual.

Recent advances in the psychosocial understanding of depression have elaborated an already complex etiological model. Although recent stressors have for sometime been recognized predictors of onset, new insights about the origins of these stressors have overlapped with other new work on depression and childhood adversity to identify a group who ‘produce’ their own severe life events in response to early negative experience. And recent studies have traced the well-known gender differences in depressive prevalence to differences both in gender role involvement with the provoking life events and in styles of support-seeking/support giving (Harris, 2001).

The results of the present study with respect to gender differences as well as the role of stressful life events in depression demonstrated that females who were high on stress scored significantly higher on depression than males high on stress. But the gender differences were largely eliminated in case of groups low on stress. Clearly the most important variable in reducing the
gender differences was stress. Pending replication, these results suggest that if mid-adolescent females felt lower stress they would not experience so much depression different from mid-adolescent males.

Another important finding of this investigation is the non-significant main effect of Gender i.e., the independent role of gender could not contribute as a risk factor for adolescent depression seems to have been confounded by the influence of stress as a moderator and further the interaction between stress and gender to predispose the adolescents towards depression was moderated by the influence of negative cognition which seems to have emerged as a most crucial variable for developing depression among our sample of mid-adolescents.

Many studies have shown that everyday stressors are strongly associated with adolescents’ levels of maladjustment and this general relationship was obtained in the present investigation. Further, the prediction that this association would be stronger for female adolescents was also supported in the present study. The present data suggest that girls during the critical middle adolescence period manifest a more extreme reaction to potentially stressful events that occur, i.e., they rate a given stressful event as more intensely problematic than males. In addition to biological changes associated with puberty, adolescents undergo equally dramatic transitions in social roles, including major changes in school environments as well as parental, peer, and romantic/sexual relationships. Many of these results are congruent with past research. Wenz-Gross et al. (1997) and Tubman and Windle (1995) also found that females reported more everyday stressful events and that these events constituted more of a problem in comparison to males. Several other studies (e.g., Nolen-Hoeksema, 1998; Nazroo, Edwards, & Brown, 1997) have shown that girls and women react more strongly to stressful events, however there is no clear research evidence why this gender difference occurs. Kendler, Thorton, and Prescott (2001) suggest that
particular events might have a differential impact on males and females, however they found no convincing evidence in their study that females are generally more reactive than males. Our study found evidence in this dataset that certain problems are perceived as impacting differentially depending on gender. The large majority of gender differences on stressor items found here showed an imbalance toward females. It is possible that the stress measure underrepresented events important to males, or it may be that the gender difference in stressor intensity caused this imbalance. Further research will be needed to disentangle this conundrum.

In the present study, adolescent males and females did differ with respect to the experience of stress with females reporting higher scores on depression in response to life events perceived as highly stressful. However, adolescent females did report a greater number of symptoms based on the data, it is not clear whether differences in symptomatology can be attributed to sex role orientation or to differential awareness of one's body. Previous studies (e.g., Cohen, Brownell & Felix, 1990) have shown that preadolescent and adolescent females tend to be more aware of physical symptoms than are male adolescents. Recent data suggests that pubertal maturation "sensitizes" females to the depressogenic effects of negative life events. Future studies should consider sex role orientation and self-awareness as possible moderators of the stress-illness relationship among adolescents.

One limitation of the current study could be the use of self-reports. It has been suggested that self-reports are not always the most reliable or valid method of data collection (Shatter, 2002). Pipher (1996) has noted that adolescent girls tend to report events and occurrences dramatically and emotionally. On the other hand, boys may be inhibited by social desirability bias and gender stereotypes, and may not disclose their true feelings (Shaffer, 2002). This problem could be overcome by using an alternative method to collect data- such as interviews or focus groups.
One plausible explanation often given as to why females manifest increased symptomatology associated with stress involves socialization (Rcskin & Cover-man 1985; Kessler & McLeod, 1984). Specifically, sex roles differentially expose the sexes to stressful events which may adversely affect well-being. For example, Frank, Mc Laughlin, and Crusco (1984) examined the effect of sex role orientation on symptom distress among college students. They found that masculine women reported less psychological distress, while feminine men reported greater psychological distress. Therefore it is possible that due to gender role stereotyping and socialization, children respond differently to the stressful events that they face in early adolescence. This is implied by Windle (1992) who concluded that boys are socialized towards more independent and adventurous behaviours, whereas girls are socialized towards more interpersonal behaviours. This is also consistent with Rudolph and Hammens’s (1999) findings that particular stressors may have a greater impact on females (dependent interpersonal stressors) while others may have more of an impact on males (non-interpersonal stressors). Therefore it appears possible that gender role socialization may influence the reactions to specific stressors that males and females experience. Moreover, this theory fits with the “cost of caring” hypothesis (Turner & Avison, 1989; Kessler & McLeod, 1984) which posits that women are more affected by events affecting others because they develop more intimate (or affiliative) interpersonal relationships. This would be a useful variable to examine in future studies.

Few studies which contradict the present findings suggesting lack of gender difference in perceived stress, include a study by Wagner and Compas (1990) who found that although girls reported more negative life events than did boys, there was no significant difference in the strength of the stress-illness relationship as a function of gender. In other words, they reported no evidence of one gender being at greater risk than the other for developing
psychological symptoms in response to life stress. The results of the present investigation contradict their findings.

On similar lines, Baldwin et al. (1997) assessed the stress-illness relationship, specifically with respect to race and gender, among adolescents. No significant race or gender differences in reported stress and anxiety levels were found. However, African-American adolescents reported fewer physical symptoms than did their (Euro-American counterparts). Further, female adolescents reported significantly more physical symptoms than did males. Overall, life event stress and anxiety were positively related to reported symptomatology. As for gender, adolescent females tend to show greater reactivity to stressful events involving individuals within their social networks as compared with males. However, both groups appear to be similar with regard to negative life events that happen to themselves. No significant differences were found here for either measurement of stress - stimulus (number of life events experienced) or cognitive orientations (perceived stress). Therefore, findings seem to suggest that the general experience of stress during adolescence is consistent across gender.

Fairly extensive literature is available that support our obtained findings, such as Angold et al. (1997) found that the stress - depression relationship became stronger for females as they matured physically, it actually decreased for developing males. Hence, by late puberty boys no longer showed a significant correlation between life stress and depressive symptoms, in contrast to the significant and strong relationship displayed by girls in late puberty.

In another study, Silberg et al. (1999) showed a significant effect of life events, with a stronger effect in the pubertal girls. For boys, depression appears to be largely attributable to the occurrence of negative life events, since any age-related increase in male depression is evidenced only among those who have experienced a life event in the past year. The results indicated a significant effect of the
genes only in the adolescent girls that account for approximately 28% to 30% of the overall variance in the depression.

On similar lines, Rudolph and Hammen (1999) found that adolescent girls experienced the highest levels of interpersonal stress, especially stress and conflict that they generated within parent-child and peer relationships. Pre-adolescent girls experienced the highest levels of independent stress and conflict in the family context. Adolescent boys experienced the highest levels of non interpersonal stress associated with self-generated events. Girls demonstrated particular vulnerability to depressive responses to dependent stress.

Another line of evidence comes from Takakura and Sakihara (2001) which revealed that female students were likely to report more depressive symptoms, life stresses, and low self esteem and poor health practices. Also, Schraedley et al. (1999) found that depressive symptoms were found to differ by gender, age, socioeconomic status, and ethnicity. Importantly, stress and social support appear to be particularly salient aspects of depression among girls. Both physical and sexual abuse was strongly linked with depression for both boys and girls, with sexual abuse having a stronger impact among boys.

Ratcliffe (2004) found that girls and older adolescents report greater frequencies and intensities of stressors and worse adjustment than boys and younger adolescents. Girls reported significantly more stressful events from age 12 to 17 than boys, and girls showed higher levels of internalizing from age 13. They also found that girls reported higher perceived Stressor intensity than boys. Results showed that female adolescents, particularly in the critical middle adolescent period, reported more stressors, higher levels of psychological dysfunction, and reveal stronger relationships between stressors and internalizing symptoms than males. More attention needs to be devoted to determining why girls in middle adolescence report more stressors, rate those stressors as more intensely stressful, and report higher internalizing symptoms than males.
ROLE OF SOCIAL SUPPORT IN MODERATING THE INFLUENCE OF NEGATIVE COGNITION, GENDER AND STRESS IN ADOLESCENT DEPRESSION.

There has been a considerable amount of research showing that support from family, friends, and community networks is related to better physical health and lower levels of psychological symptomatology (e.g., King, Reis, Porter, & Norsen, 1993; House, Landis, & Umberson, 1988; Cohen & Syme, 1985). Protective effects of social support among adults have been found both for structural measures such as total network size and for functional measures such as availability of emotional and instrumental support (Wills, 1991; Cohen & Wills, 1985). Protective effects also have been noted for adolescents (Wills, Mariani, & Filer, 1996; Sandier, Miller Short, & Wolchik, 1989). In the Indian context too, social support may be assumed to be a good predictor of psychological well-being as reported by Nathawat & Rathore (1996), Rathore et al. (1994) and Nagpal and Chadha (1991).

Two essential constructs of social support are perceived and received social support which are weakly inter-related (Sarason et al., 1987, 1992). Received support refers to naturally occurring helping behaviors that are being provided, whereas perceived support refers to the belief that such helping behaviors would be provided when needed. Considering how parallel these aspects of support appear to be, it is surprising that they produce strikingly different effects as variables influencing the stress-to-health process. Over the years, research has proclaimed the superiority of perceived social support over received support, because it more consistently promotes psychological health and protects it in times of stress (Cassel, 1976; Cobb, 1976). Perceived social support might be more clearly related to mental health as the type of support that an individual's needs may not match the specific needs, when under stress and the individual social environment at that time may not be able to protect the person from developing psychopathological symptoms. As Pierce, Sarason,
and Sarason (1991) have noted: “A person can believe that others, in general, are likely to be supportive despite the fact that a particular friend is not especially helpful, or even that no one is currently available from whom to get social support: (p.1028). The problem with received support is that, its levels are associated with severity of stressors and psychological reactions, its merit depends on who provides it and who receives it, its receipt may be threatening to self-esteem, its type may not be appropriate, or its delivery may be inept. Even researchers who have conceptualized perceived social support as a relatively stable and elaborate relationship schema (or personality variable) recognize that part of the variance in a person’s global sense of being supported in times of need (Sarason, Sarason & Pierce, 1992). Sarason et al., (1986) found that perceptions of global support displayed traitlike levels of temporal stability, with high test-retest correlations over a 3-year period. Global support was more strongly con-elated with cognitive personality variables than it was with the actual presence of supportive behaviors in the social environment (Lakey & Cassady, 1990).

In the light of the objectives of the current study, the findings failed to reveal the intervening role of social support in the interaction of gender, negative cognition and stress.