Research has indicated that problems related to school are one of the major concerns among adolescents. The pressure to perform well increases the level of stress especially academic stress among students.

Previous research mainly focused on the academic stress and coping strategies. The present study connects academic stress with positive psychological variables such as optimism, resilience, self efficacy and attachment and analyzes the role of these variables in buffering the effects of academic stress. Coefficient of correlation was calculated to identify the relation of optimism, resilience, self efficacy and attachment with academic stress among adolescents.

Analysis of result showed that academic stress has significant negative relation with optimism ($r = -0.687, p<0.01$), resilience ($r = -0.417, p<0.01$) and attachment ($r = -0.237, p < 0.01$), whereas negative but insignificant relation with self efficacy ($r = -0.026$). Together optimism, resilience, self efficacy and attachment account for 61.6% variance in academic stress. However individually, only optimism and resilience significantly predicts academic stress.

**Optimism**

The results indicated that optimism is negatively and significantly related ($r = -0.687, p<0.01$). These findings are in line with previous studies that have highlighted the role of optimism as buffer to life stressor (Chang 1996, Carver et al 1993). Generally optimistic people have more positive view of life, analyze majority
Discussion

of life situations with positive outlook and expect positive consequences, whereas pessimists analyze majority situations as negative and expect negative outcomes. It is also seen that students with high optimism experience less stress and higher psychological well being. Optimistic individuals usually look for good outcomes from difficult situations and try to acquire something out of them (Aspinwall and Taylor 1992, Scheier, Carver & Birdges 2002). Jackson, Weiss and Lundquist (2000) suggested that optimists not only differ in their perception about future outcome but also differ in their behaviour while adjusting to difficulty.

The results are also in line with previous research by Scheier and Carver (1988) which indicated that students who report high optimism in the starting of the semester dealt effectively with difficulty later in the semester. Aspinwall and Taylor (1992) also pointed out that optimistic students handle the transition from school to college in a better way. Chemers, Hu, and Garcia (2001) in their longitudinal study found similar results. This study also highlights that students with high optimism generally hold high expectations for themselves as they have trust in their abilities and therefore their situations are perceived to be less threatening by them. They tend to consider their environment in a way that enables them to adjust effectively with it. In difficult times optimists exert sustained efforts for positive outcome; on the other hand, pessimists try to temporarily escape the situation without finding a permanent solution which eventually leads to stress. According to cognitive adaptation theory by Taylor and Brown (1988) positive change in perception towards a situation and making required cognitive adaptation enables effective coping.
Optimists not only use coping responses that are different from pessimists but these responses are also relatively more stable across situations. Optimism is related with higher level of engagement coping and lower level of avoidance coping. Review of literature shows that as compared to pessimist, optimist students more frequently use problem centered coping like actions that are aimed towards reducing or removing the source of stress (Scheier et al 1994).

According to another line of reasoning optimists and pessimists differ in their attributional style. Attributional theory states that optimism empowers individuals to protect themselves from threat by distancing themselves from stressors (Seligman 1991). Though optimistic students generally evaluate setbacks as situational this enables them to formulate a plan that reduces difficulty. Pessimists on the other hand perceive difficulty as failure and thus remain sad and stop trying to overcome the problem (Olpin 1988). Seligman (1990) has described a “pessimist” explanatory style that involves a tendency to attribute failure to internal, permanent and pervasive causes and success to external, temporary and specific causes. In contrast “optimistic” explanatory styles are biased towards the exact opposite pattern of attributions for success and failure. Though coping and attribution are not the variables of the study but lot of review of literature indicate that coping and attribution style can be used to support the results of this study.

Resilience

Results indicated that there is a significant negative correlation between resilience and academic stress ($r = -.417$, $p<0.01$).
These findings are in line with previous studies that have indicated that resilience reduces the effects of stress (Li, 2008). It also leads to development of positive attitude towards stress, leading to adoption of more positive coping towards stressful situation. In the present times students face many internal as well as environmental stressors (Tusaie, Puskar & Sereika 2007). Although stress is generally assumed to increases the risk of psychological distress among students yet a lot of students suffering from same intensity of stress do not develop psychopathology. Studies in this field attribute this to the resilience of the students.

Resilience is indicated by adaptive behaviors and life patterns. Resilient adolescents have more chances to adapt well when they face difficult situations. This has been supported by a report on review of Child and Adolescent Mental Health Services (CAMHS Review, 2008). This report states that resilience along with other components of mental health and psychological wellbeing is needed to form relationships, enjoy company and deal constructively with the setbacks that everyone faces from time to time. Students with high resilience show adaptive coping and generally convert stress into opportunities to learn and develop.

Individuals with high resilience tend to have a wide array of positive psychological resources like optimism, tranquility, low neuroticism and high openness. There are more chances that they find positive meaning in difficulties they face from time to time. Thus when such students come across stressors, they bounce back very fast during the course. Generally resilient people look for the positive side in the face of adversity.
The results are also supported by transactional stress theory. According to this theory when an individual faces stressor, he/she evaluates the potential threat. During this evaluation individual first appraises the significance of the situation and then he/she makes the assessment of his/her coping resources. This theory further states that personality characteristics such as resilience affect the appraisal process which mediates the stressor stress response. Earlier appraisal of stress and resilience can reduce the potential threat of stress on students.

Campbell-Sills, Cohan & Stein (2006) found in their study that students with high resilience use more task oriented coping or active, problem focused coping to deal with stressor. Similarly in another study by Dumont and Provost (1999), the adolescents with higher resilience level were found to use more problem solving coping strategies as compared to adolescents with low resilience level. A study by Steinhardt and Dolbier (2008) also showed that the resilience program may be useful in managing as well as in preventing the stress among college students. Research have indicated that people with high resilience employ positive emotions to reduce the effect of stress and show different physiological reactions while dealing with stress.

In a study by Clifton, Perry, Stubbs and Robert (2004), it was indicated that various demographic and environmental factors, problem focused coping along with perceived control has effect on academic achievement. Similarly Struthers, Perry and Menec (2000) indicated in their study that students employing problem focused coping perform better in academics as compared to those who are involved in emotion focused coping. Thus student’s resilience and demonstration of resilience are connected to effective adaptive resources to academic stress.
Self efficacy

Third hypothesis focuses on identifying the relationship between academic stress and self efficacy. Results showed that there is a negative but insignificant relation between the self efficacy and academic stress ($r = -.026$).

In India students face a lot of academic stress during their school years. This academic stress reaches its peak in class XI and XII. The reason for such high level of academic stress is that in class XI students opt for new subjects generally without knowing there ability for the same whereas in class XII the pressure to perform well in board examination increases academic stress. This is also the time when the students simultaneously start planning their future career paths. Most of the students start taking coaching alongside their regular school workload.

So it can be stated that even with high level of self efficacy adolescents face a lot of academic stress and pressure, though self efficacy helps in coping with the stress but it does not completely eliminates the effect of academic stress. The social and educational expectations of parents, teachers and scholars could be moderating the effect of self efficacy on academic stress in the sample of the study. That is why results obtained in the study are contradictory to the results of previous studies.

However the negative relation between the variables was also evident in previous studies. According to Lazarus’ cognitive model of stress (Lazarus and Folkman, 1984), individuals own beliefs like self-efficacy are important while analyzing the demands of environment. Every external demand is considered as “threat” or a “challenge,” and chances are that individuals having higher self efficacy consider demands as challenge (Chemers, Hu, and Garcia, 2001; Lazarus
and Folkman, 1984; Pintrich and De Groot, 1990). This states that the level to which an individual feels confident regarding their ability to deal with a situation affects that how they perceive situation. When the situation is perceived as challenge, there are more chances that individual choose effective coping and persist on managing the task. Self efficacy therefore affects the individual’s appraisal of external demands and mediates the relationship between external stressors and stress (Bandura, 1995). State of physiological arousal related to stress provides information affecting self efficacy judgment (Pajares, 1996; Solberg et al., 1998). In the same way, Hackett et al. (1992) stated that stress affects self efficacy evaluation of students in a negative way. The cognitive theory states that self efficacy is negatively related with stress. Various research studies also support this theory. Research also indicates that stress is negatively correlated with self efficacy among college students (Gigliotti and Huff, 1995; Hackett et al., 1992; Solberg, Hale, Villarreal, and Kavanagh, 1993; Solberg and Villarreal, 1997; Torres and Solberg, 2001).

Jerusalem and Schwarzer (1992) claim that generalized self-efficacy is one of the personal resource factors that counterbalance taxing environmental demands in the stress appraisal process, within which stress can be cognitively appraised as either a challenge, threat, or harm/loss; in subsequent stage of stress coping dispositional self-efficacy facilitates coping with stress.

**Attachment**

Results indicated that attachment is negatively and significantly related ($r = -.237, p < 0.01$). This shows that adolescents with high attachment reported less academic stress. These results are also supported by previous studies. Kemp and
Neimeyer (1999) in their study indicated that insecure attachment has a positive association with psychological distress. Similar results were also found by Bradford and Lyddon (1993) in their study.

Attachment theory (Bowlby, 1969) states that attachment is characterized by particular behaviors in individual, like seeking proximity with the attachment figure while facing stress. According to Bowlby (1973, 1980, 1988) attachment can alter individual’s reaction to a stressful situation. Stress basically triggers the attachment system (Mikulincer, Birnbaum, Woodis & Nachmias, 2000) i.e. the result of the interaction of the adolescent with their primary caregiver that was initiated at birth (Bowlby, 1951, 1988) gets triggered by stress (Bowlby 1988, Mikulincer & Horesh, 1999). This system determines how an individual deals with stress (Mallinckrodt & Wei, 2005). Positive responses to stress are results of secure attachment and negative responses to stress are results of insecure attachment. Adolescents with high attachment feel secure and have better resources to cope with stress (McCarthy, Lambert, & Moller 2006, McCarthy, Moller & Fouladi 2001, Soucy & Larcose, 2000, Vogel & Wei 2005). In the study of Struthers and colleagues (2000) it was indicated that problem focused coping are generally used by highly attached students.

Adolescents having secure or high attachment are equipped with certain resources that may include availability of an attachment figure to trust under stressful conditions for support and help, availability of a reliable attachment figure. While facing stress individuals with high attachment find themselves closer to others, they consider difficult situations as thought provoking rather than threatening. High

According to Hazan and Shaver (1990) individuals with high attachment are less neurotic, more agreeable, have high self esteem, more outgoing and indicated less loneliness. While solving problems they trust their attachment figure for help and support. Positive qualities like happiness, optimism, self efficacy are the result of high attachment. Such individuals generally try to explore various way outs of stressful events. These characteristics further help them to reduce the effect of stress. Armsden and Greenberg (1987) pointed out that strong attachment allows adolescents to independently face new conditions. In previous studies it was seen that stress mediates the stability of attachment.

Perrine (1998) found that adolescents having strong attachment face less perceived stress as compared to their counterparts. Previous literature have also pointed out that adolescents with strong attachment communicate more with family and are involved less in avoidant behavior during stressful conditions which enables them to deal with stress effectively. Kenny and Donaldson (1991) analyzed the psychological symptoms in their study and reported that insecure attachment is correlated with high stress.

The results indicated that optimism, resilience, attachment are significantly negatively related with academic stress where as self efficacy is negatively but
insignificantly related with academic stress. These variables also contribute variance in academic stress. Thus it can be concluded that enhancing optimism, resilience, self efficacy and attachment among adolescents will buffer the effect of academic stress and increase positive growth.
IMPLICATIONS

This study has its utility for students, parents, teachers, counsellors and policy makers. It will be helpful in reducing the negative effects of academic stress on the physical health, as well as mental health of the students. This study will enable counsellor to develop intervention to enhance positive psychological qualities among students that will help them in dealing with academic stress in an effective manner.

The results of the study will also give policy makers an insight to develop curriculum in a way that it will include developing positive psychological qualities in adolescents. Parents and teachers can also motivate students to develop these skills and reduce the unnecessary burden of academic stress on their physical and psychological health.