The world and its inhabitants today are becoming sensitive to all the drastic changes that are prompting them to cope with the state of flux in the environment. Some take the intensity in their stride and try to cope with the critical speed of generalization but some find it taxing to gain speed and lag behind. None is an exception to the rule and face “Stress” at some point of life. Stress has become a necessary and unavoidable concomitant of daily life. Every individual is subjected to stress either knowingly or unknowingly. Stress to some extent is necessary because it motivates the individual to face the challenges in one’s environment. However, when it crosses the optimum level it results in distress. The scientific era has resulted in the rapid development of information and competitiveness among people in the globalised world. Although Eustress is a juncture for self growth of the individual however too much of stress or distress causes problems and discomfort and can have serious detrimental effects on the physical and psychological well being of the people.

Academic success is the major goal of students and to achieve that, it requires dedication, self-discipline and motivation. Students at this level are saddled with a lot of responsibilities, challenges and adaptation which may result in stress (Bouteyre et al., 2007; Imonikebe, 2009). As academic demands increase and new social relations are established, students become uncertain of their abilities to meet these demands (Dwyer and Cummings, 2001). Difficulties in handling the ensuing stressors often lead to decreased academic performance, increased psychological distress, and negative attitudes towards learning (Dwyer and Cummings, 2001; Salami, 2006). All these invariably pose challenges to the much sought quality in education. Students have many obstacles to overcome in order to achieve their optimal academic performance.

For many students, the pursuit of higher education is a time of transition marked by a set of demands germane to the setting. Academic stress is the product of a combination of academic related demands that exceed the adaptive resources available to an individual. The amount of stress experienced maybe influenced by the individual’s ability to effectively cope with the stressful events and situations (D’Zurilla and Sheedy, 1991). If a student is unable to cope effectively with academic stress, then
serious psycho-social-emotional, health consequences may result (MacGeorge et al., 2005; Tennant, 2002).

Students who experience mental and physical health problems are then at greater risk for poor academic performance, thus increasing academic stress and perpetuating a cycle of stress, maladaptive coping, and compromised health (Haines et al., 1996; Ward Struthers et al., 2000).

Considerable research has been conducted in the area of Academic Stress and Performance in the western world; however in India investigation in this area is very meagre. The Students today have to face the challenges of the globalized society. The academic environment is highly competitive and complex which serves as a challenge to unfold the students’ talents and abilities. Students who are able to meet these challenges are successful in their career, whereas those who are unable to meet such challenges undergo severe academic stress. Since the students are the future citizens of the society serious considerations have to kept in mind to minimise the impact of stress and promote their well being.

In the light of the above discussion the present investigation is therefore an attempt to study the nature of academic stress among professional and non professional students. The problem of the study is therefore stated as follows: “A Study of Academic Stress in relation to Personality Characteristics, Self Efficacy and Coping Behavior.”

OBJECTIVES OF THE STUDY

In view of the above stated problem the present investigation was undertaken with the following objectives in view

1. To investigate the differences between professional and non professional students on academic stress and on all the measured variables.
2. To study the relationship between personality characteristics such as neuroticism, extraversion, openness to experiences, agreeableness, conscientiousness and academic stress.
3. To investigate the relationship between self efficacy and academic stress.
4. To study the relationship between coping strategies and academic stress.
5. To locate the factorial structure of the variables included in the study for both Professional and Non professional students.
6. To identify the main predictors of academic stress among professional and non professional students.

**METHOD**

**Hypotheses**

In the light of the theoretical perspective and review of literature, the following hypotheses have been set for the present study:

1. There will be significant differences between the professional and the non professional group of students on the indices of academic stress.
2. It is hypothesised that there will be significant differences between the two groups of students on personality characteristics such as neuroticism, extraversion, openness to experience, agreeableness and conscientiousness.
3. Significant differences will be obtained between the two groups of students on self efficacy and coping strategies.
4. There will be significant relationships between personality characteristics such as neuroticism, extraversion, and openness to experience, agreeableness, conscientiousness and academic stress.
5. There will be significant relationship between self efficacy and academic stress.
6. Significant correlations will be obtained between coping strategies and academic stress.
7. The factorial structure of the variables included in the study shall differ in case of professional and non professional students.
8. Personality characteristic such as neuroticism shall be the main predictor of academic stress.
9. Personality characteristics such as extraversion, openness to experience, agreeableness, conscientiousness and self efficacy may lower the degree of academic stress among students.

10. Both emotion focussed and problem focussed coping strategies may equally have an effect on the experience of academic stress.

Sample

The present investigation has been conducted on a sample of 500 students (250 professional and 250 non professional). The Professional students belonged to the streams of Medicine, Dentistry, Laws, Masters in Business Administration and Engineering; on the other hand the non professional students belonged to the postgraduate departments of Panjab University Chandigarh mainly English, Panjabi, Hindi, History, Psychology, Economics and Political Science. The age of the sample ranged between 18-36 years. The mean age and standard deviation of the two groups of students’ is 21.88 and 22.40 and 2.42, 2.41 for professional and non professional students respectively.

Measures Used

Keeping in view the objectives of this study, the following measures were used to collect the necessary data.

1. Personal information schedule.
2. The Students Stress Survey Inventory (Ross et al., 1999).
3. The NEO Five Factor Personality Inventory (Costa and McCrae., 1985).
4. General Self Efficacy Scale (Sherer et al., 1982).
5. Ways of Coping Questionnaire (Lazarus and Folkman, 1988).
6. Academic performance of the students was assessed on the basis of marks obtained in the previous semester examination or previous years’ final examination.

Since the sample of the study was college and university students there was no need to translate and standardise the tests.
Statistical Analysis of the Data

The obtained data has been analyzed as follows:

1. Descriptive analysis such as Frequency distributions, Means, Standard Deviations, Skewness and Kurtosis of all the measured variables included in the study for both the groups Professional and Non Professional students were computed.

2. Reliability Coefficients of the scores on all the measured variables were estimated by the method of test- retest and split half methods of reliability.

3. The t-test has been applied for the purpose of comparison of the means of the two groups of students, (Professional and Non Professional).

4. Pearson’s Product Moment Correlation method was used separately for the two groups to investigate the nature of relationship between all the measured variables.

5. Principal Component Method of Factor Analysis has been used to locate the underlying factorial structure for the two groups of students professional and non professional separately.

6. Stepwise Regression Analysis has also been applied to identify the predictors of academic stress for the two groups separately.

Results and Discussion

The results of this investigation have been presented and discussed under the following headings

1. Reliability coefficients of the test measures.

2. Comparison of Means

3. Correlational Analyses

4. Factor Analyses

5. Stepwise Regression Analyses
Reliability Coefficients

Reliability coefficients of the test measures were computed for all the variables with the help of test-retest and split half method of reliability. All the tests were found fairly to highly reliable as the reliability coefficients ranged from .68 to .86 with a mean $r_{tt}$ of .74.

Comparison of Means

The present investigation is an attempt to gain insight into the differences on the sources of academic stress, personality characteristics, self efficacy and coping behaviour between professional and non professional students. The t-test has been applied to compare the means of the two groups.

On comparing the means of the two groups on the sources of academic stress it was observed that both the groups actually experience only a moderate level of stress. However, the professional group of students have significantly scored high on the interpersonal and intrapersonal dimension of academic stress which significantly contributes to the overall academic stress. In case of personality characteristics the professional group of students have again scored significantly high on extraversion, openness to experience and conscientiousness which indicate that professional group of students are more outgoing, open to new experiences, and are creative and committed to their work as compared to the non professional students. The above significant differences clearly support our hypothesis no 1 and 2.

The professional students have further scored significantly high on self efficacy which suggests that they are confident about their capabilities and are capable of meeting the challenges of task difficulties and academic demands in a broad array of contexts. This finding also supports our hypothesis no 3 which states that there will be significant differences between the two groups of students on self efficacy.

In case of coping strategies there are no significant differences between the two groups of students which suggest that both the groups use both problem focused and emotion focused coping strategies. This finding is partially in partially contradictory to our hypothesis no 3.
On the basis of the above significant differences between the two groups it may be concluded that there are qualitative differences between the professional and the non-professional students in their experience of stress as well as in their personality characteristics. However they do not differ with respect to their coping behaviour.

**Correlational Analyses**

The raw scores of the subjects, 250 from each group professional and non-professional were analyzed with the help of Pearson’s Product Moment Correlations after ascertaining that the data met more or less the main requirements of Pearson’s “r”. For 250 subjects correlation coefficients of 0.16 and 0.12 are significant at .01 and .05 levels respectively.

**Professional Students**

In case of professional students academic stress is positively correlated with Neuroticism which signifies that students who are high on neuroticism are emotionally unstable, impulsive, hostile and highly vulnerable to academic stress. The negative correlations with Conscientiousness and Self Efficacy suggest that students, who are achievement oriented and committed to their work, are confident about their capabilities and are less vulnerable to academic stress.

In case of coping strategies, academic stress has positive correlations with confrontive coping, distancing, seeking social support, accepting responsibility and escape avoidance. These significant correlations imply that professional students who use more of the emotion focused strategies than problem focused strategies experience more stress and vice versa.

**Non professional Students**

Among the non-professional group of students overall academic stress has significant positive relationship with personality characteristics such as extraversion and openness to experience which indicates that students who are highly outgoing and sociable, seek overt stimulation and are open to new experiences, are receptive to new ideas, are also involved in active imagination and crave for novel experiences. All these
characteristics bring in excessive stimulation which ultimately makes them prone to academic stress.

Further academic stress also has significant positive correlations with coping strategies such as confrontive coping, distancing, planful problem solving and seeking social support. Students who are high on academic stress make aggressive efforts to resolve the issue at hand or detach themselves from the situation. They also at times understand the issue analytically by seeking social support. The above correlational analysis supports our hypotheses no 4 and 6.

**Factor Analyses**

Intercorrelations among the variables are merely suggestive and do not provide clear cut information because they are influenced by large number of uncontrolled variables owing to the presence of unknown overlap existing between different variables. Consequently the obtained correlation matrices for the professional and non professional students were analyzed by the principal axis method of factor analysis. The intercorrelation matrices were factored by the Principal Component method with unities in the diagonal and the extraction of factors was stopped when the value of the latent root came out to be 1.00. The obtained factors corresponding to the latent roots were rotated in accordance with the criterion of varimax procedure.

For the professional group five latent roots and for the non professional group seven latent roots were obtained which explained 58.76 and 69.54 percent of the variance respectively. For the professional students the obtained five factors were labelled as Coping Strategies, Academic Stress, Self Efficacy and Emotional stability, Intellectual Curiosity and Sociability, Academic Performance and Social Support.

In case of the non professional group the obtained seven factors were Academic Stress, Coping Strategies, Conscientiousness and Self Efficacy, Openness to Experience and Altruism, Emotion Focussed Coping Strategies, Emotional Instability and Coping Behaviour and Academic Performance.

The description of the above obtained factors reveals that two factors I and II for the professional students and II and I for the non professional students are common
respectively. However, a perusal of the analysis of factors III, IV and V for professional students implies that self efficacy promotes emotional stability; intellectual curiosity and sociability also influence self confidence and creativity among professional students. Academic performance in case of these students is the outcome of social support. On the other hand in case of the non professional students, conscientiousness or commitment to work promotes self efficacy. They are intellectually curious and altruistic; they generally use emotion focused strategies such as distancing and escape avoidance. In their case Emotional instability results in detachment from the environment with low analytical ability. Finally academic performance in case of these students is the outcome of detachment from the environment. Hence there is a qualitative difference in the factorial structure of the two groups of students.

Regression Analyses

A major limitation of correlational analysis is that it does not reveal the cause and effect relationship. It was therefore necessary to identify the variables that cause academic stress. The dependent variable (Y) was the scores on overall academic stress and the independent variables were Neuroticism, Extraversion, Openness to experience, Agreeableness, Conscientiousness, Self Efficacy, Confrontive coping, Distancing, Planful Problem Solving, Seeking Social Support, Accepting Responsibility, Positive Reappraisal, Self controlling, Escape avoidance and Academic Performance. Thus a total of fifteen variables were used separately for the Professional and Non Professional students.

Professional Students

The results of the stepwise regression analysis reveal that $R^2$ value is 0.16 which indicates that only 16 percent of the variance is explained by the relevant variables.

If we see the impact of independent variables individually, it was observed that Neuroticism, Confrontive Coping and Escape Avoidance were the main predictors of academic stress. The significance of these variables indicates that personality characteristics such as emotional instability, impulsiveness, hostility and aggressive coping efforts or escape and avoidance behaviour increase one’s vulnerability to academic stress.
Non Professional Students

In the case of Non Professional students the results of stepwise regression analysis reveals that $R^2$ value is 0.06 which indicates that only 6 percent of the variance is explained by the relevant variable confronting coping. This significant variable indicates that aggressive efforts to alter situations or the use of hostility increases academic stress among non professional students.

Hence, it is evident from the above regression analysis that neuroticism or emotional instability, aggression or escape /avoidance to problems are the main predictors of academic stress among professional students; on the other hand making aggressive efforts instead of analytical ability to solve problems is the main predictor of academic stress among non professional students.

Implications

- It may be observed that personality plays a significant role in the person’s vulnerability to stress. From the point of view of manpower development so as to promote work efficiency, it is necessary that students should be trained to become more efficacious and resilient and maintain emotional stability, in order to think rationally and use effective coping behaviour and minimize stress. The child rearing practices of the parents should also be reoriented so as to promote self efficacy, conscientiousness and achievement orientation among children.

- Educational administrators should develop appropriate strategies that will enable them to detect in advance the symptoms and causes of stress. Further, it may be emphasised that institutions should provide adequate infrastructure and streamline the courses of instruction so that the workload is manageable and the students do not feel threatened to face the challenges of education, rather they should be allowed to develop their potentialities and skills for their personal growth and development.