Emotional Intelligence and Academic Stress among College Students

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ABSTRACT

The present study was designed to study academic stress and emotional intelligence among college students. In order to conduct the study, six degree colleges of Jalandhar city were selected randomly. From these six colleges, 300 students were selected randomly for the study. The scale of emotional intelligence and academic stress i.e. Emotional Intelligence Scale (EIS) by Anukool Hyde, Sanjyot Pethe & Upinder Dhar (2001) and Bisht Battery of stress scale (BBSS) by Abha Rani Bisht (Almora) were administered on selected sample. Thus the data obtained was analysed using descriptive statistics. Relevant means, S.D's, t values & 3x2 ANOVA were computed to draw the conclusions. The analysis of data significantly concluded that the students from science stream experienced high stress as compared to students from humanities and commerce streams. Further it was found that emotional intelligence of students has got significant effect on their academic stress. The students with low emotional intelligence reported high academic stress as compared to the students with high emotional intelligence.

Keywords: Academic stress, emotional intelligence, academic streams

Education, no doubt, remains the most outstanding development priority area in the world today. The core purpose of education unquestionably is human development. Achievement plays an important role in the lives and activities of human beings. Academic achievement is, undoubtedly, a research issue sought after by the educational psychologists. Academic achievement is the accomplishment or acquired proficiency in the performance of an individual in a given skill or a body of knowledge attained and skill developed in the school subjects usually designed by test scores or by marks assigned by teachers or by both.

Stress

Stress is nothing new to the modern generation. The word stress derives from Latin word ‘stringere’ meaning to draw tight and was used in the 17th century to describe hardship or affliction. Stress is like Janus, the Roman god who had two faces looking in opposite directions. Stress is the term often used to describe distress, fatigue and feelings of not being able to cope. It refers both to the circumstances that place physical or psychological demands on an individual and to the emotional reactions experiences in these situations.
Academic Stress

Academic stress is mental distress with respect to some anticipated frustration associated with academic failure or even unawareness to the possibility of such failure. Students have to face many academic demands, for example, school examination, answering questions in the class, showing progress in school subjects. Understanding what the teacher is teaching, competing with other class mates, fulfilling teachers and parents academic expectations. These demands may tax or exceed available resources of the students. As a consequence, they can be under stress, since the demand is related to achievement of an academic goal. So, academic related to the achievement of an academic goal. Bisht (1989) has defined academic stress as a demand related to academics that tax or exceed the available resources (internal or external) as cognitively appeared by the student involved. According to her, academic stress reflects perception of individual's academic frustration, academic conflict, academic pressure and academic anxiety. Academic Stress is an important factor accounting for variation in academic achievement. It also contributes to major mental health hazards, problems both physical and mental stress related diseases.

Bartwal & Raj (2014) conducted a research on “Academic stress among school going adolescents in relation to their social intelligence”. Results of the study revealed that male and female students experienced same amount of academic stress. The high social intelligence level would have better degree of coping with the academic stress. Social intelligence plays a vital role in reducing academic stress.

Xiao (2013) worked on “Academic Stress, Test Anxiety, and Performance in a Chinese High School Sample: The Moderating Effects of Coping Strategies and Perceived Social Support”. The results indicated that academic stress was positively related to students’ test anxiety and negatively related to their academic test performance. Test anxiety had a negative relationship to test performance. While active coping was not found to moderate the relationships among academic stress, test anxiety, and academic performance, perceived parent support and perceived other support moderated the relationships between test anxiety and test performance as well as between academic stress and test anxiety.

Kho Soon Jye & Dahlia Zawawi (2012) explored the associated factors related to causes of stress and coping strategies among post graduate students. The three major sources of stress among students were identified as academic related stress, time related stress and social/environmental related stress. The results suggested that the major stressor among these students was indeed the academic related stress. In addition, among the four coping strategies studied, it was discovered that active problem coping was the most applied by many. From the findings of the study, it also showed that race had no significant relationships with the stressors and coping strategies.

Gopal Anvita (2011) explored the relationship between wellness, emotional intelligence and job stress-a psycho-management perspective. The results indicated that organizational health depends on the health and well-being of the people working in it. The study also revealed that emotional intelligence, which represents wellness of an individual, can help in overcoming job/occupational stress. The strategy to enhance emotional intelligence by identifying the areas of individual and groups such as communication, self-awareness and interpersonal relationship can assuage stress and make people more healthy and organization more productive.

Joshith & Jaya Prakash (2010) examined Stress as a Correlate of Teaching Performance of B.Ed Teacher Trainees in university practical exams. The results indicated that teaching performance and stress are highly related to each other.

Leung, Yeung and Wong (2009) examined the role of paternal support in the relation between academic stress and the mental health of primary school children in Hong Kong. The results indicated that academic stress was a risk factor that heightened student anxiety levels and that parental emotional support was a protective factor that contributed to better mental health among children. However, parental informational support delivered to children during times so high academic stress appeared to heighten student anxiety levels.
Singh and Upadhyay (2008) investigated academic stress in the context of age and sex differences among college students. Findings revealed that first year students experienced higher degree of academic stress in comparison of third year students. At the same time female students perceived more academic stress in comparison of their male counterpart.

Negga, Applewhitr & Livingston (2007) assessed the stress of African American college students. It was revealed that the top five reported sources of stress were: Death of a family member (Interpersonal stress) 82%; low grades (academic stress) 69%; time management (academic stress) 61%; boyfriend/girlfriend problems (Interpersonal stress) 57%; and missed classes (academic stress) 55%. The study pointed out the need for college and universities to develop stress intervention programs that address stress specifically based on race and school racial compositions.

Murff (2006) explored the impact of stress on academic success in college students. He provided a discussion on stress and how it can prevent students from being successful in fulfillment of their educational goals. The literature is supportive of the fact that stress places demands on an individual, and in response to the stress, the body attempts to adapt to the stressful experience to maintain a sense of normalcy (Selye, 1974). Another common theme in the literature is that college students faced with a unique set of stressors that may be overwhelming, thus altering the ability to cope with a situation. Strategies to reduce stress have been associated with academic success in college students (Dziegielewski et al., 2004). College students have a unique cluster of stressful experiences or stressors (Garrett, 2001).

Govaerts and Gregoire (2005) explored the key role of the cognitive appraisal processes on the way stress is experienced by adolescents. In this research adolescents’ cognitive appraisal processes and their relationships with academic stress was examined. A sample of adolescents (N=100, Mean age = 16.9 years) reported academic stressful situation, while boys perceived themselves as having more resources for coping with it. Student’s age was negatively correlated with the perception that the stressful situation will be resolved on its own. Five appraisal patterns were identified using cluster analysis. Subsequent analysis showed that the five groups differ in their perceived degree of stress. One group was labelled at-risk appraisal group, demonstrating a high level of perceived stress, and two groups showed a favourable pattern associated with low level of perceived stress.

Anice James and Marice (2004) investigated the influence of academic stress on the achievement of the XI standard students. The results indicated that girls performed better than boys in their level of achievement and lowered in the level of academic stress.

Akgun and Ciarrochi (2003) hypothesized that highly resourceful students would be more effective than others at protecting themselves from the adverse effects of academic stress, and not allowing that stress to impact their grades. A sample of 141 first-year undergraduate students completed measures of academic stress and learned resourcefulness. Their first-year Grade Point Average (GPAs) was obtained from university records. Analysis revealed that high academic stress adversely impacted the grades of low resourceful students but had no effect on high resourceful students.

Eric, Stewart, and Enedima (2002) investigated two factors associated with academic achievement: acculturation and social support. Results indicated that students identified as highly integrated and strongly Anglo-oriented bicultural tended to have higher academic achievement. Social support was perceived as a whole from all four sources. Although no generational effects were identified, females tended to have higher Grade Point Average (GPAs), and perceived more social support, while the males, interestingly, were slightly more acculturated.

Michle, Glahan, and Bray (2001) evaluated factors that are influencing the academic self-concept, self-esteem and academic stress for direct and re-entry students in higher education. This research has specifically examined differences in the undergraduate student experience of direct and re-entry student. A six part questionnaire was used to investigate the impact of age, gender, past experiences of school and motivations for
participating in Higher Education on correct global self-esteem, academic self-concept and academic stress. Re-entry students reported the most negative experiences of also evidence to suggest that females experienced more than males. If the reason to participate in Higher Education was for career goals, academic stress levels were the highest. When the reason to participate was for cognitive interest, academic self-concept was positive and those individuals reported the most satisfaction with Higher Education overall. Multiple regression analysis revealed a complex interrelationship of variables relating to academic self-concept, self-esteem and academic stress. These findings suggested in Higher Education cannot be simply explained by age stratification.

Misra, McKeen, West, and Russo (2000) examined perceptions of academic stress among male and female college students, and compared faculty and student perceptions of students' academic stress. Results indicated a considerable mismatch between faculty and students in their perceptions of students' stressors and reactions to stressors. The faculty members perceived the students to experience a higher level of stress and to display reactions to stressors more frequently than the students actually perceived. This could result simply from the faculty observing the students only during their moments of stress in the classroom.

Emotional Intelligence

Emotional intelligence (EI) can be defined as the ability to monitor one's own and other people's emotions, to discriminate between different emotions and label them appropriately and to use emotional information to guide thinking and behaviour. Emotional intelligence also reflects abilities to join intelligence, empathy and emotions to enhance thought and understanding of interpersonal dynamics. Goleman (1995) defined emotional intelligence as “the capacity for recognizing our own feelings and those of others, for motivating ourselves and managing emotions well in ourselves and in our relationship.” A good deal of research has been conducted on emotional intelligence and it was found to be appearing as an important factor in the prediction of personal, academic and career success.

McCann, Carolyn et al. (2011) carried out a study on ‘Coping mediates the relationship between emotional intelligence and academic achievement’ examined the relationship between performance measures of emotional intelligence (EI), coping styles, and academic achievements. Two studies were designed to readdress this imbalance. In each of these studies, both emotional intelligence and coping styles were significantly related to academic achievement.

Shipley et al. (2010) carried out a study on “The effects of emotional intelligence, age, work experience, and academic performance”. The results indicated that emotional intelligence was found to be positively associated with work experience; emotional intelligence was not significantly associated with age and Global trait emotional intelligence was not significantly associated with academic achievement.

Misra and Ranjan (2008) have studied whether the gender difference affects emotional intelligence of adolescents. The results showed that adolescent boys have higher emotional intelligence than that of girls. The higher scores of adolescent boys indicate that they are better on interpersonal, intrapersonal, adaptability and stress management skills and their overall general mood (happiness and optimism) are of higher order than the adolescent girls.

Adeyemo (2007) examined the moderating influence of emotional intelligence on the link between academic self-efficacy and achievement among university students. The result demonstrated that emotional intelligence and academic self-efficacy significantly correlated with academic achievement, the moderating effect of emotional intelligence on the relationship between academic self-efficacy and achievement was also established.
Shah (2006) conducted a study on “Emotional Intelligence of Upper Primary Students of Gujarat State in Relation to Certain Variables”. The major objectives of the study were to construct and standardize an emotional intelligence scale for upper primary school students of Gujarat State and to study the relationship of emotional quotient with sex, area, socio-economic status and IQ. From this study it was found that there was no significant difference in the mean scores on EI with regard to sex, area, socio-economic status and IQ.

Aik-kwang and Karen Kar-lin Hor (2005) investigates the relationship between teaching attitudes, emotional intelligence and creativity in a group of school teachers in Singapore. Liberal democratic attitude was positively correlated with emotional intelligence whereas conservative-autocratic attitude was negatively correlated with emotional intelligence. In a similar vein, liberal-democratic attitude was positively correlated with creativity, whereas conservative-autocratic attitude was negatively correlated with creativity.

Pathan (2004) conducted a study on Emotional intelligence of secondary teachers at D.Ed. College, Navapur, Maharashtra. This study examined the level of emotional intelligence (EI) of secondary school teachers in relation to gender and age. The results indicated that nearly all the teachers under study were under ‘low’ category of emotional intelligence. There was no significant difference between the emotional intelligence of males and females, and the age was independent of EI.

Haskett (2003) conducted a study on the “Emotional intelligence and teaching success in higher education” at the Indiana University, USA. He studied the underlying emotions that differentiate the most effective faculty and others at institutions of higher education, by using a theoretical model that predicted a relationship between EQ and effective teaching. Based on his study, it is clear that it is not only the actions/behaviours taken by faculty that are important, but the underlying attitude (related to EQ) behind the actions that has the greatest influence on effective teaching.

Maureen Simunek et al. (2002) in a study entitled “Characteristic emotional intelligence and emotional well-being” investigated the relationship between emotional intelligence and mood, and between emotional intelligence and self-esteem in two studies. The results of these studies indicated that higher emotional intelligence was associated with characteristically positive mood and higher self-esteem. Higher emotional intelligence was associated with a higher positive mood state and greater state self-esteem. Individuals with higher emotional intelligence showed less of a decrease in positive mood and self-esteem after a negative state induction using the Velten method, and showed more of an increase in positive mood, but not in self-esteem, after a positive state induction.

Jacobs Maree and Liesel Ebersohn (2002) conducted a study entitled as “Emotional intelligence and achievements: Redefining giftedness?” This study indicates that emotional intelligence has a significant impact not only on the qualitative level of intelligence actualization, but also on the quantitative level of intelligence measurement and scholastic achievement.

Lizy (2001) undertook a study to determine the effect of group counselling among adolescents in enhancing their emotional competence. A group counselling program consisting of 12 sessions spread over a span of 16 days were given to experimental and control groups. The emotional competence scale was used to find a significant increase in their emotional competence.

Sipsma (2000) conducted a study and he found that the role of emotional intelligence in determining team effectiveness in a population of postgraduate students required to work in self-managed work teams for their programme of study at the Wits Business School, University of Witwatersrand, participants (N = 71) completed the EQ-i and the Team Effectiveness Questionnaire. Emotional intelligence and total team effectiveness were found to be significantly correlated. Emotional intelligence predicted approximately 40% of the variance in team effectiveness.

**Academic Streams**

After passing secondary education, there are lot of academic streams which are opted by the students. Broadly streams are categorised as Science (Medical and...
Non-Medical), Commerce and Humanities streams. For the present investigation we have taken the following streams- Humanities, Science and Commerce streams.

**Objectives of the Study**

- To study the emotional intelligence of college students belonging to humanities, commerce and science streams.
- To study the level of academic stress of humanities, commerce and science college students.
- To study the relationship between the emotional intelligence and academic stress of humanities, commerce and science college students.

**Hypotheses of the Study**

- **H_1**: There exists no significant difference in the academic stress of humanities, commerce and science students.
- **H_2**: There exists no difference between the academic stress of college students with high and low levels of emotional intelligence.
- **H_3**: There is no interaction effect of academic streams and emotional intelligence on the academic stress of college students.

**Methodology**

**Sample**

Initially, 6 colleges were selected randomly from Jalandhar city. 50 students were taken from each college to make the sample of 300.

**Design**

In the present study 3×2 factorial design has been employed wherein emotional intelligence and academic streams were studied as independent variable and academic stress was studied as dependent variable.

**Tools**

- Emotional Intelligence Scale (EIS) by Anukool Hyde, Sanjay Pethe and Upinder Dhar (2001)
- Bisht Battery of Stress Scale (BBSS) by Abha Rani Bisht (Almora, 1992)

**Statistical Techniques**

Mean, Standard Deviation and 3×2 ANOVA are employed to treat the raw scores and arrive at the result.

**Results and Discussion**

The Data has been analysed as following:

3×2 Analysis of Variance for Academic Stress Scores among Humanities, Commerce and Science Students in Relation to their Emotional Intelligence

The means and S.D of sub groups of ANOVA for 3×2 factorial design for academic stress scores among humanities, commerce and science college students have been calculated and presented in the table 1 below:

<table>
<thead>
<tr>
<th>Humanities Students</th>
<th>Commerce Students</th>
<th>Science Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEI Mean$_1$ = 172.81</td>
<td>Mean$_3$ = 161.89</td>
<td>Mean$_5$ = 173.81</td>
</tr>
<tr>
<td>SD$_1$ = 26.55</td>
<td>SD$_3$ = 32.41</td>
<td>SD$_5$ = 47.35</td>
</tr>
<tr>
<td>N$_1$ = 27</td>
<td>N$_3$ = 27</td>
<td>N$_5$ = 27</td>
</tr>
<tr>
<td>LEI Mean$_2$ = 177.85</td>
<td>Mean$_4$ = 195.41</td>
<td>Mean$_6$ = 198.07</td>
</tr>
<tr>
<td>SD$_2$ = 38.01</td>
<td>SD$_4$ = 39.77</td>
<td>SD$_6$ = 48.38</td>
</tr>
<tr>
<td>N$_2$ = 27</td>
<td>N$_4$ = 27</td>
<td>N$_6$ = 27</td>
</tr>
<tr>
<td>Mean$_H$ = 175.33</td>
<td>Mean$_C$ = 178.65</td>
<td>Mean$_S$ = 185.56</td>
</tr>
<tr>
<td>SD$_H$ = 49.32</td>
<td>SD$_C$ = 39.96</td>
<td>SD$_S$ = 49.52</td>
</tr>
<tr>
<td>N$_H$ = 54</td>
<td>N$_C$ = 54</td>
<td>N$_S$ = 54</td>
</tr>
</tbody>
</table>

In order to analyse the variance the obtained scores have been subjected to ANOVA. The results have been presented in Table 2 below:

<table>
<thead>
<tr>
<th>Sources of Variance</th>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Squares</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Streams (A)</td>
<td>2937.54</td>
<td>2</td>
<td>1468.77</td>
<td>8.57**</td>
</tr>
<tr>
<td>Emotional Intelligence (B)</td>
<td>18198.07</td>
<td>1</td>
<td>18198.07</td>
<td>106.17**</td>
</tr>
<tr>
<td>A × B</td>
<td>5774.05</td>
<td>1</td>
<td>5774.05</td>
<td>33.69***</td>
</tr>
<tr>
<td>Within sum of Squares</td>
<td>26909.66</td>
<td>157</td>
<td>171.4</td>
<td></td>
</tr>
</tbody>
</table>

**Significant at the 0.01 level of confidence; *Significant at the 0.05 level of confidence**
Main Effects

Academic Streams (A)

It has been observed from the table 2 that F-ratio for the difference in the means of three groups namely humanities, commerce and science is found to be significant at the 0.01 level of confidence. This indicates that three groups differ significantly on mean academic stress scores. Further the examination of their corresponding group means from table 1 suggests that the mean stress scores of science students were found to be more than commerce and humanities students, which mean science students, have the highest academic stress and humanities students have lowest.

Emotional Intelligence (B)

It has been from the table 2 that F-ratio for the difference in mean academic stress scores of students with high emotional intelligence and low emotional intelligence was found to be significant at 0.01 level of confidence. This indicates that academic stress scores of two groups are found different. Thus, the result does not support the hypothesis \( H_2 \) viz. “There exists no difference between the academic stress of college students with high and low level of emotional intelligence.” Further the examination of their corresponding group means from table 1 suggests that the mean academic stress scores of low emotional intelligence group is higher than high emotional intelligence group. Meaning thereby that the academic stress is higher in low emotional intelligence group than in high emotional intelligence group.

Two Order Interaction

Academic Streams and Emotional Intelligence (A×B)

It has been observed from table 2 that F-ratio for interaction between academic streams and emotional intelligence has been found significant at 0.01 level of confidence. Hence, the results do not support the hypothesis \( H_3 \) viz. “There is no interaction effect of academic streams and emotional intelligence on the academic stress of college students.”

This can be presented with the help of a graph

![Graph Showing Interaction between Academic Streams and Emotional Intelligence](image)

Fig. 1: Graph Showing Interaction between Academic Streams and Emotional Intelligence

Table 3: t-Ratio have been Calculated among the Fifteen Cells which are Presented Below

<table>
<thead>
<tr>
<th>Cells</th>
<th>( SE_0 )</th>
<th>t-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>( M_1 - M_2 )</td>
<td>8.92</td>
<td>0.56</td>
</tr>
<tr>
<td>( M_1 - M_3 )</td>
<td>8.06</td>
<td>1.35</td>
</tr>
<tr>
<td>( M_1 - M_4 )</td>
<td>9.20</td>
<td>2.45*</td>
</tr>
<tr>
<td>( M_1 - M_5 )</td>
<td>10.44</td>
<td>0.09</td>
</tr>
<tr>
<td>( M_1 - M_6 )</td>
<td>10.62</td>
<td>2.37*</td>
</tr>
<tr>
<td>( M_2 - M_3 )</td>
<td>9.61</td>
<td>1.66</td>
</tr>
<tr>
<td>( M_2 - M_4 )</td>
<td>10.58</td>
<td>1.65</td>
</tr>
<tr>
<td>( M_2 - M_5 )</td>
<td>11.68</td>
<td>0.34</td>
</tr>
<tr>
<td>( M_2 - M_6 )</td>
<td>11.84</td>
<td>1.70</td>
</tr>
<tr>
<td>( M_3 - M_4 )</td>
<td>9.87</td>
<td>3.39**</td>
</tr>
<tr>
<td>( M_3 - M_5 )</td>
<td>11.04</td>
<td>1.07</td>
</tr>
<tr>
<td>( M_3 - M_6 )</td>
<td>11.20</td>
<td>3.22*</td>
</tr>
<tr>
<td>( M_4 - M_5 )</td>
<td>11.90</td>
<td>1.81</td>
</tr>
<tr>
<td>( M_4 - M_6 )</td>
<td>12.05</td>
<td>0.22</td>
</tr>
<tr>
<td>( M_5 - M_6 )</td>
<td>13.02</td>
<td>1.86</td>
</tr>
</tbody>
</table>

**Significant at 0.01 level of Confidence  
*Significant at 0.05 level of Confidence

The above table 3 revealed that the attained value of t-ratio \( M_3 - M_4 \) has been found to be significant at 0.01 level of confidence and value of t-ratio of \( M_1 - M_6, M_1 - M_6 \) and \( M_3 - M_6 \) has been found to be significant at 0.05 level of confidence. Observing the means it is found that students of commerce stream with low
emotional intelligence have high stress than students of humanities with high emotional intelligence, students of science stream with low emotional intelligence have high stress than students of humanities with high emotional intelligence, students of science stream with low emotional intelligence have high stress than students of commerce with high emotional intelligence, and students of commerce stream with low emotional intelligence have high stress than students of commerce with high emotional intelligence.

Conclusion

- The study found that the students belonging to science stream has more academic stress than that of commerce as well as humanities.
- Students having high emotional intelligence has less academic stress than that of students with low emotional intelligence.
- Students with high emotional intelligence of science stream less academic stress than students with low emotional intelligence of the same stream.

Implications

Students are the wealth and future of nation. It is essential that they must have good emotional intelligence so that they can have a balanced life. It is clear from the findings that students with high emotional intelligence have low academic stress and students belonging to science stream have more academic stress than that of commerce as well as humanities. So, to make the students emotionally balanced, their academic stress should be lessen. Their academic problems must be discussed by the teachers as well as parents. And they must be guided properly about the streams they opt. they should not be forced by the parents to opt. a specific stream only. A variety of teaching methods may be used which are likely to accommodate all the style under reference. Other major implications for teachers are that they should try to remove unnecessary academic stress from high and average I.Q. students by using various techniques. This will help them to enhance the level of academic. Students are counselled for stress factor by trained guidance worker/counsellor. Further, teachers should try to remove academic stress generating factors from learning environment by taking necessary steps.

Limitations

The limitation of this study was the sample size and lack of geographical coverage since this study only concentrated on six colleges of one city only. Therefore, the findings of this study cannot be generalised and as such the researchers suggest replication of this study using larger samples from other cities to validate its findings.

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