EMOTIONAL INTELLIGENCE IN RELATION TO STRESS ON BOYS AND GIRLS AT THE SECONDARY STAGE

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The present study was designed to study emotional intelligence in relation to the stress of boys and girls at the secondary stage. In order to conduct the study, six government secondary schools of Jalandhar city were selected randomly. From these schools, 380 students (i.e. 180 boys and 200 girls) of the 11th class were also selected randomly for the study. The emotional intelligence scale (EIS) by Hyde, Pethe and Upinderdh (2001) and Bhist Battery of scales (1987) were administered on selected sample. The data obtained was analysed using descriptive statistics. Relevant means, S.D’s, t-values and 2x2 ANOVA were computed to draw the conclusions. The analysis of data significantly concluded that emotional intelligence and stress are negatively correlated with each other. Further, it was found that boys have less stress as compared to girls. The results also show that high emotionally intelligent students experience less stress as compared to low emotionally intelligent students.

KEYWORDS: Emotional Intelligence, Stress

INTRODUCTION

The rapid development of this era is challenging the adolescents to face the wave of globalization. Thus, the ability to control the emotions has become important for not getting carried away by the flow of negative elements. Today the school finds itself entangled in efforts to complete the syllabus and fails to allocate time to take care of their emotional needs of the students and make them emotionally intelligent. This has also resulted in deterioration of the performance of the child, his achievements and his adjustments. Hence it has
given rise to the level of stress among students. The tougher the competition and higher aspiration of parents and teachers, the students tend to develop emotional disorders in them. Therefore, teaching emotional and social skills are very important at school level. Emotional intelligence allows us to think more creatively and to use our emotions to solve problems. Emotional intelligence probably overlaps to some extent with general intelligence. An emotionally intelligent person is skilled in four areas i.e. identifying emotions, using emotions, understanding emotions, and regulating emotions. Higgs (2000) agreed that emotional intelligence is about identifying own feelings and being able to handle those feelings; being able to motivate ourselves to get the job done, be creative and perform at our level best; be sensitive and be able to handle relationships effectively.

Douglas (2004) regards the emotional intelligence construct as a forum of social effectiveness, a set of skills enabling one “to read and understand others, and utilize such knowledge to influence others in the pursuit of individual and organizational goal”. Emotional Intelligence has been defined as ability for recognizing one's own feelings better than others, motivate ourselves and have the ability to manage one's own emotions and relationships (Goleman, 2005). Woolfolk, et.al (2008) defined emotional intelligence as the ability to process emotional information accurately and efficiently. Emotional intelligence is a set of abilities that enables individuals to organize and manage the emotions of themselves and others. This intelligence includes understanding our own feelings and using them for taking appropriate decisions in personal and business aspects of our lives. It also determines the appropriate type of relationship that is appropriate for a profession or occupation. Golman stated that emotional intelligence is the talent, skill, or ability, which deeply affects all individual abilities.

Emotional intelligence is a highly important skill that numerous individuals have accounted for their success. It involves the integration of head and heart. The concept of emotional intelligence predominantly deals with the following areas:

- The ability to understand and express emotions constructively.
- The ability to understand other’s feelings and establish cooperative interpersonal relationships.
- The ability to manage and regulate emotions in an effective manner.
- The ability to cope realistically with new situations and solve problems of a personal and interpersonal nature as they arise.
The ability to be sufficiently optimistic, positive and self-motivated in order to set and achieve goals.

Therefore, emotional intelligence is the ability to acquire and apply knowledge from our own emotions and the emotions of others in order to be more successful and lead a more fulfilling life. Researchers assert that emotional intelligence plays an important role in perception of how a person carries himself and connects with others.

**Review of Literature on Emotional Intelligence**

Betty (2005) revealed that 1.6% of the overall variance could be attributed to the model effect of self reported activity level and exercise attitude with emotional intelligence. The scale for the female sub samples was not significantly correlated whereas, a low and significant correlation was found in the male sub sample. Cameron and Andre (2005) showed that the strongest association of teacher stressors exists with negatively oriented emotional responses confirming the central role of teachers' coping mechanisms, personality mediators, and burnout potential according to model of the stress cycle. Ciarrochi and Scott (2006) observed that ineffective problem orientation predicted increases in anxiety and stress and decreases in positive affect. Each emotional competence variable predicted unique variance after controlling for other significant variables. Upadhyaya (2006) revealed that student-teachers with low emotional intelligence are more uneasy and worried about future, unhappy feeling and failures; are less cautious, irregular and like to take more rest, restrain others and have lack of energy. Student teachers with high emotional intelligence are more competent and have more self confidence, hard working, help others motivated, energetic and full of enthusiasm. Adeyemo (2007) revealed 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. Reynolds and Odwyer (2008) examined the relationships among emotional intelligence, coping mechanisms for stress and leadership effectiveness for middle school principals. Hopkins and Bilimoria (2008) illustrate not much of differences between male and female leaders in their demonstration of emotional and social intelligence competencies and also found that when it comes to competency demonstration most successful men and women were more the same than different. Koman and Wolff (2008) found that team leader Emotional Intelligence is significantly related to the presence of emotionally competent group norms (ECGN) on the teams they lead, and that ECGN are related to team performance. Dubey (2009) revealed that females are more emotionally intelligent than male students,
students of general a category have high emotional intelligence in comparison to their counterparts belonging to OBC and SC. The same is true of male students but students belonging to general, OBC and SC categories do not differ from one another on emotional intelligence. Sánchez-Ruiz, Prez-Gonzlez and Petride (2010) indicated that (a) social sciences would score higher than technical studies in Emotionality, (b) arts would score higher than technical studies in Emotionality, (c) there would be an interaction between gender and faculty, whereby female students would score higher than male students within the social sciences only. Kumar et al. (2011) revealed that working women excelled over non-working women in terms of emotional intelligence and desire for social freedom & the respondents belonging to high emotional intelligence group, high desire for social freedom group and working group preferred smaller personal space. Rahman et al. (2012) indicated a negative correlation between emotional intelligence and deviant workplace behaviour ($r = -0.52^{**}$), and deviant workplace behaviour and job performance ($r = -0.45^{**}$) while emotional intelligence was found to correlate positively with job performance ($r = 0.58^{**}$). Kalyoncu et al. (2012) identified a significant relationship between emotional intelligence and stress. Hans et al. (2013) indicated that the private educational institutions teachers in Sultanate of Oman have fairly high level of Emotional Intelligence. Hsieh et al. (2014) found that: (1) The emotional intelligence (EI) and interpersonal relationships(IRs) of college students were above average level. (2) College students' EI and IRs showed significant differences by gender, romantic relationship, monthly allowance, family status. Female students have higher EI and IRs than male students. (3) The perceived level of EI was positive correlated with IRs. The higher the college students' emotional intelligence was, the higher interpersonal relationships was. Akduman et al. (2015) proved that there is a no significant difference about emotional intelligence in different generations. Oyewunmi et al. (2016) indicated that association between emotional intelligence and the academic achievement of university undergraduates was strong. Jais (2016) found that significant correlation emerges from the data between emotional intelligence and job satisfaction.

Therefore, Emotional intelligence is the ability to recognize emotion, reason with emotion and emotion-related information, and process emotional information as part of general problem solving. High-level of emotional intelligence can significantly predict healthy functioning, as well as the distress and experience of traumatic stress. It has been reported that individuals with high level of emotional intelligence experienced less stress at work.
Stress

In the modern times of globalization and enhanced performance demands stress is present universally, and none of us can escape daily life stresses. Stressful life events and daily life stresses have both deleterious and cumulative effects on human body. In several studies, stress has been shown to affect various parameter of higher mental function like attention, concentration, learning and memory. Generally all stressful events generate certain category of emotions of varying intensity, which may also affect cognition and performance. Varca (1999) defined stress as a gap between environmental demands and personal resources to meet those demands. According to Reber and Reber (2001) stress is a state of psychological tension produced by the kind of forces or pressures. Anderson, Litzenberger and Placas (2002) defined stress as the response of an individual to the self-perceived imbalance between the demands of the situation presented and the resources one has at one’s disposal to respond successfully. Stress is defined as a physiological and psychological response to an environmental demand that occurs after an individual perceives that they are not able to adequately cope with the present demand (Lewis & Shaw, 2007). Stress is a fact of life and is inevitable in this competitive world. From individual point of view, stress is our body’s physical, chemical and mental reaction to circumstances that frighten, confuse, endanger or irritate us. It can lead to physiological discomfort, some kind of emotional unhappiness, and even strained relationship with others.

Review of Literature on Stress

Vyas (2006) showed that age of the student-teachers of Teacher Training Institutes (TTIs) have significant in their level of academic stress. The higher the age of the student-teachers, the stress is lowered. Chakrabarthy (2007) observed that educational level of the family influenced the academic stress of the female students compared to the male students. Mahapatra (2007) concluded that the regional background of the B.Ed. students did not have any significant effect on the academic stress and teaching success. Routray and Satpathy (2007) found that stress can create negative/positive feelings on professionals. A positive influence of stress will result in new awareness and exciting new perspective. Whereas a negative influence may result in distrust, rejection, anger, depression which in turn leads to frustration etc. Stress in a digital environment can be technological stress, job insecurity stress, or physical stress. The reasons for stress may be due to technological changes, changing library environment, changing user’s demand, reducing staff strength etc. It concluded that best way to manage the stresses wisely is to
reduce its effect considerably than to avoid them. Kuruvilla (2008) found that (i) there is a significant positive correlation between the gender and the academic stress; boys had higher level stress compared to the girls (ii) Science students suffered with higher level of stress compared to the Arts and Commerce students. (iii) Academic Stress is significantly influencing the level of the scholastic achievement. Kumar (2008) investigated that – (i) the urban students were higher in their level of stress as compared to the rural area students. (ii) the overall achievement is positively and significantly associated with the level of scholastic achievement. Raja (2008) investigated that there was a significant difference in the computer course achievement and the level of stress between rural and urban higher secondary school students. He also found that the rural students had exhibited higher level of stress in the course compared to the urban locality students. He further found that extensive use of the laboratory in the computers have lowered the level of academic stress in a moderate way. Ranamanikham and Vasanthal (2008) found that (i) there was a significant positive correlation between academic stress and academic achievement. (ii) the scores of the students on their academic stress gradually increases as the qualification of the parents decreased. (iii) the different sibling groups differed significantly on the level of stress. (iv) it was found that as the number of siblings increased, the level of stress score increased. Nagaraju (2009) reported that (i) the correlation between academic stress and anxiety is positive and significant. (ii) the correlation between intelligence and stress is negative and significant and (iii) the correlation between achievement and stress is positive and significant. Vamadevappa (2009) in a study revealed that there is a positive and significant relationship between parental involvement and academic stress among the higher secondary students. Good parental involvement leads to higher academic stress and the stress of girls is less than the boys among the higher parental involvement group. Joshith and Prakash (2010) found that teaching performance and stress are highly related to each other. Anvita (2011) 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 healthier and organization more productive. Jye and Zawawi (2012) found 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. Xiao (2013)
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. Bartwal and Raj (2014) 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. Khan et al. (2015) showed boys having much more stress in comparison to girls. The study concluded that school boys are more stressful than school girls. Lee and Cho (2016) revealed that Male nurses have experienced more job stress than female nurses and there were difference in the area of job stress between male and female nurses. This difference was relatively small area of job stress among less than 4 year of work experience. However, among more than 5 years of work experience, gender difference was visible in various areas of job stress and stress coping strategies.

High emotional intelligence levels are associated with coping strategies based on reflection and problem solving, while low levels are associated with coping strategies based on avoidance, rumination and superstition. Therefore, emotional intelligence plays an important role in the emotional self-control and the individual's adaptive capacity to cope with stressful situations.

**OBJECTIVES OF THE STUDY**

The study was designed to attain the following objectives:

1. To study the emotional intelligence of students at the secondary stage.
2. To study the stress among students at the secondary stage.
3. To compare emotional intelligence of boys and girls at the secondary stage.
4. To compare the stress among boys and girls at the secondary stage.
5. To compare the stress of students from high emotional intelligence and low emotional intelligence groups.
6. To compare the stress of boys and girls from high emotional intelligence and low intelligence groups.
HYPOTHESES FOR THE STUDY

The study was designed to test the following hypotheses:

H1 There is no correlation between emotional intelligence and stress scores of boys and girls.

H2 There is no significant difference between the stress scores of students from high emotional intelligence and low emotional intelligence groups.

H3 Boys and girls yield equal stress scores.

H4 There is no significant difference on stress scores of boys and girls from high emotional intelligence and low emotional intelligence group.

SAMPLE OF THE STUDY

In order to conduct the study, in total six government secondary schools from Jalandhar city were selected. For this selection, simple random sampling technique was employed. XI class students of all the six schools were selected.

DESIGN OF THE STUDY

For the present investigation, 2x2 factorial design of ANOVA was employed on stress scores. Emotional intelligence was studied as independent variable at two levels of high emotional intelligence and low emotional intelligence of boys and girls. The main dependent variable was stress scores.

TOOLS USED

The following tools were used for data collection:

- Scale of emotional intelligence by Anukool Hyde, Snjot Petche, Upinder Dhar
- Bisht Battery of Stress

FINDINGS OF THE STUDY

Firstly, sample of 180 boys and 200 girls were selected from six government secondary schools of Jalandhar city. The Emotional intelligence scale and stress were given to all the students. Then, a stress test from Bisht Battery was administered to the entire selected sample. For further investigation the students representing two levels of emotional intelligence viz., high emotional intelligence and low emotional intelligence were selected.
The coefficients of correlation between stress and emotional intelligence for boys and girls have been calculated and are presented in Table 1.

Table 1
Coefficient of Correlation Between Stress and Emotional Intelligence Scores.

<table>
<thead>
<tr>
<th>Stress</th>
<th>Emotional Intelligence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boys</td>
<td>-0.28</td>
</tr>
<tr>
<td>Girls</td>
<td>-0.56</td>
</tr>
</tbody>
</table>

Both the values of correlation between emotional intelligence and stress among boys and girls are negative in nature, which reveals that there is negative correlation between stress and emotional intelligence. It means higher the emotional intelligence, lower is the stress and vice-versa. Secondly, in case of girls, the value is quite high (-0.56), in comparison to boys. In case of boys, correlation is -0.28. Thus, the hypothesis 1) H1 “there is no correlation between emotional intelligence and stress scores of boys and girls”, is rejected.

The means of sub-sample groups of ANOVA for 2x2 factorial designs for stress gain scores have been calculated and presented in Table 2.

Table 2
Means of Sub-Sample Groups of ANOVA for 2x2 Factorial Design on Stress Scores.

<table>
<thead>
<tr>
<th>HEI</th>
<th>LEI</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOYS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M=408.7</td>
<td>M=419.58</td>
<td>M=414.14</td>
</tr>
<tr>
<td>N=55</td>
<td>N=55</td>
<td>N=110</td>
</tr>
<tr>
<td>SD=57.4</td>
<td>SD=49.57</td>
<td>SD=54.06</td>
</tr>
<tr>
<td>GIRLS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M=414.2</td>
<td>M=446.2</td>
<td>M=430.2</td>
</tr>
<tr>
<td>N=55</td>
<td>N=55</td>
<td>N=110</td>
</tr>
<tr>
<td>SD=57.71</td>
<td>SD=50.90</td>
<td>SD=57.09</td>
</tr>
<tr>
<td>M=411.45</td>
<td>M=432.89</td>
<td>M=58.14</td>
</tr>
<tr>
<td>N=110</td>
<td>N=110</td>
<td>SD=51.97</td>
</tr>
</tbody>
</table>

In order to analyse the variance, the obtained scores were subjected to ANOVA. The results have been presented in Table 3.
Table 3
Summary of ANOVA For 2x2 Design on Stress Scores.

<table>
<thead>
<tr>
<th>Sources of variation</th>
<th>Sum of squares</th>
<th>Degree of freedom</th>
<th>Mean sum of squares=ss/df</th>
<th>F-ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Intelligence (A)</td>
<td>25273.47</td>
<td>1</td>
<td>25273.47</td>
<td>25.86**</td>
</tr>
<tr>
<td>Sex (B)</td>
<td>14176.16</td>
<td>1</td>
<td>14176.16</td>
<td>14.51**</td>
</tr>
<tr>
<td>AxB</td>
<td>6137.48</td>
<td>1</td>
<td>6137.48</td>
<td>6.28**</td>
</tr>
<tr>
<td>WSS</td>
<td>211085.34</td>
<td>216</td>
<td>977.25</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>256672.45</td>
<td>219</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at the 0.05 level ** Significant at the 0.01 level

It may be observed from Table 3 that F-ratio for difference between means of two emotional intelligence groups namely, high intelligence and low emotional intelligence was found to be significant at 0.01 level of confidence. This indicated that two groups differ significantly on stress scores. The examination of their corresponding group means from Table 2 suggests that low emotionally intelligent students have more mean on stress scale as compared to high emotional intelligence group. Thus, the result did not support the hypotheses 2) H1 Viz, “there is no significant difference between stress scores of the students from high emotional intelligence and low emotional intelligence groups.”

It may be observed from Table 3 that F-ratio for the difference in mean stress scores of boys and girls was found to be significant at 0.01 level indicating that stress scores of the two groups were found to be different. The examination of their corresponding group means from Table 2 suggests that mean stress scores of boys are lower than girls group. Hence, the result did not support the hypotheses 3) H2 viz. “Boys and girls yield equal stress scores.”

It may be observed from Table 4 that the F-ratio for interaction between emotionally intelligence and sex was found to be significant at the 0.01 level. Hence, the hypothesis 4) H4 viz., “There exists no difference between stress gain scores of boys and girls from high emotional intelligence and low emotional intelligence groups” stands rejected.

Further t-ratios for difference of means between various cells were calculated and are presented in the Table 4 below:
Table 4

t-Ratios Between the Difference in Means of Various Cells of 2x2 Design of ANOVA.

<table>
<thead>
<tr>
<th>Cells</th>
<th>D</th>
<th>SD</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEIB - LEIB</td>
<td>10.88</td>
<td>10.22</td>
<td>1.064</td>
</tr>
<tr>
<td>HEIB - HEIG</td>
<td>5.5</td>
<td>10.97</td>
<td>0.51</td>
</tr>
<tr>
<td>HEIB - LEIG</td>
<td>37.5</td>
<td>10.34</td>
<td>3.62**</td>
</tr>
<tr>
<td>LEIG - HEIB</td>
<td>5.38</td>
<td>10.22</td>
<td>0.526</td>
</tr>
<tr>
<td>LEIG - LEIB</td>
<td>26.62</td>
<td>9.58</td>
<td>2.78**</td>
</tr>
<tr>
<td>LEIG - HEIG</td>
<td>32</td>
<td>10.37</td>
<td>3.086**</td>
</tr>
</tbody>
</table>

*Significant at 0.01 level **Significant at 0.05 level

Table 4 reveals that t-ratios are significant for the differences between means of cells HEIB-LEIG, LEIB-LEIG, HEIG-LEIG, HEI-LEI. The significance of interaction is also shown through graph presented in Figure 1.

Figure 1 Graph for Significance of Interaction.

To sum up it can be said that the findings of the study are as following:

1. Emotional intelligence and stress are negatively correlated with each other.
2. Boys have less stress than girls.
3. High emotional intelligence students experience less stress than low emotionally intelligent students.
4. High emotionally intelligent boys have less stress than high emotionally intelligent girls.
5. Low emotionally intelligent boys have less stress than low emotionally intelligent girls but experience more stress than high emotionally intelligent girls.

RESULTS AND DISCUSSION

The study revealed that there is no correlation between emotional intelligence and stress scores of boys and girls. The results are in tune with the findings of Lazarus (1999) who observed that treating stress and emotion as separate fields is absurd. Clarke (2000) found that where there is stress, there are also emotions. Cherniss (2000) revealed that the people could learn better understand and manage the emotions and would likely to experience lower levels of stress. Mathew and Zeidner (2000) suggest that successful coping with stressful encounters is central to emotional intelligence.

Keeping in view, the substantial potential in the findings, further investigation is conducted to find out the cause and effect relationship of emotional intelligence on stress.

There is no significant difference between stress scores of the students from high emotional intelligence and low emotional intelligence groups. The results are in tune with the findings of Goleman (1995), the men who are high in emotional intelligence are socially poised, outgoing and cheerful, not prone to fearless or worried rumination. Elias, Ubarico, Reese, Gara, Rothbaum and Haviland (1992), students who are emotionally competent will manage their own feelings well, recognise and respond effectively to the feelings of others, tolerate frustrations better. Boys and girls yield equal stress scores. The results are in tune with the findings of Furnham (2000), females scored higher than males on the “social skills” factor of measured trait Emotional Intelligence. On the contrary, Monk et. At (2000) observed that males have limited cognitive capacity or have experienced parental stress. On the other side, Stevens, Murphy and Mcknight (2003), females report trauma life events and more symptoms associated with traumatic stress than males.

In order to reduce stress among learners, teachers play very important role. Teachers must plan effective and engaging lessons that cater the needs of all students, assess and evaluate their progress and communicate regularly with parents. Parents must set an example for their children in dealing with stressful situations. Creating a conducive environment in the classroom can minimize stress levels to make learning easier, prepare them for exams. Teachers and parents should provide emotional support to the students and help them to find positive solutions to the stressful situation. As the study revealed that the girls with/belonging to low emotional intelligence face more stress than boys.
belonging to low emotional intelligence. Therefore, schools and teachers should launch such programmes which help in developing the students' emotional intelligence so as to reduce stress. More concentration should be on the girls as they experience more stress than boys.

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