Comparative Study of the Academic Stress, Emotional Intelligence and Academic Performance

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ABSTRACT:

Background: Academic stress is a mental suffering caused by the expected dissatisfaction of academic failure. Whereas emotional intelligence is a personality trait that indicates an individual's ability to comprehend and tolerate one’s own emotions as well as those of others.

Aim and Objective:
The broad aim of the present study was to investigate an empirical-based examination of the relationship among academic stress and emotional intelligence in secondary class students. The objectives of the study were to ascertain if there exist any gender, family structure and single child differences between academic stress and emotional intelligence.

Method:
The present study aims to investigate emotional intelligence and academic performance of students at the secondary level. Using random sampling technique 200 students, from the secondary level in different systems of education, namely, state, matriculation and central board schools are chosen. The Emotional Intelligence Scale has been used to assess the emotional intelligence and the marks scored yearly performance. The data collected is subjected to statistical analysis, namely, mean, standard deviation, 't'- test, Karl Pearson's Product Moment Correlation Co-efficient 'r'.

Result:
Results show a positive significant correlation between emotional intelligence and academic performance among the students. Further the students belonging to the central board schools have a higher level of emotional intelligence compared to students in state board but did not differ with students in matriculation board schools at the secondary level. Similarly, students belonging to central board schools are found to perform better in academics compared to students in state and matriculation board schools at the secondary level.

Keywords: Academic stress, Emotional intelligence, Academic score.
Introduction

The emotional intelligence concept offers a perspective on anticipating important elements in people's life, whether it is in their professional or academic careers. Previous research has shown that those with more emotional intelligence do better across a wide range of life domains, such as managing stressful situations and responding to stress. This study was conducted to assess the association between emotional intelligence and academic stress in the students of senior secondary school students [1-11].

Academic Stress

Academic stress is the terms used to describe the unpleasant psychological conditions are mostly brought on by external variables, including such academic achievement from parents, instructors, friends, and family members, pressure to perform well in school, the amount of homework required, etc. Scholastic stress is emotional suffering brought on by the frustration of potential underachievement or even just the knowledge of such possibility. Interaction with environmental stressors, cognitive evaluation of and coping mechanisms for academic-related stresses, and psychological or physiological reaction to the stress factors can all be used to understand how students engage with academic stress [12-17].

According to some research: Male and female students experience stress differently because male students may be less emotional and insensitive to what is going on around them [18-20].

Emotional Intelligence

Emotional intelligence is the capacity to recognise, express, and take into account your own feelings as well as the emotions of others. Emotional awareness, or even the capacity to recognise and name one's own emotions; emotional exploitation, or the capacity to channel those emotions into activities like thinking and problem-solving; and emotional regulation, or the skills to handle emotions, which includes both controlling one's own emotional responses when necessary and assisting others to do the same [21-25].

However, other academics are working to establish links between academic success and emotional intelligence. The findings indicate a favourable correlation between academic success and other cognitive outcomes, as well as emotional intelligence [25-28].

Emotional intelligence's effects on academic performance

Currently, the idea of Emotional intelligence is significantly influencing everyone's thoughts, relationships, and emotions, as well as having a huge impact on their decision-making.

Impact of Emotional intelligence on Student's Academic Successes is one of the researches; its goal was to determine a student's Emotional intelligence level and, using the dimensional method, the degree to which Emotional intelligence influences students' academic achievements [29].
Objectives and Hypothesis

Objectives:
1. To study the relationship of emotional intelligence and academic stress with the academic performance of secondary class students.
2. To study the level of Emotional Intelligence of secondary class students.
3. To study the level of Academic stress of secondary class students.
4. To study the level of Academic Performance of secondary class students
5. To compare the level of emotional intelligence of male and female students of secondary class.
6. To compare the level of academic stress of male and female students of secondary class.
7. To compare the level of academic performance of male and female students of secondary class.

Hypothesis:

Ho1: There is no significant difference in the Academic Stress of the Male and Female of Secondary School Students.

Ho2: There is no significant difference in the Emotional Intelligence of the Male and Female of Secondary Class Students.

Ho3: There is no significant difference in the Academic performance of the Male and Female of Secondary Class Students

Ho4: There is no significant relationship between Academic Stress and Academic Performance of the Secondary Class Students.

Ho5: There no significant relationship between the Emotional Intelligence and Academic Performance.
Methodology of the study:

Delimitations

The present study would be delimited to the senior secondary class students of private schools students of G.B Nagar Greater Noida U.P.

Study would be limited to 200 secondary school students of G.B. Nagar Greater Noida U.P.

Tools to be used:

Arun Kumar Singh and Shruti Narain (2014) Emotional Intelligence Scale:

This Emotional Intelligence Scale is meant for use from 12 years and above age. Originally, 80 items were written and submitted to a group of language experts who made necessary corrections and modifications. Out of the 80 items, 52 reached common consensus. The response was to given in ‘Yes’ or ‘No’. A score of +1 and 0 are given.

Dr. Zaki Akhtar (2011)

This tests has been developed to check for the major kind-of stresses prevalent In the adolescent’s student life from 13 to 81years age. The preliminary form of the questionnaire had a total of 80 items ranging off Always, Often, Sometimes, Rarely, and Never. By doing item analysis 51 items were found to be of good discrimination value. For item analysis the inventory was administered to a selected sample of seven hundred students from different schools.

Techniques of Data-Analysis:

Data will be collected using questionnaire tools. Descriptive and inferential statistics will be used for the interpretation of the scores in relation to the objectives stated and hypotheses formulated.

Statistical Analysis:

Both descriptive and inferential measures would be adopted as per objectives stated and hypotheses formulated:

1. Descriptive measures of central tendency, measures of variation and percentile scores is calculated for each variable.
2. t’ test is done to find differences if any in student’s academic stress and emotional intelligence in relation to gender.
3. Correlation is done to find the Association between Emotional Intelligence and Academic Stress.

CORRELATIONAL ANALYSIS OF SECONDARY CLASS STUDENTS ACADEMIC STRESS, EMOTIONAL INTELLIGENCE AND ACADEMIC PERFORMANCE

Objective 1: To study the relationship of emotional intelligence and academic stress with the academic performance of secondary class students.

In this section researcher analyse correlation ‘r’ between secondary class students’ emotional intelligence and academic stress with the academic performance of Gautam Buddha Nagar division Uttar Pradesh. The results are presented in following table 1 to 3. The scores obtained by the of secondary class students was analysed. The mean and correlation (r) are presented in table 1.
Table 1

Means and correlation (r) for emotional intelligence and academic stress with the academic performance of secondary class students

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>‘r’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional Intelligence</td>
<td>200</td>
<td>22</td>
<td>0.03</td>
</tr>
<tr>
<td>Academic Performance</td>
<td>200</td>
<td>85.5</td>
<td></td>
</tr>
<tr>
<td>Academic Stress</td>
<td>200</td>
<td>176</td>
<td>0.56</td>
</tr>
<tr>
<td>Academic Performance</td>
<td>200</td>
<td>85.5</td>
<td></td>
</tr>
</tbody>
</table>

Figure 2: Emotional intelligence and academic stress with the academic performance of secondary class students

H0 1: There is no significant relationship between emotional intelligence and academic performance of secondary class students.
Table 2:
Means and correlation (r) of emotional intelligence and academic performance of secondary class students.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional intelligence</td>
<td>200</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Academic performance</td>
<td>200</td>
<td>85.5</td>
<td>.03</td>
</tr>
</tbody>
</table>

Figure 3 of emotional intelligence and academic performance of secondary class students.

It is revealed from the table 2 that mean value of emotional intelligence are 22 and academic performances are 85.5, and coefficient of correlation ‘r’ values 0.03. between emotional intelligence and academic performance of secondary class students are positive but very low correlation and not significant at 0.05 level of significant. Therefore, the null hypotheses Ho1: ‘There is no significant relationship between emotional intelligence and academic performance of secondary class students’ is accepted. Thus, it can be said that between emotional intelligence and academic performance of secondary class students have positive but very low relationship.
H0 2: There is no significant relationship between academic stress and academic performance of secondary class students.

Table 3

Means and correlation (r) of academic stress and academic performance of secondary class students.

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>‘r’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Academic Stress</td>
<td>200</td>
<td>176</td>
<td>0.56</td>
</tr>
<tr>
<td>Academic performance</td>
<td>200</td>
<td>85.5</td>
<td></td>
</tr>
</tbody>
</table>

Figure 4 of academic stress and academic performance of secondary class students

It is revealed from the table 3 that mean value of academic stress are 176 and academic performance are 85.5, and coefficient of correlation ‘r’ values .56. between emotional intelligence and academic performance of secondary class students are positive and high correlation and significant at 0.05 level of significant. Therefore, the null hypotheses Ho2: ‘There is no significant relationship between academic stress and academic performance of secondary class students’ is rejected. Thus, it can be said that
between academic stress and academic performance of secondary class students has a significant correlation at 0.5 level.

ASSESSMENT OF EMOTIONAL INTELLIGENCE OF SECONDARY CLASS STUDENTS.

Objective -2: To study the level of emotional intelligence of secondary class students.

The mean and standard deviation values of emotional intelligence scores were calculated for the entire sample. Based on mean and standard deviation of emotional intelligence of secondary class students were divided into different group’s namely high, average, and low level of emotional intelligence by using normal probability curve method. The various level of emotional intelligence of secondary class students was categorised by using M±1σ. The value range and interpretation of data are given below:

Table 4

LEVEL OF EMOTIONAL INTELLIGENCE OF SECONDARY CLASS STUDENTS

<table>
<thead>
<tr>
<th>Score Range Limit</th>
<th>Category</th>
<th>Level of Attitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater than 176+22.5</td>
<td>196-205</td>
<td>High Emotional Intelligence</td>
</tr>
<tr>
<td>Between 176+22.5 to 176-22.5</td>
<td>153-195</td>
<td>Average Emotional Intelligence</td>
</tr>
<tr>
<td>Less than 153</td>
<td>152-0</td>
<td>Low Emotional Intelligence</td>
</tr>
</tbody>
</table>
TO ASSESS THE LEVEL OF EMOTIONAL INTELLIGENCE OF SECONDARY CLASS STUDENTS:

The various level of emotional intelligence of secondary class students are presented in table 5

Table 5

Various Level of emotional intelligence of secondary class students.

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Score Range</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>%</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>196-205</td>
<td>46</td>
<td>200.3</td>
<td>2.3</td>
<td>23</td>
<td>High Emotional Intelligence</td>
</tr>
<tr>
<td>2</td>
<td>153-195</td>
<td>120</td>
<td>177.4</td>
<td>12.6</td>
<td>60</td>
<td>Average Emotional Intelligence</td>
</tr>
<tr>
<td>3</td>
<td>152-105</td>
<td>34</td>
<td>138.3</td>
<td>13.12</td>
<td>17</td>
<td>Low Emotional Intelligence</td>
</tr>
</tbody>
</table>

It is clear from table 5 that among 200 secondary class students, 23 % (N=46) of secondary class students have high Emotional Intelligence (M=200.3), 60 % (N=120) of secondary class students have average Emotional Intelligence (M=177.4) and 17 % (N=34) of secondary class students have low Emotional Intelligence (M=138.3).

ASSESSMENT OF ACADEMIC STRESS OF SECONDARY CLASS STUDENTS.

Objective -3: To study the level of academic stress of secondary class students.

The mean and standard deviation values of academic stress scores were calculated for the entire sample. Based on mean and standard deviation of academic stress of secondary class students were divided into different group’s namely high, average, and low level of academic stress by using normal probability curve method. The various level of academic stress of secondary class students was categorised by using M±1σ. The value range and interpretation of data are given below:
Table 6

LEVEL OF ACADEMIC STRESS OF SECONDARY CLASS STUDENTS

<table>
<thead>
<tr>
<th>Norms</th>
<th>Score Range Limit</th>
<th>Category</th>
<th>Level of Stress</th>
</tr>
</thead>
<tbody>
<tr>
<td>M+1σ</td>
<td>Greater than 22+3</td>
<td>25-28</td>
<td>High Academic Stress</td>
</tr>
<tr>
<td>Between M±1σ</td>
<td>Between 22+3 to 22-3</td>
<td>19-24</td>
<td>Average Academic Stress</td>
</tr>
<tr>
<td>M-1σ</td>
<td>Less than 19</td>
<td>18-0</td>
<td>Low Academic Stress</td>
</tr>
</tbody>
</table>

TO ASSESS THE LEVEL OF ACADEMIC STRESS OF SECONDARY CLASS STUDENTS:

The various level of academic stress of secondary class students are presented in table 7.

Table 7

Various Level of academic stress of secondary class students.

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Score Range</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>%</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25-28</td>
<td>37</td>
<td>26.46</td>
<td>1.08</td>
<td>18.5</td>
<td>High Academic Stress</td>
</tr>
<tr>
<td>2</td>
<td>19-24</td>
<td>139</td>
<td>21.61</td>
<td>1.7</td>
<td>69.5</td>
<td>Average Academic Stress</td>
</tr>
<tr>
<td>3</td>
<td>18-0</td>
<td>24</td>
<td>17.38</td>
<td>0.5</td>
<td>12</td>
<td>Low Academic Stress</td>
</tr>
</tbody>
</table>

It is clear from table 7 that among 200 secondary class students, 18.5 % (N=37) of secondary class students have high academic stress (M=26.46), 69.5 % (N=139) of secondary class students have average academic stress (M=21.61) and 12 % (N=24) of secondary class students have low academic stress (M=17.38).
ASSESSMENT OF ACADEMIC PERFORMANCE OF SECONDARY CLASS STUDENTS.

Objective -4: To study the level of academic performance of secondary class students.

The mean and standard deviation values of academic performance scores were calculated for the entire sample. Based on mean and standard deviation of academic performance of secondary class students were divided into different group’s namely high, average, and low level of academic performance by using normal probability curve method. The various level of academic performance of secondary class students was categorised by using M±1σ. The value range and interpretation of data are given below:

Table 8
Level of academic stress of secondary class students

<table>
<thead>
<tr>
<th>Norms</th>
<th>Score Range</th>
<th>Category</th>
<th>Level of Attitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>M+1σ</td>
<td>Greater than 88.5+8.5</td>
<td>97-98</td>
<td>High Performance</td>
</tr>
<tr>
<td>Between M±1σ</td>
<td>Between 88.5+8.5 to 88.5-8.5</td>
<td>96-80</td>
<td>Average Performance</td>
</tr>
<tr>
<td>M-1σ</td>
<td>Less than 80</td>
<td>79-0</td>
<td>Low Performance</td>
</tr>
</tbody>
</table>

TO ASSESS THE LEVEL OF ACADEMIC PERFORMANCE OF SECONDARY CLASS STUDENTS:

The various level of academic performance of secondary class students are presented in table 9.

Table 9
Various Level of academic performance of secondary class students

<table>
<thead>
<tr>
<th>Sr. No</th>
<th>Score Range</th>
<th>N</th>
<th>M</th>
<th>SD</th>
<th>%</th>
<th>Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>97-98</td>
<td>16</td>
<td>98</td>
<td>0</td>
<td>8</td>
<td>High Performance</td>
</tr>
<tr>
<td>2</td>
<td>96-80</td>
<td>131</td>
<td>88.62</td>
<td>4.2</td>
<td>65.5</td>
<td>Average Performance</td>
</tr>
<tr>
<td>3</td>
<td>79-0</td>
<td>53</td>
<td>74.02</td>
<td>5.4</td>
<td>26.5</td>
<td>Low Performance</td>
</tr>
</tbody>
</table>

It is clear from table 9 that among 200 secondary class students, 8 % (N=16) of secondary class students have high academic performance (M=98), 65.5 % (N=131) of secondary class students have average academic performance (M=88.62) and 26.5 % (N=53) of secondary class students have low academic performance (M=74.02).
DIFFERENTIAL ANALYSIS BETWEEN MALE AND FEMALE STUDENTS ON EMOTIONAL INTELLIGENCE, ACADEMIC STRESS AND ACADEMIC PERFORMANCE OF SECONDARY CLASS:

Differential analysis is an important procedure by which investigator can make inference concerning the purpose of the statistical significance between groups with reference to selected variable. It involves the use of ‘t’ test. In this section emotional intelligence, academic stress and academic performance of secondary class have been analyzed.

Objective -5: To compare the level of emotional intelligence of male and female students of secondary class.

Related hypothesis of this objective -

Ho 3: There is no significant difference in the level of emotional intelligence of male and female students of secondary class.

Table 10

Mean SDs and t- values analysis of emotional intelligence of male and female secondary class students

<table>
<thead>
<tr>
<th>Variable</th>
<th>Emotional intelligence of male and female secondary class students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sub Variable</td>
</tr>
<tr>
<td>Gender</td>
<td>Male</td>
</tr>
<tr>
<td></td>
<td>Female</td>
</tr>
</tbody>
</table>

Significant at 0.01 levels  **Significant at 0.05 levels
Figure 5 of male and female secondary class students with respect to emotional intelligence

It can be revealed from Table 10 that the mean score on emotional intelligence of male secondary class students is found to be 21 and the standard deviation is 2.6 and means score on emotional intelligence of female secondary class students are found to be 23 and standard deviation is 2.8. Table 4.8.1 also reveal that t-value (5.3*) between male and female secondary class students with respect to emotional intelligence is significant at 0.05 and 0.01 both level of significance. Hence the hypothesis $H_0$ “There is no significant difference in the level of emotional intelligence of male and female students of secondary class” is rejected at 0.01 level of significant because calculated t-value 5.3 is greater than table value (2.58) on 0.01 level of significant. The possible reason for differences may be due to the fact that female secondary class students is high emotional than male secondary class students.
Objective -6: To compare the level of academic stress of male and female students of secondary class.

Related hypothesis of this objective-
Ho 4: There is no significant difference in the level of academic stress of male and female students of secondary class.

Table 11

Mean SDs and t-values analysis of academic stress of male and female secondary class students

<table>
<thead>
<tr>
<th>Variable</th>
<th>academic stress of male and female secondary class students</th>
<th>Sub Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>100</td>
<td>179.5</td>
<td>10.5</td>
<td>3.7*</td>
<td>Significant at 0.01 level</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>100</td>
<td>172.5</td>
<td>16</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at 0.01 levels  **Significant at 0.05 levels

Figure 6 of male and female secondary class students with respect academic stress
It can be revealed from table 11 that the mean score on academic stress of male secondary class students is found to be 179.5 and the standard deviation is 10.5 and mean score on academic stress of female secondary class students are found to be 172.5 and standard deviation is 16. Table 11 also reveal that t- value (3.7*) between male and female secondary class students with respect to academic stress is significant at 0.05 and 0.01 both level of significance. Hence the hypothesis H0 “There is no significant difference in the level of academic stress of male and female students of secondary class” is rejected at 0.01 level of significant because calculated t- value 3.7 is greater than table value (2.58) on 0.01 level of significant. The possible reason for differences may be due to the fact that male secondary class students are high academic stress than female secondary class students.

**Objective -7:** To compare the level of academic performance of male and female students of secondary class.

**Related hypothesis of this objective-**

**Ho 5:** There is no significant difference in the level of academic performance of male and female students of secondary class.

**Table 12**

<table>
<thead>
<tr>
<th>Variable</th>
<th>academic performance of male and female secondary class students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub Variable</td>
<td>N</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>100</td>
</tr>
<tr>
<td>Female</td>
<td>100</td>
</tr>
</tbody>
</table>

*Significant at 0.01 levels    **Significant at 0.05 levels
It can be revealed from table 12 that the mean score on academic performance of male secondary class students is found to be 84.6 and the standard deviation is 6.4 and mean score on academic performance of female secondary class students are found to be 87 and standard deviation is 5.2. Table 12 also reveal that t-value (2.9*) between male and female secondary class students with respect to academic performance is significant at 0.05 and 0.01 both level of significance. Hence the hypothesis Ho5 “There is no significant difference in the level of academic performance of male and female students of secondary class” is rejected at 0.01 level of significant because calculated t-value 2.9 is greater than table value (2.58) on 0.01 level of significant. The possible reason for differences may be due to the fact that female secondary class students is high academic performance than male secondary class students.

Conclusion

The findings revealed a substantial link between Emotional Intelligence and Academic stress experienced by a high school student. We discovered an inverse association, indicating that a high school student's degree of Emotional Intelligence is inversely proportionate to academic stress. For example, if a student has a high Emotional Intelligence, he or she may experience less academic stress. The study also looked at gender disparities, although there were no significant variations in Emotional Intelligence or academic stress levels between male and female students. Aside from gender differences, two other factors influenced Emotional Intelligence and academic stress, namely respondents who are single children (one child in a family) and family dynamics (whether a child is raised in a joint family).

The findings revealed that the majority of respondents were not a single kid in a family (single child in a family 23% versus a single child in a family 77%), which has a substantial impact on their degree of EI and academic achievement. It indicates that a kid growing up with siblings may receive social support that assists
them in developing their capacity to be aware of, manage, and express one's emotions while also handling interpersonal connections empathetically. This child parenting with siblings enables children to develop their EI, which helps them to cope with academic stress at school.

Similarly, results of the last hypothesis verify the academic stress of a child living in a joint family (35%) and nuclear family (65%). A statistically significant relationship was founded, and it states that nowadays people prefer living in a nuclear family, that does have an impact on the child’s upbringing. Children living in a nuclear family do not have many options for social support because most of the parents are employed.

This study's practical implications for academics are manifold. Several stress management techniques are used to prepare students to deal with stress. As a result, every school should offer stress management programmes to kids. These sessions can assist students in developing cognitive, social, and emotional abilities; however, these competencies are not created through lectures and discussion; instead, we must place a strong focus on theory-based knowledge. Students should have a fundamental understanding of the concepts and abilities that will enable them to excel academically and develop good leadership qualities.

Limitations

Because our population sample has been restricted to one high school in Noida, the findings should be interpreted with caution. However, given the strong correlations presented in this data, this study suggests further research in a larger population. The second constraint is that the data was collected from several different students at the same time, resulting in a cross-sectional research design. Third, the sample size was similarly limited, since it only included high school students from the 9th and 10th grades. As a result, the study's findings are limited to a specific group and are not applicable to the broader population. Lastly, the questionnaires had been very long and took the respondents a long time to complete. The response rate in our study was high. Every pupil had completely marked the answers, but at the conclusion it grew boring.

Suggestions for Future Research

Because a cross-sectional design was used in this study, future research should look at the long-term or longitudinal impacts of social and emotional competency on academic success. Further research should look into other factors that influence academic stress while using EI as an independent variable, as single child and child family rearing were found to have an impact on EI and academic stress in this study. Future study can also look at how much respondents know about their EI and how many schools educate them about it.
References

(a) Books

(b) Journals


