ACADEMIC STRESS AMONG ADOLESCENT IN RELATION TO INTELLIGENCE AND DEMOGRAPHIC FACTORS

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Abstract: The modern world, which is said to be a world of achievements, is also a world of stress. One finds stress everywhere, whether it be within the family, business organization/enterprise or any other social or economic activity. Stress is a subject which is hard to avoid. The term is discussed not only in our conversations but has become enough of a public issue to attract widespread media attention. Stress is defined as burdens, pressures, anxieties and worries. Everyone has had it or has it in one point in their high school life. The importance of tile students in the education process is unquestionable. This is because of all the human factors in the educational system, the students occupy the key position and it is only through them that the ultimate process of education takes place. The students today are facing with new challenges in education calling for greater effort from students. In addition there are heavy demands made by the society on students to perform various roles, many of which are undefined, inconsistent and unachievable in the present socio-cultural, economic and bureaucratic contexts of our society, causing heavy stress on students mainly high school students. Unfortunately stress is a common part of life as we begin the new millennium, something few of us can avoid altogether. Partly for this reason and partly for both physical health and psychological well being, stress has become an important topic of research in psychology. Stress exists from the change in an individual’s thinking and their lifestyle nowadays. Now, individuals have changed in their perceptions and the way they interpret this life. Students in their teens are the ones who are going through the transitional phase, which is an intermediate of childhood and adulthood. Stress is believed to be caused by the various problems that exist such as problems at school, financial problems, family problems and problems in their surroundings. Teenagers also experience stress because they are sometimes trapped between making decisions which is to follow rules and orders or to be free and discover the world like they should. Teenagers in the previous days were trained for things that were suitable with their age so that they can use it to manage their lives. But now teenagers have to follow their parents’ desires which are preparing them to compete in the social system where the society is scrambling towards modernization so that they are not left behind. If it is not managed well, stress can ignite psychological disturbances among them when they are grown up. These disturbances will cause stress to the teenagers in the future if they are not overcome now.

I. INTRODUCTION
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. She has given the definition of four components of academic stress as follows: Academic Frustration:- Academic frustration is a state caused by harm of some academic goals. Academic Conflict:- Academic Conflict is the result of two or more qua] hut in compatible response tendencies to academic goals. Academic Pressure:- When the student is under heavy demands of time and energy to meet academic goals. And Academic Anxiety:- Apprehension of harm to some academic goals. 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. Stress makes a significant contribution to the prediction of subsequent school performance and act as a negative predictor of academic performance in school children (Ender et at. 1994) shows the components of Academic Stress Akbar...
Hussain. Ashutosh Kumar and Abid Hussain in their finding that magnitude of academic stress among high school students was found to be high particularly among the public school students. academic stress and overall adjustment of students were inversely related to each other for both public school as well as private school students. Private school students by and large stiffer from higher level of academic stress than their government school counterparts. High school students cite day to day stresses of school (e.g. tests, grades, home work, academic and achievement expectations) among their greatest stressors (Crystal et al., 1994; de Anda et al. 2000; Ohman and Jarvis, 2000) Types of school- related stresses include, interactions with teachers and balancing one’s leisure time with school True et at 2007) earlier inventories of school- related stressor indicated nine types, including inadequate instructional methods, teacher—students relationships, heavy academic workload, poor physical classroom environments and disorganization surrounding academic assignments and schedules (Burnett & Fanshawe, 1997) one specific academic stressor involves standardized testing, which is increasingly common in American schools (McNamara 2Q00) This is particularly true for IB students who are required to complete end- of-course exams to obtain IB diploma. Many times these students also take Advanced Placement (AP) exams because some academic institutions award university- level credit for only the higher level (intensive, 2 year) IB course examinations (Matthes, 2004).

A. CAUSES OF ACADEMIC STRESS ON STUDENTS

Academic pressure is a significant source of stress for much school students (Hashim, 2003; Olpin, 1997; Tyrrell, 1992). Identified sources of academic-related stress have included fear of falling behind with coursework, finding the motivation to study, time pressures, financial worries, and concern about academic ability (Tyrrell, 1992). Additionally, students report stress over struggling to meet academic standards, time management worries, and concerns over grades (Olpin, 1997). Additionally, these sources may exist easily throughout the span of college students’ academic careers and may result in school students’ experiencing a great deal of stress during their school career. If prevention efforts are to be developed to assist students in dealing with and avoiding academic-related stress, a greater understanding of the relationship among school students’ use of coping strategies, social support, experiences of being parented, and academic-related stress needs to be gained. Causes of stress on students include both positive and negative stress, but we will focus here on the negative causes of stress on students.

Academics: Alphabetically first among the causes of stress on students is academic pressure. Simply tackling more difficult assignments can demand stress management techniques. It might be wise for teachers to introduce students to this stress with an assignment such as a “Causes of Stress on Students Essay”. Requiring students to interview older students and educators, as well as research the Internet on the subject, could help them prepare for the stresses of academic challenges.

Dating: Student life throughout high school and college is filled with thinking about dating, dating, trying to date, failing to date, and being dumped”. The mating game is filled with estruses, but it also involves distress, and is among the greatest causes of stress on students.

Environment: The school environment itself can be a cause of stress on students. Students moving into secondary education find it challenging to constantly move around to classes. Those matriculating to tertiary education are challenged with leaving home and establishing a new life in new setting. Both can cause stress on students.

Extra Co-curricular: Colleges pressure high school students to engage in extracurricular activities such as choirs, clubs, sports, band, or volunteer work. The presence of these on a student application can go far toward acceptance. Hence in college, extracurricular activities still cause stress on students, once their presence on a job application is also an asset.

Peers: Like dating, peer relationships can provide estruses or distress. As peers apply pressure in regard to dress, behavior, choice of friends or sic, and many other areas of life, that pressure can become a huge presence of stress on students.

Parental Pressure: Finally, students at either level experience stress from parental pressures. Parents want their children to succeed in school. They want to see good grades, but they also want to see success in life’s other areas. In their attempts to guide their children, parents can become one of the major causes of stress on students. It is wise for parents and others who work with students to take time to recognize the stresses students face, If they then provide stress management techniques, they will do much to relieve and encourage their students.

B. SYMPTOMS OF STRESS

Stress is associated with physiological symptoms, characteristic of sympathetic nervous system activity. These symptoms relate to the flight response and are summarized below, together with the psychological symptoms of stress, both the subjective (how a person feels) and the behavioral (how a person acts) although there is some overlap in these areas. The symptoms vary among individuals because of the differing sensitivities of organs to the experience of stress.
Physiological Symptoms: Raised heart rate, Increased blood pressure, Sweating, Raised blood coagulation rate, Increased ventilation. Subjective Symptoms. Physiological Symptoms include: Tiredness and/or difficulty in sleeping. Muscle tension particularly in neck and shoulder muscles, Indigestion; constipation; diarrhea. Behavioral Symptoms. Behavioral symptoms include:

- Increased consumption alcohol, tobacco food etc.
- Loss of appetite or excessive eating.
- Restlessness
- Loss of sexual interest.

Measuring Stress: A physiological assessment of stress would include such measurements as heart rate, blood pressure, respiratory rate and skin conductance. Physiological as well as psychological attempts have been made to measure stress. One which has had particular influence is the Social Readjustment Rating Scale (SRRS) of Holmes and Rahe (1967).

Stress In the Individual Personality Type: Friedman and Rosenman (1974) described a personality type particularly associated with coronary heart disease. This type was characterized by a tendency for the individual to:

- Drive him to achieve goals one after another.
- Have spirit of fierce competitiveness.
- Perform activities as fast as possible.
- Be excessively alert.
- Have a constant need to be recognized.

C. INTELLIGENCE

In contrast to animals, man is considered to be endowed with certain cognitive abilities that make him a rational being. He can reason discriminate, understand, adjust asid face new situations. He is definitely superior to animals in all such aspects of behavior. But human beings themselves are not alike. There are wide individual differences. A teacher easily discovers these differences among while others remain lingering for long. There are some who need only one demonstration for handling the tools properly while for others even the repeated individual guidance brings no fruitful result. What is it that causes one individual to be more effective in his response to a particular situation than other? No doubt, interest attitude, desired knowledge and skill etc. count towards this achievement. But skill there is something that contributes significantly towards termed as ‘Intelligence.’ In ancient India Rishies named it ‘Viveka’.

Meaning and Definitions of Intelligence: As discussed earlier, in our day to day conversation an individual is said to be intelligent in proportion to his success in general life situations. What is this intelligence that contributes towards such success is a question that has been attempted by psychologists in different ways resulting in so many varied definitions.

Established Facts about Intelligence: The relation of intelligence with nature and nurture. There have been a number of attempts on the part of psychologists to weigh the relative importance of nature and nurture. Both are necessary for the intellectual growth of an individual and neither can be considered more important than the other.

Distribution of intelligence: There are individual differences with regard in the distribution of intelligence in nature like wealth, health etc. this distribution is governed by a definite principle that states “the majority of the people are average a few very bright and a few very dull.”

Growth of intelligence: As a child grows in age so does his intelligence as shown by intelligence tests. The age of cessation of mental growth varies from individual to individual. However, in majority of cases, intelligence reaches its maximum somewhat at the age of 16 or 20 in an individual.

Intelligence and Sex Differences: Various studies have been concluded to find out if women are less intelligent than men and vice-versa. The result of these researches has been either ways. Therefore, it is proper to think that difference in sex does not contribute towards the difference in intelligence.

II. OBJECTIVES OF THE STUDY

1. To compare the academic stress of Senior Secondary School students.
2. To examine the academic stress of male and female students of Sr. Sec. School.
3. To examine the academic stress of rural and urban students of Sr. Sec. School.
4. To examine the academic stress of govt. and private sr. sec. school students.

III. HYPOTHESIS

1. There will be significant difference in academic stress of Sr. Sec. School students having average and low level of intelligence.
2. There will be significant difference in academic stress of male and female students of Sr. Sec. Schools.
3. There will be significant difference in academic stress of rural and urban students of Sr. Sec. Schools.
4. There will be significant difference in academic stress of Govt. and private school students of Sr. Sec. Schools.

SAMPLE: A group selected from a larger population with the aim of yielding information about this population as a whole is termed as sample. In the present study the sample consisted of 200 students of high school of Government managed and privately managed institutions of Hisar. The structure of the sample has been shown in Table.

Table: Structure of the sample

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Name of Schools</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Govt. Sr. Sec. School, Nahar Kothi, Barwala</td>
<td>Male: 25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female: 25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total: 50</td>
</tr>
<tr>
<td>2.</td>
<td>Govt. Sr. Sec. School, Anaj Mandi, Barwala</td>
<td>Male: 25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female: 25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total: 50</td>
</tr>
<tr>
<td>3.</td>
<td>Om Swami Ramdev Sr. Sec. School, Tohana Road,</td>
<td>Male: 25</td>
</tr>
<tr>
<td></td>
<td>Barwala</td>
<td>Female: 25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total: 50</td>
</tr>
<tr>
<td>4.</td>
<td>CBC Memorial School, Barwala</td>
<td>Male: 25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female: 25</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total: 50</td>
</tr>
</tbody>
</table>

It is clear from the table that the sample selected for the present study was adequate and representative of population.

TOOLS USED: “Which is better, a hammer or a handsaw”, A S Barr. Research is based on data which is gathered to answer the research question or to test the hypothesis; several techniques and tolls have been developed for the collection and acquisition of data. Some of the more important tools and techniques of data collection are listed below

Psychological and educational test, ii Questionnaires, (iii) Check-lists, (iv) Schedules, (v) Rating scales, (vi) Interview, (vii) Observation, (viii) Socio-metric technique,

These differ from each other in several ways’ formal, presentations of stimuli recording quantification and nature of data gathered. Each is particularly appropriate for certain sources of data. Hence it may be difficult to argue the superiority of one over the other like the carpenter’s chest each is appropriate in given situation. In the present study the following tools were used:

(i) Students Academic stress scale by Dr. Abha Rani Bist.
(ii) Intelligence Test by Dr. R.K. Ojha

IV. STATISTICAL TECHNIQUE USED

In order to ascertain the impact of gender and type of institutions ‘t’ test was employed. The ‘t’ test is robust test to find out the difference in mean scores of two groups. The following formula was used for ‘t’ test. In connection with above, 0.05 and 0.01 level of significance were used to evaluate the obtained result of ‘t-value’.

Delimitations: Delimitations of findings are that intelligence (EQ.) and demographic factors such as (male and female) and (urban and rural) are not key factor in academic stress among high school students (according to this s However, all students of high school suffer from equal level of academic stress. However, 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 counseled for stress factor by trained guidance worker/counselor. Further, teachers should try to remove academic stress generating factors from leaning environment by taking necessary steps.

After collecting the data, analysis and interpretation of data were performed in accordance with the objectives of the study i.e. academic stress among high school students depending upon their I.Q. and their demographic factors such as their sex and the type of their institution (urban and rural). The present chapter embodies the description of analysis and interpretation of data systematically.

COMPARISON OF ACADEMIC STRESS AMONG SENIOR SECONDARY SCHOOL STUDENTS HAVING AVERAGE AND LOW LEVEL OF INTELLIGENCE

Significance of difference in means scores of academic stress among senior secondary school students having average and low level of intelligence is given in Table 1.1 below -

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S.D.</th>
<th>Df</th>
<th>t’ value</th>
<th>Significant / Not Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>134.3</td>
<td>10.37</td>
<td>114</td>
<td>0.58</td>
<td>NS</td>
</tr>
<tr>
<td>Low</td>
<td>133.1</td>
<td>11.76</td>
<td>114</td>
<td>0.60</td>
<td>NS</td>
</tr>
</tbody>
</table>

* Table 1.1 shows that first ‘t’ value (0.58 df = 114) was not significant (p < 0.01, df 114 & p < 0.05, df 114). It means senior secondary school students with average and low intelligence quality differed slightly in their academic stress. Since mean value of first group (134.3) is higher than the mean value of second group (133.1). It may be concluded that Senior Secondary school students with average intelligence quality had less academic...
stress than their counterparts with low intelligence quality. It means that hypothesis made by the investigator in first chapter that there will be significant difference in academic stress of average and low intelligence of senior secondary school students is rejected. It suggests that intelligence quality had slightly influence on academic stress of senior secondary school students.

Figure 1 shows difference in means scores of academic stress of senior secondary school students having average and low level of intelligence.

**Table 1.3 shows that first 't' value (2.33 df = 198) was significant (p < 0.01, df 198 & p < 0.05, df 198). It means male and female senior secondary school students differed slightly in their academic stress. Since mean value of first group (132.30) is lower than the mean value of second group (136.01). It may be concluded that male Senior Secondary school students had less academic stress than their counterparts i.e. female senior secondary school students. It means that hypothesis made by the investigator in first chapter that there will be significant difference in academic stress of male and female senior secondary school students is accepted. It suggests that female senior secondary school students had slightly influence on academic stress. Figure 1.2 shows difference in means scores of academic stress of male and female senior secondary school students.**

**COMPARISON OF ACADEMIC STRESS AMONG RURAL AND URBAN SENIOR SECONDARY SCHOOL STUDENTS**

Computed statistics for the comparison of academic stress among rural and urban senior secondary school students have presented in Table 1.4. Significance of difference in mean scores of academic stress among rural and urban senior secondary school students is given as -

**Variable** | **Mean** | **S.D.** | **df** | **'t' value** | **Significant / Not Significant**
---|---|---|---|---|---
Rural | 132.7 | 12.78 | 198 | 1.82 | NS
Urban | 135.6 | 9.8 | 198 | 1.82 | NS
* Table 1.4 shows that first ‘t’ value (1.82 df = 198) was significant (p < 0.01, df 198 & p < 0.05, df 198). It means rural and urban senior secondary school students differed slightly in their academic stress. Since mean value of first group (132.7) is lower than the mean value of second group (135.6). It may be concluded that rural Senior Secondary school students had less academic stress than their counterparts i.e. urban senior secondary school students. It means that hypothesis made by the investigator in first chapter that there will be significant difference in academic stress of rural and urban senior secondary school students is rejected. It suggests that rural senior secondary school students had slightly influence of academic stress.

Figure 1.3 shows difference in means scores of academic stress of rural and urban senior secondary school students.

**COMPARISON OF ACADEMIC STRESS AMONG GOVERNMENT AND PRIVATE SENIOR SECONDARY SCHOOL STUDENTS**

Computed statistics for the comparison of academic stress among government and private senior secondary school students have presented in Table 1.5. Significance of difference in mean scores of academic stress among government and private senior secondary school students is given as:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>S.D.</th>
<th>Df</th>
<th>‘t’ value</th>
<th>Significant / Not Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>Govt.</td>
<td>132.7</td>
<td>12.78</td>
<td>198</td>
<td>1.82</td>
<td>NS</td>
</tr>
<tr>
<td>Private</td>
<td>135.6</td>
<td>9.8</td>
<td>198</td>
<td>1.82</td>
<td>NS</td>
</tr>
</tbody>
</table>

* Table 1.5 shows that first ‘t’ value (1.82 df = 198) was significant (p < 0.01, df 198 & p < 0.05, df 198). It means government and private senior secondary school students differed slightly in their academic stress. Since mean value of first group (132.7) is lower than the mean value of second group (135.6). It may be concluded that Govt. Senior Secondary school students had less academic stress than their counterparts i.e. Private senior secondary school students. It means that hypothesis made by the investigator in first chapter that there will be significant difference in academic stress of government and private senior secondary school students is rejected. It suggests that Govt. senior secondary school students had slightly influence of academic stress.

Figure 1.4 shows difference in mean scores of academic stress among government and private senior secondary school students.

**V. CONCLUSION**

Following conclusions were drawn from the findings:
1. There exists no significant difference in academic stress of average and low I.Q. students.
2. There exists a significant difference in academic stress of male and female students.
3. There exists no significant difference in academic stress of rural and urban institutions students.
4. There exists no significant difference in academic stress of Government and private senior secondary school students.

**VI. IMPLICATIONS**

Implications of findings are that intelligence (I.Q) and demographic factors such as (male and female) and (urban and rural) are not key factor in academic stress among high school students (according to this study).
However, all students of high school suffer from equal level of academic stress. However, a variety of teaching method 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 counseled for stress factor by trained guidance worker/counselor. Further, teachers should try to remove academic stress generating factors from learning environment by taking necessary steps.

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