

# A STUDY ON EXAMINATION STRESS AMONG HIGHER SECONDARY SCHOOL STUDENTS WITH SPECIAL REFERENCE TO HOWRAH DISTRICT OF WESTBENGAL

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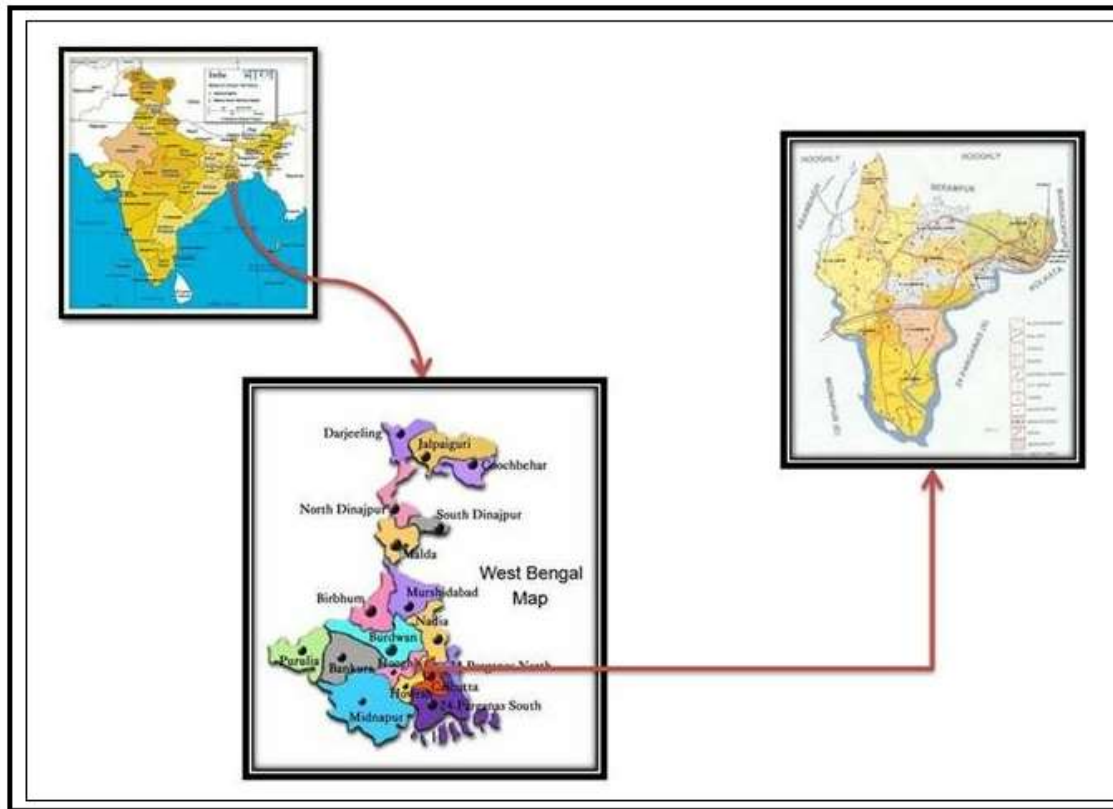
## Abstract

*Stress associated with exams is a common problem among high school graduates planning to attend college. A successful career after graduation depends on students' performance in upper secondary education in India. In this study, gender, location, and major were considered as potential factors that could affect students' exam stress levels. Data were collected through stratified random sampling. There was a significant difference between the perceptions of exam stress among males and females, and those between those attending rural and urban schools. It has also been demonstrated that students who take classes in the arts experience higher levels of exam anxiety than their counterparts in science and business. However, there was no significant difference between majors in business and science in terms of exam stress.*

**Keyword :** prevalent, Chi-Squaretest, Stress.

## 1.Introduction

It is suggested by Lee and Larson (2000) and Lou and Chi (2000) that exam stress is brought on by a complex interaction between the environment in which a student lives, a cognitive assessment of and ability to regulate instructional boundaries, and a psychological or physiological reaction to the demands. Wong, Wong, and Scott (2006) noted that students from diverse nations, ethnicities, and backgrounds experience school stress. In 1996, Gow, Bella, Kember, and Hau (1996) demonstrated that all children desire fame, family pride, and social mobility by becoming an academic superstar. Bossy, 2000; Ho, 1996) cite examples of students experiencing high levels of stress because of the excessive expectations placed on their academic performance. A high exam grade can cause students to feel that college is repetitive and draining because of the stress and obligations that go along with it. An element of stress can be physical, chemical, or emotional, and is defined as something that promotes sickness. There are many factors that can cause stress, including traumatic events, toxins, diseases, and various health issues. Stress and concern can be caused by a variety of different emotional factors. Physical discomfort, nausea, restlessness, and forgetting what you have studied are all signs of stress before and during the exam. When you can't answer someone's question because of a mental block, you begin to worry. Despite the fact that many average pupils are affected, coping with it is neither difficult nor unusual. As defined by Pargman (2006), stress can be a favorable or unfavorable response to external or internal factors. As time goes on, your body will react differently to changes and odd circumstances. There is a rapid response taking place in physiological systems such as respiration rate, heart rate, blood pressure, and stroke volume at this moment. Hormones play an important role in a number of pathways.



**Figure1: Location of the study Area**

### Location of the study Area

West Bengal's Howrah district has a total area of 1467.00 km<sup>2</sup>, making it the second smallest district after Kolkata. West Bengal's divisional regions are typically smaller than this region. The city's industrial, trade, and urbanization relevance make it quite important despite its size. Metropolitan Kolkata includes Howrah City, the district's administrative center.

A longitude of 22°12'30" and a latitude of 22°46'55" separate it from the nearest land masses at 87°50'45" east and 88°22'10" west. It became an independent district on January 1st, 1938. A large part of West Bengal is located in this district. 4 850,00029 people live in the district based on the 2011 Census. The total number of men and women is 53.38. The rural and urban areas coexist peacefully. Rural components account for 88% of the district's total area, but employ half of its working population, while urban components account for barely 12%. As well as Calcutta City, Alip, and Diamond Harbor, the northern and western boundaries of the district are defined by the southern 24 parganas known as Arambagh and Serampur. Western and southern borders of Medinipur are occupied by the Tamluk and Ghatal subdivisions.

## 2. LITERATURE REVIEW

The Lazarus & Folkman (1984) definition of stress states that it is a mental and physical condition caused by assessing inputs and reacting to them. The presence of a stressor determines whether stress exists. A stressor, according to Feng and Volpe (2000), is anything that stimulates a person's body or mind or challenges their ability to adjust to a new situation. In addition to the environment, psychological issues, biological problems, and social issues, stress is influenced by a wide range of factors.

Fairbrother and Warn (2003) report that academic stress has been extensively studied. It can be triggered by many different factors, such as too much homework, competition with peers, failure, a lack of pocket money, tense

encounters with teachers or peers, and family problems. Physical discomforts, for example, are rarely discussed in counseling, according to Erkutlu and Chafra (2006). The results of a recent survey suggested 15% of college students had suicidal thoughts. Three thirds of respondents report that depressive symptoms preceded suicide by one year, which is second only to traffic accidents among people between ages 18 and 24.

According to Erkutlu and Chafra (2006), academic environments are more stressful because of time constraints and pressure to perform well on tests and exams. Due to the clash with the social aspect of life, this may have an impact on social connections within and outside of the University (Fairbrother and Warn, 2004).

According to Agolla et al. (2009), stress is accompanied by low energy, problems with focus, restlessness, tension, and worry, among other indicators and symptoms. These events are more likely to cause stress to a person. It is, however, also important to consider a person's personality and viewpoint. The negative effects of stress on an individual may vary greatly from student to student, depending on their level of resilience and their past experience with dealing with problems. Maintaining a positive outlook about stress is important.

In Jaramillo et al. (2005), people's perceptions of stressors determine whether they react negatively and exhibit physical or psychological stress symptoms.

Moreover, Daniels and Harris (2000) point out that enrolment does not always correlate with how well a student is taught in a given institution.

Student achievement may be negatively affected if adequate protections aren't provided for their wellbeing, according to Smith et al. (2000).

### **3. NEED AND IMPORTANCE OF THE STUDY:**

Students' experiences and perceptions of colleges are increasingly being studied by surveying them. Higher education success depends on student freedom and autonomy. Since higher education is now provided through numerous social and technological streams, students are exposed to the latest inventions that have a significant effect on their physical and psychological health. Because he taught at one of the senior secondary schools in the Howrah district, the surveyor was very curious about secondary school students' academic confidence and achievement. Due to this, the researcher decided to examine high school students' academic confidence and success.

### **4. OBJECTIVES OF THE STUDY**

As part of the investigation, the following goals will be achieved:

- Find out if male and female students experience different levels of examination stress.
- A comparison of the stress levels of rural and urban students during exams is conducted.
- Identify the stress levels that students experience during exams based on their field of study (arts, sciences, or commerce).

### **5. RESEARCH METHODOLOGY**

A descriptive research design has been used for this study. The sample of the study consists of 200 students of 12th grade of Howrah district of West Bengal in India who were studying under West Bengal Higher Secondary Education Council. There were 100 male and 100 female students of in the age group of 17-19 years from the Arts, Science and Commerce stream. Stratified random sampling technique was used to collect the sample.

### **6. TOOL USED**

A personal data sheet requiring students' gender, locality, stream and their school management type along with basic information like name, age, etc. was prepared and used. The investigator also adopted and used the Examination Stress Scale for Adolescent Students developed by Yao-Ting Sung and Tzu- Yang Chao in this study. The scale

consists of 27 items covering three dimensions: anxiety responses with 10 items, cognitive and behavioral responses with 8 items and perceived social expectation and social comparison with 9 items. Responses were to be given on 5 point Likert scale with scores from 0 to 4. Here, higher scores indicate a higher level of examination stress. The sample units are categorized into three distinct groups, i.e. high, medium and low level stress group by using K-means clustering method. The raw scores range from 86 to 123 represents the High Level Exam Stress, from 63 to 85 represents the Medium Level Stress and from 13 to 62 represents the Low Level Exam Stress.

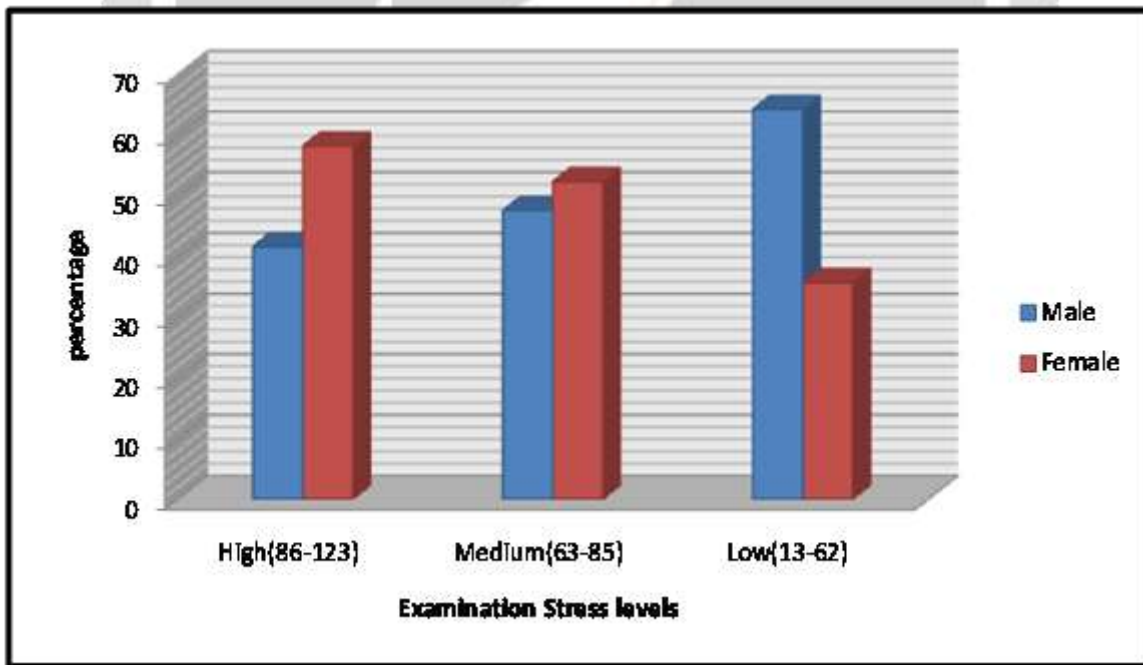
## 7. RESULTS OF THE STUDY

### Gender Differences in Examination Stress

Regarding the examination stress of the students, it has been found that maximum number of students experience medium level of stress, followed by the students experiencing high and low level of examination stress. Table 1 show that 42% students experience medium level of examination stress, while 30% students experience high and 28% students experience low level of examination stress.

**Table1:Percentage of Students and Examination Stress Levels.**

| Examination Stress levels | Score Range | Number of Students | Male | Female | Percentage |        | Total Percentage |
|---------------------------|-------------|--------------------|------|--------|------------|--------|------------------|
|                           |             |                    |      |        | Male       | Female |                  |
| High                      | 86-123      | 60                 | 25   | 35     | 41.66      | 58.34  | 30               |
| Medium                    | 63-85.      | 84                 | 40   | 44     | 47.62      | 52.38  | 42               |
| low                       | 13-62       | 56                 | 36   | 20     | 64.28      | 35.72  | 28               |
| Total                     |             | 200                | 100  | 100    |            |        | 100              |



Source: Author calculation based on primary data

Figure1: Gender Differences in Examination Stress level of Secondary school student

Table 2 shows that the mean score of examination stress of females is higher than that of males. To determine whether the difference of examination stress score is significant, ANOVA test has been done. It shows that the male and female students differ significantly in case of examination stress that they experience. The examination stress among female students is significantly higher than the male students.

**Table 2: Mean, SD and ANOVA for Gender Differences in Examination Stress**

| Gender | N   | Mean  | std  | ANOVA |                               |
|--------|-----|-------|------|-------|-------------------------------|
|        |     |       |      | F     | P-value                       |
| Female | 100 | 0.16  | 0.99 | 5.37  | 0.0215<br>(significant at 5%) |
| Male   | 100 | -0.16 | 0.98 |       |                               |

Source: Author calculation based on primary data

**Examination Stress Among Rural and Urban Students**

From Table 3 we can see that among the students experiencing high exam stress, 65% students are from urban locality, i.e. studying in urban schools and 35% are students of rural schools. In case of the students experiencing medium level of stress, 48.81% students are from urban schools and 51.19% students are from rural schools. While among the students experiencing low level of examination stress, 64% of students are from rural schools and only 29% from urban schools. This shows the clear difference in the examination stress of rural and urban students, especially in the category of high and low level stress. The ANOVA table (Table 4) shows the significance of difference between these groups.

**Table 3: Locality Wise Differences in Examination Stress of the Students**

| Examination Stress levels | Score Range | Number of Students | Rural | Urban | Percentage |        | Total Percentage |
|---------------------------|-------------|--------------------|-------|-------|------------|--------|------------------|
|                           |             |                    |       |       | Male       | Female |                  |
| High                      | 86-123      | 60                 | 21    | 39    | 35         | 65     | 30               |
| Medium                    | 63-85       | 84                 | 43    | 41    | 51.19%     | 48.81  | 42               |
| low                       | 13-62       | 56                 | 36    | 20    | 64         | 36     | 28               |
| Total                     |             | 200                | 100   | 100   |            |        | 100              |

Source: Author calculation based on primary data

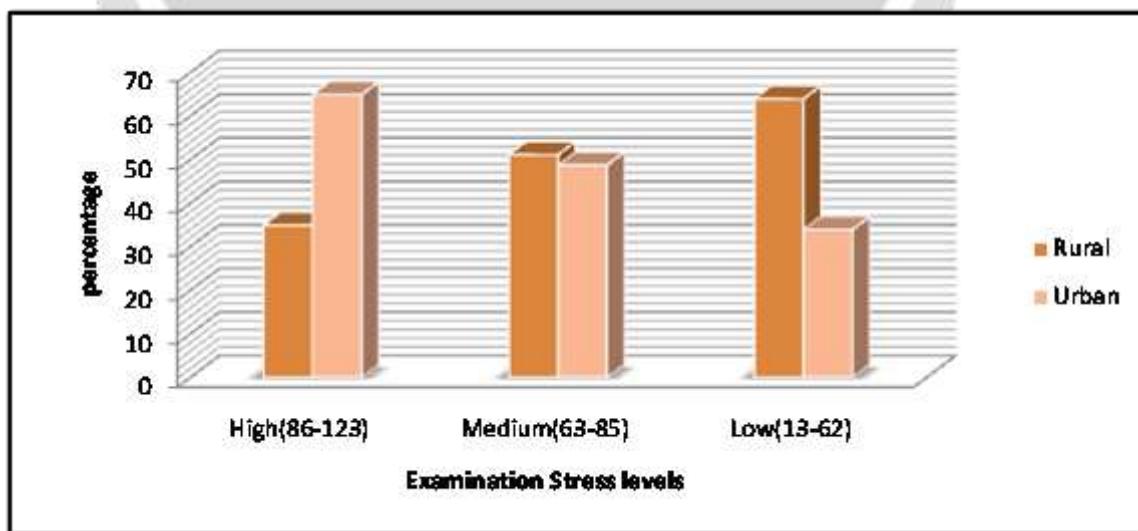


Figure2: Locality Wise Differences in Examination Stress of the secondary school Students

From the data in Table 4, it is clear that the mean score of examination stress is higher among the urban students than the rural students. The result of the ANOVA test shows that the difference in the mean scores of examination stress of rural and urban students is significant. hence, it can be inferred that examination stress experienced by the urban students is significantly higher than the rural students.

**Table 4: Means, SD and ANOVA of Examination Stress of Rural and Urban Students**

| Locality | N   | Mean  | std  | ANOVA |                               |
|----------|-----|-------|------|-------|-------------------------------|
| Rural    | 100 | -0.23 | 0.99 | F     | P-value                       |
| Urban    | 100 | 0.23  | 0.95 | 11.37 | 0.0009<br>(Significant at 5%) |

Source: Author calculation based on primary data

**Examination Stress Among the Students of Arts, Science and Commerce**

From Table 5, we can see that the percentage of students of Arts stream is highest in all the three categories of examination stress. The percentage of medium stressed students is higher in science stream compared to commerce stream. The percentage of high and low stressed students is higher among commerce stream than the science stream students.

**Table5: Stream Wise Differences in Examination Stress of the Students.**

| Examination Stress levels | Score Range | Number of Students | arts | science | Commerce | Percentage |       |       | Total Percentage |
|---------------------------|-------------|--------------------|------|---------|----------|------------|-------|-------|------------------|
|                           |             |                    |      |         |          | Arts       | Sci.  | comm  |                  |
| High                      | 86-123      | 60                 | 46   | 6       | 8        | 76.67      | 10    | 13.33 | 30               |
| Medium                    | 63-85       | 84                 | 51   | 19      | 14       | 60.71      | 22.62 | 16.67 | 42               |
| low                       | 13-62       | 56                 | 23   | 15      | 18       | 41.07      | 26.79 | 32.14 | 28               |
| Total                     |             | 200                | 120  | 40      | 40       |            |       |       | 100              |

Source: Author calculation based on primary data

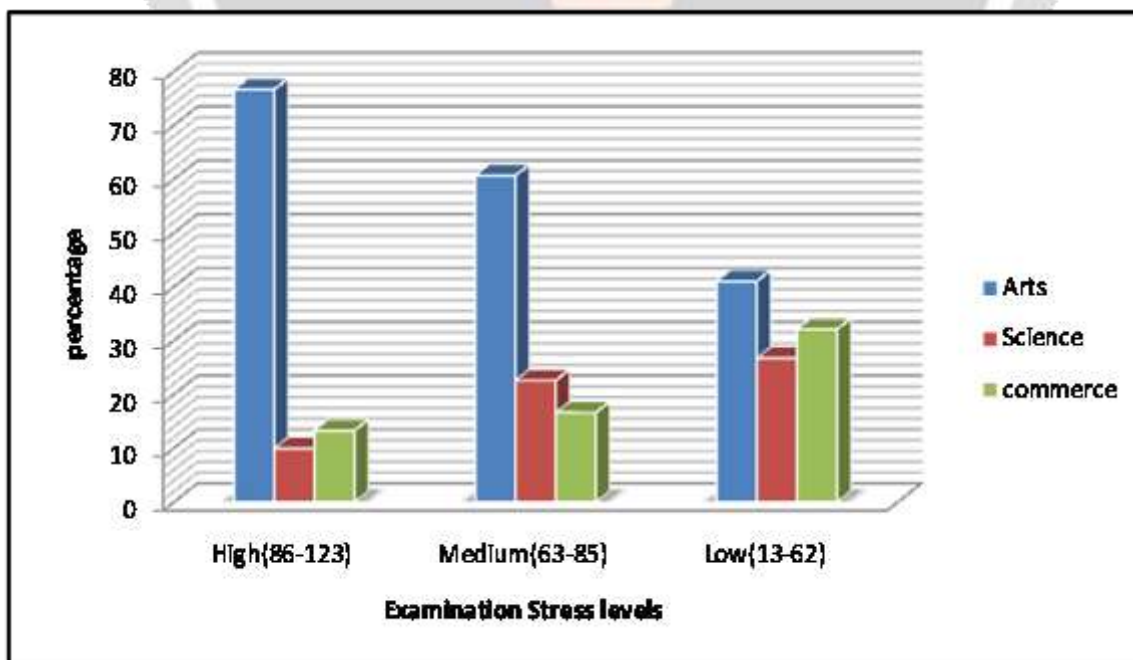


Figure3: Stream Wise Differences in Examination Stress of the secondary school Students.

It can be observed from Table 6 that the mean examination stress score of the arts students is higher than the science and commerce. However there is no significant difference in the mean score of examination stress between science and commerce students. The science and commerce students are similar in terms of examination stress. So, from the sample data, it can be said that the Arts students experience more examination stress than the Science and Commerce students. The calculated F-value shows that there exists significant difference in the examination stress of the students of Arts and Science as well as Arts and Commerce stream.

**Table 6: Mean, SD, ANOVA of Examination Stress of the Students of Different Streams (Arts, Science and Commerce).**

| Stream   | N   | Mean | SD  | ANOVA |                                  | Scheffe(Difference of Mean) |                 |                 |
|----------|-----|------|-----|-------|----------------------------------|-----------------------------|-----------------|-----------------|
|          |     |      |     | F     | P-value                          | Arts-Sci                    | Arts-Com.       | Sci-com         |
| Arts     | 120 | 23   | .97 | 8.63  | 0.0003<br>(Significant<br>at 5%) | 0.54<br>(0.011)             | 0.61<br>(0.003) | 0.07<br>(0.938) |
| Science  | 40  | -30  | .95 |       |                                  |                             |                 |                 |
| Commerce | 40  | -38  | .94 |       |                                  |                             |                 |                 |

Source: Author calculation based on primary data

## 8. DISCUSSION

The results of the study show that examination stress of the female students is significantly higher than the male students. It may be because that the females are more emotional and get tensed easily than the males. Moreover, females are easily scared of, think far and deep which may be the causes of being stressed more than the males. Regarding the locality of the students, i.e. students from rural and urban schools, the result indicates that urban students experience more stress than the rural students. In this present era where science and technology have made the world a global village, still the rural life of our country and of West Bengal also, is somewhat simple, easy going and far from the high competitiveness and complexities of urban life. It influences the life of the rural students also. Their parents' expectations, social and peer pressure is not very high and dominating. That is why the stress level of the rural students is less. The complexities and highly competitive nature of urban life affects the life of students adversely. They come under tremendous pressure due to high parental expectation, peer and social pressure and also pressure from teacher and institutions to perform outstandingly in their examination and evaluation. This kind of situation automatically puts the students under pressure and as a result they have to experience higher level of stress. Regarding the stream of study, students from Arts stream were found to have higher level of stress than the students from Science and Commerce stream. It has been observed in Assam that students who score highest marks in their school leaving examination normally take admissions into science stream. It gives them the scope of choosing their career and makes them focused. Commerce stream is also job oriented and provides the students with the scope of getting one job or the other. But in comparison to Science and Commerce stream, Arts stream provides less scope of getting job. The courses provided by Arts stream are not as job oriented which perhaps create stress among the students. Another reason is that most of the students from Arts stream take their courses very lightly and don't follow deep and detailed study. Only just before the examination they are in hurry to complete the course materials which leads them to experience stress of examination.

## 9. EDUCATIONAL IMPLICATIONS:

Following educational implications can be drawn from the results of the study:

- The study revealed that though the levels of stress are different, students experience examination stress irrespective of their gender, locality and stream of study. This indicates the necessity of stress management programmes at school level.
- The results of the study also showed that female students experience more stress than the male students. So, they should be given special importance. This result will help the teachers, parents and school administration to become extra careful in dealing with the girl students and providing separate counselling and stress management programmes according to their requirement. Similarly, the result also indicates that special care should be taken of the students residing in urban localities as their examination stress level is also significantly higher.

- It has also been found in the study that students from Arts stream have more stress than the students having Science and Commerce stream of study. One of the main reasons is that the courses provided in the stream of Arts are not job oriented and give little scope to the students to choose their career.
- The results also point out the necessity of awareness programmes and capacity building programmes to be provided to the parents and teachers so that they can identify those with examination stress and take care of them effectively.

## 10.CONCLUSION

It can be concluded that examination stress is experienced by all the students irrespective of their gender, locality and stream of study. However, we get to see differences among the levels of examination stress of the students across their gender, locality and stream of study. There is therefore a need for policy level and institutional interventions for reducing examination stress among the higher secondary students so that they can face stressful situations and adopt proper coping strategies. Teachers, parents, peers and the society at large have to play a very supportive role in this regard. It will definitely help the students to make their academic life stress free and enjoyable and hopefully lead them towards a better future.

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