

# A Comparative Study of Examination Anxiety and Its Effects on CG, CBSE and ICSE Girls Students in Raipur District

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## Abstract

This study investigates the phenomenon of examination anxiety among girl students enrolled in CG, CBSE, and ICSE board schools in Raipur district, Chhattisgarh. Examination anxiety is a pervasive psychological issue that affects academic performance, emotional well-being, and learning capacity. The objective of this research is to comparatively analyze the levels of anxiety experienced by students from these three educational boards and determine whether the board pattern has a significant effect on anxiety levels.

A total of 300 higher secondary girl students, aged between 14 and 18 years, were randomly selected from 15 schools representing all three boards. The "Student Examination Anxiety Test" developed by Madhu Agrawal and Varsha Kaushal was used as the research instrument. Statistical tools including descriptive statistics, t-tests, and ANOVA were applied to examine the data.

Findings reveal that there is **no significant difference** in examination anxiety levels between students of CG and CBSE boards, and between CG and ICSE boards, indicating impartiality in these board patterns with regard to academic stress. However, a **significant difference** was observed between students of CBSE and ICSE boards, suggesting that the structure or pedagogy of these boards may influence examination anxiety.

The study recommends strategies such as cognitive behavioral therapy, relaxation techniques, biofeedback, and enhanced family and school support systems to mitigate examination anxiety. The findings contribute to the understanding of board-specific educational stressors and provide guidance for educators, parents, and policymakers in creating supportive academic environments.

**Keyword:** Examination Anxiety, CG, CBSE and ICSE students

## Introduction

Education is the study of how people learn and teach in formal educational settings, as opposed to informal and non-formal techniques of socialization (such as family-child relationships in rural areas). Education exists only for the purpose of giving individuals the liberty to think for themselves. Each kind of instruction must have a goal, and, therefore, the purposes and aims are different for each kind of

instruction, whether one call it civics, socialism, Christianity and so on. That special education has been created at all proves that the people who call for its application do not have the freedom of thinking typical for those who do not face significant challenges on the way to their goals. This kind of tyranny is undeniable when schools are compelled to work to 'educate' students into having the required outlook and opinions.

"To the uneducated, an 'A' is just three sticks."

**A. A. Milne**

### **Anxiety**

Anxiety is one of the most common psychological disorders in school aged children and adolescents worldwide {Castello mustillo Erkanly, Kales & Algold 2003}

There are physical, emotional, mental, and behavioural aspects to the psychological and physiological condition known as anxiety, anguish, or worry. Feelings of dread and anxiety are unpleasant. Anxiety, whose definition is "to vex or bother" in its original context, may induce feelings of fear, concern, unease, and dread in people even when no psychological stress is present. Having apprehension about something that seems scary and has the potential to overwhelm a person is more accurately described as anxiety than terror. Anxiety is seen as a natural response to a stressful situation. A person may find it easier to handle difficult situations if it encourages them to do so. Nevertheless, a condition known as an anxiety disorder may be imposed when the level of worry becomes excessive.

Anxiety comes in different forms and are usually classified as phobia, social anxiety, obsessive-compulsive anxiety and post-traumatic stress anxiety. Heart palpitations, rapid heartbeat, tense and weak muscles, lethargy, nausea, chest discomfort, difficulty breathing, headache, stomachaches, or tension headaches are all possible physical manifestations of worry. In reaction to an impending danger, the body's physiological systems go into overdrive, amplifying the heart rate, sweat glands, and blood flow to the main muscle groups while reducing activity in the digestive and immunological systems (the fight or flight response). Pallor, perspiration, shaking, and dilated pupils are some of the outward manifestations of worry. This might trigger a panic attack in those who already suffer from anxiety.

Specifically, those who have anxiety disorder tend to have panic attacks; however not everyone with anxiety disorder has them. Although the panic episodes are very rare and there can never be any prior warning of such an episode, the feeling of danger is real and the anxiety most often is unfounded. Approximately, those patients who develop a panic attack inform of a feeling that they are either going to faint or become unconscious. By the time panic disorder begins to manifest itself, it may be characterized by anticipatory worry in the periods between the episodes and in some extreme cases, this dread of the attack may lead to phobias. With an estimated 40 million persons afflicted, anxiety ranks first among mental illnesses in the United States.

### **Anxiety and Education**

So it is definitive to state that there is a positive and significant relationship between Anxiety and Education level. Thus it has been perceived that as the level of education rises so does the level of anxiety. Although anxiety depends upon individual mental level but in general it happens that every person is influence by anxiety. At present anxiety level is high because competition and parent's expectation are very high.

## Causes

Anxiety, according to evolutionary psychologists, makes us more aware of our surroundings and more likely to take preventative measures when we believe danger is imminent. Anxious people may also avoid actual dangers, which might lead to misleading positive emotions. Anxious persons may have a lower risk of accidental death because of this.

According to research by Boston University's psychological David H. Barlow, three things are shared by those who suffer from chronic anxiety: "a generalised biological vulnerability," "a generalised psychological vulnerability," and "a specific psychological vulnerability." While there are numerous existing studies showing that genetic factor is a predisposing factor that has great influence over the likelihood of a neurologic occurrence of anxiety, this study contributes to the list of studies suggesting that a possibility of developing anxiety may also depend on the children's exposure to parents with chronic worries.

Negative self expectations and strategies for handling negative feedback are the consequences observed to supplement and sustain anxiety. Anxiety is firmly substantiated to stem from neural circuit that involves the amygdale and the hippocampus. When they are exposed to stimuli that have the potentiality to harm them and they have to avoid the stimuli, to detect nasty instructions or tastes, the amygdale region experiences an increase of blood flow as depicted in the PET scans. Those in the studies also stated that they experienced slight anxiety. This would imply that worry is the sure way an organism can avoid the risk of getting itself involved in activities that harm it.

## Academic Anxiety:

The freeze response, or the "playing dead", is the third protective reaction after fight and flight when an animal cannot out of stressful situation. This is the worst possible reaction to anxiety. This reaction serves a survival function by making the predator think the animal is dead, which will lead to the predator releasing the animal. Similar to the fight-or-flight reaction, this freeze response is an unconscious, innate reflex. You can't live without anxiety. Even a little bit of fear may spur us on to action, propelling us towards our objectives. Yet, anxiety disorders can impair our functioning and cause a host of psycho-physiologic issues, including but not limited to: including fibromyalgia, hypertension, insomnia, irritable bowel syndrome, migraines, and irritable bowel syndrome.

Academic performance might be negatively impacted by anxiety as well. Children are basically born with a natural aptitude for learning. A person's brain develops connections between regions as they learn. These pathways enable children to react to learning events swiftly and subconsciously. The "fight or flight" reaction kicks in when kids face a challenging learning environment and struggle to retain the information. Anxiety response pathways are formed when there is a pattern of repeated failure. As a result, when students face challenging learning situations, they develop an anxiety response pattern.

## Review of related literature

**Educational statistics at a glance. (2018)** A general observation one can note excellence made by rural students and the ones made by urban students has a plus minus difference and this can be as per the NAS 2015 National Achievement survey of the year 2015. The study also establishes the fact that, though students in rural regions attract poor performance in STEM and social sciences the students in urban regions get better results. Additionally, it appears that parents typically choose private institutions for their boys' education... School dropout rate at secondary level during 2014-15 exceeds 17%.

**Bachhar, Subrata. May (2017)** The purpose of this paper was to examine the Kalyani block in the Nadia district and its high school students' performance in the education topic. A total of 62 people, 30 from rural areas and 32 from urban areas, were surveyed. The 'Academic Achievement of Education topic' was the sole independent variable taken into account. Students in grades XI and XII had their education grades recorded by the researchers. The research used mean and standard deviation as descriptive statistics and the t-test as the inferential statistics to test the null hypothesis of no significant difference in gender concerning the Academic Achievement of Education topic. Distinguishing between four null hypotheses was finally accomplished. In addition, we discovered that, in the area of education, urban pupils outperformed their rural counterparts.

**G. Natarajan, (2015)** studied on "study on anxiety level among school students undergoing higher secondary examination. conclusion: the study found that most students had moderate to severe anxiety throughout the exam, with a minority percentage of students reporting mild anxiety. anxiety levels did not vary significantly by gender, family type, educational medium, place of residence, availability of private tuition, or length of stay.

**Joshi, Mohan (2012)** Topic: "Academic anxiety a growing concern among urban mid adolescent school children". Objective: To study that academic anxiety among adolescents using the Bisht Battery Stress Scale. The rationale for this study is therefore to explore various factors including parent occupation/employment status, family size and type, economic status, and home atmosphere and its connection with academic stress among teenagers. Finding: The Academic Anxiety was assessed by Bisht Battery Anxiety Scale. Out of total 410 study subjects, maximum adolescent had moderate anxiety i.e. 249 (60.80%) followed by severe anxiety in 83 (20.20%) while 62 (15.10%) study subjects have no anxiety.

**Reena Bhansali and Kunjan Trivedi (2008)** "A comparative study to determine if Academic Anxiety is gender specific" Objectives: In order to learn how different types of academic anxiety manifest in teenagers. In order to learn how teenage boys and girls experience academic anxiety differently. Conclusion: The current study found that academic anxiety is more common in females than in boys. When compared to girls, teenage guys are more likely to experience academic anxiety.

### Objective

1. To study the examination anxiety and its effect on CG GIRLS and CBSE GIRLS students.
2. To study the examination anxiety and its effect on CG GIRLS and ICSE GIRLS students.
3. To study the examination anxiety and its effect on CBSE GIRLS and ICSE GIRLS students.

### Hypothesis

**H<sub>01</sub>** There will be no significant difference between examination anxiety of CG GIRLS and CBSE GIRLS students.

**H<sub>02</sub>** There will be no significant difference between examination anxiety of CG GIRLS and ICSE GIRLS students.

**H<sub>03</sub>** There will be no significant difference between examination anxiety of CBSE GIRLS and ICSE GIRLS students.

### Variables of the study:

#### Dependent Variable:

As part of this study, the dependent variable is - **Students of Different boards**

**Independent Variable:**

For the purposes of this study, the independent variables are – **Examination Anxiety**

**Operational Definition****Anxiety**

Anxiety is a natural, emotional, legitimate, and anticipated reaction to actual or imagined threats; it is characterised by a wide range of physical and autonomic symptoms experienced by the anxious person.

**State board Examination (CG):** Madhyamik, Secondary State Certificate, and Higher Secondary Certificate are some of the names given to state board exams. The state education boards of CG are in charge of their administration and conduct.

**CBSE Examination:** Public and private schools in India are overseen by the Central Board of Secondary Education, more often known as the CBSE.

**ICSE Examination:** This is a private non-governmental body of education in India, conducting the examinations for Indian Certificate of Secondary Education better known as ICSE for students in tenth grade. In line with the suggestions made by the New Education Policy 1986 (India), it has been crafted to administer an English-medium test within the context of a general education course. Prior to 1986, it was associated with the French Board of Examination.

**Limitations and Delimitations of Study**

There is no delimiting to Education and Knowledge. But for the research of any subject, one has to keep this in mind that the time and tools for the subject of study are delimited.

In the present research the problem relating to Anxiety of CG, CBSE and ICSE Board students have been studied.

To conduct this study, sample has been bounded by certain limitations under which following research has been done

- This study is limited to 15 schools, 300 students are selected in Raipur city.
- For this study, the sample has been taken from a few CG, CBSE and ICSE School of Raipur District.
- For this study, students of the higher secondary level were samples.
- The age of Girls in the sample is 14 to 18 years.
- The problem is related to the anxiety in the board students.

**Sampling**

In this study we take 15 school of Raipur city. In this school we randomly selected 300 samples, Boys and Girls both are included in this sample.

**Selection of Tools or Instrument:**

In the present study Researcher has used Madhu Agrawal and Varsha Kaushal student examination Anxiety Test

**Statistical analysis**

descriptive statistics, t-tests and ANOVA are used to draw conclusions.

## TESTING OF HYPOTHESES:

**H<sub>01</sub>** There will be no significant difference between examination anxiety of girl students of CG and CBSE Board Schools.

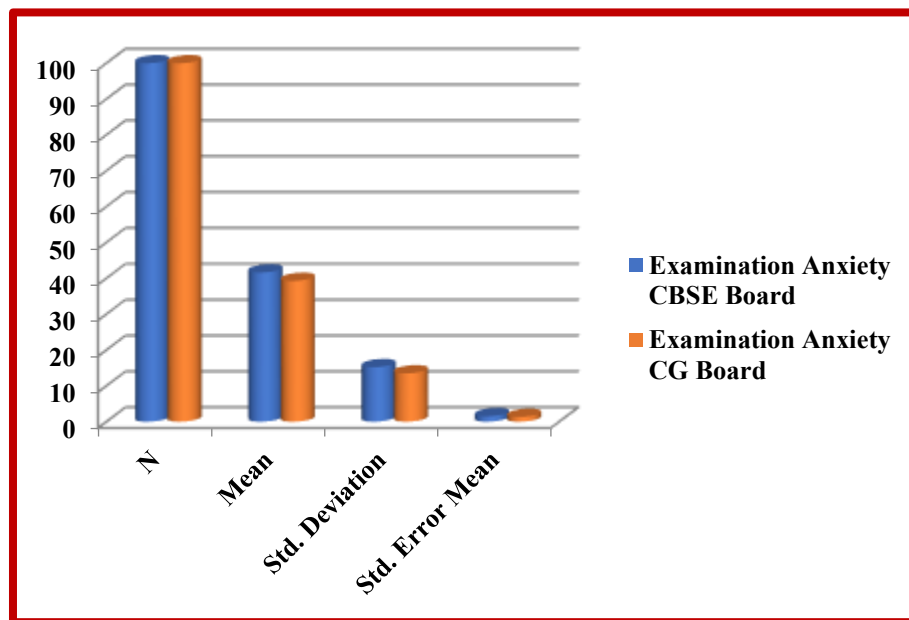
**Table Number – 1**

**Results showing the Descriptive Statistics related to Examination Anxiety of the Girl Students of CG and CBSE Boards Schools**

	CBSE Board & CG Board	N	Mean	Standard Deviation	Standard Error Mean
Examination Anxiety	CBSE Board	100	41.62	15.22	1.522
	CG Board	100	39.28	13.48	1.34

**Graph Number – 1**

**Graph showing the Descriptive Statistics related to Examination Anxiety of the Girl Students of CG and CBSE Board Schools**



**Table Number – 2**

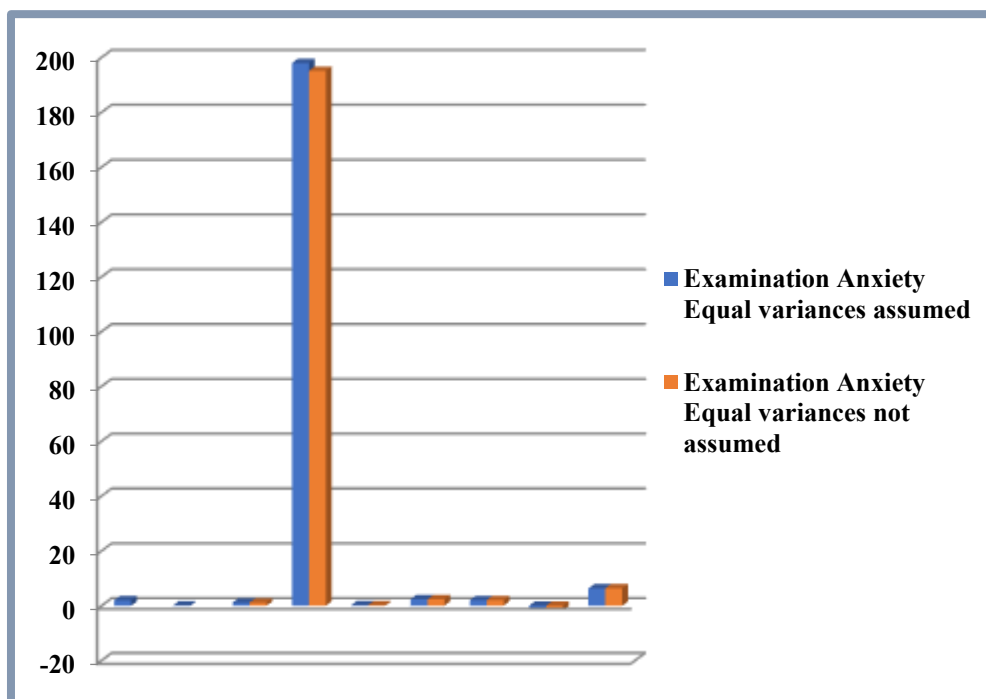
**Results showing Independent Samples Test pertaining to Examination Anxiety of the Girl Students of CG and CBSE Board Schools**

Examination Anxiety	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Standard Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
	1.99	.159	1.15	198	.251	2.34	2.03	-1.67	6.35



## Graph Number – 2

Graph showing Independent Samples Test pertaining to Examination Anxiety of the Girl Students of CG and CBSE Board Schools



### TABLE EXPLANATION

Table number – 1 and graph number – 1 shows the results of analysis of data pertaining to the examination anxiety of the Girl Students of CG and CBSE Boards. In regard to the CBSE Board, the mean value, Standard Deviation and Standard Error Mean are found 41.62, 15.22 and 1.52 respectively. Likewise the mean value, Standard Deviation and Standard Error Mean are found 39.28, 13.48 and 1.34 respectively in regard to CG Board. It is clear from the table number – 2 and graph number - 2 that the in relation to the Examination Anxiety of the Girl Students of CG and CBSE Boards, the value of Levene's Test for Equality of Variances is found 1.99, the value of mean difference is found 2.34 and the value of standard error difference is found 2.03.

### RESULT

Table – 2 revealed that before applying independent t-test, homogeneity of variance was tested by using Levene's Test. It is found insignificant shows both the groups have homogenous variance. The value of t is found 1.15 that is found insignificant, shows no significant difference is found between the CG and CBSE Boards in relation to examination anxiety.

### CONCLUSION

The results obtained from the analysis of data discovered that no significant difference is found between the girl students of CG and CBSE Boards in relation to examination anxiety which indicates the impartiality of both the board patterns. Hence it is inferred that there was no influence of the board patterns (CG and CBSE) on the examination anxiety of the girl students.

**H<sub>02</sub>** There will be no significant difference between examination anxiety of the girl students of CG and ICSE Board Schools.

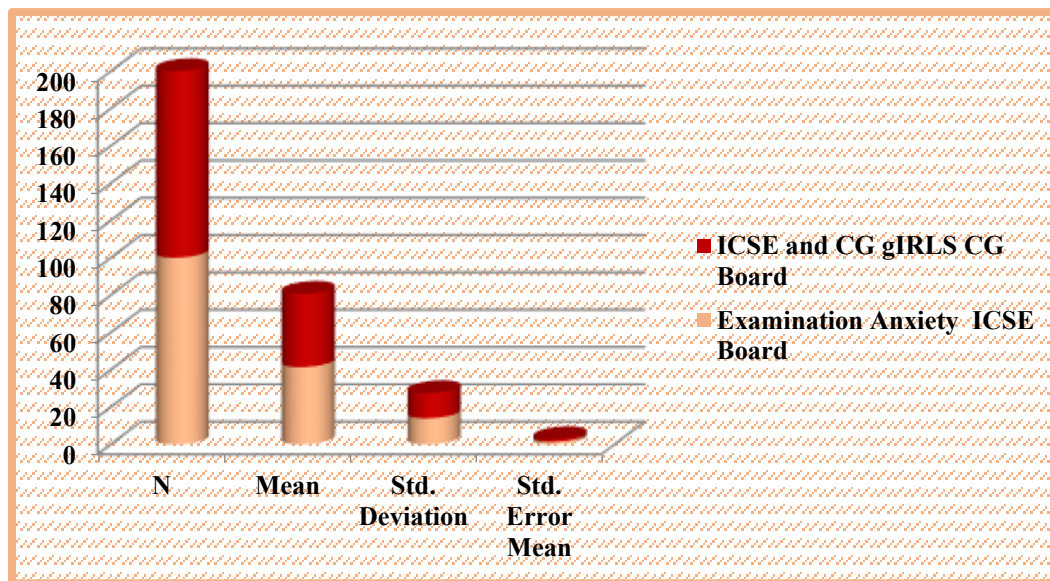
**Table Number – 5**

**Results showing the Descriptive Statistics related to Examination Anxiety of the Girl Students of CG and ICSE Board Schools**

	ICSE Board CGBoard	N	Mean	Standard Deviation	Standard Error Mean
Examination Anxiety ICSE and CGGirls	ICSE Board	100	41.37	13.94	1.39
	CG Board	100	39.28	13.48	1.34

**Graph Number – 5**

**Graph showing the Descriptive Statistics related to Examination Anxiety of the Girl Students of CG and ICSE Board Schools**



**Table Number – 6**

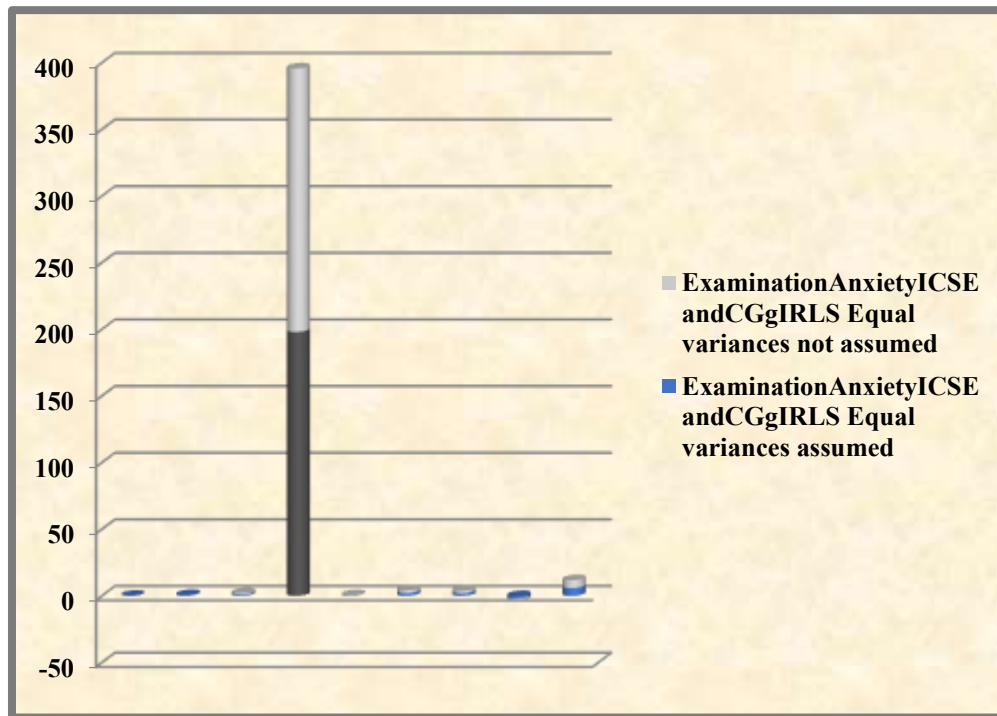
**Results showing the Independent Samples Test pertaining to Examination Anxiety of the Girl Students of CG and ICSE Board Schools**

Examination Anxiety ICSE and CG Girls	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2- tailed)	Mean Differenc e	Standard Error Differenc e	95% Confidence Interval of the Difference	
								Lower	Upper
	.164	.686	1.07	198	.283	2.09	1.93	-1.73	5.91



**Graph Number – 6**

**Graph showing the Independent Samples Test pertaining to Examination Anxiety of the Girl Students of CG and ICSE Board Schools**



## TABLE EXPLANATION

Table number – 5 and graph number – 5 shows the results of analysis of data pertaining to the examination anxiety of the Girl Students of CG and ICSE Boards. In regard to the ICSE Board, the mean value, Standard Deviation and Standard Error Mean are found 41.37, 13.94 and 1.39 respectively. Likewise the mean value, Standard Deviation and Standard Error Mean are found 39.28, 13.48 and 1.34 respectively in regard to CG Board. It is clear from the table number – 6 and graph number - 6 that the in relation to the Examination Anxiety of the Girl Students of CG and ICSE Boards, the value of Levene's Test for Equality of Variances is found .164, the value of mean difference is found 2.09 and the value of standard error difference is found 1.93.

## RESULT

Table – 6 revealed that before applying independent t-test, homogeneity of variance was tested by using Levene's Test. It is found insignificant shows both the groups have homogenous variance. The value of t is found 1.15 that is found insignificant, shows no significant difference is found between the CG and ICSE Boards in relation to examination anxiety of the girl students.

## CONCLUSION

The results attained from the analysis of data revealed that no significant difference is found between the girl students of CG and ICSE Boards in relation to examination anxiety which indicates the impartiality of both the board patterns. Hence it is inferred that there was no influence of the board patterns (CG and ICSE) on the examination anxiety of the girl students.

**H<sub>03</sub>** There will be no significant difference between examination anxiety of the girl students of CBSE and ICSE Board Schools.

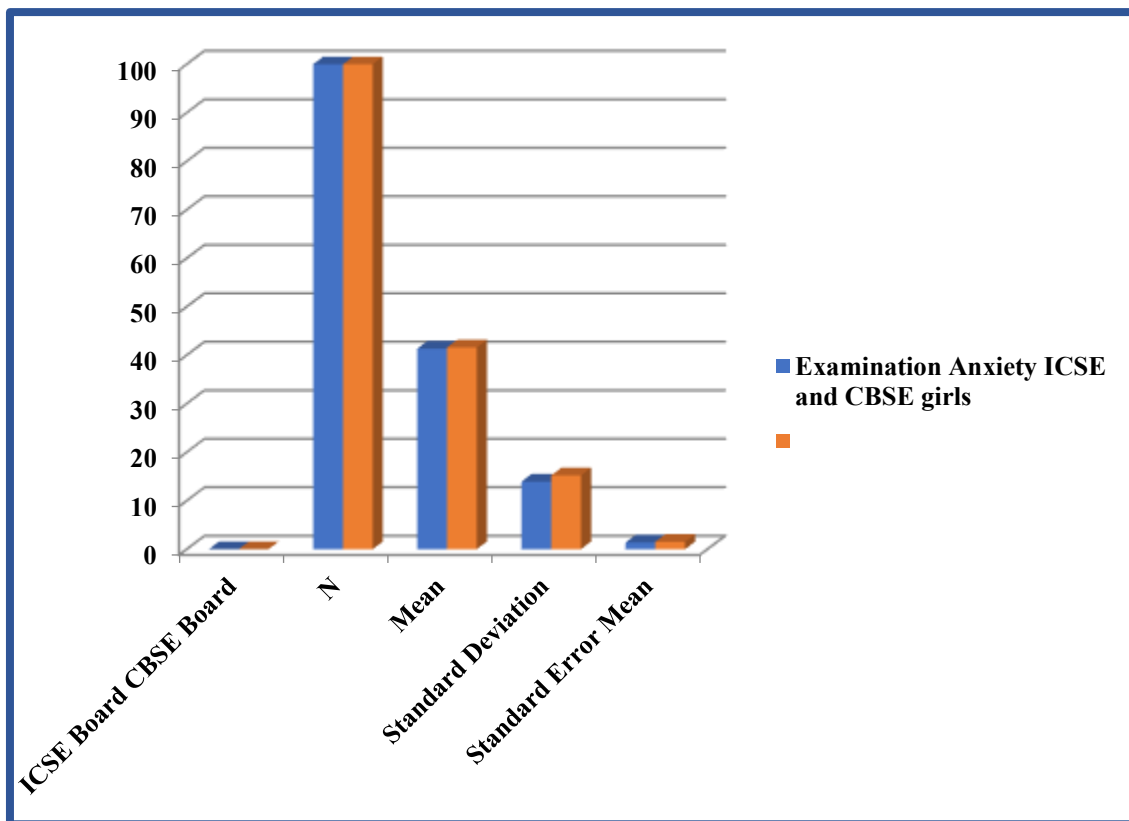
**Table Number – 9**

**Results showing the Descriptive Statistics related to Examination Anxiety of the Girl Students of CBSE and ICSE Boards Schools**

	ICSE Board	CBSE Board	N	Mean	Standard Deviation	Standard Error Mean
Examination Anxiety ICSE and CBSE girls	ICSE Board		100	41.37	13.94	1.39
	CG Board		100	41.62	15.22	1.52

**Graph Number – 9**

**Graph showing the Descriptive Statistics related to Examination Anxiety of the Girl Students of CBSE and ICSE Boards Schools**



**Table Number – 10**

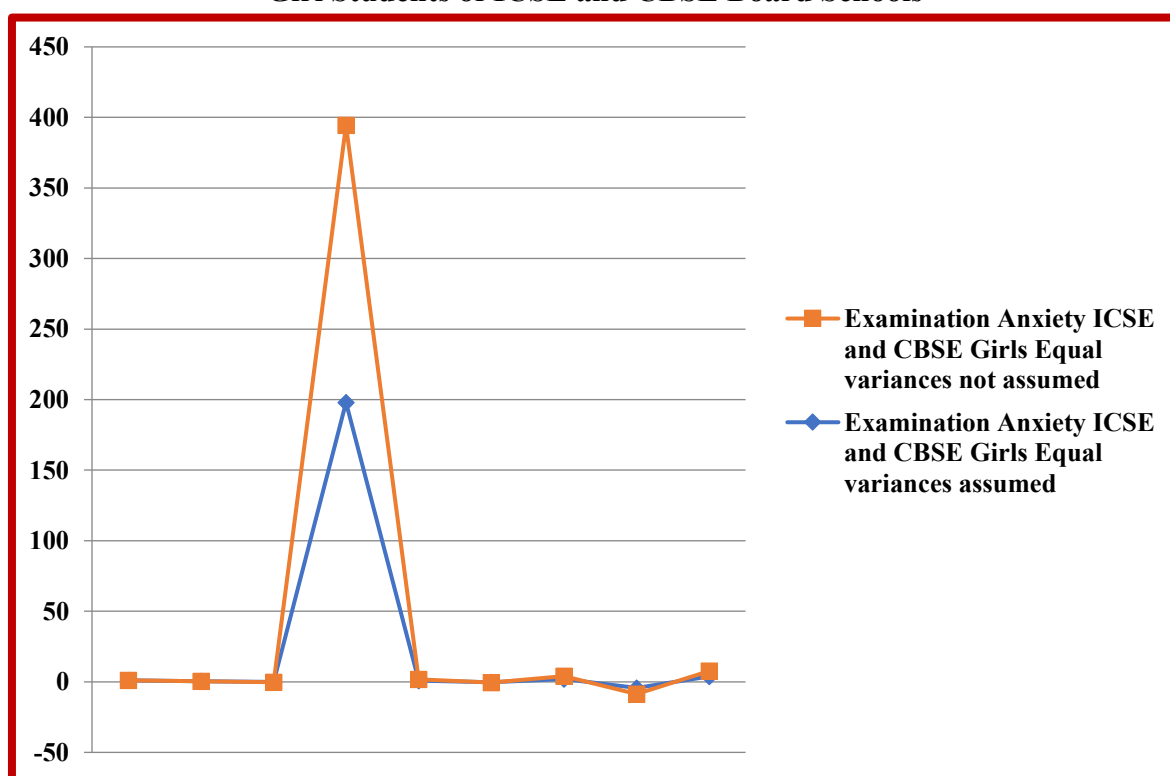
**Results showing the related to Independent Samples Test pertaining to Examination Anxiety of the Girl Students of ICSE and CBSE Board Schools**

Examination Anxiety ICSE and CBSE Girls	Levene's Test for Equality of Variances	t-test for Equality of Means
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	F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Standard Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
	1.02	.31	-.12	198	.904	-.25	2.06	-4.32	3.82

**Graph Number – 10**

**Graph showing the related to Independent Samples Test pertaining to Examination Anxiety of the Girl Students of ICSE and CBSE Board Schools**



## TABLE EXPLANATION

Table number – 9 and graph number – 9 shows the results of analysis of data pertaining to the examination anxiety of the Girl Students of CBSE and ICSE Board Schools. In regard to the ICSE Board, the mean value, Standard Deviation and Standard Error Mean are found 41.37, 13.94 and 1.39 respectively. Likewise the mean value, Standard Deviation and Standard Error Mean are found 41.62, 15.22 and 1.52 respectively in regard to CBSE Board. It is clear from the table number – 10 and graph number - 10 that the in relation to the Examination Anxiety of the Girl Students of ICSE and CBSE Boards, the value of Levene's Test for Equality of Variances is found 1.02, the value of mean difference is found -.25 and the value of standard error difference is found 2.03.

## RESULT

Table – 10 revealed that before applying independent t-test, homogeneity of variance was tested by using Levene's Test. It is found significant shows both the groups have homogenous variance. The value

of t is found -.12 that is found significant, shows significant difference is found between the ICSE and CBSE Boards in relation to examination anxiety.

## CONCLUSION

The results obtained from the analysis of data discovered that significant difference is found between the girl students of ICSE and CBSE Boards in relation to examination anxiety which indicates the effect of both the board patterns. Hence it is inferred that there was an influence of the board patterns (ICSE and CBSE) on the examination anxiety of the girl students.

### The findings of this study are as follows-

First, the results obtained from the analysis of data discovered that no significant difference is found between the girl students of CG and CBSE Boards in relation to examination anxiety which indicates the impartiality of both the board patterns. Hence it is inferred that there was no influence of the board patterns (CG and CBSE) on the examination anxiety of the girl students. hence, 1<sup>st</sup> hypothesis is proved. Second, the results attained from the analysis of data revealed that no significant difference is found between the girl students of CG and ICSE Boards in relation to examination anxiety which indicates the impartiality of both the board patterns. Hence it is inferred that there was no influence of the board patterns (CG and ICSE) on the examination anxiety of the girl students. hence, 2<sup>nd</sup> hypothesis is proved. Third, the results obtained from the analysis of data discovered that significant difference is found between the girl students of ICSE and CBSE Boards in relation to examination anxiety which indicates the effect of both the board patterns. Hence it is inferred that there was an influence of the board patterns (ICSE and CBSE) on the examination anxiety of the girl students. hence, 3<sup>th</sup> hypothesis is rejected.

### Suggestion

- Cognitive behavioral treatment (young people learn to deal with fear by modifying the ways they think and behave)
- Relaxation Techniques
- Biofeedback (To control stress and muscle tension)
- Family Therapy
- Parents Training
- Meditation.
- Develop a safe place where the youth can go to relieve anxiety during stressful times or provide calming activities.
- Encourage the development of relaxation technique that can work in the school setting. Often these can be adopted from those are effective at home.
- Encourage small group interactions and provide assistance in increasing competency and developing relationships.

### Further studies can be done on

- A study of Academic Anxiety among children with learning problems compared to children who succeed academically.
- A study of the Children's Anxieties (age group 13) to their career self concepts after eight years.

- A study of the Academic Anxiety among children of working and non-working mothers.
- A study of Academic Anxiety among children from nuclear and joint families.
- A study of Academic Anxiety and its effect on academic achievement among primary students.
- A study of Academic Anxiety and its effect on academic achievement among middle school students.

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