



Assessment and Analysis of Examination Anxiety Pattern and Its Impact on Public Senior Secondary School Students in Delta State, Nigeria

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ABSTRACT

The purpose of this study is to assess and analyze examination anxiety patterns and their impact on public senior secondary school students in Delta State, Nigeria. This study adopted a descriptive research design. The population of this study was 40522 students from public senior secondary schools in Delta State during the 2023/2024 academic session. The sample size of 1069 was used in this study using a multi-stage sampling technique. The instrument of this study was a questionnaire, titled Examination Anxiety Scale (EAS) adopted from Joseph et al. (2023). The instrument was validated through expert judgment. Descriptive statistics was used to analyze the collected data. Findings revealed that both male and female students experience examination anxiety across all components of Behavioural Symptoms, Cognitive Symptoms, Emotional Symptoms, and Physiological Symptoms. However small differences exist between male and female students. It also revealed that rural students generally reported higher physiological and emotional symptoms of examination anxiety compared to urban students. However, the cognitive symptoms of anxiety were quite similar between urban and rural students. The study recommends that Schools should implement anxiety management programmes that cater to both male and female students, acknowledging the differences in how each gender experiences anxiety.

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INTRODUCTION

Examination anxiety is a global issue that significantly undermines students' academic well-being and overall educational efficiency. Vankar (2013) noted that examinations often create an atmosphere of fear and tension among students, sometimes leading to tragic outcomes such as suicide due to the burden of learning or fear of failure. Examination anxiety, defined as students' negative reactions to exams characterized by fear and worry about failure (Joseph, 2023), poses a serious challenge to achieving effective learning outcomes and maintaining educational responsibility. In the contemporary educational system, many students perceive examinations as threats to their

normal functioning within the school system. Anxiety related to examinations leads students to worry, feel tense, and become apprehensive about poor performance, which ultimately affects their engagement in academic tasks. This pattern of avoidance and disengagement is counterproductive to the goals of education. Ray and Negi (2024) emphasized that examination anxiety is a critical issue affecting the majority of students appearing in board examinations, with far-reaching implications for their academic and psychological well-being. Similarly, Olanrevaju and Adeoye (2018) expressed concern about the dangers of anxiety during examinations, noting its detrimental effects on students' physical and psychological health, particularly among Nigerian

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adolescents. Testing schedules and inadequate preparation are among the primary causes of test anxiety (Annan-Brew et al., 2022).

Empirical data supports the prevalence of examination anxiety. For example, a study by Chinawa et al. (2018) revealed that 34.1% of secondary school students exhibited examination anxiety. Specific symptoms included physiological reactions (16.7%), worries (59.9%), and concentration issues (35.5%). Gender differences were also notable, with Chowdhury (2019) reporting that 47.15% of female students and 35.46% of male students exhibited high levels of examination anxiety. These findings underscore the widespread nature of the problem and highlight the need for educational systems to adopt strategies that address examination anxiety to promote responsibility and efficiency in education.

Common causes of test anxiety include fear of failure, pressure to perform well, and past negative experiences with testing (Nwokocha & Momoh, 2022). Joseph et al. (2023) noted that students' curiosity about examination outcomes exacerbates their vulnerability to anxiety. Alemu and Feyssa (2020) further described anxiety as a form of self-preoccupation characterized by negative cognitive evaluations, poor concentration, unfavorable psychological reactions, and academic failure. Melvina and Amalu (2017) observed that even the mere mention of tests or deadlines triggers uneasiness and nervousness, potentially affecting students' performance if anxiety levels become excessive.

Education is widely regarded as a fundamental tool for societal development, equipping students with the skills and knowledge necessary for lifelong learning and societal contribution. As Nnorom et al. (2020) highlighted, a quality education enhances students' metacognitive skills, enabling them to apply effective strategies for learning and task completion. However, examination anxiety—manifested through physiological, emotional, cognitive, and behavioral challenges—limits students' ability to achieve their academic potential. This is counterproductive to the goals of efficient education systems, which aim to

maximize students' academic outcomes while fostering a supportive learning environment.

However, low to moderate levels of examination anxiety can motivate students to prepare adequately, excessive anxiety disrupts the efficiency and effectiveness of education. Addressing this issue in connection with the responsibility of educational systems to create environments that promote psychological well-being and academic success. Therefore, this study aims to assess and analyze examination anxiety patterns and their impact on public senior secondary school students in Delta State, Nigeria. The findings will provide insights for designing interventions to reduce examination anxiety, thereby enhancing educational efficiency and promoting responsible academic practices.

Statement of the Research Problem

Examination anxiety affects students irrespective of gender and geographical differences. Its intensity and the way it is experienced across different dimensions of emotional, physiological, cognitive and behavioural symptoms has negative impact on the wellbeing of the students. The high level of anxiety which is acute anxiety has the potential to limit students to perform well during examinations, thereby leading to poor academic performance, avoidance of school, cheating during examination, truancy and many other antisocial behaviours. Furthermore, the pattern and the trend of examination anxiety among students needs to be analyzed in order to provide a lasting solution in the schools system and ameliorate students with acute examination anxiety. Therefore, the problem of this study is, what are the patterns of examination anxiety and its impact on public senior secondary school students in Delta State, Nigeria?

Purpose of the Study

The purpose of the study is to investigate the trend analysis of examination anxiety pattern and its impact on public senior secondary school students in Delta State, Nigeria.

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Objectives of the Study

The objective of this study are to:

1. Dxamine the nature of inter-correlation of the components of examination anxiety among Students in Public Senior Secondary School in Delta State;
2. Determine the nature pattern of examination anxiety among male and female students in public senior secondary schools in delta state; and
3. Investigate the nature and pattern of examination anxiety among rural and urban students in public senior secondary schools in delta state.

Research Questions

The objective of this study are to:

1. What is the nature of inter-correlation of the components of examination anxiety among Students in Public Senior Secondary School in Delta State?
2. What is the nature and pattern of examination anxiety among male and female students in public senior secondary schools in delta state?
3. What is the nature and pattern of examination anxiety among rural and urban students in public senior secondary schools in delta state?

LITERATURE REVIEW

Theoretical Framework

This study was anchored in classical conditioning theory by Ivan Pavlov (1897). This is because examination anxiety is a form of reflex or nervous responses. Pavlov theory is known as S – R theory, in other word, learning by association. It is a type of learning in which a neutral stimulus is paired with an unconditional stimulus to produce a conditional response similar to an unconditional response (salivation). Therefore, Pavlov sees examination anxiety as a conditional reflex (response) that happens automatically without the students having to think about it, such as students feeling of nervousness, headache, fear, depression, or mood during an examination. This occurred because students have learned to associate examination with fear, yielding a

condition reflex response of examination anxiety. Joseph et al. (2023) observed that students are prone to examination anxiety due to their curiosity about exam outcomes.

Components of Examination Anxiety

Kaur and Kumaran (2016) characterized examination anxiety as a collection of physiological, phenomenological, and behavioral reactions triggered by concerns over potential negative outcomes or failure in evaluative situations. Alemu and Feyssa (2020) defined anxiety as a form of self-preoccupation marked by self-minimization, leading to negative cognitive evaluations, poor concentration, adverse psychological reactions, and academic failure. Abbasi and Ghosh (2020) classified examination anxiety into four components: behavioral symptoms, emotional symptoms, cognitive symptoms, and physiological symptoms. Students experiencing examination anxiety report a wide range of symptoms, including feelings of helplessness, fear, depression, and worry. Cognitive difficulties such as trouble concentrating, organizing thoughts, and memory issues are common, alongside emotional effects like isolation, insecurity, and self-consciousness. These symptoms often manifest in physical reactions such as headaches, nausea, trembling, stomach pain, sweating, and increased heart rate, which collectively hinder performance and well-being (Yusuf & Bahadır, 2022; Shivani & Ashwani, 2015; Almokhtar et al., 2019). These observations align with Joseph et al.'s (2023) definition of examination anxiety, encompassing physiological, emotional, cognitive, and behavioral responses associated with exam participation. Similarly, Kaur and Kumaran (2016) reiterated that examination anxiety involves physiological, phenomenological, and behavioral reactions to potential negative consequences. Obregón-Cuesta et al. (2022) described anxiety as an emotional reaction with multicausal origins, often triggered by negative perceptions of an event, focusing on possible harmful outcomes.

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Measuring Examination Anxiety

Examination anxiety is typically categorized into three levels: low, moderate, and high. Low to moderate levels of test anxiety are often considered beneficial for students (Abbasi & Ghosh, 2020; Rehman et al., 2021). Such levels can act as a motivator to address challenges proactively (Piers Steel, 2010). However, high levels of anxiety may impair academic success (Mittu & Nandana, 2020; Hamzah et al., 2018; Okogu et al., 2016). Melvina and Amalu (2017) noted that even the mention of tests or assignments can trigger feelings of uneasiness and nervousness, potentially affecting performance if left unchecked.

Gender and Examination Anxiety Behavior

Gender is refer to male or female students. Heiligers (2012) defined gender as aspects of sex related to behaviour and identity, which go beyond biological differences. In this study, gender refers to male and female students. Given the belief, students' gender may have an impact on examination anxiety. The chromosomal theory of gender was discovered by a Biologist known as Cyril Darlington (1903-1981). The theory regards gender identity as being originated from biological processes. He defined gender as the combination of chromosomal composition and hormonal formation that determines whether an individual is biologically male or female. According to this theory, the presence of two X chromosomes (XX) characterizes females, while males have one X and one Y chromosome (XY). Initially, embryos of both genders are similar, differing only in their chromosomal makeup. Adigun et al. (2015) examined gender differences in academic performance in computer science among students in Niger State. While male students performed slightly better, the difference was not statistically significant. The study recommended equal educational opportunities irrespective of gender and policies to encourage female participation in computer science. Onukwufor and Ugwu (2018) found that senior secondary students in Port Harcourt exhibited higher test anxiety than junior students, with females experiencing significantly more anxiety

than males. Similarly, Núñez-Peña et al. (2016) observed that female university students reported higher levels of test, math, and trait anxiety than males. However, this did not affect academic achievement, as both genders achieved comparable grades. Farzaneh et al. (2012) observed that female students had significantly higher test anxiety than males. Ahmad and Aziz (2019) found a weak negative correlation between emotional intelligence and exam anxiety, with girls displaying higher emotional intelligence than boys. Ebrahimi and Khoshsim (2016) highlighted the potential for enhancing emotional intelligence to reduce test anxiety, while Tamannaefar and Abdolmaleki (2017) identified perfectionism and metacognitive beliefs as predictors of test anxiety. Their findings suggest that cognitive self-consciousness, parental expectations, and organization contribute significantly to anxiety levels. Farnam and Anjomshoaa (2020) noted the influence of anxiety can impair metacognitive skills, such as planning and cognitive awareness, on academic motivation and achievement. Capobianco et al. (2020) extended this analysis, showing that metacognitive beliefs affect anxiety and depression across various contexts. Divya and Pankajam (2017) reported a significant correlation between social intelligence of male and female students and test anxiety among higher secondary students. Illahi and Khandai (2016) found that female college students exhibited higher social intelligence and academic achievement compared to males which may have effect on the anxiety level on the male students. Nazir et al. (2015) further noted differences in social intelligence and academic outcomes between urban and rural students. However, these studies did not specifically explore the relationship between moral social intelligence and examination anxiety

School Location and Examination Anxiety

School location specifically defined the students' physical setting, whether the school is situated in an urban or rural environment. It is the nature of environment where school is located, which may be either rural or urban environment. Mkpao and Nwagu (2019) explained that School

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locations could be the presence of classroom space, teachers' qualifications and experiences, urban-rural location, presence of a well-equipped library, teaching methods, teaching aids, availabilities of water and electricity. The rural schools typically face challenges like inadequate infrastructure and facilities, low enrollment, a shortage of qualified teachers, and limited access to textbooks and other teaching materials. Shikalepo (2019) defined rural location as an area located distant from towns regardless of its population density and characterized by prevailing adverse working and living conditions as place-based issues. Albert Bandura, a renowned psychologist, in his social cognitive theory propounded in (1986) put forth the concept of reciprocal determinism. He believed that a person's behavior is influenced by his/her factors and the environment. Bandura's stated that a person's behaviour is influenced by the environment and vice versa. This implies that the individual's behavior is influenced by the environment, and reciprocally, the individual's actions also impact the environment. Research suggests that female students experience higher levels of test anxiety than males (Onukwufor & Ugwu, 2018). Mkpaoro and Nwagu (2019) found a significant positive relationship between students' test anxiety and academic achievement in both urban and rural settings, with urban students showing higher academic performance. Olayinka (2019) reported similar findings, indicating that students in urban schools performed better in Economics than their rural counterparts.

MATERIAL AND METHOD

This study adopted descriptive research design. This is because the study seek to describe the examination anxiety pattern among male and female students, as well as urban and rural students in public senior secondary schools in Delta State, Nigeria. The population of this study was 40522 students from public senior secondary schools in Delta State (Source: Ministry of Primary and Secondary Education, Asaba, Department of Planning Research and Statistics, 2023/2024).

The sample size of one thousand one hundred and sixty nine (1069) senior secondary

school students in Delta State was used in this study. The multi-stage sampling procedure was adopted to selecting the sample of the study due to the heterogeneous nature of the population. Firstly, the researcher proportionately stratified the population of the study. A simple random sampling technique of balloting was used to draw out three (3) Local Government areas in each of the Senatorial District in Delta States. Sixteen (16) schools were randomly selected in each senatorial district. Finally, convenience sampling was adopted.

The instrument for this study was a questionnaire titled: Examination Anxiety scales (AES). This scale was constructed by the authors.. The four point Format scale was used in scoring items with options of Strongly Agree (SA) = 4, Agree (A) = 3, Disagree (D) = 2, Strongly Disagree (SD) = 1. The instrument was validated through expert judgment. The experts assessed the instrument for appropriateness and suitability to the objectives of the study. Cronbach Alpha reliability co-efficient was adopted to ascertain the internal consistency of the instrument. The reliability co-efficient obtained for Examination Anxiety was 0.71. This showed that the scale had good measures of internal consistency. Daud et al. (2018) cited by Joseph et. al (2023) stated that Alpha Cronbach's value above 0.6 is considered high reliability and acceptable index. Therefore scales index of 0.71 is sufficient enough to establish the reliability of the instrument

The questionnaire was administered directly by the researchers and one research assistant. The research assistant is a graduate individual who had previous knowledge about research undertaking and questionnaire administration. Descriptive statistics (Mean and Standard Deviation) and bivariate statistics were used to answer all the research questions.

PRESENTATION OF RESULTS

The results of the data collected for the study were presented below.

Research Question One: What is the nature of inter-correlation of the components of examination

anxiety among Students in Public Senior Secondary School in Delta State?

Table 1: The correlation matrix of the components (Physiological, Emotional, Cognitive and Behavioural) of examination anxiety Students in Public Senior Secondary School in Delta State.

	Physiological	Emotional	Cognitive	Behavioural
Physiological	1			
Emotional	-.03	1		
Cognitive	.11**	-.03	1	
Behavioural	-.05	-.15**	-.02	1

The correlation matrix shows the relationships among the examination anxiety components. Here are the correlation coefficients: The correlation coefficient between Physiological Symptoms (PS) and Cognitive Symptoms (CS) is -0.03, indicating a very weak negative correlation. In addition, the correlation coefficient between - Physiological Symptoms (PS) and Emotional Symptoms (ES) is 0.11, indicating a weak positive correlation, which is statistically significant at the 0.01 level. Furthermore, the correlation coefficient between Physiological Symptoms (PS) and Behavioral Symptoms (BS) is -0.15, indicating a weak negative correlation, which is statistically significant at the 0.01 level. The correlation coefficient between Cognitive Symptoms (CS) and Emotional Symptoms (ES) is -0.03, indicating a very weak negative correlation. The correlation coefficient between Cognitive Symptoms (CS) and Behavioral Symptoms (BS) is -0.05, indicating a very weak negative correlation. The correlation

coefficient between Emotional Symptoms (ES) and Behavioral Symptoms (BS) is -0.02, indicating a very weak negative correlation.

The correlations among the examination anxiety components are generally very weak. However, there is a statistically significant weak positive correlation between Physiological Symptoms and Emotional Symptoms, as well as a statistically significant weak negative correlation between Physiological Symptoms and Behavioral Symptoms. However, the table reveal some interesting relationships among the different examination anxiety components, indicating that type of symptom may have implications for another type of symptom.

Research Question Two: What is the nature and pattern of examination anxiety among male and female students in public senior secondary schools in delta state?

Table 2: Descriptive Statistics of Mean and Standard Deviation on the nature and pattern of examination anxiety among male and female students in public senior secondary schools in Delta State.

SEX		Physiological	Emotional	Cognitive	Behavioural
MALE	Mean	9.77	11.67	7.73	2.75
	SD	2.38	2.27	2.23	1.99
	N	524	524	524	524
FEMALE	Mean	10.29	11.76	7.57	2.59
	SD	2.47	2.15	2.19	1.26
	N	545	545	545	545
TOTAL	Mean	10.04	11.71	7.65	2.67
	SD	2.44	2.21	2.21	1.66
	N	1069	1069	1069	1069

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Table 2: show descriptive statistics of mean and standard deviation on the nature and pattern of examination anxiety among male and female students in public senior secondary schools in Delta State.

On the basis of Physiological Symptom (PS), it shows that male students have a mean of 9.77, with a standard deviation (SD) of 2.38, while female students have a mean score of 10.29, with a SD of 2.47. The overall mean is 10.04, and the SD is 2.44. The mean values indicate that females experience higher physiological symptoms of anxiety during examinations compared to males. The standard deviations are similar, indicating comparable variability in physiological symptoms across genders. The higher mean physiological symptoms in females suggest that they might experience more physical manifestations of anxiety (e.g., sweating, heart palpitations) during exams. The similar SD values indicate that the intensity of these symptoms is equally variable among both genders.

For Cognitive Symptoms (CS) of examination anxiety, male students have a mean of 7.73 with a SD of 2.23, while female students have a mean of 7.57 with a SD of 2.19. The overall mean is 7.65, and the SD is 2.21. Males report slightly higher cognitive symptoms of anxiety compared to females. The standard deviations suggest that the variation in cognitive symptoms is relatively consistent between males and females. The higher mean physiological symptoms in females suggest they might experience more physical manifestations of anxiety (e.g., sweating, heart palpitations) during exams. The similar SD values indicate that the intensity of these symptoms is equally variable among both genders.

In addition, for Emotional Symptoms (ES) of examination anxiety, male students have a mean of 11.67, with a SD of 2.27, while female

students have a mean of 11.76, with a SD of 2.15. The overall mean is 11.71, and the SD is 2.21. Females report marginally higher emotional symptoms than males. The standard deviations are close, indicating that the emotional symptoms' variability is similar for both genders. The closely equal mean value of emotional symptoms indicates that both genders experience similar levels of emotional distress (e.g., feelings of fear, nervousness) during exams. The consistent SD values suggest that this emotional response varies similarly across genders.

For the Behavioral Symptom (BS) of examination anxiety, male students have a mean of 2.75, with a SD of 1.99, while female students have a mean of 2.59, with a SD of 1.26. The total mean is 2.67, and the SD is 1.66. This shows that male students have higher behavioral symptoms of anxiety compared to females. The standard deviation for males is higher, indicating more variability in behavioral symptoms among males than females. The higher mean value of behavior symptoms of examination anxiety in males indicates that the male students may exhibit more behavioral anxiety (e.g., fidgeting, avoidance behaviors) during exams. The higher SD in males indicates the difference in behavioral responses among male students.

In summary, the differences in means are relatively small, suggesting that both male and female students experience examination anxiety across all components, though to slightly different extents. Addressing these anxiety components could help improve students' overall examination performance and academic well-being.

Research Question Three: What is the nature and pattern of examination anxiety among rural and urban students in public senior secondary schools in delta state?

Table 3: Descriptive Statistics of Mean and Standard Deviation on the nature and pattern of examination anxiety among rural and urban students in public senior secondary schools in delta state

LOCATION		Physiological	Emotional	Cognitive	Behavioural
URBAN	Mean	9.84	11.55	7.72	2.76
	SD	2.44	2.23	2.28	1.99
	N	487	487	487	487
RURAL	Mean	10.21	11.85	7.59	2.59
	SD	2.43	2.18	2.14	1.31
	N	582	582	582	582
TOTAL	Mean	10.04	11.71	7.65	2.67
	SD	2.44	2.21	2.21	1.66
	N	1069	1069	1069	1069

Table 3: revealed descriptive statistics of mean and standard deviation of the nature and pattern of examination anxiety among rural and urban students in public senior secondary schools in delta state. The mean (mean) and standard deviation (SD) of examination anxiety components—Physiological Symptom (PS), Cognitive Symptoms (CS), Emotional Symptom (ES), and Behaviour Symptom (BS) provide significant metrics on the nature of the level of anxiety among students in different geographic environment (urban and rural). Below are the explanation

The table 3 present data of examination anxiety component among students in public senior secondary school in Delta State. it shows that for the Physiological Symptoms (PS) the students in Urban setting had a mean of 9.84 and a SD of 2.44 while the student the Rural setting had a Mean of 10.21 and a SD of 2.43. With total, Mean = 10.04, and SD = 2.44. In this case, Students in rural areas experience higher physiological symptoms of anxiety during an examination compared to urban students. The standard deviations are similar, indicating a comparable spread of scores around the mean in both groups. The mean value show that higher physiological symptoms was observed among rural students compare to their urban students counterpart. This might be due to different stressors or environmental factors in terms of learning experiences.

For the Emotional Symptoms (ES), students in the Urban area had the Mean of 11.55 and a SD of 2.23, while the students in Rural

environment had a Mean of 11.85, and a SD of 2.18, with a total Mean = 11.71, and SD = 2.21. From the data presented, it shows that Emotional symptoms of examination anxiety are somewhat higher in rural students compared to urban students. It appears that the Urban and Rural students similar degree of variability.

In the case of Cognitive Symptoms (CS) of examination anxiety, urban students had a Mean of 7.72, and a SD of 2.28, while the rural students had a Mean of 7.59 and SD of 2.14. The total mean = 7.65 and SD = 2.21. This indicates that the Cognitive symptoms of anxiety are quite similar between urban and rural students, with urban students showing slightly higher mean values. Variability in cognitive symptoms is slightly higher in urban students.

For the Behavioural Symptoms (BS) of examination anxiety, students in Urban area had a Mean score of 2.76, and a SD of 1.99, while students in the Rural settlement had a Mean value of 2.59, with a SD =of 1.31. The total Mean value = 2.67, SD = 1.66. This shows that that Behavioural symptoms of examination anxiety are slightly higher in urban students. The variability is much higher in urban students compared to rural students, indicating a wider range of behavioral responses to anxiety in urban areas.

DISCUSSION OF FINDINGS

The data presented compares examination anxiety components among male and female students as well as students in urban and rural locations. The result reported that females had a higher mean score of physiological



symptoms, indicating that they experience higher physiological symptoms of anxiety during examinations compared to males. This result agrees with the study by Farzaneh et al. (2012), which indicated that female students tend to experience higher levels of test anxiety, and this difference is statistically significant. Furthermore, their study found that the higher levels of anxiety among females are connected to their class performance, and this might increase physiological aspects of anxiety for female students. The present study also supports with the study of Melvina and Amalu (2017), who found that cognitive test anxiety predicts academic achievement, and that females generally have higher emotional symptoms compared to males. Emotional symptoms can include feelings of worry or dread that may be more pronounced in female students. This implies that that female students not only experience anxiety more intensely but also show a greater emotional response to academic pressure. In contrast, the finding that male students report slightly higher cognitive symptoms of anxiety (e.g., overthinking or worrying about failure) agrees with some aspects of the research by Yusuf and Bahadır (2022), who found that cognitive and affective components of test anxiety did not significantly affect test performance when controlling for gender. This is because male students may experience anxiety through cognitive pathways, these symptoms might not necessarily impair their performance on exams to the same extent as they do for females. Moreover, the current study disagree with the findings of Afshan (2022), who indicated no significant gender differences in exam anxiety among secondary school students. The results that indicates boys and girls experience similar levels of examination anxiety, the present study provides a clearer idea, showing that while males and females may not differ significantly in overall anxiety, they may exhibit varying degrees of anxiety across its components (cognitive, physiological, and emotional).

Secondly, the present result showed that rural students generally reported higher physiological and emotional symptoms of examination anxiety compared to urban students

to their urban counterparts. This could be attributed to various factors such as limited access to educational resources, greater pressure to succeed academically, and fewer coping mechanisms in rural settings. This findings agrees with the work of Rehman et al. (2021), which study reveal that low to moderate levels of test anxiety can be beneficial, suggesting that some level of anxiety may help students perform better. However, the high levels of physiological and emotional symptoms seen in rural students could indicate that their anxiety is beyond the "beneficial" threshold, potentially impairing their performance rather than enhancing it. On the other hand, cognitive symptoms of anxiety were found to be similar experience between urban and rural students, indicating that both rural and urban students experience comparable levels of worry or fear of failure during exams. This may be that while rural students might feel the physiological and emotional anxiety more intense, both rural and urban students are equally likely to engage in cognitive processes such as overthinking and worrying about their Academic performance.

CONCLUSION

The study found that male and female students experience examination anxiety, and this anxiety manifests in various ways, including behavioral, cognitive, emotional, and physiological symptoms. However, there is slight variations in the extent to which each gender experiences these symptoms. This implies that examination anxiety is a universal issue, gender may influence its specific manifestation. Furthermore, the rural students tend to experience higher levels of physiological (e.g., physical reactions like sweating or a racing heart) and emotional symptoms (e.g., feelings of fear or nervousness) related to examination anxiety which that rural students are more emotionally and physically impacted by examination stress. Furthermore, both rural and urban students exhibit similar levels of cognitive anxiety (e.g., worrying about performance or outcomes), implying that the thought processes related to examination stress are consistent regardless of location of the students. One of the limitations of this study is that



the study was a descriptive nature and secondly, the study did not test any hypothesis, rather, the study answered only research questions raised before it. The findings of this study is significant because it will help for educational reform with the hope of reducing anxiety among male and female students as well as urban and rural students.

IMPLICATIONS FOR EDUCATIONAL REFORM

The study implies the following for educational reform:

1. Schools should implement comprehensive anxiety management programs tailored to both male and female students. These programs should acknowledge gender-based differences in experiencing anxiety and offer workshops, counseling sessions, and relaxation techniques to address behavioral, cognitive, emotional, and physiological symptoms of examination anxiety.
2. Schools in rural areas should provide additional emotional and physical support to students. This could include creating safe spaces for relaxation, organizing stress-relief activities such as mindfulness exercises, and ensuring access to mental health resources. These measures can address the heightened emotional and physiological responses of rural students to exam stress and contribute to reducing examination anxiety more effectively.

REFERENCES

- Abassi, N., and Ghosh. S. (2020). "Construction and Standardization of Examination Anxiety Scale for Adolescents." *International Journal of Assessment Tools in Education*, Vol. 4, no. 7: pp.522-534.
- Adigun, J., Onihunwa, J, Irunokhai E., Sada, and Adesina., O. (2015). "Effect of Gender on Students' Academic Performance in Computer Studies in Secondary Schools in New Bussa, Borgu Local Government of Niger State." *Journal of Education and Practice*, Vol. 33, no. pp.6: 1–8.
- Afshan, F. (2022). "A Study on Examination Anxiety among Secondary School Students." *Journal of Emerging Technologies and Innovative Research (JETIR)*, Vol. 9, no. 10: pp.499-509.
- Ahmad, M., and Aziz, F. (2019). "Relationship between Emotional Intelligence and Exam Anxiety of Higher Secondary Students." *International e-Journal of Educational Studies (IEJES)*, Vol. 3, no. 6: pp.97-108.
<https://doi.org/10.31458/iejess.543549>.
- Alemu, M. B., and Feyssa, T. (2020). "The Relationship between Test Anxiety and Academic Achievement of Grade Ten Students of Shirka Woreda, Oromia Regional State, Ethiopia." *African Educational Research Journal*, Vol. 8, no. 3: pp.540-550.
<https://doi.org/10.30918/AERJ.83.20.097>.
- Almokhtar, A., Adwas, J. Jbireal, M. and Azab E, A. (2019). "Anxiety: Insights into Signs, Symptoms, Etiology, Pathophysiology, and Treatment." *East African Scholars Journal of Medical Sciences*, Vol. 2, no. 10: pp.580-591.
- Amalu, M. N. (2017). "Cognitive Test Anxiety as a Predictor of Academic Achievement among Secondary School Students in Makurdi Metropolis, Benue State." *International Journal of Scientific Research in Education*, Vol. 10, no. 4: pp.362-372.
- Annan-Brew, A. R., Gyedu, D., and Owusu A. P. (2022). "Gender Difference in Test Anxiety among Psychology Students at the University of Cape Coast." *International Journal of Research and Innovation in Social Science (IJRISS)*, Vol. 6, no. 5: pp.472-476.
- Capobianco, F., Husain, Z., and Wells. A. (2020). "Metacognitive Beliefs and Their Relationship with Anxiety and Depression in Physical Illness: A Systematic Review." *PLOS ONE*, Vol. 15, no. 9: pp.12-25.

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- <https://doi.org/10.1371/journal.pone.e0238457>.
- Chinawa, A. T., Onukwuli, V. O., Chinawa, J. M., Mayike, P., Nduagubam, O. C., Odinka, P. C. E. C. Aniwada, and. Ndukuba, A. C. (2018). "Anxiety Disorders among Adolescents Attending Secondary Schools in Enugu, South East Nigeria." *Current Pediatric Research*, Vol. 22, no. 3: pp.239-248.
- Chowdhury, R. S. 2019. "Examination Anxiety among Secondary Level Students." *Journal of Humanities and Social Science*, Vol. 2, no. (24): pp.23-28.
- Derren, N. G., and Z. I. D. (2017). "Metacognitive Strategies: Their Effects on Students' Academic Achievement and Engagement in Mathematics." *World Review of Business Research*, Vol. 7, no. pp.2: 35–55.
- Divya, B., and Pankajam, R. (2017). "Social Intelligence in Relation to Test Anxiety among Higher Secondary Level Students." *International Journal of Research*, Vol. 5, no. 5: pp.33-36. <https://doi.org/10.29121/granthaalayah.v5.i5>.
- Ebrahimi, M. R., and Khoshsim, H. (2016). "Impact of Emotional Intelligence Enhancement on Test Anxiety among EFL Learners: An Experimental Study." *International Journal of English Language & Translation Studies*, Vol. 4, no. 1: pp.136-145. <http://www.eltsjournal.org>.
- Farnam, A., and Anjomshoaa, H. (2020). "The Relationship between Metacognition Skills with Academic Motivation and Academic Achievement among High School Students in Kerman, Iran." *International Journal of Pediatrics*, Vol. 8, no. 1: pp.10759-10766. <https://doi.org/10.22038/ijp.2020.45608.3731>.
- Hamzah, F., C. K. Matt, V. Bhaget, and Mohyiddin, H... (2018). "Test Anxiety and Its Impact on First Year University Students and the Overview of Mind and Body Intervention to Enhance Coping Skills in Facing Exams." *Research Journal of Pharmacy and Technology*, Vol. 11, no. 6: pp.220-2228. www.rjptonline.org.
- Hooda, M., and A. Sain. (2017). "Academic Anxiety: An Overview." *Educational Quest: An International Journal of Education and Applied Social Science*, Vol. 8, no. 3: pp.807-810. <https://doi.org/10.5958/2230-7311.2017.00139.8>.
- Illahi, Y., and Khandai, H. (2016). "Social Intelligence, Study Habits, and Academic Achievements of College Students of District Pulwama." *Humanities and Social Sciences*, Vol. 7, no. 6: pp.35–41.
- Jegaa, R., and Aliero, H. S. (2024). "Impact of Emotional Anxiety on Academic Performance of Senior Secondary School Students in Kebbi State, Nigeria." *African Journal of Humanities & Contemporary Education Research*, Vol. 16, no. 7: pp.1–5.
- Joseph, O. (2023). "Exploration of Examination Anxiety Behavior Based on Gender and Location among Students in Senior Secondary School in Delta State, Nigeria." *International Journal of Scientific Research in Multidisciplinary Studies*, Vol. 9, no. 10: pp.30-34.
- Joseph, O., Ebenuwa-Okoh, E. E, and Okorodudu, R. I. (2023). "Validation of Examination Anxiety Behavior Scale among Senior Secondary School Students in Orhionmwon Local Government, Edo State." *Journal of Science Technology and Education*, Vol. 11, no. 1: pp.399–404.
- Joseph, O., Okorodudu, R. I., and Ekenuwa-Okoh E. E. (2023). "The Relationship between Emotional Intelligence and Examination Anxiety Behavior among Students in Public Senior Secondary Schools in Delta State." *Research on*

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- Humanities and Social Science, Vol. 13, no. 15: pp.20–25.
- Kaur, and Kumaran. (2016). "Test Anxiety and Academic Self-Concept of Students." The International Journal of Indian Psychology, Vol. 4, no. 3: pp.90–98.
- Mittu, H., and Nandana, L. (2020). "Test Anxiety as a Predictor of Academic Performance among University Students." Journal of Critical Review, Vol. 16, no. 7: pp.1370-1374.
- Mkpaoro, I. E., and Nwagu, E. K. N. (2019). "Test Anxiety and Location as Determinants of Students' Academic Achievement in Senior Secondary School Mathematics in Rivers State, Nigeria." International Journal of Education and Evaluation, Vol. 5, no. 5: pp.64–77.
- Mohammed, M. A., Syed, K. P., and Swamy. T. (2020). "Emotional Intelligence: An Empirical Study among Post-Graduate Students." International Journal of Management, Vol. 11, no. 9: pp.227-237.
- Mumtaz-Akhter, Ghulam, M. M., F, and Safder, M. (2019). "Emotional Intelligence and Test Anxiety: A Case Study of Unique School System." Journal of Elementary Education, vol. 2, no. 23: pp.49–56.
- Nayak, S., and K. R. Krishnan Bhatt. (2021). "Emotional Intelligence and Anxiety among Undergraduate Students." The International Journal of Indian Psychology, Vol. 2, no. 9: pp.1–8.
- Nazir, A., D. Tasleema, and Y. M. Ganai. (2015). "Social Intelligence and Academic Achievement of College Students: A Study of District Srinagar." Journal of Humanities and Social Science, Vol. 2, no. 20: pp.74-76.
- Nnorom, S. U., Anyanwu, J. A., and Ezenwagu, A. (2020). "Causes of Examination Anxiety on the Academic Performance of Secondary School Students in Okigwe Zone 1 Imo State, Nigeria." International Journal of Innovative Research & Development, Vol. 9, no. 5: pp.81–87.
<https://doi.org/10.24940/ijird/2020/v9/i5/MAY20027>.
- Núñez-Peña, I. M., Suárez-Pellicion, M., and Bonoa, R. (2016). "Gender Differences in Test Anxiety and Their Impact on Higher Education Students' Academic Achievement." Procedia - Social and Behavioral Sciences, Vol. 2, no. 28, pp.154–160.
- Nwokocha, J., and Momoh, O. G. 1 (2022): "Test-Anxiety Among Junior Secondary School Students in Nigeria: Causes, Effects and Counselling Intervention." Al-Hikmah Journal of Educational Management and Counselling, Vol. 4, no. pp.26–31.
- Obregón-Cuesta, A. I., Mínguez-Mínguez, L. A., León-del-Barco, B., Mendo-Lázaro, S., Fernández-Solana, J., GonzálezSantos, J., and González-Bernal, J. J. (2022). "Psychometric Analysis and Contribution to the Evaluation of the Exams-Related Emotions Scale in Primary and Secondary School Students." International Journal of Environmental Research and Public Health, Vol. 19, no. 11: pp.67-70.
<https://doi.org/10.3390/ijerph19116770>.
- Okogu, J. O., Osah, M., and Umudjere, S. O. (2016). "Examination Anxiety and Students' Academic Performance: Social Studies Approach." International Journal of Educational Policy Research and Review, Vol. 3, no. 1, pp.1–5.
<https://doi.org/10.15739/IJEPRR.16.001>.
- Olanrewaju, K. M., and Adeoye, H. (2018). "Influence of Gender and Mode of Study on Examination Anxiety among University Undergraduates of Ogun State." Integrity Journal of Education and Training, Vol. 2, no. pp.3 15–20.
<https://integrityresjournal.org/journal/IJE>.
- Olayinka, K. B. (2019). "School Location as a Correlate of Students' Academic

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- Performance among Senior Secondary Schools in Isokan Local Government Area of Osun State." *International Journal of Academic Multidisciplinary Research*, Vol. 11, no. pp.3. 5–8.
- Onukwufor, J. N., and Ugwu, C. J. (2018). "Level of Schooling and Gender Differences in Test Anxiety among Secondary School Students in Port Harcourt Local Government Area of Rivers State." *Advances in Social Sciences Research Journal*, Vol. 5, no. 2, pp.154–159.
- Ray, J., and Negi, A. (2024). "A Study of Gender Differences in Test Anxiety Among Students Appeared in Board Exams in India." *International Journal of Indian Psychology*, Vol. 12, no. 2., pp. 216–227. <https://doi.org/10.25215/1202.022>.
- Rehman, U. S., Javed, E., and Abiodullah, M. (2021). "Effects of Test Anxiety on Academic Achievement at Secondary School Level in Lahore." *Bulletin of Education and Research*, Vol. 43, no. 3, pp.67–80.
- Soodan, Shivani, and Ashwani Arya. (2015). "Understanding the Pathophysiology and Management of the Anxiety Disorders." *Human Journals*, Vol. 4, no. 3, pp. 251–278.
- Tamannaefar, M., and Abdolmaleki, S. (2017). "Prediction of Test Anxiety Based on Metacognitive Beliefs and Perfectionism." *Journal of Practice in Clinical Psychology*, Vol. 5, no. 1, pp. 63–70. <https://doi.org/10.18869/acadpub.jpcp.5.1.63>.
- Vankar, M. P. (2013). "Effect of Examination Anxiety on the Educational Achievement of the Students of Standard 12 of Gujarat State." *International Journal for Research in Education* 2, no. 1. pp.107–111.
- Wisdom, J. O., and Emmanuel, F. I. (2015). "Relationship between Metacognition, Attitude and Academic Achievement of Secondary School Chemistry Students." *Journal of Research & Method*, Vol. 5, no. pp. 6: 6–12.
- Yusuf, K., and Bahadır, Ö. (2022). "The Impact of Cognitive and Affective Components of Test Anxiety on the High-Stakes Exam Performance in 12th Grade Students." *International Journal of Progressive Education*, Vol. 18, no. 1. pp. 448–457.
- Zaheri, F., R. Shahoei, and Zaheri, H. (2012). "Gender Differences in Test Anxiety among Students of Guidance Schools in Sanandaj, Iran." *Wudpecker Journal of Medical Sciences*, Vol. 1, no. 1: pp.001-005.
- Heiligers (2012). Gender differences in medical students' motives and career choice. *BMC Medical Education*, pp. 1- 11. doi: 10.1186/1472-6920-12-82.
- Shikalepo, E. E. (2019). Characteristics of rural areas and their effects on teaching and learning dynamics. *International Journal of Social Sciences and Management Review*, vol. 4, No2, pp. 20 – 36.