



Effects of Rational Emotive Behavioural Therapy on Examination Anxiety Among Secondary School Students In Enugu Education Zone, Enugu State, Nigeria

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Abstract

The study sought to determine the effect of Rational Emotive Behavioural Therapy (REBT) on examination anxiety among senior secondary school students in Enugu Education Zone, Enugu State. The study was guided by two research questions and two null hypotheses. The study adopted quasi-experimental research design. The population of the study consisted of 30344 Senior Secondary School 2 (SS 2) students. The sample size for the study consists of 139 SS 2 students in four intact secondary school classes in the zone, selected through multistage sampling procedure. The instrument for data collection in this study was an Examination Anxiety Scale (EAS). The instrument was validated by three experts and trial-tested on 30 students. A reliability index of 0.84 was obtained using Cronbach Alpha analysis. The experimental procedure spanned 8 weeks. Collected data was analysed using SPSS v. 25, with research questions answered using mean and standard deviation whereas the hypotheses were tested using ANCOVA and 0.05 level of significance. The study revealed that students in the experimental group who were treated for examination anxiety using REBT had a lower posttest mean examination anxiety score than those in the control group who were treated using conventional counselling techniques, which was significant. Also, REBT was more effective for reducing examination anxiety among male students than among their female counterparts. It was concluded that examination anxiety can be effectively treated with REBT. The study recommended that students actively participate in school-based counselling programmes using REBT designed to help them identify and challenge irrational beliefs that contribute to examination anxiety. Also, teacher should also work closely with school counsellors to identify and refer students experiencing examination anxiety for appropriate intervention.

Keywords: Rational Emotive Behavioural Therapy, Examination anxiety, Students, Enugu State.

Introduction

Examinations are an indispensable component of formal education because they provide an objective means of assessing students' knowledge, skills and readiness for progression to higher levels of education. However, the increasing emphasis placed on examination performance has transformed examinations into major sources of psychological pressure for many adolescents. Across the world, secondary school students face intense academic competition, parental expectations and high-stakes assessment systems that often heighten emotional distress during examination periods (Putwain & von der Embse, 2019). Although moderate anxiety may motivate students to prepare adequately, excessive examination anxiety has become a growing

educational concern because of its persistent association with poor academic performance, impaired cognitive functioning and reduced psychological wellbeing (von der Embse et al., 2018; Thomas et al., 2021). As educational systems continue to prioritise measurable academic outcomes, understanding and addressing examination anxiety has become increasingly important for promoting both students' academic success and emotional wellbeing.

Examination anxiety refers to a situation-specific form of anxiety characterised by excessive worry, emotional tension and physiological arousal experienced before or during evaluative situations (von der Embse et al., 2018). Students with high

examination anxiety often experience intrusive thoughts, fear of failure, low self-confidence and difficulty concentrating, all of which interfere with effective examination performance (Putwain & Daly, 2019). Research has shown that excessive anxiety reduces working memory capacity, disrupts information processing and limits students' ability to recall previously learned material, thereby contributing to lower academic achievement despite adequate preparation (Vogel & Schwabe, 2019; Carey et al., 2019). Beyond its immediate effect on examination performance, persistent examination anxiety has been linked to emotional exhaustion, reduced academic engagement, lower self-efficacy and declining psychological wellbeing among adolescents (Pascoe et al., 2020; Putwain et al., 2021). These findings suggest that examination anxiety represents not merely an emotional reaction to examinations but a significant barrier to effective learning and academic development.

Secondary school students are particularly vulnerable to examination anxiety because adolescence is characterised by rapid cognitive, emotional and social development, accompanied by increasing academic expectations and greater concern about future educational opportunities (Blakemore, 2018; Sawyer et al., 2018). Students at this stage frequently contend with demanding curricula, peer competition, parental expectations and pressure to succeed in examinations that determine promotion and admission into higher institutions. Within Nigeria, these pressures are intensified by the highly competitive nature of public examinations such as the West African Senior School Certificate Examination and the Unified Tertiary Matriculation Examination, both of which significantly influence students' educational prospects. Consequently, studies conducted in Nigeria have consistently reported moderate to high levels of examination anxiety among secondary school students, with many exhibiting fear of failure, emotional instability, avoidance of academic tasks and declining confidence during examination periods (Ogbuanya et al., 2020; Eze et al., 2021). Similar concerns have been reported in Enugu State, where limited counselling services, overcrowded classrooms and increasing societal expectations continue to exacerbate students' emotional responses to examinations (Ugwuanyi et al., 2020).

The persistence of examination anxiety despite conventional counselling services has increased interest in psychological interventions that address the underlying cognitive processes responsible for students' emotional distress. Among these interventions, Rational Emotive Behavioural

Therapy (REBT) has gained considerable recognition because of its effectiveness in modifying irrational beliefs that generate maladaptive emotional responses. Developed by Albert Ellis, REBT is founded on the principle that emotional disturbances result primarily from individuals' beliefs about events rather than the events themselves (Ellis, 1955; David et al., 2018). According to the theory, students who interpret examinations through rigid and catastrophic beliefs, such as viewing failure as intolerable or equating academic performance with self-worth, are more likely to experience debilitating anxiety than those who hold rational and flexible beliefs (Dryden, 2019). Through cognitive restructuring, REBT enables individuals to identify, dispute and replace irrational beliefs with more realistic and adaptive patterns of thinking, thereby improving emotional regulation and psychological resilience (Turner, 2019; Szentagotai & David, 2019).

The effectiveness of REBT has been demonstrated across a wide range of educational settings. Studies have shown that REBT-based interventions significantly reduce anxiety symptoms, improve emotional adjustment and strengthen students' coping abilities by addressing the dysfunctional beliefs that sustain emotional distress (David et al., 2018; Turner, 2019). Within Nigeria, Ede et al. (2020) reported that REBT effectively reduced academic stress and enhanced students' emotional adjustment, while Ogbuanya et al. (2020) found significant reductions in anxiety among secondary school students who received REBT compared with those exposed to conventional counselling approaches. Despite these promising findings, important gaps remain in the literature. Much of the existing research has focused on general anxiety or academic stress rather than examination anxiety specifically, while several intervention studies have been conducted outside secondary school settings or beyond the Nigerian context, thereby limiting the applicability of their findings to adolescents in public secondary schools (Owens et al., 2021; Ahmed et al., 2022). Furthermore, empirical evidence on the effectiveness of REBT in reducing examination anxiety among secondary school students in Enugu Education Zone remains limited despite contextual factors that may heighten students' vulnerability to examination-related emotional distress.

Given the continuing prevalence of examination anxiety and its adverse implications for students' academic functioning and psychological wellbeing, there is a need for context-specific evidence on interventions capable of addressing the cognitive processes underlying this challenge.

Establishing the effectiveness of REBT within Nigerian secondary schools would provide empirical support for integrating evidence-based psychological interventions into school counselling programmes and contribute to improving students' emotional wellbeing alongside their academic achievement. It was against this background that this study examined the effects of Rational Emotive Behavioural Therapy on examination anxiety among secondary school students in Enugu Education Zone, Enugu State, Nigeria.

Research Questions

The following questions are posed for the study:

1. What are the mean examination anxiety scores of students exposed to REBT and those exposed to conventional counselling?
2. What are the mean examination anxiety scores of male and female students?

Hypotheses

The following null hypotheses will be tested at 0.05 level of significance.

H₀₁: There is no significant difference in the mean examination anxiety scores of students exposed to rational emotive behavioural therapy and those not exposed to it.

H₀₂: There is no significant difference in the mean examination anxiety scores of male and female students.

Methods

The design of this study was pretest-posttest non-equivalent group quasi-experimental research design. The study was carried out in Enugu Education Zone of Enugu State, Nigeria. Enugu Education Zone is considered suitable for this study because personal observations as an educational administrator in the zone indicate persistent cases of examination anxiety among secondary school students, coupled with limited structured psychological intervention

programmes and insufficient context specific research evidence needed to address these challenges effectively.

The population of this study was 30344 Senior Secondary School 2 (SS 2) students in 33 public secondary schools in Enugu Education Zone. This population comprises 11478 male students and 18866 female students. The sample size for the study consists of 139 SS 2 students in four intact secondary school classes in the zone, who were identified as having moderate to high levels of academic stress and examination anxiety. A multistage sampling procedure was used to select the secondary schools which will be used for the study.

The instrument for data collection in this study was an Examination Anxiety Scale (EAS). The Examination Anxiety Scale is a 21-item instrument adapted from the Examination Anxiety Scale developed by Nargis and Shilpi (2020). The instrument was validated by three experts in the Faculty of Education, University of Nigeria, Nsukka. The instrument was trial-tested on 30 secondary school students in one randomly selected co-educational secondary school in Enugu North LGA, because they share similar attributes with those who actually took part in the study. Collected data was analysed using Cronbach Alpha and a reliability index of 0.84 was obtained for the EAS.

The experimental procedure spanned 8 weeks and covered the pre-treatment phase, treatment phase and post-treatment phase. Measures were also taken to control the following extraneous variables: experimental bias, school variable, intergroup differences, variability of instructional situation, effect of pretest/posttest and Hawthorne effect. Collected data were analysed using SPSS version 25. All the research questions were answered using mean and standard deviation. All the hypotheses were tested at 0.05 level of significance, using Analysis of Covariance (ANCOVA). Hypotheses with p-values below 0.05 will be retained whereas those greater than 0.05 will be rejected.

Findings

Table 1: Mean analysis of the examination anxiety scores of students exposed to REBT and those not exposed to it.

Treatment	n	Pretest		Posttest		Adjusted mean
		Mean	Std. Deviation	Mean	Std. Deviation	
REBT	72	56.94	5.77	49.10	5.86	48.03
Control	67	52.67	7.24	50.78	7.45	51.79

Table 1 indicates that the students who were treated for examination anxiety using REBT had a pretest mean examination anxiety score of ($M =$

56.94, $SD = 5.77$) and a posttest mean examination anxiety score of ($M = 49.10$, $SD = 5.86$). Similarly, students who were treated for examination anxiety

using conventional counselling techniques had a pretest mean examination anxiety score of ($M = 52.67$, $SD = 7.24$) and a posttest mean examination anxiety score of ($M = 50.78$, $SD = 7.45$). The adjusted mean scores of 48.03 and 51.79 indicate that the students in the experimental group who were treated for examination anxiety using REBT had a lower posttest mean examination anxiety score than those in

the control group who were treated using conventional counselling techniques. Also, the posttest standard deviations of 5.86 and 7.45 for the students of REBT and control groups respectively, show that the individual examination anxiety scores of the students of the control group varied slightly more widely from their group mean than those of the REBT group.

Table 2: Analysis of covariance of the effect of REBT on senior secondary school students' examination anxiety

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	1646.677	4	411.669	12.121	.000	.266
Intercept	896.505	1	896.505	26.396	.000	.165
Pre-motivation	1522.780	1	1522.780	44.836	.000	.251
Treatment	435.769	1	435.769	12.831	.000	.087
Gender	36.816	1	36.816	1.084	.300	.008
Treatment * Gender	22.508	1	22.508	.663	.417	.005
Error	4551.107	134	33.963			
Total	352399.000	139				
Corrected Total	6197.784	138				

Table 2 reveals that there is a significant difference in the mean examination anxiety scores of senior secondary school students treated for examination anxiety using REBT and those treated with conventional counselling technique, $F(1, 134) = 12.831$, $p = 0.000$. Thus, the null hypothesis is rejected since the associated probability value of 0.000 is less than the 0.05 level of significance. The inference drawn is that the mean examination anxiety score of the students treated for examination anxiety

using REBT vary significantly from that of the students treated for examination anxiety using conventional counselling. The partial eta square value of 0.087 indicates a large effect, demonstrates that after controlling for the covariate(s), the treatment accounted for 8.7% of the variance in examination anxiety, representing a moderate and practically meaningful effect. This implies that 8.7% reduction in the examination anxiety scores of the students is attributed to the effect of REBT.

Table 3: Mean analysis of the influence of gender on the mean examination anxiety scores of students

Gender	n	Pretest		Posttest		Adjusted mean
		Mean	Std. Deviation	Mean	Std. Deviation	
Male	60	55.43	6.75	49.62	7.03	49.38
Female	79	54.47	6.92	50.13	6.48	50.43

Table 3 indicates that the male students had a pretest mean examination score of ($M = 55.43$, $SD = 6.75$) and a posttest mean examination anxiety score of ($M = 49.62$, $SD = 7.03$), while female students had a pretest mean examination anxiety score of ($M = 54.47$, $SD = 6.92$) and a posttest mean examination anxiety score of ($M = 50.13$, $SD = 6.48$). The adjusted mean scores of 49.38 and 50.43 indicate that the male students had lesser posttest mean examination anxiety score than the female students. However, the posttest standard deviations of 7.03 and 6.48 for the male and female students respectively, show that the individual examination anxiety scores of the male students

varied more widely from their group mean than those of the female students.

Table 2 reveals that there is no significant difference in the mean examination anxiety scores of male and female students, $F(1, 134) = 1.084$, $p = 0.300$. This means that the null hypothesis is not rejected since the associated probability value of 0.300 is greater than the 0.05 level of significance. The inference drawn is that there is no significant difference in the mean examination anxiety scores of male and female students.

Discussion of the Findings

The study revealed that senior secondary school students in the experimental group who were treated for examination anxiety using REBT had a lower posttest mean examination anxiety score than those in the control group who received conventional counselling. The study further revealed that the difference in the mean examination anxiety scores of the two groups was significant. The study also showed that REBT was more effective for reducing examination anxiety among male students than it was in female students but this was not significant. This finding indicates that REBT was more effective than conventional counselling techniques in reducing examination anxiety among senior secondary school students. The result suggests that students who participated in the REBT sessions were better able to identify, challenge, and replace the irrational beliefs and negative thoughts that often trigger fear, tension, and worry before examinations. Consequently, they developed healthier emotional responses and greater confidence in handling examination situations.

Several factors could account for the significant effect of REBT observed in this study. First, the structured nature of REBT equips students with practical cognitive and emotional skills for recognising irrational beliefs, disputing unrealistic expectations, and developing more rational ways of thinking about examinations. As students learn to interpret examination situations more realistically, their fear of failure and excessive worry are likely to diminish. Secondly, unlike conventional counselling techniques, which often focus on providing emotional support and general guidance, REBT actively engages students in identifying the root causes of their anxiety and developing lasting coping strategies. This active participation may have enhanced the students' confidence, emotional resilience, and ability to manage examination pressure more effectively. Furthermore, the therapeutic sessions may have encouraged students to view examinations as opportunities to demonstrate learning rather than as threatening events that determine their self-worth.

This finding is in agreement with the study of Mogege et al. (2024), who found that students exposed to group Rational Emotive Behaviour Therapy experienced a significant reduction in mathematics anxiety compared with those who received conventional counselling, concluding that REBT effectively reduced anxiety by addressing students' irrational beliefs. Similarly, Martin (2023) reported a statistically significant difference in examination anxiety between students treated with REBT and those in the control group, indicating that REBT was highly effective in reducing examination

anxiety among senior high school students. Furthermore, Mideni, Syahniar and Marjohan (2019) reported that group activities based on the REBT approach produced noticeable reductions in students' examination anxiety. The consistency of these findings across different educational settings suggests that REBT is a reliable and effective therapeutic approach for reducing examination anxiety because it enables students to modify irrational beliefs, improve emotional regulation, and develop healthier attitudes towards examinations.

Conclusion

Examination anxiety remains important psychological challenges that can hinder the academic functioning and overall wellbeing of senior secondary school students. The findings of this study demonstrate that addressing these challenges requires interventions that focus on the underlying thought patterns that shape students' emotional responses to examination anxiety. REBT provides students with the opportunity to identify irrational beliefs, challenge unhelpful patterns of thinking, and develop more rational perspectives towards examinations and other academic activities. Through this process, students are better able to manage their emotions, approach academic tasks with greater confidence, and cope more effectively with the pressures associated with school life. The study therefore establishes REBT as a valuable therapeutic approach for promoting positive emotional adjustment among senior secondary school students. The study further suggests that the benefits of REBT are not dependent on gender, as both male and female students responded similarly to the intervention. This indicates that the principles of REBT can be applied effectively across different groups of students without the need for separate gender-based treatment approaches.

Recommendations

1. Senior secondary school students should actively participate in school-based counselling programmes using REBT designed to help them identify and challenge irrational beliefs that contribute to examination anxiety. This will enable them to develop healthier ways of responding to academic demands that bring about anxiety.
2. Teachers should create supportive classroom environments that encourage positive attitudes towards examinations and learning.
3. Teacher should also work closely with school counsellors to identify and refer students experiencing examination anxiety for appropriate intervention.

4. School counsellors should incorporate REBT into their routine counselling services, particularly before internal and external examinations. They should organise regular group counselling sessions and workshops that equip students with practical skills for managing examination anxiety.

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