

Efficacy of Rational Emotive Behaviour Therapy on Academic Anxiety Disorder among In-School Adolescents in Abia State

Hezekiah, Chidinma Elizabeth

chyhez@gmail.com, 08036754843

Department of Guidance and Counselling

Michael Okpara University of Agriculture, Umudike

Osorochi P. Obi

obi.osorochi@mouau.edu.ng

Department of Guidance and Counselling

Michael Okpara University of Agriculture, Umudike

Korie, Chioma Stella

koriestella90@gmail.com

National Open University

Nsu Study Centre Imo State

Abstract

This study investigated the efficacy of rational emotive behaviour therapy (REBT) on academic anxiety disorder among in-school adolescents in Abia State. Two research questions and two hypotheses guided the study. The study adopted a quasi-experimental research design employing the pre-test-post-test, non-randomized control group design. The sample of the study consisted of 24 in-school adolescents purposively drawn from 320 Senior Secondary Two (SS II) students identified with academic anxiety disorder using Academic Anxiety Disorder Identification Questionnaire (AADIQ) in public secondary schools in Abia State in 2023/2024 academic session. Data were collected with a 30-item questionnaire - Academic Anxiety Disorder Identification Questionnaire (AADIQ). The instrument was validated by three experts. Pearson's Product Moment Correlation was conducted and reliability index of 0.74 was obtained. Cronbach Alpha was used to determine the internal consistency which yielded an index value of 0.84. Data were collected in three phases of pre-treatment, post treatment and follow-up periods. Data collected were analyzed using mean and standard deviation to answer the research questions and Analysis of Covariance (ANCOVA) to test the null hypotheses at

0.05 level of significance. Findings showed that REBT significantly reduced academic anxiety disorder among in-school adolescents treated leading to the conclusion that REBT was efficacious in the reduction of academic anxiety disorder among in-school adolescents in Abia State. It was thus recommended that school counsellors should effectively use rational emotive behaviour therapy to reduce academic anxiety disorder among in-school adolescents.

Keywords: Rational emotive behaviour therapy, Academic Anxiety Disorder, In-School Adolescents

Introduction

Adolescence is a phase between infancy and adulthood. It is a stage where the young adults try to act and accomplish things by themselves. Adolescence is a constantly growing theoretical construct informed by physiologic, psychological, temporal and cultural perspectives (Steinberg, 2021). Conventionally, the years between the onset of puberty and the establishment of social independence are considered to represent this key developmental phase. Adolescents are individuals between 10 and 19 years (WHO, 2018). Adolescence is a peculiar period in one's life span. In-school adolescents are those adolescents who spend more waking time in school than in any other context. Adolescents face a variety of issues as a result of the changes that occur during this period. One of such challenges which adolescents face is academic anxiety.

Academic anxiety disorder in adolescents occur when anxious feelings are persistently intense, go on for weeks or even longer and are so distressing that they interfere with young people's learning, socializing and ability to carry out day to day activities (Craske, 2017). Academic anxiety disorder refers to the feelings of worry, tension or dread that are associated with academic settings or tasks. This could be examinations, assignments, subjects (mathematics, reading or science), social pressures related to schoolwork (parents, peers) or merely feeling uneasy about studying or working in groups in class. Academic anxiety appears to involve a complex array of emotional reactions which, in moderate forms, may induce only a minor discomfort. Severe or high forms however, could result in negative outcomes, such as apprehension, fear, nervousness, panic, and worry while in low form tend to lead to lack of motivation (Chaplin et al., 2019). Signs and symptoms of academic anxiety disorder include: irritability, crying, yelling or having a tantrum, refusal to participate in the process of getting ready for school, loss of appetite or nausea as it draws close to time to leave for school,

nightmares or difficulty sleeping, headache and increased heart rate and/or rapid breathing (Killu, et al., 2016).

Academic anxiety disorder in adolescents can lead to mental health problems if left untreated. It can have long-term consequences for cognitive, mental health and overall development. The global current prevalence of academic anxiety disorder ranged from 5.3% (3.5% - 8.1%) in African cultures to 10.4% (7.0 - 15.5%) in Euro/Anglo cultures (Beesdo et al., 2019). Generally, all anxiety disorders more frequently occur in females than males. Although sex differences may occur as early as childhood, they increase with age reaching ratios of 2:1 to 3:1 in adolescents (Amirfakhraei et al., 2021). Risk factors for academic anxiety disorder include genetic, personality, environmental or other factors like ongoing physical illness. Most anxiety disorders respond well to treatment especially if the disorders are identified early and treated early (Amirfakhraei & Alinaghizadeh, 2021). This is the rationale for this study.

A negative effect of academic anxiety disorder is that it can lead to a state of learned helplessness (Ali, 2022). It has been discovered that academic anxiety disorder interacts with self-regulated learning processes, is sensitive to minute changes in the context of students' performance, and mediates students' academic progress (Uroko, 2017; Obi & Nicholas, 2018; Akay & Boz, 2020). According to Campbell and Stevenson (2012), in-school adolescents experience significant academic pressure, irrespective of their gender or years of education, which has a detrimental effect on their academic tasks. Most students' beliefs or thought about academics appear to be self-defeating, which could be inhibited using intervention strategy such as rational emotive behaviour therapy (REBT).

Rational emotive behaviour therapy (REBT) is an active directive, solution-oriented therapy which focuses on resolving emotional, cognitive and behavioural problems in clients (Kumar, 2019). REBT views that emotional problems result primarily, though not completely, from our evaluation of a negative event, not solely by the events per se. In other words, human beings based on their belief system actively, though not always consciously, disturb themselves about their disturbances. The goal of REBT is to replace dysfunctional beliefs (which are rigid, inconsistent with reality and illogical) with a new set of rational beliefs (which are flexible and non-extreme). Rational beliefs which may help adolescents live longer and happier may be achieved through this therapeutic process. This process involves helping clients identify the underlying irrational thoughts and beliefs about academic anxiety, challenging such irrational thoughts, allowing them to gain insight and recognize the irrational thought patterns and then

provide opportunities to practice rational thought patterns. These are achieved utilizing important techniques such as cognitive disputation, imaginal disputation, behavioural disputation, emotional control card, confrontation and encouragement (Obi & Nicholas, 2018).

Evidence abound on the effectiveness of REBT in studies conducted in ideal and controlled circumstances (Kings et al., 2024). David et al. (2017) conducted a eighty-two empirical studies spanning a 50 year period. Overall, the meta-analysis reported significant effect sizes for REBT interventions on a range of outcomes including behavioural, cognitive, emotional, health, psychophysiological, quality of life, school performance and social skills at post-intervention and follow-up. Specific studies (Knapp et al, 2023; Turner et al., 2023) attest to the efficacy of REBT.

Statement of the Problem

Students are expected to exhibit some levels of academic anxiety. Moderate level of anxiety motivates. However, high levels of anxiety pose serious challenges to students and stand on their way to achieve academic success (Hughes & Coplan, 2016). The academic anxiety disorder of in-school adolescents with its concomitant effects are gradually becoming issues of great concern to parents, teachers, and society at large and calls for urgent solution. Counsellors have used some techniques such as role modeling, self-control techniques among others to reduce academic anxiety disorder. Despite all these, academic anxiety disorder still persists. Extant literature show the effectiveness of rational emotive behaviour therapy on some behaviour problems. For an improved academic performance, irrational thoughts that negatively affect the self, need to be altered and replaced with rational thoughts. The in-school adolescents exhibiting academic anxiety disorder need to be exposed to techniques that would equip them with skills to reduce their academic anxiety disorder. However, the effectiveness of this technique in reducing academic anxiety disorder has not been ascertained at the time of this study in the study area. This study, therefore, investigated the effect of rational emotive behaviour therapy on academic anxiety disorder among in-school adolescents in Abia State.

Purpose of the Study

The purpose of this study is to determine the effectiveness of rational emotive behaviour therapy on in-school adolescents exhibiting academic anxiety disorder. Specifically, this study:

1. determined the mean score difference between in-school adolescents with academic anxiety disorder exposed to REBT and control group at posttest period.
2. ascertained the mean score difference between in-school adolescents with academic anxiety disorder exposed to REBT and control group at follow-up period.

Research Questions

The following research questions guided the study.

1. What is the mean score difference in the rate of reduction of academic anxiety disorder between in-school adolescents exposed to REBT and control group at posttest period?
2. What is the mean score difference in the rate of reduction of academic anxiety disorder between in-school adolescents exposed to REBT and control group at follow-up period?

Hypotheses

The following hypotheses were formulated and tested at 0.05 level of significance.

HO₁: There is no significant mean score difference in the rate of reduction of academic anxiety disorder between in-school adolescents exposed to REBT and control group at posttest period?

HO₂: There is no significant mean score difference in the rate of reduction of academic anxiety disorder between in-school adolescents exposed to REBT and control group at follow-up period?

Method

The study adopted a quasi-experimental design employing the pre-test-post-test, non-randomized control group design. The sample of the study consisted of 24 in-school adolescents who were drawn purposively from 320 Senior Secondary Two (SS II) students identified with academic anxiety disorder using Academic Anxiety Disorder Identification Questionnaire in public secondary schools in Aba Education zone of the State in 2023/2024 academic session. These involved 12 subjects each for rational emotive behaviour therapy (REBT) and control groups.

Instrument for data collection was a 30-item questionnaire - Academic Anxiety Disorder Identification Questionnaire (AADIQ), validated by three experts, one each from Guidance and Counselling, Educational Psychology and Measurement and Evaluation, from Michael Okpara University of Agriculture, Umudike. The instrument was a four-point likert-type of strongly agree, agree, disagree and strongly disagree with values of 4,3,2, and 1, respectively. Pearson's Product Moment Correlation was conducted to ascertain the correlation for the AADIQ and

reliability index of 0.74 was obtained while internal consistency using Cronbach Alpha indicated index value of 0.84.

Those in the treatment group were exposed to REBT techniques in six sessions while the control group was a wait-list group. Those in the control group were giving a later date to allow those in the treatment group to complete their treatment. They were exposed to the REBT techniques at the end of the experiment. Data were collected in three phases of pre-treatment, post treatment and follow-up periods. Data collected were analyzed using mean and standard deviation to answer the research questions and Analysis of Covariance (ANCOVA) to test the null hypotheses at 0.05 level of significance.

Results and Discussions

The results were presented in tables.

Research Question 1:

1. What is the mean score difference in the rate of reduction of academic anxiety disorder between in-school adolescents exposed to REBT and control group at posttest period?

Table 1: Mean and Standard Deviation of mean score difference in the rate of reduction of academic anxiety disorder between in-school adolescents exposed to REBT and control group at posttest period

Source		Pre-test		Post-test		Mean decrease	Mean Difference
Groups	N	\bar{X}	SD	\bar{X}	SD		
REBT	12	3.25	0.63	1.75	0.38	1.5	1.42
Control	12	3.08	0.34	3.00	0.28	0.08	

Data in Table 1 showed that the subjects having academic anxiety disorder exposed to rational emotive behaviour therapy (REBT) had a pre-test mean score of 3.25 with a standard deviation of .0.63 and a post-test mean score of 1.75 with a standard deviation of .0.38. Similarly, the subjects in the control group recorded pre-test mean score of 3.08 with a standard deviation of .34 and a post-test mean score of 3.00 with a standard deviation of 0.28. The table further showed that those in the REBT group had posttest mean 1.75 with standard deviation of 0.38 while their counterparts in the control group had posttest mean of 3.00 and standard deviation of 0.28. The mean difference between the REBT group and the control group was 1.42; which

implied that the subjects having academic anxiety disorder exposed to rational emotive behaviour therapy (REBT) had significant reduction on their academic anxiety disorder than their counterparts in the control group. The results, therefore, indicated that the use of rational emotive behaviour therapy (REBT) reduced academic anxiety disorder of the in-school adolescents attesting to the efficacy of REBT.

Hypothesis 1:

There is no significant mean score difference in the rate of reduction of academic anxiety disorder between in-school adolescents exposed to REBT and control group at posttest period?

Table 2: Analysis of Covariance (ANCOVA) on the difference in the rate of reduction of academic anxiety disorder between in-school adolescents exposed to REBT and control group at posttest period

Source	Type III Sum of Squares	Df	Mean Squares	F	Sig.
Corrected Model	3688.272 ^a	22	922.068	8.703	.000
Intercept	2262.334	1	2262.334	21.353	.000
Pre-test	2046.335	1	2046.335	19.315	.001
Group	3482.354	1	3482.354	32.689	.000
Error	1165.433	11	105.948		
Total	12644.728	16			
Corrected Total	14953.775	15			

The results in Table 2 showed that the REBT group had a significant effect on the rate of reduction of academic anxiety disorder of the subjects. The calculated f-value of 32.689 was higher than f-critical with degree of freedom of 22 at 0.05 level of significance. This implied that exposing subjects with academic anxiety disorder to rational emotive behaviour therapy (REBT) significantly reduced their academic anxiety disorder. Therefore the null hypothesis of no significant mean score difference in the rate of reduction of academic anxiety disorder between those in the rational emotive behaviour therapy (REBT) group and control at post-test period was rejected. Thus, there was significant mean score difference in the rate of reduction of academic anxiety disorder between those exposed to rational emotive behaviour therapy (REBT) group and control at post-test period.

Research Question 2:

What is the mean score difference in the rate of reduction of academic anxiety disorder between in-school adolescents exposed to REBT and control group at follow-up period?

Table 3: Mean and Standard Deviation of the rate of reduction of academic anxiety disorder between in-school adolescents exposed to REBT and control group at follow-up period?

Source		Posttest		Follow-up		Mean Reduction	Mean Reduction Difference
Groups	N	\bar{X}	SD	\bar{X}	SD		
REBT	12	1.75	0.38	1.58	0.44	0.17	0.08
Control	12	3.00	0.28	2.91	0.18	0.09	

Data in Table 3 showed that the subjects exposed to rational emotive behaviour therapy (REBT) had a post-test mean score of 1.75 with a standard deviation of 0.38 and a follow-up mean score of 1.58 with a standard deviation of 0.44. Similarly, the subjects in the control group recorded post-test mean score of 3.00 with a standard deviation of 0.28 and a follow-up mean score of 2.91 with a standard deviation of 0.18. The table further showed that the subjects exposed to rational emotive behaviour therapy (REBT) had mean reduction of 0.17 while their counterparts in the control group had 0.09. The mean reduction difference between the rational emotive behaviour therapy (REBT) and the control group is 0.08; which implied that the subjects having academic anxiety disorder exposed to rational emotive behaviour therapy (REBT) had a better outcome than their counterparts in the control group. The results suggested that the treatment gains were maintained after one month follow-up period.

Hypothesis 2: There is no significant mean score difference in the rate of reduction of academic anxiety disorder between in-school adolescents exposed to REBT and control group at follow-up period?

Table 4: Analysis of Covariance (ANCOVA) of the difference in the rate of reduction of academic anxiety disorder between in-school adolescents exposed to REBT and control group at follow-up period?

Source	Type III Sum of Squares	df	Mean Squares	F	Sig.
--------	-------------------------	----	--------------	---	------

Corrected Model	3689.372 ^a	22	922.343	8.631	.000
Intercept	2362.324	1	2362.324	22.107	.000
Post-test	2066.315	1	2066.315	19.337	.001
Follow-up	122.254	1	122.254	1.144	.356
Error	1175.433	11	106.858		
Total	9415.698	16			
Corrected Total	14953.775	15			

Results in Table 4 show that rational emotive behaviour therapy (REBT) had a significant effect on the rate of reduction of academic anxiety disorder of the subjects. However, the calculated f-value of 1.144 in respect of REBT group is less than f-critical with degree of freedom of 22 at 0.05 level of significance. This implied that exposing in-school adolescents with academic anxiety disorder to REBT significantly reduced academic anxiety disorder showing that the treatment gains were maintained after one month follow-up period. Therefore, the null hypothesis of no significant mean score difference in the reduction of academic anxiety disorder between in-school adolescents with academic anxiety disorder exposed to REBT and control group at follow-up period was rejected. The results, therefore, concluded that the treatment gains at post-test were maintained after one month follow-up period.

Discussion

The aim of the study is to determine the efficacy of REBT intervention on academic anxiety disorder experienced by in-school adolescents in Abia State. REBT techniques were intricately weaved around academic anxiety issues and exposed to the subjects in therapy. The rigours employed paid off as shown in the results. The results revealed decreases in academic anxiety among those in REBT group at post test as well as at follow-up indicating the sustainability of the gains in therapy. This implied that exposing subjects with academic anxiety disorder to rational emotive behaviour therapy (REBT) significantly reduced their academic anxiety disorder. The findings of this study concurs with the findings of Obi and Nicholas (2020) who found that REBT was effective in the reduction of academic stress among undergraduates. This also corroborates the findings David et al. (2017); Knapp et al. (2023) and Turner et al. (2023), who established the efficacy of REBT on a wide range of outcomes across different domains. REBT assisted in-school adolescents with academic anxiety disorder to replace their irrational

and illogical thoughts and beliefs on academic issues and replaced them with realistic and rational ones. This accounts for the positive outcome of the study.

Conclusion

From the findings of the study, use of REBT on adolescents with academic anxiety disorder significantly reduced their academic anxiety disorder. The study thus concludes that REBT is efficacious in the reduction of academic anxiety among in-school adolescents at posttest period. The gains of treatment were as well maintained after a one month follow-up period. Future researchers interested in the use of REBT can extend this positive outcome by using it on domains not hitherto utilized like in the area of governance to reduce the corrupt practices of some of our leaders.

Recommendations

On the bases of the above findings, the following recommendations were made.

1. Guidance counsellors should utilize REBT in counselling students with academic anxiety and other related anxiety disorders.
2. Counsellor educators should emphasize REBT and other related therapies in their training programmes for counsellors.
3. Teachers should refer students experiencing academic anxiety to counsellors to assist them reduce their anxiety in order to maximize their academic potential.

References

- Akay, R.L. & Boz, F. (2020). Self-control as a General Theory of crime. *Journal of Quantitative Criminology*. 9, 87-12
- Ali, E. N (2022). *Anxiety and Goal Orientation as correlates of Academic Self-Efficacy and School Adjustment among University Undergraduates in South-East, Nigeria*. Unpublished PhD Dissertation in Department of Psychology and Counselling, Michael Okpara University of Agriculture, Umudike.

- Amirfakhrae, I. A., & Alinaghizadeh, A. (2021). Epidemiology of mental disorders among adolescents in the city of Bandar Abbas, Iran, in *Life Sci J*; 9: 976-980.
- Beesdo, K, Knappe S, & Pine, D. S. (2019). Anxiety and anxiety disorders in children and adolescents: Developmental issues and implications for DSM-V. *Psychiatr Clin North Am*; 32: 483-524.
- Campbell, R. & Stevenson, G. (2012). Environmental stress. In Altman, I & Woohwill, J. F. (Eds). *Human Behaviour and Environment*. Plenum Press.
- Chaplin, T., Gillham, J., & Seligman, M. (2019). Gender, anxiety, and depressive symptoms. *J Early Adolescent* 29: 307-327.
- Craske, M. G. (2017). Origins of phobias and anxiety disorders: why more women than men? Amsterdam: Elsevier.
- David, D, Cotet, C., Matu, S., Moguase, C. & Stefan, S. (2017). 50 years of rational emotive and cognitive-behaviouraltherapy: a systematic review and meta-analysis. *J Clin psychol* Mar; 74(3): 304-318, doi:10.1002/jcp.22514
- Falaye, A. O. (2016). Adolescent health: A valued national asset. *Being a keynote paper presented at the 15th annual workshop of the public health nursing department, University College hospital, Ibadan.*
- Hughes, K., & Coplan, R. J. (2016). Exploring processes linking shyness and academic achievement in childhood. *School Psychology Quarterly*, 25:213-222.IL: Research Press.
- Killu, K. Marc, R. & Crundwell, A. (2016). Students with anxiety in the classroom: Educational accommodations and interventions. *Beyond Behaviour* 25 (2): 30- 40. <https://doi.org/10.1177/107429561602500205>
- King, A. M., Plateau, C. R., Turner, M. J, Young, P. & Barker, J. B. (2024). A systematic review of the nature and efficacy of rational emotive behaviour therapy interventions. *Plos One* Jul 9; 19(7); e 0306835.doi:io.1371/journal.pone.0306835

- Knapp, S., Miller, A., Outar, L. & Turner, M. (2023). Psychological well being and exercise addiction: the treatment effects of an REBT intervention for females. *Psychol Sports Exerc* Jan. 1; 64: 102298. Doi:10.1016/j.psychol.sport.2022.102298
- Kumar, G. V. (2019). Impact of rational emotive behaviour therapy (REBT) on adolescents with conduct disorder. *Journal of the Indian Academy of Applied Psychology*. 35 (6), 103-111.
- Obi, O. P. & Nicholas, I. J. (2020). Effect of rational emotive behaviour therapy on reduction of academic stress of undergraduate students in Rivers State, Nigeria. *Journal of the Nigerian Academy of Education*, 16(1), 293-303.
- Rudasill, K. M. (2014). Child temperament, teacher child interactions, and teacher-child relationships: A longitudinal investigation from first to third grade. *Early Childhood Research Quarterly*, 26:147–156.
- Steinberg, L. (2021). *Age of Opportunity: Lessons from the New Science of Adolescence*. Macmillan Publishers, New York. Pp. 1-12.
- Turner, M. J., Goldman, S. & Terjesen, M. (2023). Introduction to the special issue on application of rational emotive behaviour theory and practice to high-performance settings. *J Ration Emot Cogn Behav Ther*. 2023. Jun; 41(2): 247-250.
- Uroko, E. B., (2017). A Comparative analysis of psychometric properties of two Nigerian examination bodies for Senior Secondary Schools Mathematics. *Research Journal of Applied Sciences*, 2(8): 913-915.
- Uroko, J.E. (2018). Emotional intelligence as a correlate of in-school adolescents' academic adjustment in Nsukka Education Zone of Enugu State. *Journal of the Nigerian Society for Psychosocial Research*. 8 (1), 33-41.
- World Health Organization (WHO) (2018). Adolescent Health. Retrieved From <http://www.who.int/topics/adolescenthealth/en> retrieved 8/8/2025