

EFFICACY OF COGNITIVE BEHAVIOUR THERAPY ON EXCESSIVE TEST ANXIETY REDUCTION IN SECONDARY SCHOOLS IN PORT HARCOURT METROPOLIS OF RIVERS STATE, NIGERIA

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ABSTRACT

The study investigated the efficacy of cognitive behaviour therapy on excessive test anxiety reduction in secondary schools in Port Harcourt metropolis of Rivers State, Nigeria. Four research questions and four hypotheses guided the study. The study adopted a quasi non-equivalent group experimental design. The population of the study was all the 4,304 senior Secondary School (SSI) students in the 15 schools in Port Harcourt metropolis. The purposive sampling technique was used to draw four intact classes that recorded highest level of test anxiety in four sampled school out of the 15 schools in the area. Three schools formed the experimental groups of rational emotive therapy, confrontation and systematic desensitization while the fourth school served as a control group. An instrument titled Excessive Test Anxiety Scale was used to identify students with excessive test anxiety while Excessive Test Anxiety Reshuffled Scale was used for data collection. Face and content validities were ensured by experts in relevant areas while Cronbach alpha through the internal consistency method was used to compute the reliabilities coefficients of ETAS and ETARS to be 0.87 and 0.76. Mean and standard deviation were used to answer the research questions while paired sample t-test and Analysis of Covariance (ANCOVA) were used to test the null hypotheses at 0.05 Alpha level of significance. It was found that systematic desensitization was more effective in test anxiety reduction followed by confrontation and finally rational emotive therapy. It was recommended among others that teachers should initiate every unit of lesson from simple to complex in order to exterminate subject associated anxiety. Class activities should be properly monitored and directed by the teachers in order to boost students' confidence towards academic pursuit.

Keywords: Cognitive Behaviour Therapy and Test Anxiety Reduction.

INTRODUCTION

Anxiety is the normal quest for the achievement of set goals and objectives. It is a propelling force that makes one to strive in the accomplishment of task. An anxious person is very inquisitive to knowing. Anxiety is often provoked as a result of goal-oriented behaviour. When anxiety is full of perspiration, rapid heartbeat, tension, fear and panic, it becomes abnormal. An abnormal anxiety is synonymous to excessive anxiety. Excessive anxiety is often associated with lots of worries, restlessness and lack of concentration. Excessive anxiety may lead to lack

of physical, emotional and spiritual well-being. Students who suffer from excessive anxiety are most likely to be restless at the mention of class activity. The most frequently used class activity is test.

Test may be seen as a tool that is designed to measure specific attribute(s). A test can also be defined as an instrument that can be used to ascertain the extent of accomplishment of a task. It could also be an instrument to measure some identified skills in an individual or group of individuals. The quality of a test is ascertained in its ability to measure what it is supposed to measure. Academic test may be a designed set of items that measures students' achievement of performance. Onunkwo (2002), saw test as an instrument which can be utilized in detecting some qualities, traits, characteristics, attributes, etc, possessed by a person, an object, or a thing. Test can be teacher made or standardized. A teacher made test is a type of test that is designed by the subject teachers with the help of subject blue print while standardized test is a type of test that is designed and validated by a psychometrician. A test can take objective format, essay format or both. Objective format requires the students to choose the correct answer from several options that served as distracters. The essay format requires the students' ingenuity, comprehension and skills to present ideas in a logical manner. Onunkwo (2002) identified some functions of test to be instructional, guidance, administrative and research functions. The biasness in test administration can hamper the essence of the test. Because of all these enormous importance attached to test, most students become dreaded at the mention of test. Dreadfulness at the mention of a test is likened to test excessive anxiety.

Test anxiety is the quest and enthusiasm to take a test. Test anxiety is a normal motivational approach in achieving a good grade in test administration. Test excessive anxiety is the tension, fear, increased heartbeat that is manifest in an individual at the mention of test. Excessive test anxiety is as a result of the fear that is associated with failure. Excessive anxiety has link to psychology and social activities of an individual and therefore, requires psychological and social approaches for its reduction and as such cognitive behaviour therapy may be found to be appropriate in this regard. Cognitive behaviour therapy is a psychological and social help given to people to come out of their situation. Beck (2001) saw cognitive behaviour therapy as psycho-social intervention that is given to an individual. Cognitive restructuring techniques are the techniques that help the students to undermine negative thoughts about themselves by mere understanding of the cause of the scenario. Nwankwo (1995) stated that cognitive restructuring techniques (CRT) attempts to teach a client on how to reduce negative emotional reaction by getting him to interpret situations with accuracy. This study was pivoted on the efficacy of rational emotive therapy, confrontation and correction information techniques. Confrontation technique indicates a type of therapy that is used to confront a person on his or her behaviour, attitude and beliefs (Lipact, 2012). This type of technique is used on students who do not know about their unacceptable behaviour toward the test and examination. The researchers holds no reservations in making the students know their areas of weakness and strength. While confrontation solely depends on chiding the client, there is yet another technique that allows the therapist the opportunity to provide correct quantum of information to the client concerning his problem area arising from lack of or misinformation. The therapist is fully engaged in the provision of relevant, correct, useful, up to date and apt information to the client which can ameliorate or reduce the unacceptable behaviour patter of the client. Confrontation technique is mainly on cautioning the child immediately an abnormal behaviour is noticed. The practice is centered on straight forward correction of the students on that behaviour that leads to excessive test anxiety. Corrective information as a cognitive behaviour technique involves the use of apt, accurate and correct information on the causes of excessive anxiety due to lack of information. The research makes frantic efforts to divulge the reasons and cause of test

excessive anxiety among students and how they can be reduced. Some researchers have argued the efficacy of rational emotive therapy in the extinction of unwanted behaviours. Rational emotive behaviour therapy encompasses the use of sensitization or desensitization on irrational beliefs. These beliefs have the tendency to bring about excessive test anxiety among students.

Statement of the Problem

Anxiety as a psychological concept appears to be normal but abnormal when it becomes excessive. Students appear to record a high level of anxiety when it is time for test or examination. Most of them display this syndrome by developing instant sickness, absenting themselves from school and coming to class when the test or examination is over. It becomes worrisome that this underachievement drive extends to internal and external examinations with adverse consequence of poor academic achievement. Test anxiety has the ability to reduce the academic achievement of brilliant students. Since excessive test anxiety is a psychological construct, it requires psychological approach to reduce it. Therefore, the researchers want to ascertain the efficacy of cognitive behaviour therapy in the reduction of excessive test anxiety among secondary school students in Port Harcourt Local Government Area of Rivers State.

Aim and Objectives of the Study

The study was aimed at investigating the efficacy of cognitive behaviour therapy on excessive test anxiety reduction in secondary schools in Port Harcourt Metropolis of Rivers State, Nigeria. Specifically, the study sought to:

1. Determine the efficacy of cognitive restructuring technique of confrontation in the reduction of excessive test anxiety among secondary schools in Rivers State based on their pretest and posttest.
2. Ascertain the efficacy of cognitive restructuring technique of corrective information in the reduction of excessive test anxiety among secondary schools in Rivers State based on their pretest and posttest.
3. Find out the efficacy of cognitive restructuring technique of rational emotive therapy in the reduction of excessive test anxiety among secondary schools in Rivers State based on their pretest and posttest
4. Ascertain the difference in the cognitive restructuring techniques of confrontation, corrective information, rational emotive therapy and control based on their pretest and posttest

Research Questions

The following research questions were answered to guide the study:

1. What is the efficacy of confrontation technique in the reduction of excessive test anxiety in secondary schools in Rivers State based on their pretest and post-test?
2. What is the efficacy of corrective information in the reduction of excessive test anxiety in secondary schools in Rivers State in secondary schools in Rivers State based on their pretest and posttest?
3. What is the efficacy of rational emotive therapy in the reduction of excessive test anxiety in secondary schools in Rivers State in secondary schools in Rivers State based on their pretest and posttest?
4. What is efficacy of confrontation, corrective information, rational emotive therapy and control on excessive test anxiety reduction in secondary schools in Rivers State based on their pretest and posttest?

Hypotheses

The following null hypotheses were tested at 0.05 level of significance.

1. Confrontation technique does not have significant effect in the reduction of excessive test anxiety in secondary schools in Rivers State based on their pretest and post-test.
2. Corrective information does not have significant effect in the reduction of excessive test anxiety in secondary schools in Rivers State in secondary schools in Rivers State based on their pretest and posttest.
3. Rational emotive therapy does not have significant effect in the reduction of excessive test anxiety in secondary schools in Rivers State in secondary schools in Rivers State based on their pretest and posttest.
4. Confrontation, corrective information, rational emotive therapy and control group do not have significant effect in on excessive test anxiety reduction in secondary schools in Rivers State based on their pretest and posttest.

Methodology

The study adopted a quasi non-equivalent group experimental design. The symbols for the design are shown below in the experimental setting:

TH1	THXTH1	X1	THXTH2	THXTH3
TH2	THXTH1	X2	THXTH2	THXTH3
TH3	THXTH1	X3	THXTH2	THXTH3
C	THXTH1	-	THXTH2	THXTH3

Legends: TH1 TH2 TH3 = Treatment groups

C = Control group

THXTH1 = Pre-test

X1 = Confrontation technique

X2 = Corrective information technique

X3 = Rational emotive technique

- = No treatment phase

THXTH2 = Post-test

The groups (treatment groups) X1, X2, and X3 received treatments on confrontation, corrective information and rational emotive therapy while C (control group) received placebo which is not related in the reduction or addition of learned helplessness. The treatment took place for a period of four weeks. Each group was taught during their break periods to enable them have high level of concentration. Apart from the confrontation group, corrective information group and rational emotive therapy group, there was the control group. The control group was taught with placebo. The placebo means that the students were fed with information that was not pertained to anxiety. These set of students were asked to narrate their experiences in the school as it related to their association with the teachers and the host community. The population of the study was all the 4,304 senior Secondary School One (SSI) students in the 15 schools in Port Harcourt metropolis.

The purposive sampling technique was used to draw four intact classes that recorded highest level of test anxiety in four sampled school out of the 15 schools in the area making a sample size of 300 students (72 confrontational, 92 corrective information, 75 rational emotive therapy and 61 control groups). Three schools formed the experimental groups of rational emotive therapy, confrontation and systematic desensitization while the fourth school served as a control group. An instrument titled Excessive Test Anxiety Scale was used to identify students with excessive test anxiety while Excessive Test Anxiety Reshuffled Scale was used for data collection. Face and content validities were ensured by experts in relevant areas while Cronbach alpha through the internal consistency method was used to compute the reliabilities coefficients of ETAS and ETARS to be 0.87 and 0.76. Mean and standard deviation were used

to answer the research questions while paired sample t-test and Analysis of Covariance Variance (ANCOVA) were used to test the null hypotheses at 0.05 Alpha level of significance.

Results

Research Question 1: What is the efficacy of confrontation technique in the reduction of excessive test anxiety in secondary schools in Rivers State based on their pretest and post-test?

Table 1: mean and standard deviation scores on the efficacy of confrontation technique on excessive anxiety reduction

Confrontation group	n	Mean	Std	Mean reduction
Pretest score	72	54.92	9.18012	-14.85
Posttest score	72	40.07	9.72484	

Table 1 revealed that the pretest mean and standard deviation scores of students under confrontation technique were 54.92 and 9.18 while the posttest mean and standard deviation scores were 40.07 and 9.72 respectively. The mean reduction of -14.85 (40.07 – 54.92) showed that confrontation technique was able to reduce anxiety to a mean value of 14.85. The result indicates that confrontation technique can reduce anxiety from 54.92 to 40.07 among secondary school students in Rivers State, Nigeria.

Research Question 2: What is the efficacy of corrective information in the reduction of excessive test anxiety in secondary schools in Rivers State in secondary schools in Rivers State based on their pretest and posttest?

Table 2: mean and standard deviation scores on the efficacy of corrective information technique on excessive anxiety reduction

Corrective information	N	Mean	Std	Mean reduction
Pretest score	92	39.87	6.51	-17.22
Posttest score	92	21.65	3.46	

Table 2 revealed that the pretest mean and standard deviation scores of students under corrective information technique were 39.87 and 6.51 while the posttest mean and standard deviation scores were 21.65 and 3.46 respectively. The mean reduction of -17.22 (21.65 – 39.87) showed that corrective information technique was able to reduce anxiety to mean value of 17.22. The result indicates that corrective information technique can reduce anxiety from 39.87 to 21.65 among secondary school students in Rivers State, Nigeria.

Research Question 3: What is the efficacy of rational emotive therapy in the reduction of excessive test anxiety in secondary schools in Rivers State in secondary schools in Rivers State based on their pretest and posttest?

Table 3: mean and standard deviation scores on the efficacy of rational emotive therapy on excessive anxiety reduction

Rational emotive group	n	Mean	Std	Mean reduction
Pretest score	75	43.65	6.76	-30.18
Posttest score	75	13.47	3.23	

Table 3 revealed that the pretest mean and standard deviation scores of students under rational emotive therapy were 43.65 and 6.76 while the posttest mean and standard deviation scores were 13.47 and 3.23 respectively. The mean reduction of -30.18 (13.47 – 43.65) showed that rational emotive therapy was able to reduce anxiety to mean value of -30.18. The result indicates that corrective information technique can reduce anxiety from 43.65 to 13.47 among secondary school students in Rivers State, Nigeria.

Research question 4: What is efficacy of confrontation, corrective information, rational emotive therapy and control on excessive test anxiety reduction in secondary schools in Rivers State based on their pretest and posttest?

Table 4: Mean and standard deviation scores on the efficacy of confrontation technique, corrective information technique, rational emotive therapy and control on excessive anxiety reduction

Groups	N	Mean	Std. Deviation
corrective information	92	21.6522	3.45595
rational emotive therapy	75	13.4667	3.23132
confrontational technique	72	40.0694	9.72484
Control	61	40.9672	6.10455
Total	300		

Table 4 revealed that corrective information was able to reduce excessive test anxiety from pretest mean value of 54.92 to post test mean value of 40.07, rational emotive therapy was able to reduce excessive test anxiety from pretest mean value of 43.65 to post test mean value of 13.47, confrontation was able to reduce excessive test anxiety from pretest mean value of 39.87 to post test mean value of 21.65 and control group pretest mean value was 54.92 while the post test mean value was 50.07 respectively. This showed that confrontation technique was able to reduce excessive test anxiety by mean value of -14.85, rational emotive therapy by -30.18, corrective information by -17.22 and the control group by 4.85 respectively. By implication, rational emotive therapy was most effective in excessive anxiety reduction followed by corrective information, confrontation and the control without any form of treatment.

Hypothesis 1: Confrontation technique does not have significant effect in the reduction of excessive test anxiety in secondary schools in Rivers State based on their pretest and post-test.

Table 5: correlated sample t-test on the efficacy of confrontation technique on excessive anxiety reduction based on pretest and post test scores

Test anxiety	n	Mean	std	df	Paired t-test	t-crit.	Decision
Pretest score	72	54.92	9.18012				Rejected
Posttest score	72	40.07	9.72484	71	11.58	1.96	

Table 5 revealed that the degree of freedom for students in the confrontation group was 71 with correlated t-test value of 11.58 above the critical t-value of 1.96. Since the calculated t-test value of 11.58 is greater than the critical t-test value of 1.96, the hypothesis was rejected. By implication, confrontation technique has a significant effect in the reduction of excessive test anxiety in secondary schools in Rivers State based on their pretest and post-test.

Hypothesis 2: Corrective information does not have significant effect in the reduction of excessive test anxiety in secondary schools in Rivers State in secondary schools in Rivers State based on their pretest and posttest.

Table 6: correlated sample t-test on the efficacy of corrective information technique on excessive anxiety reduction based on pretest and post test scores

Corrective information	N	Mean	std	df	Correlated t-test	t-crit.	Decision
Pretest score	92	39.87	6.51				Hypothesis
Posttest score	92	21.65	3.46	91	22.07	1.96	rejected

Table 6 revealed that the degree of freedom for students in the confrontation group was 91 with correlated t-test value of 22.07 above the critical t-value of 1.96. Since the calculated t-test value of 22.07 is greater than the critical t-test value of 1.96, the hypothesis was rejected. By implication, corrective information has a significant effect in the reduction of excessive test anxiety in secondary schools in Rivers State based on their pretest and post-test.

Hypothesis 3: Rational emotive therapy does not have significant effect in the reduction of excessive test anxiety in secondary schools in Rivers State in secondary schools in Rivers State based on their pretest and posttest.

Table 7: correlated sample t-test on the efficacy of rational emotive therapy technique on excessive anxiety reduction based on pretest and post test scores

Corrective information	n	Mean	Std	df	Correlated t-test	t-crit.	Decision
Pretest score	92	39.87	6.51				
Posttest score	92	21.65	3.46	91	22.07	1.96	Hypothesis rejected

Table 7 revealed that the degree of freedom for students in the rational emotive therapy group was 91 with correlated t-test value of 22.07 above the critical t-value of 1.96. Since the calculated t-test value of 22.07 is greater than the critical t-test value of 1.96, the hypothesis was rejected. By implication, rational emotive therapy has a significant effect in the reduction of excessive test anxiety in secondary schools in Rivers State based on their pretest and post-test.

Hypothesis 4: Confrontation, corrective information, rational emotive therapy and control group do not have significant effect in on excessive test anxiety reduction in secondary schools in Rivers State based on their pretest and posttest.

Table 8: ANCOVA on the efficacy of cognitive behaviour therapy on excessive anxiety reduction

Tests of Between-Subjects Effects

Dependent Variable: posttest

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	41045.968 ^a	4	10261.492	300.987	.000	.803
Intercept	2706.090	1	2706.090	79.374	.000	.212
Pretest	752.745	1	752.745	22.079	.000	.070
Groups	26482.716	3	8827.572	258.928	.000	.725
Error	10057.378	295	34.093			
Total	285520.000	300				
Corrected Total	51103.347	299				

a. R Squared = .803 (Adjusted R Squared = .801)

Table 8 showed that the pretest have degree of freedom of 1 with F value of 22.079 which is significant at 0.000 when compared to 0.05 level significance. By implication, there is a significant difference in the pretest scores of the students. Moreso, the groups have degree of freedom of 4 and 3 with F value of 258.928 which is significant at 0.000 when subjected to level of significance of 0.05. By implication, the hypothesis is rejected. Therefore, Confrontation, corrective information, rational emotive therapy and control group differ significant on excessive test anxiety reduction in secondary schools in Rivers State based on their pretest and posttest.

DISCUSSION OF FINDINGS

The study revealed that confrontation technique was able to reduce excessive test anxiety by mean value of -14.85, rational emotive therapy by -30.18, corrective information by -17.22 and the control group by 4.85 respectively. By implication, rational emotive therapy was most effective in excessive anxiety reduction followed by corrective information, confrontation and the control without any form of treatment. The finding of this study is in line with that of Afam (2016) who found that the most effective technique in the reduction of unwanted and unwarranted behaviour is through the use of rational emotive therapy. In furtherance, Adeleke (2015) found that the use of rational emotive therapy helps to unlearn all learned abnormal behaviours. The finding of this study is not surprising to the researchers because constant exposure to difficult tasks and excessive academic activity will go a long way in getting the students prepared for tougher academic activities.

CONCLUSION

It was concluded that confrontation technique was able to reduce excessive test anxiety by mean value of -14.85, rational emotive therapy by -30.18, corrective information by -17.22 and the control group by 4.85 respectively. By implication, rational emotive therapy was most effective in excessive anxiety reduction followed by corrective information, confrontation and the control without any form of treatment.

RECOMMENDATIONS

1. Teachers should use rational emotive approach mostly in subjecting the students to continuous test taking in order to desensitize them of accumulated test anxiety.
2. It was recommended among others that teachers should initiate every unit of lesson from simple to complex in order to exterminate subject associated anxiety.
3. Class activities should be properly monitored and directed by the teachers in order to boost students' confidence towards academic pursuit.

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