The Effects of Counselling Coping Skills Therapy on Junior Secondary School Students' Test-Anxiety in Jema'a Local Government Area of Kaduna State, Nigeria

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ABSTRACT

The purpose of this study was to examine the effects of counselling coping skills therapy on junior secondary school students' test anxiety in Jema'a Local Government Area of Kaduna State, Nigeria. The study adopted a true experimental design. The population of the study consisted of 4885 junior secondary school students. The sample of the study consisted of 55 JS3 students identified with a high level of test anxiety using the test anxiety inventory (TAI). Participants were randomized into two groups: the experimental group and the control group. The Westside test-anxiety scale was administered to the participants before and after the experimental intervention. Three research questions and three hypotheses were formulated and tested at the 0.05 level of significance to guide the study. The reliability of the Westside testanxiety scale was estimated using the Cronbach alpha method, and a coefficient of 0.86 was obtained. The collected data was analyzed using the mean, standard deviation, and independent t-test. The result showed that counselling coping skills therapy was effective in helping students overcome physiological, cognitive, and behavioural test anxiety. Based on the findings, recommendations were made that students should be helped by counselors by organizing workshops and training on counseling coping skills therapy to curb high levels of text anxiety. Counselling and coping therapy should be introduced in all junior secondary schools in Kaduna State to serve as a model for students with high levels of test anxiety. Testanxiety should be discouraged, while confidence should be encouraged by the inclusion of counselling coping skills, and therapy principles in the school rules and regulations. Parents should also be sensitized during the P.T.A. meeting on counseling and coping skills therapy.

This is to support the efforts of the counsellor towards curbing students' test anxiety when they return home from school.

Keywords: Test anxiety, Counselling and coping therapy, Physiological, Cognitive, and Behavioural test anxiety

INTRODUCTION

Anxiety can be described as a feeling of fear, worry, and uneasiness that interferes with normal daily functioning, causing an individual to either avoid situations that might precipitate anxiety or There are several types of anxiety, such as social anxiety, separation anxiety, health anxiety, phobia, test anxiety, and generalized anxiety. Test anxiety is an unpleasant feeling of nervousness experienced by students before, during, and after tests and is characterized by apprehension, panic attacks, and ruminating thoughts of potential failure that are experienced during examinations. Test anxiety is a physiological condition in which learners experience extreme stress and a feeling of discomfort before, during, and after taking a test (Salend 2012). The condition can affect a learner's ability to function well in an academic environment; it brings about excessive distress before, during, and after taking a test. It can make students feel uneasy, disturbed, and distressed, which can actually be devastating and may result in impaired academic achievement. Test anxiety can be mild or severe; mild test anxiety is helpful in preparing students to face examinations and other life challenges, but severe test anxiety can interfere with students' ability to function. Indeed, there is a stirred-up state at the physiological level, causing over-arousal, tension, and somatic symptoms, and at the psychological level, causing poor attention and deterioration in perception and thought fluency. These can lead to worry, dread, fear of failure, and catastrophic experiences before or during test situations among students. Experiencing too much anxiety can result in emotional and physical distress, leading to difficulty concentrating and emotional worry.

Components of test anxiety are elements that students exhibit to show that they are anxious when taking tests. Components of test anxiety vary considerably and range from mild to severe; some students experience only a mild component and are still able to do fairly well on examination, while other students experience severe components of test anxiety that make them incapacitated, leading to poor test performance or even panic attacks before or during examination. Components of test anxiety include physiological arousal, cognitive, behavioral, and emotional components. Students get preoccupied with physiological arousal; for example, during a test, an individual may become so consumed with the thought of failing out of school and so focused on how fast the heart beats that they have no mental energy left to tackle the examination itself. Furthermore, test anxiety can be described as a type of distress that involves both physiological and psychological components (Mohamad, Alishashi, & Soleumani 2014). The physiological component of test-anxiety involves the typical bodily reactions of acute anxiety, such as butterflies in the stomach, sweating, and trembling hands, among others. The behavioral component of test anxiety includes difficulty concentrating, thinking negatively, comparing oneself with others, and procrastination. The emotional components of test anxiety include feelings of stress, fear, helplessness, negative thoughts (rumination about past or poor performance, consequences of failure, feeling inadequate), mind going blank, and racing thoughts, among others. However, Nolen and Hoeksema (2004) state that possible components of test anxiety include physiological, emotional, cognitive, and behavioural test anxiety. Physiological tests of anxiety are the physical signs that occur when individuals feel anxious or under display. The signs are always stronger and more apparent to the person exhibiting them; there can be more serious signs of physical illness such as diarrhea, vomiting, sweating, trembling, breathing rapidly, and difficulty controlling worry, among others. Emotional tests of anxiety include depression, anger, low self-esteem, and a feeling of helplessness, among others. Cognitive test-anxiety includes an inability to concentrate, skipping classes or even dropping out of school, avoiding situations that involve testing, and behavioural test-anxiety includes comparing one's self to others, a lack of confidence, restlessness, crying, and fidgeting, among others.

Causes of test anxiety include fear of failure, pressure to perform well in tests, focusing on the negative consequences of failing tests, past negative experiences with taking tests, perfectionism, examination performance related to self-esteem, competitiveness, and comparison with other students' scores, lack of preparation, inadequate time management, cramming before the examination, and lack of sleep, among others. Some factors that contribute to test anxiety in students include poor time management, lack of confidence, psychological distress, low previous grades, low self-esteem, and poor study habits, among others. Anyamene, Nwokolo, and Azuji (2016) state that test anxiety often leads to poor academic performance and has become unsatisfactory to students, counsellors, teachers, school administrators, and the larger society. Test anxiety plays an important role in school settings and may prevent some students from realizing their fullest academic potential. The experience is one of the most common problems among junior secondary school students; it can be intimidating to the point of affecting every aspect of human life in school or even after graduating, if not checked.

Counselling coping skills therapy is an intervention that can help individuals deal with anxiety by offering assistance, support, and information about the student's current condition and the steps they can take to manage the problem (Baum, 2013). The goal is to help students see that they will eventually return to normal functioning. This might involve helping students explore different coping skills by practicing them. This process is not just about teaching these coping skills to students but also about helping them make commitments to continue utilizing these skills in the future. Through this intervention as a practical tool, students can learn various tips and strategies across the coping skills activities to improve their abilities and academic achievement. Counselling and coping skills therapy help students deal with life's difficult challenges in a healthy and productive way and provide extra resources that can help students deal with the demands of test anxiety. The therapy increases resilience by helping students learn the proper way to handle negative emotions, panic attacks, and other difficult situations. It also helps students practice and rehearse a new behaviour such as learning how to cope successfully with a problem situation. Therefore, the researcher used coping skills such as physical exercise, relaxation techniques, and deep breathing strategies to help students overcome test anxiety.

AIM AND OBJECTIVES OF THE STUDY

The aim of this study is to investigate the effects of Counselling Coping Skills Therapy on JSS students' test-anxiety in Kaduna State. The specific objectives of the study were to:

- 1. ascertain the pretest and posttest physiological test-anxiety mean score of JSS Students in experimental and control groups.
- 2. find out the pretest and posttest cognitive test-anxiety mean score of JSS Student in the experimental and control groups,
- 3. determine the pretest and posttest behavioural test-anxiety mean score of JSS Student in the experimental and control groups.

RESEARCH QUESTIONS

The following research questions will guide the study:

- 1. What is the pretest and posttest physiological test-anxiety mean scores of JSS Students in the experimental and control group?
- 2. What is the pretest and posttest cognitive test-anxiety mean scores of JSS Students in the experimental and control group?
- 3. What is the pretest and posttest behavioural test-anxiety mean scores of JSS Students in the experimental and control group?

HYPOTHESES

The following hypotheses will be tested at 0.05 level of significance:

- 1. There is no significant difference in the posttest physiological test-anxiety mean scores of JSS students in the experimental and control groups.
- 2. There is no significant difference in the posttest cognitive test-anxiety mean scores of JSS students in the experimental and control groups.
- 3. There is no significant difference in the posttest behavioural test-anxiety mean scores of JSS students in the experimental and control groups.

METHODOLOGY

This study adopted a true experimental research design, specifically the pretest-posttest control group design. The design provides adequate and complete control for all sources of internal invalidity. The design of the study consists of two groups, experimental and control, drawn from the same population. The assignment of subjects to the two groups was done through randomization. The experimental group was exposed to treatment while the control group was not, after which the study compared the mean scores of the two groups. Okechukwu (2011) posits that the design involves periodic measurement of one group before and after treatment, which makes it possible to determine the effect of the treatment on the group. The population of the study was all the 4885 JSS students in Kafanchan Educational Zone, Kaduna State. The choice of the JSS year group was based on the fact that they exhibit the attribute of test anxiety. It is also intended to prepare them for better examination results. In addition, the JSS students are still young and have to choose subjects to get into the senior secondary school class. This exposes them to lots of social and emotional problems, such as test anxiety.

The sample of the study consisted of 51 students who exhibited the attribute of test anxiety and who scored 60 or above in the screening test. 30 students were randomly assigned to the experimental group and 21 to the control group. The Test-Anxiety Inventory (TAI) was used to screen the participants from the selected junior secondary schools within Kafanchan Educational Zone. The study adopted the Purposive Sampling Technique. Purposive sampling techniques are techniques in which specific elements satisfy some predetermined criteria selected at the discretion of the researcher in relation to the research objectives. The choice of purposive sampling was necessitated by the fact that only students with high levels of test anxiety participated in the study. Two instruments were adapted for the study, namely: the Test-Anxiety Inventory (TAI) by Spielberger (1980) was adapted for screening of students, while the Westside Test-Anxiety Scale (WTAS) was also adapted or modified for data collection.

The content validity of the Westside Test-Anxiety Scale was established using four experts each from the Guidance and Counseling Unit, the Psychology Unit, and Research Measurement and Evaluation, all from the Faculty of Education at the University of Jos. The comments and

observations made by the experts showed that the instruments were valid and adequate for the study. The reliability of the Westside Test-Anxiety Scale (WTAS) was established using Crobanch's alpha method, and the reliability was 0.86, which shows that the instrument was reliable. A descriptive and inferential statistical method was used for the analysis of the data for the study. The four research questions were answered using descriptive statistics of mean and standard deviation, while the four hypotheses formulated were tested at a 0.05 alpha level of significance, and the researcher employed a t-test for an independent sample. The rationale for the choice of t-test was based on the fact that pretest and posttest scores were collected from the same group. The independent t-test is appropriate for comparing the means of two or more sets of data from distinct groups.

The treatment lasted for eight weeks and took place separately in two classes. One classroom was comprised of the experimental group and was trained by the researcher and one research assistant, while the control group was engaged in another class learning English without treatment with one research assistant. The intervention ran for 40 minutes, three times a week during normal school hours. The first week was used for the screening and introduction of the program. The second week was used to discuss counselling on the awareness of test anxiety, causes, symptoms, and effects of test anxiety in the experimental group, while the control group learned adjectives, reading comprehension, and punctuation. The third week was used to discuss counselling on the need to use coping skills therapy, types of coping skills, and the importance of coping skills with the experimental group, while the control group discussed consonants /d/ and /z/, comprehension, and antonyms. The fourth week was used to discuss counselling on the use of physical exercise, types of exercise, the importance of exercise, guidelines for exercise, and field practice, while the control group discussed model verbs and auxiliary verbs, consonant /t/ and /f/, and reading for opinion. Week five was used to discuss counselling on the use of relaxation, types of relaxation, importance of relaxation, guidelines for relaxation, and practice of relaxation, while the control group discussed composition, reading, prefixes, and suffixes. Week six was used to discuss counselling on the use of deep breathing, types of deep breathing, the importance of deep breathing, guidelines for deep breathing, and the practice of deep breathing, while the control group discussed types of composition, words associated with peace education, and brainstorming. The seventh week was used to discuss counselling on the use of positive self-talk, the importance of positive selftalk, and the practice of positive self-talk, while the control group discussed the arrangement of words in logical sequence, consonant /f/ and /v/, and reading to analyze. The eighth week was used for practicing all four coping skills used in this study, while the control group discussed analyses of passage.

At the end of eight weeks of treatment, after the experimental group had been exposed to treatment and the control group had been taught English without treatment, the researcher and research assistants administered a posttest. The students completed the Westside Test-Anxiety Scale to find out whether there is any significant difference in the level of test-anxiety of students in the experimental and control groups. The posttest was conducted in two classrooms, comprising the experimental and control groups, on the same day. The test ran for 30 minutes to complete the Westside Test-Anxiety Scale, which was collected by the researcher and the research assistants. The questionnaire collected was scored by the researcher, who obtained test mean scores for both the experimental and control groups. The scores were also compared with the pretest mean scores for the respective groups. The pretest-posttest mean scores were compared, and there were differences in the mean scores that were attributed to the effect of the treatment.

RESULTS

Research Question one

What is the Pretest and Posttest physiological Test-anxiety Mean Scores of JSS Students in the Experimental and Control Groups in Kaduna State?

Table 1Results of the Analysis on Student's Pretest and Posttest Physiological Test-anxiety Mean Scores in the Experimental and Control Groups in Kaduna State.

Group	Test	N	$\frac{\overline{x}}{x}$	SD	Mean	\overline{x} dd
					loss/gain	
Experimental	Pretest	31	16.49	2.32		
	Posttest	31	11.29	3.24	-5.20	
Control	Pretest	21	16.42	2.31		-6.66
	Posttest	21	17.95	3.52	1.53	

The results of the analysis from Table 1 reveal that the experimental group had pretest mean scores of 16.49, SD = 2.32, and posttest mean scores of 11.29, SD = 3.24, with a mean loss of -5.20, while the control group had pretest mean scores of 16.42, SD = 2.31, and posttest mean scores of 17.95, SD = 3.52, with a mean gain of 1.53. The results indicate a mean difference of dd = 6.66 between the experimental and control groups. From the result, the psychological test anxiety of the experimental group improved more than that of the control group. Hence, counselling coping skills therapy improved JS3 physiological test anxiety more than the conventional method.

Research Question Two

What is the Pretest and Posttest Cognitive Test-anxiety Means Scores of JSS Students in the Experimental and Control Groups in Kaduna State?

Table 2The Results of the Pretest and Posttest Cognitive Test-anxiety Mean Scores of JSS Students in the Experimental and Control Groups

Group	Test	N	\overline{x}	SD	Mean loss/gain	\overline{x} dd
Experimental	Pretest	31	15.83	2.00		
	Posttest	31	10.54	3.11	-5.29	
Control	Pretest	21	16.00	2.34		-6.03
	Posttest	21	16.57	2.83	0.57	

The results of the analysis from Table 2 reveal that the experimental group had pretest mean scores of (15.83, SD = 2.00) and posttest mean scores of (10.54, SD = 3.11) with a mean loss of -5.29, while the control group had pretest mean scores of (16.00, SD = 2.34) and posttest mean scores of (16.57, SD = 2.83) with a mean loss of 0.57. The results indicate a mean difference of -6.03 between the experimental and control groups. The results showed that the cognitive test anxiety of the experimental group improved more than that of the control group. Hence, counselling coping skills therapy improves students' cognitive test anxiety.

Research Question three

What is the Pretest and Posttest Behavioural Test-anxiety Means Scores of JSS Students in the Experimental and Control Groups in Kaduna State?

Table 3Results of the Pretest and Posttest Behavioural Test-anxiety Means Scores of JSS Students in the Experimental and Control Groups

Group	Test	N	$\frac{-}{x}$	SD	Mean loss/gain	\bar{x} dd
Experimental	Pretest	31	15.22	1.02		
	Posttest	31	9.87	2.99	-5.35	
Control	Pretest	21	15.61	1.85		-7.27
	Posttest	21	17.14	4.01	1.53	

The results of the analysis from Table 3 reveal that the experimental group had pretest mean scores of (= 15.22, SD = 1.02) and posttest mean scores of (= 9.87, SD = 2.99) with a mean loss of -5.35, while the control group had pretest mean scores of (= 15.61, SD = 1.85) and posttest mean scores of (= 17.14, SD = 4.01) with a mean gain of 1.53. The results indicate a mean difference between the experimental and control groups of (= -7.27). The results indicate that the behavioural test anxiety of the experimental group improved more than that of the control group. Hence, counselling coping skills therapy improved the behavioural test anxiety of JSS students.

Hypothesis One

There is no significant difference in the posttest physiological test anxiety mean scores of JSS between the experimental and control groups in Kaduna State.

Table 4Results of t-test Analysis on Posttest Physiological Test-anxiety Mean Scores in the Experimental and Control Group in Kaduna State.

Group	N	$\frac{-}{x}$	SD	Df	t-test	P-value	Decision
Experimental	32	11.29	3.24				
				50	9.49	0.000	Significant
Control	21	17.95	3.52				

The results of the t-test analysis from table 4 reveal that the experimental group had a mean score of (= 11.29, SD = 3.24) while the control group had (= 17.95, SD = 3.52). The result indicated that t(50) = 9.49, P< 0.5 since the p-value of 0.000 is greater than the significant level of 0.05. Hence, it can be concluded that the null hypothesis fails to be accepted. This implies that there is a significant difference in the physiological mean scores between the experimental and control groups after exposure to two different treatments. Therefore, counseling coping skills therapy improves JS3 students' physiological test anxiety.

Hypothesis Two

There is no significant difference in the posttest cognitive test anxiety mean scores of JSS students in the experimental and control groups in Kaduna State.

Table 5Results of the t-test Analysis Posttest Cognitive Test-anxiety Mean Scores of JS3 Students in the Experimental and Control Groups in Kaduna State.

Group	N	$\frac{\overline{x}}{x}$	SD	Df	t-test	P-value	Decision.
Experimental	31	10.54	3.11				
				50	7.36	0.000	Significant
Control	21	16.57	2.83				

The results of the t-test analysis from table 7 showed that the experimental group had a mean score of (= 10.54, SD = 3.11) while the control group had a mean score of (= 16.57, SD = 2.83). The result shows t (50) = 7.36 (P< 0.05). The P-value of 0.000 is less than the significant level of 0.05. This implies that the null hypothesis fails to be retained. Hence, there is a significant difference in the posttest cognitive test-anxiety mean scores of the experimental and control groups. This therefore means that counselling coping skills therapy improves students' cognitive test anxiety.

Hypothesis Three

There is no Significant Difference in The Posttest Behavioural Means Scores of JSS Students between the Experimental and Control Group

Table 6Result of the t-test Analysis on Posttest Behavioural Means Scores of JSS Students in the Experimental and Control Groups in Kaduna State.

Group	N	$\frac{-}{x}$	SD	Df	t-test	P-value	Decision.
Experimental	31	9.87	2.99				_
				50	6.62	0.000	Significance
Control	21	17.14	4.01				_

The results of the t-test analysis from table 8 reveal that the experimental group had a mean score of (= 9.87, SD = 2.99), while the control group had (= 17.14, SD = 4.01). The result shows a t (50) = 6.62 < 0.05. The p-value of 0.0000 is greater than 0.05. This implies that the null hypothesis fails to be retained. Therefore, there is a significant difference in the posttest behavioural test anxiety mean scores between the experimental and control groups. This implies that counselling and coping skills therapy improve students' behavioural test anxiety.

DISCUSSION

The findings on whether counselling coping skills therapy improved JSS students' test anxiety indicated that the counselling coping skills therapy reduced students' test anxiety in the experimental group compared to the control group. The findings are consistent with those of Hassan, Jamileh, and Bahraim (2017), who found that the level of test anxiety in the intervention group was lower than that of the control group. At the end of the semester, the performance of students in the intervention group was higher than that of the control group, and active attendance in class could lead to a lower level of anxiety and better performance. This consistency of the present findings with previous ones could be traced to the efficacy of the intervention on counselling coping skills therapy. The skills acquired were used by the

students which helped reduce their test anxiety level. In a different finding, Johnson, Larson, Conni, Este, and Ghibelini (2009) discovered a significant decrease in mean anxiety score due to relaxation training, which is one of the coping skills in the present study. The agreement in view of the previous findings with the present findings could be due to effective intervention and an appropriate measuring instrument to ascertain student involvement in counselling coping skills therapy.

The findings of Hypothesis 1 showed that JSS students in the experimental group experienced a drastic reduction in physiological test anxiety compared to those in the control group. This means that the counseling coping skills therapy has significantly enhanced confidence and improved students' coping skills strategies, as shown in their post-test mean scores. Thus, the finding is in consonance with the finding of Nelson and Knight (2010), who found a significant decrease in the post-test mean store of test anxiety in the experimental group. Supporting this view was also the finding by Erguner and Akkok (2004), which revealed that those who were exposed to coping skills training programs on coping skills, hopelessness, and stress level indicated positive effects of the program compared to the lower-risk participants that partake in the same programme. This may be due to the effectiveness of the coping skill training programme. The findings of Hypothesis 2 revealed that the participants in the experimental group showed a significant and overwhelming difference in cognitive test anxiety compared to the participants in the control group. This showed the effectiveness of the treatment strategies, whereby the experimental group was exposed to treatment while those in the control group were not given any treatment. This finding collaborates with that of David, Mohamad, and Masoud (2011), who found that the effectiveness of coping strategy training improves cognitive aspects of test anxiety. This implies that students in the experimental group gained from the cognitive and coping strategies training, which helps students reduce cognitive test anxiety. In a similar view, Akinsola and Nwajei (2013) also established that relaxation and cognitive restructuring techniques help in the management of cognitive test anxiety. They also state that a combination of relaxation and cognitive restructuring treatment reduces anxiety and depression and that the effectiveness and efficacy of cognitive therapy in managing anxiety and depression improve academic performance. This agreement in the views of the previous study with the present study is likely because both used treatment therapies that helped reduce students' cognitive test anxiety.

The finding of hypothesis 3 revealed that there is a significant difference in the behavioural test anxiety mean score between the experimental and control groups. This implies that counselling coping skills therapy helped students in the experimental group reduce behavioural test anxiety more than those in the control group. Jibrin (2017) is in agreement with the above finding, as this researcher identified that the treatment group was found to be significantly different from the control group. This indicated that there is positive attitudinal and behavioural change towards test anxiety.

CONCLUSION

The study has shown that counseling and coping skills therapy have a significant effect on the test anxiety of JSS students in Kafanchan Educational Zone, Kaduna State. On the other hand, the therapy improves the physiological, cognitive, and behavioural test anxiety of students in the study area. Coping skills such as physical exercise, relaxation techniques, deep breathing, and positive self-talk help students reduce the effects of stress and anxiety. Therefore, stakeholders in education in Kafanchan Educational Zone, Kaduna State, should embark on counseling coping skills therapy, which will help students overcome test anxiety and achieve their goals in education.

RECOMMENDATIONS

Base on the findings of this study the following were recommended:

- 1. Counseling and coping skills therapy should be introduced in all junior secondary schools in Kaduna State to serve as a model for students with high levels of test anxiety.
- 2. There was a positive change in students' test-anxiety level as a result of the gains made from exposure to counselling coping skills therapy. As such, the counselling coping skills therapy should be given to all JS3 students in Kaduna State. This will help students manage the effects of test anxiety.
- 3. Students should be helped by counsellors by organizing workshops and training on counselling coping skills therapy to curb the high level of test anxiety in students.
- 4. Test-anxiety should be discouraged and confidence should be encouraged by the inclusion of counselling coping skills therapy principles in the school rules and regulations for students.
- 5. School counsellors should sensitize parents during the Parents' Teachers Association (PTA) meeting on counselling coping skills therapy. This is to support the efforts of counsellors towards curbing students' test anxiety when they return home from school.

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