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Effect of Solution-Focused Brief Technique on Test Anxiety among Secondary School Students in Edo State, Nigeria

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Abstract: This study investigated the effects of Solution-Focused Brief Technique (SFBT) on test anxiety among secondary school students in Edo State, Nigeria. Two research questions and two hypotheses guided the study. The study adopted a non-randomized pre-test, post-test control group quasi-experimental research design. The population comprised 1,860 Senior Secondary School Two (SS2) students identified with significant test anxiety in public secondary schools in Edo State. A purposive sample of 112 students drawn from three public secondary schools with a high prevalence of test anxiety participated in the study. The instrument used for data collection was the Test Anxiety Inventory (TAI) developed by Spielberger (1980). The instrument possesses satisfactory psychometric properties and has been validated for use among Nigerian students. Participants in the experimental group received Solution-Focused Brief Technique, while those in the control group received conventional school counselling. The intervention lasted for eight weeks, with two one-hour sessions per week. Data were analyzed using mean and standard deviation to answer the research questions, while Analysis of Covariance (ANCOVA) was used to test the hypotheses at the 0.05 level of significance. The findings revealed that Solution-Focused Brief Technique significantly reduced test anxiety among secondary school students compared with conventional counselling. The study concluded that Solution-Focused Brief Technique is an effective, strengths-based, and school-friendly counselling intervention for reducing test anxiety among secondary school students. It was therefore recommended, among others, that school counsellors should adopt Solution-Focused Brief Technique as a regular intervention for managing test anxiety.

Keywords: Solution-Focused Brief Technique, test anxiety, secondary school students, counselling intervention, gender, Edo State.

INTRODUCTION

Education remains one of the most important instruments for individual and national development because it equips learners with the knowledge, skills, attitudes, and competencies required for meaningful participation in society. The achievement of educational objectives depends not only on effective teaching and learning but also on appropriate assessment practices that evaluate the extent to which learners have attained the intended learning outcomes. Consequently, tests and examinations occupy a central position in educational systems worldwide because they provide objective evidence of students' academic achievement; determine promotion from one class to another, influence admission into higher institutions, and shape future career opportunities. While testing is intended to promote accountability, educational quality, and academic excellence, it has increasingly become a major source of psychological distress among students. Many secondary school students perceive examinations as threatening experiences rather than opportunities to demonstrate

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learning, resulting in heightened emotional tension, fear of failure, and anxiety before and during examinations (von der Embse & Witmer, 2014; Gerwing et al., 2015). As educational competition continues to increase, the incidence of test anxiety among adolescents has become a significant concern for educators, psychologists, school counsellors, and parents.

A test is a systematic and standardized instrument used to measure an individual's knowledge, skills, abilities, attitudes, or achievement in relation to predetermined objectives. It provides objective information regarding students' level of learning and serves as an important basis for educational decision-making. Through classroom tests, continuous assessment exercises, mock examinations, and external examinations, teachers evaluate instructional effectiveness and students' mastery of curricular content. In Nigeria, tests have become indispensable because academic progression, certification, placement into tertiary institutions, scholarship opportunities, and career advancement depend largely on students' examination performance (Phan, 2017; Torrano et al., 2020). Consequently, students often attach considerable importance to test outcomes, making examinations emotionally significant events that may evoke varying levels of psychological reactions. Although tests are essential components of the educational process, they frequently expose students to stressful situations requiring them to perform under time constraints and evaluative pressure. The anticipation of success or failure, parental expectations, competition among peers, and fear of negative evaluation often transform ordinary examinations into psychologically threatening experiences. Such situations naturally give rise to anxiety, especially when students doubt their academic competence or perceive examination outcomes as determining their future aspirations.

Anxiety is generally understood as an unpleasant emotional state characterized by apprehension, excessive worry, fear, nervousness, tension, uncertainty, and physiological arousal in anticipation of perceived danger or threatening situations. Beck (1964) argued that anxiety develops largely from maladaptive patterns of thinking in which individuals overestimate potential threats while underestimating their ability to cope successfully with challenging situations. Similarly, Dobson (2009) described anxiety as a multidimensional psychological condition involving cognitive, emotional, behavioural, and physiological reactions that interfere with normal functioning when excessive or persistent. Beck and Weishaar (2014) further explained that anxious individuals frequently engage in distorted thinking, catastrophic interpretations, and negative self-appraisal, which reinforce emotional distress and maladaptive behaviour. According to Nakao et al. (2021), anxiety becomes problematic when persistent cognitive worry and emotional arousal impair daily functioning and reduce individuals' capacity to cope effectively with environmental demands.

Moderate anxiety may serve adaptive functions by motivating individuals to prepare adequately for challenging situations. However, excessive anxiety often becomes maladaptive because it interferes with concentration, reasoning, memory retrieval, decision-making, problem-solving ability, emotional regulation, and social functioning (Hofmann et al., 2012). Persistent anxiety among adolescents has also been associated with depression, reduced self-esteem, poor classroom participation, avoidance behaviour, low academic achievement, and impaired psychosocial adjustment (Werner-Seidler et al., 2017; Sarkar et al., 2021; De Silva et al., 2024). Consequently, anxiety has become one of the most widely studied psychological problems among school-aged children and adolescents.

One important manifestation of anxiety within educational settings is test anxiety. Gerwing et al. (2015) defined test anxiety as a combination of excessive worry, emotionality, physiological arousal, and cognitive interference experienced before or during evaluative situations, which adversely affects academic performance. Similarly, Torrano et al. (2020)

defined test anxiety as a multidimensional construct consisting of cognitive worry, emotional tension, physiological activation, and behavioural responses that emerge in examination situations and significantly interfere with students' academic functioning. Phan (2017) also viewed test anxiety as an emotional response arising from students' perception that examinations constitute threats to their academic success and future aspirations. Within the context of this study, test anxiety refers to the persistent feelings of worry, fear, nervousness, emotional tension, physiological arousal, and negative thoughts experienced by secondary school students before or during examinations to the extent that these reactions interfere with concentration, confidence, memory retrieval, and academic performance. This definition recognizes that test anxiety extends beyond ordinary examination nervousness and constitutes a psychological condition requiring professional attention whenever it significantly impairs students' educational functioning.

Test anxiety has become one of the most prevalent psychological challenges confronting secondary school students globally because adolescence represents a developmental stage characterized by rapid biological, emotional, cognitive, and social changes. During this period, students are exposed to increasing academic demands, continuous assessments, terminal examinations, and external examinations that determine their educational progression. Consequently, many students experience fear of failure, excessive self-doubt, perfectionistic expectations, negative self-talk, and physiological symptoms such as sweating, trembling, increased heartbeat, stomach discomfort, headaches, and sleep disturbances before examinations (von der Embse & Witmer, 2014; Torrano et al., 2020). These symptoms often impair attention, concentration, information processing, and memory retrieval during examinations, thereby preventing students from demonstrating their actual academic abilities.

Research evidence suggests that test anxiety continues to affect students across different educational contexts. Weems et al. (2015) reported that untreated test anxiety negatively influences students' emotional well-being, classroom participation, and examination performance. Similarly, Werner-Seidler et al. (2017) observed that anxiety disorders among adolescents contribute significantly to poor educational outcomes and emphasized the importance of school-based psychological intervention programmes. Omoyemiju (2023) equally reported that demographic variables contribute to variations in students' experiences of test anxiety, suggesting that psychological interventions should consider individual differences among learners.

In Nigeria, the prevalence of test anxiety among secondary school students has equally attracted considerable scholarly attention. Nwankwo et al. (2014) reported that many adolescents experience significant examination anxiety that requires professional counselling intervention. Azuji et al. (2015) demonstrated that systematic desensitization significantly reduced test anxiety among secondary school students in Anambra State. Likewise, Anyamene et al. (2016) established that self-management technique effectively reduced students' examination anxiety, while Nwokolo et al. (2017) found meditation technique useful in improving students' emotional stability during examinations. Furthermore, Anyamene et al. (2019) revealed that self-instruction technique significantly reduced test anxiety among secondary school students, whereas Anyamene and Udeagha (2025) confirmed the effectiveness of cognitive restructuring in managing examination anxiety. Collectively, these findings indicate that test anxiety remains a persistent psychological problem among Nigerian secondary school students despite the availability of various counselling interventions.

The problem appears particularly relevant in Edo State, where secondary school students continue to experience considerable academic pressure arising from internal

examinations, promotion examinations, and external examinations such as the West African Senior School Certificate Examination (WASSCE) and the National Examination Council (NECO) examinations. Adeyemingosi and Osenweugwor (2024) reported a significant relationship between emotional intelligence and test anxiety among secondary school students in Edo State, indicating that examination anxiety remains a major educational and psychological concern within the state. Students experiencing test anxiety often demonstrate poor concentration, avoidance of examinations, emotional instability, reduced academic confidence, low classroom participation, and underachievement despite possessing adequate intellectual ability. Such outcomes not only affect students' academic success but may also reduce their self-esteem, motivation, educational aspirations, and overall psychological well-being.

Several factors may account for the persistence of test anxiety among secondary school students in Edo State. These include excessive parental expectations, fear of disappointing significant others, competitive academic environments, poor study habits, inadequate examination preparation, negative self-perception, societal emphasis on academic success, and limited utilization of professional counselling services (Okoye, 2024; Omoyemiju, 2023). In addition, Awa et al. (2022) observed that cultural beliefs and misconceptions regarding mental health frequently discourage adolescents from seeking psychological help, thereby allowing anxiety-related problems to persist untreated. Consequently, many students continue to struggle silently with examination-related emotional distress that negatively influences both their academic performance and psychosocial adjustment.

The persistent nature of test anxiety therefore highlights the need for effective psychological intervention strategies capable of helping students develop healthier emotional responses toward examinations. Psychological treatment techniques have increasingly become important components of school counselling because they assist students in modifying maladaptive thoughts, emotions, and behaviours associated with anxiety. According to Hofmann et al. (2012), cognitive-behavioural interventions remain among the most empirically supported approaches for managing anxiety disorders because they effectively address dysfunctional thinking and maladaptive behavioural responses. Similarly, Nakao et al. (2021) emphasized that contemporary psychological interventions successfully reduce anxiety through cognitive restructuring, behavioural modification, emotional regulation, and adaptive coping strategies. Recent studies such as De Silva, et al. (2024) and Bergvall, et al., (2024) have equally demonstrated the effectiveness of school-based psychological interventions in improving adolescents' emotional well-being and academic functioning.

Among the various psychological intervention approaches available, Solution-Focused Brief Technique (SFBT) has attracted increasing attention because of its strengths-based, collaborative, goal-oriented, and time-efficient nature. Unlike traditional problem-focused approaches that emphasize pathology and the causes of difficulties, Solution-Focused Brief Technique encourages individuals to identify their strengths, previous successes, personal resources, and preferred future as foundations for positive behavioural change (Macdonald, 2011). Bond et al. (2013) described Solution-Focused Brief Therapy as a collaborative counselling approach that focuses on clients' strengths, competencies, and achievable goals rather than analysing the origins of their problems.

Similarly, Neipp and Beyebach (2022) defined Solution-Focused Brief Therapy as an evidence-based intervention that facilitates positive change by helping clients construct practical solutions through purposeful conversations centred on strengths, exceptions, and future possibilities. Within the context of this study, Solution-Focused Brief Technique refers to a structured counselling intervention that assists secondary school students experiencing test anxiety to identify their existing strengths, previous successful examination experiences,

coping resources, and achievable behavioural goals in order to reduce anxiety and improve academic confidence during examinations. Rather than concentrating on students' weaknesses or past failures, the technique emphasizes solutions, resilience, self-efficacy, and positive behavioural change.

Solution-Focused Brief Technique is considered a behaviour modification technique because it promotes desirable behavioural changes by encouraging individuals to replace maladaptive patterns of thinking and behaviour with constructive coping strategies. Through questioning techniques such as the miracle question, scaling questions, exception questions, coping questions, and goal-setting activities, students become more aware of their strengths and are encouraged to adopt adaptive behaviours that reduce anxiety and improve examination confidence (Macdonald, 2011; Bilgin, 2020). The technique is particularly attractive within school settings because it is brief, cost-effective, collaborative, culturally adaptable, and focuses on measurable behavioural outcomes rather than lengthy exploration of psychological problems.

Empirical evidence supports the effectiveness of Solution-Focused Brief Technique in reducing anxiety-related conditions across different populations. Park (2014), Schmit et al. (2016), Zhang et al. (2018), Javid et al. (2019), Eads and Lee (2019), Bilgin (2020), Neipp and Beyebach (2022), and Vermeulen-Oskam et al. (2024) all reported significant positive outcomes of Solution-Focused Brief Therapy in improving psychological well-being and reducing emotional distress. Specifically regarding examination anxiety, Egbochuku and Igbineweka (2014) found that Solution-Focused Brief Therapy significantly reduced test anxiety among students in private tertiary institutions in Edo State. Likewise, Aihie and Igbineweka (2018) established that Solution-Focused Brief Therapy effectively reduced test anxiety among Nigerian undergraduates, while Altundag and Bulut (2019) reported similar findings among students outside Nigeria. Muhammed (2018) also demonstrated that Solution-Focused Brief Counselling effectively reduced occupational stress among female workers, further supporting its applicability in managing anxiety-related conditions.

Despite these encouraging findings, little empirical attention has been directed toward determining the effectiveness of Solution-Focused Brief Technique specifically among secondary school students in Edo State. Most available Nigerian studies have focused on university students (Aihie & Igbineweka, 2018), tertiary institutions (Egbochuku & Igbineweka, 2014), occupational stress (Muhammed, 2018), or have investigated alternative counselling approaches such as systematic desensitization, self-management, meditation, self-instruction, and cognitive restructuring (Azuji et al., 2015; Anyamene et al., 2016; Nwokolo et al., 2017; Anyamene et al., 2019; Anyamene & Udeagha, 2025). Consequently, there remains inadequate empirical evidence regarding whether Solution-Focused Brief Technique produces comparable therapeutic outcomes among adolescents attending secondary schools in Edo State.

Another issue requiring investigation concerns gender. Gender differences in emotional expression, coping strategies, socialization patterns, and help-seeking behaviour may influence both the experience of test anxiety and students' responsiveness to counselling interventions. Some researchers have suggested that female students often report higher levels of examination anxiety because of greater emotional sensitivity and perceived academic pressure, whereas males may exhibit different coping mechanisms (Torrano et al., 2020; Omoyemiju, 2023). Similarly, Eze and Okonkwo (2023) as well as Olanrewaju and Okorie (2022) emphasized the importance of examining gender when evaluating counselling interventions among secondary school students. Nevertheless, findings across previous studies remain inconsistent, and there is limited evidence indicating whether male and female

secondary school students in Edo State respond differently to Solution-Focused Brief Technique. This uncertainty justifies the inclusion of gender as a moderating variable in the present study.

The foregoing review reveals important gaps in knowledge and literature. Although numerous studies have investigated test anxiety and several counselling interventions, relatively few have examined the effect of Solution-Focused Brief Technique on test anxiety among secondary school students, particularly within Edo State. Existing Nigerian studies have largely concentrated on tertiary institutions, different populations, or alternative therapeutic approaches, while studies conducted outside Nigeria may not adequately reflect the sociocultural and educational realities of Nigerian secondary schools. Furthermore, inadequate attention has been devoted to determining whether the effectiveness of Solution-Focused Brief Technique differs according to students' gender. These gaps limit the availability of evidence-based counselling strategies specifically suited to secondary school students in Edo State.

The present study therefore becomes necessary because persistent test anxiety continues to undermine students' emotional well-being, examination performance, academic confidence, and educational aspirations. Establishing the effectiveness of Solution-Focused Brief Technique will provide empirical evidence capable of assisting school counsellors, educational psychologists, teachers, parents, school administrators, and policymakers in adopting an evidence-based intervention for reducing test anxiety among secondary school students. Moreover, by examining possible gender differences in treatment outcomes, the study will contribute to the growing body of literature on school-based psychological interventions and provide practical guidance for designing counselling programmes that are responsive to the diverse emotional needs of male and female secondary school students in Edo State, Nigeria.

Purpose of the Study

The purpose of the study was to examine the effect of solution-focused brief technique on test anxiety among secondary school students in Edo State, Nigeria. Specifically, the study achieved the following:

1. examine the effect of solution-focused brief techniques on test anxiety among secondary school students in Edo State, Nigeria.
2. determine the effectiveness of solution-focused brief techniques on test anxiety among male and female secondary school students in Edo State, Nigeria.

Research Questions

The following research questions guided the study:

1. What is the effect of Solution-Focused Brief Technique on test anxiety among secondary school students in Edo State?
2. What are the differences in the effects of Solution-Focused Brief Technique on test anxiety among male and female secondary school students in Edo State?

Hypotheses

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

1. There is no significant difference in the effect of Solution-Focused Brief Technique on test anxiety among secondary school students in Edo State, Nigeria.
2. There is no significant difference in the effects of Solution-Focused Brief Technique on test anxiety among male and female secondary school students in Edo State, Nigeria.

THEORETICAL FRAMEWORK

Solution-Focused Brief Therapy (SFBT)

Solution-Focused Brief Therapy (SFBT), developed by Steve de Shazer, Insoo Kim Berg, and colleagues, is the theoretical framework underpinning this study. SFBT is a goal-oriented, strengths-based, and future-focused therapeutic approach that emphasizes solutions rather than problems, based on the assumption that individuals possess the resources necessary for positive change (de Shazer & Berg, 1997). The approach employs techniques such as the miracle question, scaling questions, exception-seeking questions, and coping questions to help clients identify strengths, set achievable goals, and develop effective coping strategies. Its relevance to this study lies in its capacity to reduce test anxiety by enhancing students' self-efficacy, resilience, adaptive thinking, and confidence. The brief and collaborative nature of SFBT also makes it particularly suitable for school-based counselling interventions among secondary school students in Edo State, Nigeria.

METHODOLOGY

Research Design

This study adopted a non-randomized pre-test, post-test control group quasi-experimental design to examine the effectiveness of Solution-Focused Brief Technique (SFBT) in reducing test anxiety among secondary school students in Edo State, Nigeria. The design was considered appropriate because it enabled the researcher to compare the effects of the intervention on participants in the experimental group with those in the control group while controlling for pre-existing differences in test anxiety. Pre-test and post-test assessments provided measures of changes in participants' anxiety levels following the intervention, thereby facilitating the determination of the treatment effect attributable to Solution-Focused Brief Technique.

Study Setting and Participants

The study was conducted in selected public secondary schools in Edo State, Nigeria. The target population comprised 1,860 Senior Secondary School Two (SS2) students identified as exhibiting significant levels of test anxiety using the Test Anxiety Inventory (TAI). Senior Secondary School Two students were considered appropriate for the study because they regularly participate in internal and external examinations and are therefore more likely to experience examination-related anxiety. A purposive sampling technique was employed to select 112 students from three public secondary schools with the highest prevalence of test anxiety. The selected participants met the established inclusion criteria for significant test anxiety and voluntarily consented to participate in the study. The participants were subsequently assigned to an experimental group, which received Solution-Focused Brief Technique (SFBT), and a control group, which received the conventional school counselling services routinely provided in their respective schools.

Instrumentation

The data were collected using the Test Anxiety Inventory (TAI) developed by Spielberger (1980). The TAI is a standardized 20-item self-report instrument designed to assess two major dimensions of test anxiety: worry (cognitive concerns) and emotionality (physiological and affective reactions) associated with examination situations. Responses were obtained using the prescribed Likert-type response format, with higher scores indicating higher levels of test anxiety. The instrument has demonstrated satisfactory psychometric properties across diverse populations. Previous studies have reported acceptable levels of reliability and validity, and the instrument has also been validated for use among Nigerian student populations. The Test Anxiety Inventory was administered to participants before the

commencement of the intervention (pre-test) and immediately after the completion of the intervention (post-test) to determine changes in their levels of test anxiety.

Intervention Procedure

The intervention was implemented over a period of eight weeks, during which participants attended two one-hour counselling sessions per week, resulting in a total of 16 treatment sessions. Participants assigned to the experimental group received Solution-Focused Brief Technique (SFBT), which focused on helping students identify their strengths, set achievable goals, recognize previous successes, develop solution-oriented thinking, and adopt effective coping strategies for managing examination-related anxiety. Counselling sessions incorporated core SFBT techniques, including the miracle question, scaling questions, exception questions, coping questions, and goal-setting activities. Participants in the control group received the conventional counselling services normally available in their schools throughout the study period. To ensure consistency in treatment implementation, intervention fidelity was maintained through the use of standardized treatment manuals, adequate training of research assistants, regular supervision of counselling sessions, and adherence to uniform intervention procedures across the participating schools.

Control of Extraneous Variables

Several measures were adopted to minimize the influence of extraneous variables and enhance the internal validity of the study. Baseline equivalence between the experimental and control groups were established through pre-test assessment, while pre-test scores were statistically controlled during data analysis. The Hawthorne effect was minimized by ensuring that participants were unaware of the specific treatment expectations and by providing both groups with counselling activities throughout the study period. Interaction between participants in the experimental and control groups was minimized by scheduling treatment sessions separately and conducting interventions in different locations where necessary. Furthermore, researcher bias was reduced through the use of standardized treatment manuals, trained research assistants, uniform intervention procedures, and consistent administration of the research instrument.

Data Analysis

The data collected were analyzed using the Statistical Package for the Social Sciences (SPSS), Version 23. Descriptive statistics, including means and standard deviations, were used to answer the research questions by describing participants' levels of test anxiety before and after the intervention. The hypotheses were tested using Analysis of Covariance (ANCOVA) at the 0.05 level of significance, with participants' pre-test scores entered as covariates to control for initial differences between the treatment groups. The use of ANCOVA improved the precision of the treatment effect estimates by adjusting the post-test scores for baseline variations in test anxiety.

RESULTS

Research Question 1

What is the effect of Solution-Focused Brief technique on test anxiety of secondary school students in Edo State, Nigeria?

Table 1: Pretest and Posttest Test Anxiety Mean Scores of Secondary School Students (Norm = 34.77)

Source of Variation	N	Pretest Mean	Posttest Mean	Mean Loss	Remark
Solution-Focused Brief Technique	33	67.79	31.64	36.15	Effective
Conventional Counselling Technique	39	66.87	50.49	16.38	

The data in Table 1 shows that the secondary students treated with Solution-Focused Brief technique had pretest mean score of 67.79 and posttest mean score of 31.64 with lost mean 36.15 in their test anxiety, while those treated with conventional counselling had pretest mean score of 66.87 and posttest mean score of 50.49 with lost mean 16.38. With posttest mean scores of 36.15 which is greater than the norm of 34.77, Solution-Focused Brief technique is not effective in reducing test anxiety among secondary school students in Edo State, Nigeria.

Hypothesis 1

There is no significant difference in the effect of Solution-Focused Brief technique on test anxiety among secondary school students in Edo State, Nigeria.

Table 2: Analysis of Covariance (ANCOVA) on the Effect of Solution-Focused Brief Technique on the Test Anxiety of Students

Source of Variation	Sum of Squares (SS)	df	Mean Square (MS)	F	p-value	Decision (α = 0.05)
Corrected Model	6383.685	2	3191.843	97.121	0.000	
Intercept	807.883	1	807.883	24.582	0.000	
Pre-test (Test_Anxiety1)	31.746	1	31.746	0.966	0.329	
Treatment Models	6193.265	1	6193.265	188.450	0.000	Significant
Error	2267.634	69	32.864			
Total	134737.000	72				
Corrected Total	8651.319	71				

Table 2 indicates that at 0.05 level of significance, 1df numerator and 71df denominator, the calculated F 188.45 with Pvalue of 0.000 which is less than 0.05. Therefore, the null hypothesis is not accepted. So, Solution-Focused Brief technique reduction of test anxiety among secondary school students is significant.

Research Question 2

What are the differences in the effectiveness of Solution-Focused Brief technique on test anxiety among male and female secondary school students in Edo State, Nigeria?

Table 3: Pretest and Posttest Test Anxiety Mean Scores of Male and Female Secondary School Students (Norm = 34.77)

Source of Variation	N	Pretest Mean	Posttest Mean	Mean Loss	Remark
Male	20	68.35	31.45	36.90	More Effective
Female	13	66.92	31.92	35.00	Effective

Table 3 reveals that the male students treated with Solution-Focused Brief technique had pretest mean score of 68.35 and posttest mean score of 31.45 with lost mean 36.90 in their test anxiety, while the female students treated with Solution-Focused Brief had pretest mean

score of 66.92 and posttest mean score of 31.92 with lost mean 35.00. With lost mean score of 36.90 for males which is greater than lost mean score of 35.00 for females, Solution-Focused Brief technique is more effective in reducing male secondary school students' test anxiety in Edo State, Nigeria.

Hypothesis 2

The effectiveness of Solution-Focused Brief technique on test anxiety among male and female secondary school students in Edo State, Nigeria

Table 4: ANCOVA on the effectiveness of Solution-Focused Brief technique on the test anxiety of male and female secondary school students

Source of Variation	Sum of Squares (SS)	df	Mean Square (MS)	F	p-value	Decision (α = 0.05)
Corrected Model	4.629	2	2.314			
Intercept	125.938	1	125.938			
Pre-test (Test_Anxiety1)	2.865	1	2.865			
Gender	2.424	1	2.424	.329	.570	Not Significant
Error	221.008	30	7.367			
Total	33254.000	33				
Corrected Total	225.636	32				

Table 4 indicates that at 0.05 level of significance, 1df numerator and 32df denominator, the calculated F 0.329 with p-value of 0.570 which is greater than 0.05. Therefore, the null hypothesis is accepted. So, the effectiveness of Solution-Focused Brief technique on test anxiety of male and female secondary school students do not differ significantly.

DISCUSSION

Effect of Solution-Focused Brief Technique on Test Anxiety among Secondary School Students

The findings of this study revealed that Solution-Focused Brief Technique (SFBT) was significantly effective in reducing test anxiety among secondary school students in Edo State. Students who received SFBT showed a greater reduction in test anxiety from pre-test to post-test than those who received conventional counselling, and the hypothesis test confirmed that the observed difference was statistically significant. The effectiveness of SFBT may be attributed to its strengths-based and future-oriented approach, which encourages students to focus on their abilities, previous successes, and achievable goals rather than their fears and past academic failures. Through techniques such as the miracle question, scaling questions, exception-seeking questions, coping questions, and compliments, students were able to identify their strengths, challenge negative beliefs about examinations, and develop more adaptive coping strategies, thereby reducing their anxiety.

The present finding is consistent with the assumptions of Solution-Focused Brief Therapy proposed by de Shazer and Berg (1997), which emphasize that individuals possess the internal resources needed to overcome their problems when appropriately guided. The finding also agrees with Egbochuku and Igbineweka (2014), who found that Solution-Focused Brief Therapy significantly reduced test anxiety among students in private tertiary institutions in Edo State. Similarly, Aihie and Igbineweka (2018) reported that Solution-Focused Brief Therapy was highly effective in reducing test anxiety among Nigerian undergraduates, while Altundag and Bulut (2019) found that solution-focused brief counselling significantly reduced students' examination anxiety and improved emotional adjustment. The finding further agrees

with international empirical evidence supporting the effectiveness of Solution-Focused Brief Therapy in reducing anxiety and promoting psychological well-being. For example, Bond et al. (2013), Schmit et al. (2016), Zhang et al. (2018), Javid et al. (2019), Eads and Lee (2019), Neipp and Beyebach (2022), and Vermeulen-Oskam et al. (2024) all reported that SFBT produces significant positive outcomes across diverse populations experiencing anxiety and related psychosocial difficulties.

The findings are equally in agreement with studies on other evidence-based psychological interventions for anxiety. Azuji et al. (2015) found that systematic desensitization effectively reduced test anxiety among secondary school students, while Anyamene et al. (2016), Anyamene et al. (2019), and Anyamene and Udeagha (2025) reported significant reductions in test anxiety following self-management, self-instruction, and cognitive restructuring techniques, respectively. Similar findings were reported by Nwokolo et al. (2017) on meditation technique, Amin et al. (2020) on cognitive behavioural guided self-help, and De Silva et al. (2024) on cognitive behavioural intervention for adolescent anxiety.

These consistent findings reinforce the view that structured psychological interventions effectively reduce anxiety by promoting adaptive cognitive and behavioural coping strategies. The present finding also supports the recommendations of Werner-Seidler et al. (2017) and Weems et al. (2015) that schools should adopt evidence-based counselling interventions to manage anxiety among adolescents. No empirical study reviewed contradicted the present finding, thereby providing further support for the effectiveness of Solution-Focused Brief Technique as a school-based intervention for reducing test anxiety among secondary school students.

Gender and the Effectiveness of Solution-Focused Brief Technique

The findings of this study revealed that there was no statistically significant difference in the effectiveness of Solution-Focused Brief Technique (SFBT) on the test anxiety of male and female secondary school students. Although male students recorded a slightly greater mean reduction in test anxiety than female students, the hypothesis test showed that the difference was not statistically significant, indicating that SFBT was equally effective for both genders. This finding may be attributed to the collaborative, strengths-based, and individualized nature of SFBT, which enables all participants, irrespective of gender, to identify their personal resources, challenge negative beliefs about examinations, and develop effective coping strategies for managing test anxiety.

The finding is in agreement with Bond et al. (2013) and Neipp and Beyebach (2022), who argued that the effectiveness of Solution-Focused Brief Therapy depends primarily on clients' active participation in the therapeutic process rather than demographic characteristics such as gender. Similarly, Vermeulen-Oskam et al. (2024) found that SFBT is broadly effective across different client groups, with little evidence that gender significantly moderates treatment outcomes. The present finding also agrees with Altundag and Bulut (2019), who reported that solution-focused brief counselling significantly reduced students' test anxiety regardless of demographic characteristics, and with Aihie and Igbineweka (2018), who found that Solution-Focused Brief Therapy effectively reduced test anxiety without identifying gender as a significant determinant of treatment success.

However, the present finding disagrees with Torrano et al. (2020) and Omoyemiju (2023), who reported that gender contributes to variations in students' experiences of test anxiety. It also contradicts the findings of Eze and Okonkwo (2023) and Olanrewaju and Okorie (2022), who observed significant gender differences in the effectiveness of cognitive restructuring and academic stress interventions, respectively. The disparity may be attributed to differences in intervention approaches, research designs, sample characteristics, and study

settings. Unlike cognitive restructuring, which focuses primarily on modifying dysfunctional thoughts, SFBT emphasizes clients' strengths, solution-building, and collaborative goal setting, thereby minimizing gender-related differences in treatment outcomes. These findings suggest that SFBT is a gender-inclusive counselling approach for reducing test anxiety among secondary school students.

CONCLUSION

Based on the findings of this study, it is concluded that Solution-Focused Brief Technique (SFBT) is an effective counselling intervention for reducing test anxiety among secondary school students in Edo State, Nigeria. Students who received SFBT demonstrated a significantly greater reduction in test anxiety than those who received conventional school counselling, indicating that the intervention successfully enhanced students' ability to manage examination-related anxiety. The findings further establish that the observed improvement in test anxiety was attributable to the Solution-Focused Brief Technique rather than to pre-existing differences among the participants. The study also concludes that the effectiveness of Solution-Focused Brief Technique is not influenced by gender. Although male students recorded a slightly greater reduction in test anxiety than their female counterparts, the difference was not statistically significant. This suggests that SFBT is equally beneficial for both male and female secondary school students.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. School counsellors should adopt Solution-Focused Brief Technique (SFBT) as a regular counselling intervention for identifying and assisting secondary school students experiencing test anxiety, as the study established its effectiveness in reducing examination-related anxiety.
2. School administrators should strengthen counselling services by providing adequate time, facilities, and resources for the implementation of Solution-Focused Brief Technique and other evidence-based psychological interventions within secondary schools.
3. The Ministry of Education and the Post Primary Education Board should organize regular in-service training, workshops, and capacity-building programmes to equip school counsellors with the knowledge and practical skills required for the effective application of Solution-Focused Brief Technique in managing students' test anxiety.
4. Teachers should collaborate with school counsellors to identify students exhibiting symptoms of test anxiety at an early stage and refer them promptly for appropriate counselling interventions before examination periods. Also, parents and guardians should provide supportive home environments by encouraging realistic academic expectations, offering emotional support, and avoiding excessive pressure that may contribute to students' test anxiety.

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