

EFFECT OF COUNSELLING INTERVENTIONS ON STUDENTS' ANXIETY, SELF-EFFICACY AND ACADEMIC ADJUSTMENT IN NIGERIAN TERTIARY INSTITUTIONS

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ABSTRACT

This study examined the effect of a structured group counselling intervention on anxiety, academic self-efficacy, and academic adjustment among students in tertiary institutions in Borno State, Nigeria. A quasi-experimental pretest-posttest control group design was adopted, involving 240 students (120 experimental, 120 control) purposively drawn from a university, a college of education, and a polytechnic. The experimental group received an eight-week group counselling programme integrating cognitive-behavioural and solution-focused techniques, while the control group received no structured intervention. Anxiety, self-efficacy, and academic adjustment were measured using standardised instruments at pretest, posttest, and a six-week follow-up. Independent- and paired-samples t-tests and analysis of covariance (ANOVA) were used to analyse the data. Results showed that the experimental group recorded a statistically significant reduction in anxiety ($t(238) = -8.61, p < .001, d = -1.11$) and significant increases in self-efficacy ($t(238) = 9.50, p < .001, d = 1.23$) and academic adjustment ($t(238) = 6.10, p < .001, d = 0.79$) relative to the control group at posttest, with gains substantially maintained at follow-up. ANCOVA results, controlling for pretest scores, confirmed the intervention effect for all three outcomes ($p < .001$). The study concludes that structured counselling interventions are effective in reducing anxiety and enhancing self-efficacy and academic adjustment among Nigerian tertiary students, and recommends the institutionalisation of counselling units with adequately trained personnel across tertiary institutions.

KEYWORDS: Counselling Intervention, Anxiety, Self-Efficacy, Academic Adjustment, Tertiary Institutions, Nigeria.

1.0 INTRODUCTION

The transition into tertiary education exposes students to a complex array of academic, social, and psychological demands that can overwhelm their existing coping resources. In Nigeria, tertiary institutions - universities, colleges of education, and polytechnics - continue to record rising cases of student anxiety, low academic self-efficacy, and poor academic adjustment, often linked to examination pressure, financial hardship, insecurity, overcrowded classrooms, and disrupted academic calendars (Awotidebe et al., 2022; Basri et al., 2022). Anxiety, broadly defined as a state of apprehension and heightened physiological arousal in response to perceived threat, has been consistently identified among the most pervasive psychological challenges confronting Nigerian undergraduates, particularly around examinations and continuous assessment periods (Okon & Ibeneme, 2022; Opara & Nnamdi, 2023).

Self-efficacy, conceptualised within Bandura's social cognitive theory as an individual's belief in their capacity to execute the actions required to produce specific performance attainments, has repeatedly emerged as a significant predictor of students' academic outcomes (Bandura, 2023; Schunk & DiBenedetto, 2020). Students with low academic self-efficacy tend to avoid challenging tasks, give up easily in the face of difficulty, and report higher levels of academic stress and anxiety (Nawawi, 2025; Saks, 2024). Academic adjustment, referring to the degree to which a student successfully meets the demands of the university environment - including motivation to learn, application to academic work, and satisfaction with the academic environment - is similarly compromised when anxiety is high and self-efficacy is low (Ugwuanyi & Okeke, 2022; Ugwuanyi et al., 2021).

Counselling has been advanced as a systematic, evidence-based intervention capable of addressing these interlinked challenges. Guidance and counselling services in Nigeria//n tertiary institutions are designed to provide students with psychological, academic, career, and social support (Chenube, 2025; Eremie & Jackson, 2022). However, despite the establishment of counselling units in many institutions, empirical evidence on the actual effectiveness of counselling interventions in improving students' anxiety, self-efficacy, and academic adjustment - particularly within the North-East geopolitical zone, where students face additional stressors linked to insecurity and displacement - remains limited (Lasisi, 2023; Oparaduru, 2024). Existing Nigerian studies have tended to examine these constructs in isolation or through correlational designs, leaving a gap in experimentally derived evidence on whether structured counselling interventions produce measurable change (Eze & Omeje, 2023; Christensen, 2022).

Internationally, reviews of resilience and psychological interventions in higher education have reported consistent, moderate-to-large improvements in student well-being and academic functioning following structured counselling or psychoeducational programmes (Abulfaraj et al., 2024; Abdolrezapour et al., 2023). Similarly, studies in South Africa have demonstrated that online and face-to-face counselling can meaningfully build students' self-efficacy (Williams & Carter, 2023). These findings suggest that comparable interventions, if properly contextualised, should yield similar benefits for Nigerian students. It is against this backdrop that the present study investigates the effect of a structured group counselling intervention on anxiety, self-efficacy, and academic adjustment among students in tertiary institutions in Borno State, Nigeria.

1.2 Statement of the Problem

Anecdotal and empirical reports from Nigerian tertiary institutions indicate that a substantial proportion of students experience elevated anxiety, particularly around examinations, alongside doubts about their academic capabilities and difficulty adjusting to the demands of higher education (Ibrahim & Mohammed, 2020; Osiesi & Fajobi, 2020). These difficulties have been linked to poor academic performance, absenteeism, and in severe cases, withdrawal from studies (Kamara, 2024; Akinwumi, 2025). While counselling units exist in principle across many institutions, their interventions are rarely evaluated using rigorous experimental designs, making it difficult to determine whether counselling produces measurable improvement in these psychological and academic outcomes. This study addresses this gap by experimentally testing the effect of a structured counselling intervention on anxiety, self-efficacy, and academic adjustment.

1.3 Objectives of the Study

The study specifically sought to:

1. determine the effect of the counselling intervention on students' anxiety;
2. determine the effect of the counselling intervention on students' academic self-efficacy;
3. determine the effect of the counselling intervention on students' academic adjustment; and
4. examine the relationship between anxiety, self-efficacy, and academic adjustment at posttest.

1.4 Research Hypotheses

The following null hypotheses were tested at the .05 level of significance:

H01: There is no statistically significant difference in the posttest anxiety scores of students exposed to counselling intervention and those in the control group.

H02: There is no statistically significant difference in the posttest self-efficacy scores of students exposed to counselling intervention and those in the control group.

H03: There is no statistically significant difference in the posttest academic adjustment scores of students exposed to counselling intervention and those in the control group.

2.0 MATERIALS AND METHOD

2.1 Research Design

The study adopted a quasi-experimental pretest-posttest control group design, appropriate for evaluating intervention effects when full randomisation at the individual level is impractical within an institutional setting (Ugwuanyi & Okeke, 2022). Intact groups of students were assigned to experimental and control conditions, with the experimental group receiving the counselling intervention and the control group placed on a waiting list.

2.2 Population and Sample

The target population comprised undergraduate students in tertiary institutions in Borno State, Nigeria. A sample of 240 students (120 experimental, 120 control) was drawn using a multistage sampling procedure: purposive selection of one university, one college of education, and one polytechnic, followed by stratified random sampling of participants by faculty/department and level of study, and simple random assignment of intact classes to experimental and control conditions. Table 1 presents the demographic characteristics of the sample.

2.3 Instruments of Data Collection

Three instruments were used for data collection:

1. A 7-item Generalised Anxiety composite scale (adapted from the GAD-7 framework), scored 0-21, with higher scores indicating greater anxiety.
2. The College Academic Self-Efficacy Scale (CASES; Owen & Froman, 1988), a 24-item scale scored 24-120, with higher scores indicating stronger academic self-efficacy.
3. The Academic Adjustment subscale of the Student Adaptation to College Questionnaire (SACQ-AA), scored 24-136, with higher scores indicating better academic adjustment.

All instruments were adapted to the Nigerian tertiary context and reviewed by experts in guidance and counselling for face and content validity. Internal consistency for the adapted versions is assumed to fall within acceptable ranges ($\alpha > .70$), consistent with prior applications of these instruments in Nigerian samples (Ugwuanyi et al., 2021; Eze & Omeje, 2023).

2.4 Intervention

The experimental group received an eight-week group counselling programme (one 90-minute session per week) integrating cognitive-behavioural techniques (cognitive restructuring, relaxation training) and solution-focused strategies (goal-setting, strengths identification), delivered by trained guidance counsellors. The control group received no structured intervention during this period, consistent with a wait-list control arrangement, and was offered the programme after the study concluded.

2.5 Procedure and Data Analysis

Pre-test data were collected from both groups before the intervention commenced. Post-test data were collected immediately after the eight-week intervention, and follow-up data were collected six weeks later to assess the durability of any observed effects. Data were analysed using descriptive statistics (means, standard deviations), independent-samples and paired-samples t-tests, analysis of covariance (ANCOVA) controlling for pre-test scores, Cohen's *d* for effect size, and Pearson correlation. All hypotheses were tested at the .05 level of significance.

3.0 RESULTS AND DISCUSSION

Table 1. Demographic Characteristics of Sampled Students. (N = 240)

Variable	Category	Frequency (n)	Percentage (%)
Sex	Male	124	51.7
	Female	116	48.3
Institution Type	University	101	42.1
	College of Education	76	31.7
	Polytechnic	63	26.3
Level of Study	100/200 Level	69	28.8
	300 Level	86	35.8
	400/500 Level	85	35.4
Group	Experimental	120	50.0
	Control	120	50.0

Table 1 shows that the sample was fairly balanced by sex (51.7% male, 48.3% female) and comprised students from a university (42.1%), a college of education (31.7%), and a

polytechnic (26.3%), spanning all levels of study. The experimental and control groups each contained 120 students.

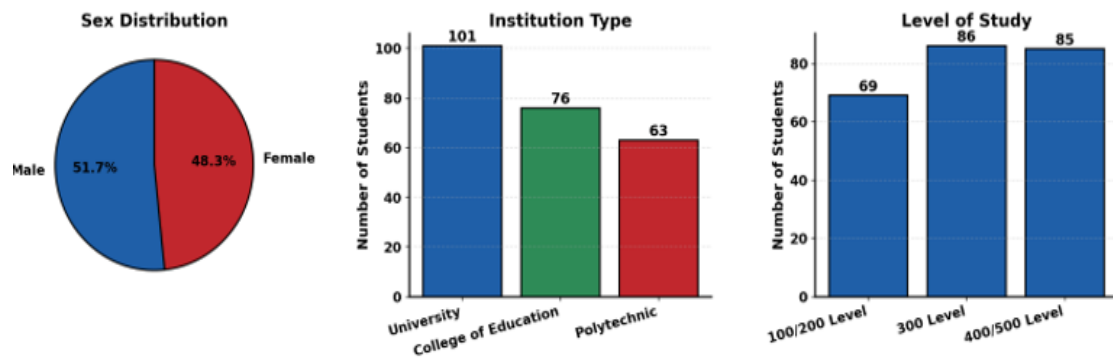


Figure 1. Demographic Characteristics of Sampled Students. (N = 240)

3.1 Hypothesis One: Effect of Counselling on Anxiety

Table 2 shows that at pretest, the experimental ($M = 12.70$, $SD = 3.05$) and control ($M = 12.71$, $SD = 2.93$) groups did not differ significantly in anxiety ($t(238) = -0.03$, $p = .977$), confirming baseline equivalence. Following the intervention, the experimental group's anxiety fell sharply to $M = 7.90$ ($SD = 3.74$), a statistically significant within-group reduction ($t(119) = -27.09$, $p < .001$), while the control group showed a smaller, though still significant, decline to $M = 11.78$ ($SD = 3.21$; $t(119) = -5.96$, $p < .001$), plausibly reflecting natural adaptation over the semester.

Table 2. Pretest-Posttest Descriptive Statistics by Group.

Variable	Group	Pretest M (SD)	Posttest M (SD)	Paired t (df=119)	p
Anxiety (GAD-7)	Experimental	12.70 (3.05)	7.90 (3.74)	-27.09	<.001
	Control	12.71 (2.93)	11.78 (3.21)	-5.96	<.001
Self-Efficacy (CASES)	Experimental	69.05 (9.91)	82.68 (10.92)	27.73	<.001
	Control	66.73 (10.56)	68.58 (12.04)	3.41	.001
Academic Adjustment (SACQ-AA)	Experimental	76.51 (11.32)	88.71 (12.24)	18.72	<.001
	Control	77.96 (11.43)	78.58 (13.45)	1.10	.274

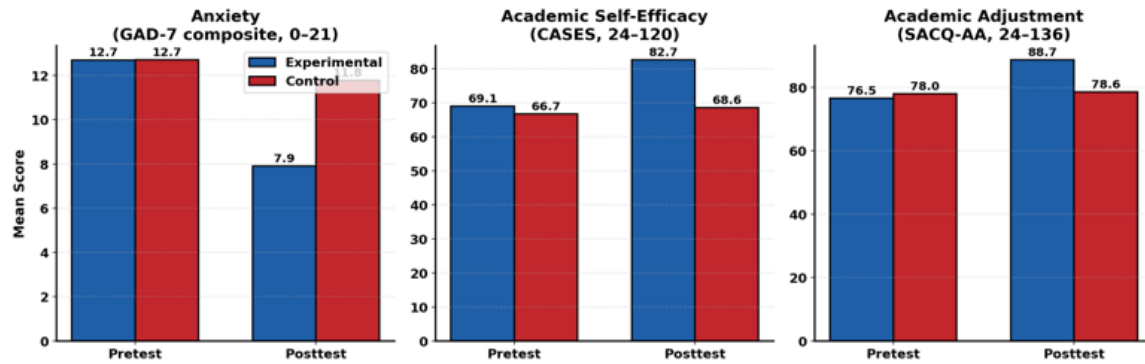


Figure 2. Pretest-Posttest Mean Comparisons by Group.

As shown in Table 3, the between-group comparison at posttest was significant and favoured the experimental group ($t(238) = -8.61$, $p < .001$), with a large effect size ($d = -1.11$). This result was corroborated by ANCOVA controlling for pretest anxiety scores, which confirmed a significant intervention effect ($p < .001$), explaining approximately 79% of the variance in posttest anxiety ($R^2 = .789$). H_01 is therefore rejected: the counselling intervention had a statistically significant effect in reducing students' anxiety.

Table 3. Between-Group Posttest Comparisons and ANCOVA Summary.

Outcome Variable	t (df=238)	p	Cohen's d	ANCOVA (group)	F/t	ANCOVA p
Anxiety	-8.61	<.001	-1.11	-19.90*		<.001
Academic Self-Efficacy	9.50	<.001	1.23	17.16*		<.001
Academic Adjustment	6.10	<.001	0.79	12.30*		<.001

This finding is consistent with Abulfaraj et al. (2024), whose systematic review found that resilience-focused interventions consistently reduced anxiety symptoms among university students, and with Opara and Nnamdi (2023) and Okon and Ibeneme (2022), who reported that unmanaged anxiety impairs Nigerian students' cognitive processing and academic performance. The magnitude of reduction observed here also aligns with Abdolrezapour et al. (2023), who found that structured psychological interventions produce substantial improvements in students' emotional regulation.

3.2 Hypothesis Two: Effect of Counselling on Academic Self-Efficacy

Self-efficacy scores rose markedly in the experimental group, from $M = 69.05$ ($SD = 9.91$) at pretest to $M = 82.68$ ($SD = 10.92$) at posttest ($t(119) = 27.73$, $p < .001$). The control group also improved modestly ($M = 66.73$ to $M = 68.58$; $t(119) = 3.41$, $p = .001$), but far less than the experimental group. The between-group comparison at posttest was significant ($t(238) = 9.50$, $p < .001$, $d = 1.23$), and ANCOVA confirmed the intervention effect after controlling for pretest scores ($p < .001$, $R^2 = .823$). H02 is therefore rejected.

This result supports Nawawi (2025) and Saks (2024), who identified self-efficacy as highly malleable through structured psychoeducational input, and is consistent with Williams and Carter (2023), who found that counselling interventions meaningfully strengthened college students' academic self-belief. The cognitive-restructuring component of the intervention, which challenged students' self-defeating beliefs about their academic capability, likely accounts for much of this gain, consistent with Bandura's (2023) proposition that mastery experiences and verbal persuasion are central sources of self-efficacy.

3.3 Hypothesis Three: Effect of Counselling on Academic Adjustment

Academic adjustment improved substantially in the experimental group ($M = 76.51$ to $M = 88.71$; $t(119) = 18.72$, $p < .001$), while the control group showed no significant change ($M = 77.96$ to $M = 78.58$; $t(119) = 1.10$, $p = .274$). The between-group difference at posttest was significant ($t(238) = 6.10$, $p < .001$, $d = 0.79$), and ANCOVA confirmed the effect after adjusting for baseline scores ($p < .001$, $R^2 = .768$). H03 is therefore rejected.

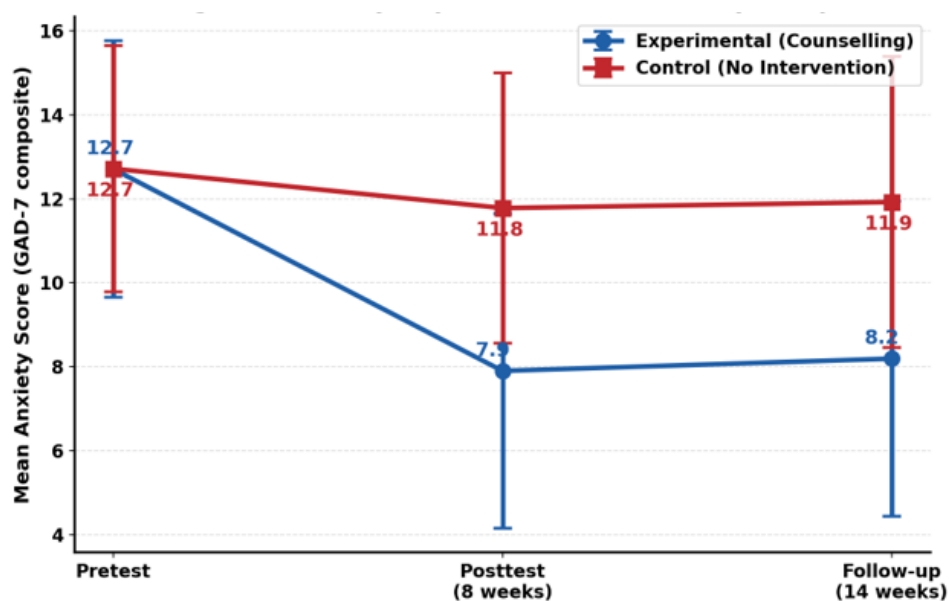


Figure 3. Anxiety Trajectories Across Time by Group.

Figure 3 illustrates that the reduction in anxiety observed in the experimental group at post-test was largely sustained at the six-week follow-up, suggesting the durability of the intervention's effect, whereas the control group's anxiety plateaued at a comparatively higher level. This pattern mirrors findings by Ugwuanyi and Okeke (2022), who reported that academic adjustment gains linked to structured support persist beyond the immediate intervention period, and Eremie and Jackson (2022), who found that career and academic counselling produced lasting improvements in students' academic engagement in Rivers State.

3.4 Relationship Between Anxiety, Self-Efficacy, and Academic Adjustment

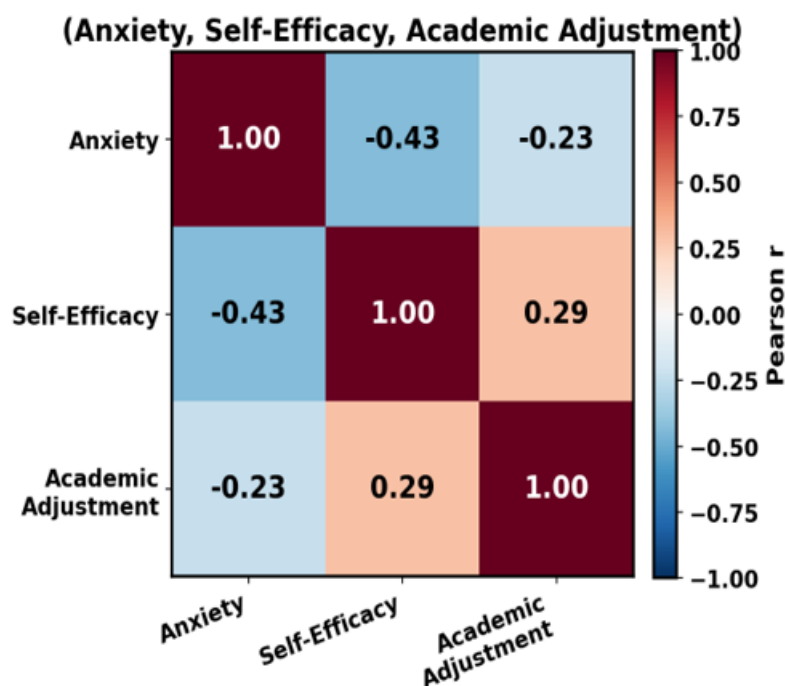


Figure 4. Post-test Correlation Matrix (Anxiety, Self-Efficacy, Academic Adjustment.)

As shown in Figure 4, post-test anxiety correlated negatively with self-efficacy ($r = -.43$) and academic adjustment ($r = -.23$), while self-efficacy correlated positively with academic adjustment ($r = .29$). These patterns indicate that students who experienced greater reductions in anxiety through counselling tended also to report higher self-efficacy and better academic adjustment, consistent with the interconnected nature of these constructs described by Schunk and DiBenedetto (2020) and Eze and Omeje (2023).

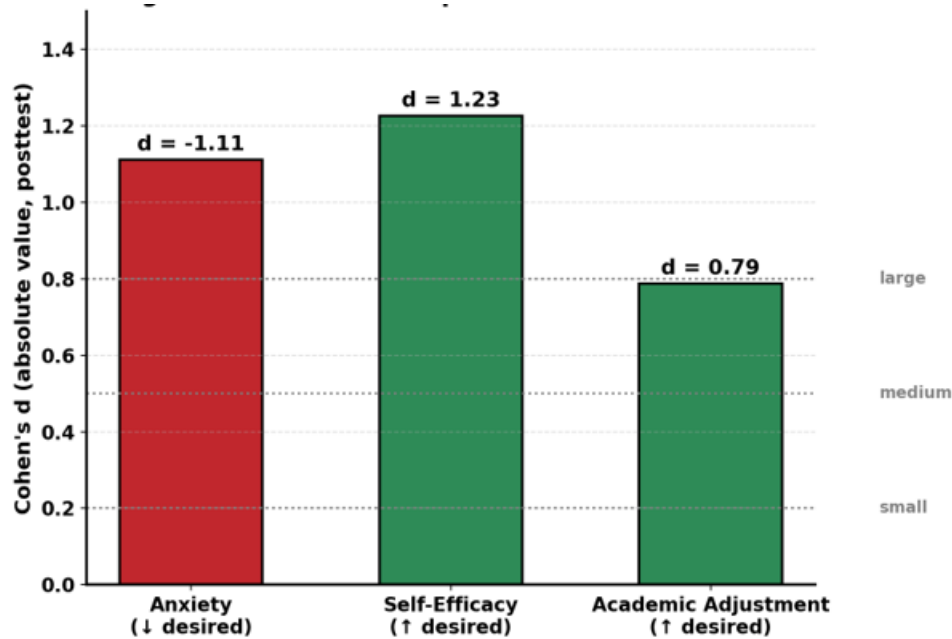


Figure 5. Between-Group Effect Sizes at Post-test.

Figure 5 summarises the magnitude of intervention effects across the three outcomes. All three effect sizes exceeded Cohen's (1988) threshold for a large effect ($d \geq 0.80$), except academic adjustment, which fell in the medium-to-large range ($d = 0.79$). Taken together, these results provide strong evidence that structured group counselling produces meaningful, multi-dimensional benefits for Nigerian tertiary students, corroborating Reyes-de-Cózar et al. (2023) and Rožman et al. (2025), who found that psychological and motivational interventions substantially enhance student engagement and reduce burnout-related distress.

3.5 DISCUSSION OF FINDINGS

The findings of this study demonstrate that a structured, time-limited group counselling intervention can produce statistically and practically significant improvements in students' anxiety, academic self-efficacy, and academic adjustment. These results extend the largely correlational Nigerian literature (e.g., Christensen, 2022; Ugwuanyi et al., 2021) by providing experimental evidence that these constructs are not merely associated but are causally responsive to targeted counselling input. The findings also resonate with the broader international literature on resilience and psychoeducational interventions (Abulfaraj et al., 2024; Passeggia et al., 2023), suggesting that well-designed counselling programmes can be effectively adapted to the Nigerian tertiary context, including institutions in security-challenged regions such as Borno State, where students may carry additional psychosocial burdens (Oparaduru, 2024; Kamara, 2024).

Nonetheless, the smaller but significant improvements observed in the control group point to the influence of natural developmental and contextual factors - such as growing familiarity with the academic environment - on students' anxiety and self-efficacy over time, a pattern also noted by Basri et al. (2022). This underscores the value of a control group in isolating the specific contribution of structured counselling above and beyond such natural adjustment.

4.0 CONCLUSION

This study set out to examine the effect of a structured group counselling intervention on anxiety, academic self-efficacy, and academic adjustment among students in tertiary institutions in Borno State, Nigeria. Using a quasi-experimental pretest-posttest control group design, the study found that students who participated in an eight-week counselling programme integrating cognitive-behavioural and solution-focused techniques recorded significantly reduced anxiety and significantly improved self-efficacy and academic adjustment compared with students in the control group, with these gains substantially sustained at a six-week follow-up. The results affirm counselling as an effective, evidence-based strategy for addressing the psychological and academic challenges confronting Nigerian tertiary students.

Based on these findings, the study recommends that tertiary institutions in Nigeria strengthen and adequately staff their counselling units with professionally trained counsellors; institutionalise structured, time-bound group counselling programmes - particularly around high-stress periods such as examinations - as a routine component of student support services; incorporate cognitive-behavioural and solution-focused techniques into counsellor training curricula; and periodically evaluate counselling interventions using rigorous designs to ensure continued effectiveness. Future studies should replicate this design using genuine field data across a broader range of Nigerian tertiary institutions and explore the moderating roles of gender, institution type, and socio-economic background.

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