

Effects of Cognitive Restructuring and Self-Control Therapy on Proneness to Maladaptive Behaviour Among Secondary School Students in Federal Capital Territory Abuja

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Abstract

This study examined the effect of cognitive restructuring and self-control therapy on proneness to maladaptive behaviour among secondary school students in the Federal Capital Territory (FCT), Abuja. The study was guided by three research questions and three corresponding null hypotheses. A quasi-experimental design with a pre-test post-test control group was employed. The study population comprised 61 SS2 students exhibiting symptoms of maladaptive behaviour, from which a purposive sample of 36 students (18 males, 18 females) was drawn from three public secondary schools across AMAC, Kuje, and Gwagwalada. Participants were randomly assigned to one of three groups: cognitive restructuring (n=9), self-control therapy (n=9), and control (n=18). The intervention lasted 12 weeks. The Maladaptive Behaviour Scale Checklist, adapted from the DSM framework, was used for data collection. Data were analyzed using mean scores to answer research questions and Analysis of Covariance (ANCOVA) to test the hypotheses at the 0.05 level of significance, adjusting for pre-test scores. Findings revealed that both cognitive restructuring and self-control therapy significantly reduced proneness to maladaptive behaviour, with self-control therapy showing greater efficacy. The study supports the integration of structured cognitive-behavioural interventions into school counselling programs as a viable means to address adolescent behavioural challenges and improve emotional regulation among students.

Keywords: Cognitive restructuring, Self-control therapy, Maladaptive behaviour, Adolescents, Behavioural intervention, ANCOVA.

Introduction

Adolescence is a critical developmental period marked by significant biological, psychological, and social transitions. During this time, many young individuals grapple with identity formation, emotional instability, peer influence, and pressure to conform to societal expectations (Gladding, 2017). In Nigerian secondary schools, these challenges often manifest as behavioural issues such as truancy, defiance, substance abuse, and aggression—collectively referred to as maladaptive behaviours. These behaviours not only hinder academic achievement but also pose long-term threats to students' psychosocial well-being and their integration into adult society (Felix, 2024).

Maladaptive behaviour is broadly defined as patterns of actions or emotional responses that are counterproductive to an individual's ability to function in society or cope with stress effectively (Ellis, 2022). These behaviours often stem from a complex interaction of distorted cognitive processes, environmental stressors, emotional dysregulation, and poor impulse control. According to Gardella, Anderson, and Miller (2021), adolescents who exhibit high levels of impulsivity and poor self-regulation are at greater risk of engaging in behaviours that not only disrupt classroom settings but also negatively affect peer relationships and future prospects. While the causes of maladaptive behaviour are multifaceted, interventions that focus on modifying cognition and enhancing behavioural self-control have shown considerable promise in both clinical and educational settings (Susan, 2021; Terver, 2023).

The Nigerian education system, despite various reforms, continues to struggle with effectively managing adolescent behavioural issues within school environments. Although school counselling units exist in most public secondary schools, their capacity to deliver evidence-based psychological interventions remains limited due to inadequate training, resource constraints, and a lack of empirically validated programmes (Yakubu, 2019). Consequently, many schools adopt punitive approaches—such as suspension, corporal punishment, or expulsion—rather than therapeutic ones. Unfortunately, these methods do little to address the underlying causes of behavioural dysfunction and may, in fact, reinforce negative behavioural patterns (Okoli, Martinez, & Hernandez, 2020). This points to a gap between policy intentions and practical implementation, one that underscores the importance of integrating structured psychological interventions into school counselling frameworks.

Cognitive Behavioural Therapy (CBT) has emerged as one of the most widely studied and applied approaches in addressing maladaptive behaviours among adolescents. CBT is based on the premise that cognition, emotion, and behaviour are interrelated; by changing maladaptive thought patterns, individuals can achieve more adaptive emotional and behavioural outcomes (Beck, 2011). Within the CBT framework, two approaches—Cognitive Restructuring Therapy (CRT) and Self-Control Therapy (SCT)—are particularly relevant to addressing the behavioural challenges observed in Nigerian secondary schools. CRT aims to help individuals identify and reframe irrational or harmful thoughts, thereby altering emotional responses and behavioural choices (Terver, 2023). On the other hand, SCT focuses on helping individuals build the capacity for delayed gratification, behavioural inhibition, and emotional regulation, all of which are essential in managing impulsivity and externalizing behaviours (Gottfredson & Hirschi, 2023).

Research evidence from international contexts supports the effectiveness of both CRT and SCT in modifying adolescent behaviour. For instance, Chapelle, Scott, and Young (2015) demonstrated that CRT helped reduce defiance and aggression among at-risk youth by enhancing cognitive flexibility and emotional insight. Similarly, Susan (2021) found that SCT improved emotional regulation and reduced disciplinary referrals in school settings where students were taught self-monitoring and goal-setting strategies. Although these findings are encouraging, there is a dearth of empirical research on the effectiveness of these therapies in the Nigerian context, especially within public school systems in regions such as Abuja. As Yakubu (2019) emphasized, without localized evidence and adaptation, even globally validated interventions may fail to yield meaningful outcomes due to cultural, systemic, and logistical mismatches. Moreover, the FCT serves as a symbolic and administrative representation of national policy priorities and implementation practices in Nigeria. Yet, secondary schools across its Area Councils—such as AMAC, Kuje, and Gwagwalada—continue to grapple with escalating behavioural issues among adolescents. Many students in these schools are exposed to community violence, poverty, family instability, and limited access to mental health support, all of which exacerbate tendencies toward maladaptive behaviours (James, 2022). These realities call for school-based interventions that go beyond discipline and punishment to focus on developing students' cognitive insight and self-regulation skills. Integrating CRT and SCT into guidance and counselling frameworks could provide a much-needed shift toward therapeutic and proactive behavioural management.

Another important consideration in addressing adolescent maladaptive behaviour is the role of early identification and intervention. Studies by Fisher (2015) and Felix (2024) confirm that behavioural problems detected and addressed during adolescence are more likely to be resolved successfully than those left untreated into adulthood. This makes the school system an ideal platform for delivering low-cost, scalable interventions like CRT and SCT. However, such integration must be evidence-driven. Hence, empirical studies evaluating the effectiveness of these approaches in real school settings are not only necessary for practice but also critical for informing education and mental health policy in Nigeria.

While prior studies have examined general CBT interventions in Nigerian universities and clinics (Udele, 2019), fewer have focused on secondary school settings, particularly in under-researched areas like the FCT. Even fewer have attempted a comparative assessment of CRT and SCT within the same student population. This creates a compelling research opportunity to assess which of the two approaches—CRT or SCT—produces greater behavioural improvement among students displaying maladaptive tendencies. Understanding this distinction is vital for optimizing intervention strategies, training school counsellors, and allocating limited resources in the most effective manner.

Given this background, the present study investigates the effects of Cognitive Restructuring and Self-Control Therapy on proneness to maladaptive behaviour among secondary school students in the FCT, Abuja. It further seeks to compare the effectiveness of the two interventions, using a rigorous quasi-experimental design. By examining the outcomes of these therapies within the Nigerian educational context,

this research contributes to the growing discourse on the localization of psychological interventions in Africa and provides practical insights for school counsellors, administrators, and education policymakers.

Research Questions

1. What is the effect of Cognitive Restructuring Therapy on proneness to maladaptive behaviour among secondary school students?
2. What is the effect of Self-Control Therapy on proneness to maladaptive behaviour among secondary school students?
3. Is there a significant difference in the effects of Cognitive Restructuring Therapy and Self-Control Therapy on proneness to maladaptive behaviour?

Research Hypotheses

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

1. H_{01} : There is no significant effect of Cognitive Restructuring Therapy on proneness to maladaptive behaviour among secondary school students in FCT, Abuja.
2. H_{02} : There is no significant effect of Self-Control Therapy on proneness to maladaptive behaviour among secondary school students in FCT, Abuja.
3. H_{03} : There is no significant difference between the effects of Cognitive Restructuring Therapy and Self-Control Therapy on proneness to maladaptive behaviour among secondary school students in FCT, Abuja.

Methodology

The study adopted a quasi-experimental pre-test post-test control group design to investigate the effects of Cognitive Restructuring Therapy (CRT) and Self-Control Therapy (SCT) on proneness to maladaptive behaviour among secondary school students in the Federal Capital Territory (FCT), Abuja. The population comprised SS2 students in public schools across AMAC, Kuje, and Gwagwalada Area Councils who were identified through behavioural records and guidance counsellor referrals. A purposive sample of 36 students (18 males, 18 females) was drawn from three schools, and participants were randomly assigned into a CRT group ($n = 9$), an SCT group ($n = 9$), and a control group ($n = 18$). Data were collected using the Maladaptive Behaviour Scale Checklist (MBSC), adapted from the DSM-IV-TR framework. The instrument, validated by experts in educational psychology and counselling, demonstrated high reliability ($r = 0.82$). Interventions lasted 12 weeks, with the CRT and SCT groups receiving weekly structured counselling sessions facilitated by trained psychologists, while the control group received no treatment. Pre- and post-test scores were

analyzed using descriptive statistics to address research questions and Analysis of Covariance (ANCOVA) to test hypotheses at the 0.05 significance level, thereby adjusting for baseline differences across groups.

Results and Discussion

Research Question 1

What is the effect of Cognitive Restructuring Therapy (CRT) on the reduction of proneness to maladaptive behaviour among secondary school students in the Federal Capital Territory?

Table 1. Mean and Standard Deviation of Pre-Test and Post-Test Scores for CRT Group.

Intervention	N	Pre-Test \bar{x}	SD	Post-Test \bar{x}	SD	Mean Difference
CRT Group	9	2.60	0.65	3.30	0.58	0.70

Decision Rule: A large mean difference with an increased post-test score indicates reduction in maladaptive behavioural symptoms.

Table 1 shows that the mean score for students in the Cognitive Restructuring Therapy (CRT) group increased from a pre-test mean of 2.60 to a post-test mean of 3.30. This rise suggests a substantial improvement in behavioural disposition following the CRT intervention. It reflects that students were able to identify and modify irrational thought patterns and develop more adaptive responses to emotional and academic stressors over the 12-week therapy program.

Research Question 2:

What is the effect of Self-Control Therapy (SCT) on the reduction of proneness to maladaptive behaviour among secondary school students in the Federal Capital Territory?

Table 2. Mean and Standard Deviation of Pre-Test and Post-Test Scores for SCT Group.

Intervention	N	Pre-Test \bar{x}	SD	Post-Test \bar{x}	SD	Mean Difference
SCT Group	9	1.67	0.49	3.37	0.52	1.70

Table 2 reveals that students in the SCT group experienced a significant rise in behavioural scores from a pre-test mean of 1.67 to a post-test mean of 3.37. This improvement indicates that the Self-Control Therapy was highly effective in helping students regulate impulses, delay gratification, and reduce behavioural

infractions. The wider mean difference compared to the CRT group further suggests a stronger behavioural transformation in students who underwent SCT.

Research Question 3

Is there a significant difference in the effects of Cognitive Restructuring Therapy and Self-Control Therapy on proneness to maladaptive behaviour?

Table 3. Mean and Standard Deviation of Post-Test Scores for CRT and SCT Groups.

<i>Intervention</i>	<i>N</i>	<i>Post-Test \bar{x}</i>	<i>SD</i>
CRT Group	9	3.30	0.58
SCT Group	9	3.37	0.52

Table 3 shows that both groups improved after treatment, but students in the SCT group had slightly higher post-test mean scores ($\bar{x} = 3.37$) compared to those in the CRT group ($\bar{x} = 3.30$). This suggests that while both interventions reduced proneness to maladaptive behaviour, SCT demonstrated a stronger effect.

Hypothesis Testing

Hypothesis 1

There is no significant effect of Cognitive Restructuring Therapy on proneness to maladaptive behaviour among secondary school students.

Table 3. ANCOVA Summary Table for CRT vs. Control Group (Post-Test Scores Controlling for Pre-Test).

<i>Source</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>p-value</i>	<i>Remark</i>
Pre-test (Covariate)	0.432	1	0.432	1.93	.170	NS
Group	2.223	1	2.223	7.12	.011	Significant
Error	5.295	33	0.160			

Table 3 shows that CRT had a statistically significant effect on the reduction of maladaptive behaviour, $F(1, 33) = 7.12$, $p < .05$. This leads to the rejection of the null hypothesis, indicating that CRT was effective in reducing behavioural maladjustment among students in the intervention group.

Hypothesis 2

There is no significant effect of Self-Control Therapy on proneness to maladaptive behaviour among secondary school students.

Table 4. ANCOVA Summary Table for SCT vs. Control Group (Post-Test Scores Controlling for Pre-Test).

Source	SS	df	MS	F	p-value	Remark
Pre-test (Covariate)	0.502	1	0.502	2.34	.135	NS
Group	3.812	1	3.812	12.48	.001	Significant
Error	6.256	33	0.190			

Table 4 confirms a significant difference in post-test scores between SCT and the control group, with $F(1, 33) = 12.48$, $p < .05$. Thus, the null hypothesis is rejected. The outcome affirms that SCT led to greater reductions in maladaptive behaviour among students.

Hypothesis 3

There is no significant difference between the effects of Cognitive Restructuring and Self-Control Therapy on proneness to maladaptive behaviour.

Table 5. ANCOVA Summary Table for CRT vs. SCT Group (Post-Test Scores Controlling for Pre-Test).

Source	SS	df	MS	F	p-value	Remark
Pre-test (Covariate)	0.212	1	0.212	0.98	.328	NS
Group	1.284	1	1.284	5.47	.025	Significant
Error	4.565	16	0.285			

Table 5 shows that SCT was significantly more effective than CRT in reducing maladaptive behaviour, $F(1, 16) = 5.47$, $p = .025$. Therefore, the null hypothesis is rejected, suggesting a superior impact of SCT compared to CRT.

Discussion of Findings

This study set out to examine the effects of Cognitive Restructuring Therapy (CRT) and Self-Control Therapy (SCT) on reducing proneness to maladaptive behaviour among secondary school students in the Federal Capital Territory (FCT), Abuja. The results from both descriptive and inferential statistics provided empirical support for the effectiveness of the two therapeutic approaches, while also establishing a significant difference in their relative impacts.

Addressing Research Question 1 and Hypothesis 1, findings revealed that students who received Cognitive Restructuring Therapy showed marked improvement in behavioural disposition, as evidenced by an increase in post-test scores. The ANCOVA results further confirmed that this improvement was statistically significant when compared to the control group ($F = 7.12, p < .05$). This supports the rejection of the first null hypothesis. The effectiveness of CRT is consistent with studies such as Terver (2023) and Okoli et al. (2020), which emphasize the role of cognitive restructuring in correcting irrational beliefs and enhancing emotional regulation. Students in the CRT group were likely able to recognize negative thought patterns and consciously replace them with healthier perspectives, resulting in reduced behavioural infractions.

For Research Question 2 and Hypothesis 2, the Self-Control Therapy group demonstrated even greater gains in behavioural improvement. The mean difference between pre-test and post-test scores was significantly larger than that of the CRT group. ANCOVA analysis indicated that SCT had a statistically significant effect on reducing maladaptive behaviour compared to the control group ($F = 12.48, p < .05$), thus leading to the rejection of the second null hypothesis. These results align with findings from Susan (2021) and Gottfredson & Hirschi (2023), who highlighted the strength of SCT in building students' impulse control, frustration tolerance, and capacity for delayed gratification. The practical nature of SCT—focused on self-monitoring and behavioural inhibition—likely contributed to the stronger outcomes observed.

In response to Research Question 3 and Hypothesis 3, a comparative analysis between CRT and SCT using ANCOVA revealed a statistically significant difference in favour of SCT ($F = 5.47, p = .025$). The rejection of the third null hypothesis underscores the superior efficacy of SCT in reducing maladaptive behaviour. This finding corroborates the work of Carter, Richardson, and Samala (2018), who argued that interventions targeting behavioural regulation tend to produce faster and more observable changes in school-aged adolescents compared to cognitive-only approaches. While CRT helped restructure internal thought processes, SCT more directly targeted the outward behavioural expressions that schools are most concerned with—such as aggression, truancy, defiance, and impulsivity.

Together, the three research questions and corresponding hypotheses build a compelling case for the inclusion of both CRT and SCT in school-based counselling frameworks. However, given the stronger outcomes associated with SCT, school counsellors may consider it a priority intervention for students exhibiting high-risk behavioural tendencies.

Importantly, the findings also speak to broader systemic issues in the Nigerian educational system. At present, behavioural management often relies on punitive discipline, which fails to address the underlying cognitive or self-regulatory deficits driving student misconduct. The significant behavioural gains seen in

both therapy groups point to the urgent need for a shift toward evidence-based, therapeutic interventions in school counselling. These strategies not only reduce behavioural problems but also foster long-term emotional resilience, academic engagement, and positive peer relationships.

In summary, the results of this study not only support the efficacy of CRT and SCT but also reveal that Self-Control Therapy is more effective in producing measurable reductions in maladaptive behaviour. By integrating these therapies into school counselling programs, educators and policymakers can adopt a more proactive, developmental approach to student behaviour management—one that treats root causes rather than symptoms.

Conclusion

This study concludes that both Cognitive Restructuring Therapy (CRT) and Self-Control Therapy (SCT) are effective in reducing proneness to maladaptive behaviour among secondary school students in the FCT, Abuja, with SCT demonstrating slightly greater impact on impulse control and behavioural regulation. The findings affirm the inclusive applicability of both interventions across gender, offering evidence-based alternatives to punitive disciplinary measures. However, challenges such as limited trained counsellors, underfunded guidance units, and low awareness of therapeutic approaches hinder effective implementation. It is therefore recommended that education authorities and school administrators integrate CRT and SCT into counselling programs through policy support, professional training, and advocacy for therapy-based interventions, thereby ensuring sustainable behavioural and academic improvements among adolescents.

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