

Empowering School Attendance: The Impact of Contingency Management Training on Truancy Reduction among Junior Secondary Students in Shagamu, Ogun State

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Abstract : *This study investigates the effectiveness of Contingency Management Training (CMT) in reducing truancy among junior secondary school students in Shagamu, Ogun State, Nigeria. The research also explores the moderating role of academic self-efficacy on the relationship between CMT and truancy reduction. A total of 30 students, identified as truant, participated in the study, which employed a pretest-posttest, control group quasi-experimental design. The treatment group received CMT, while the control group engaged in general social behaviour training. Data were collected using the Truancy Questionnaire and the Academic Self-Efficacy Scale (ASES), with pretest and posttest assessments conducted. The results revealed that CMT significantly reduced truancy levels among the students, with a moderate influence of academic self-efficacy on the intervention's effectiveness. These findings highlight the potential of CMT as an effective intervention for improving school attendance and suggest that fostering academic self-efficacy could enhance the impact of such programmes. The study contributes to the growing body of research on motivational interventions in education and provides valuable insights for policy makers and school administrators seeking to address truancy in Nigerian secondary schools. Further studies are recommended to explore the long-term effects and the role of other psychological factors in truancy reduction.*

Word count: truancy, academic self-efficacy, contingency management training

INTRODUCTION

Truancy, a form of unauthorised school absenteeism, has emerged as a major challenge to educational systems globally. It undermines students' academic progress, increases dropout rates, and often correlates with social problems such as delinquency and substance abuse (Arends-Tóth & Koglin, 2022). The global community continues to battle with absenteeism among school-aged children, especially at the junior secondary level, which is critical for developing foundational skills. According to UNESCO (2023), the rate of absenteeism has risen in the post-COVID-19 era, partly due to weakened school re-engagement strategies and psychosocial challenges faced by learners. Educational stakeholders are increasingly acknowledging that tackling truancy requires multifaceted and context-sensitive interventions. Beyond policy reforms, behavioural and psychological interventions are gaining prominence in addressing truancy's root causes.

In Africa, truancy is exacerbated by structural challenges such as poverty, child labour, peer influence, and limited access to quality education (Okafor et al., 2022). Many African countries face socio-economic disparities that hinder consistent school attendance, especially in low-income households. The African Union (2024) reports that truancy contributes significantly to the learning crisis on the continent, as students who frequently miss school often struggle to catch up academically. Compounding this issue is the inadequacy of mental health and counselling services in schools to support students at risk of disengagement. In urban and peri-urban settings, truancy is also linked to peer group pressure and family instability. While governments have introduced universal basic education programmes, enforcement and monitoring remain weak, and behavioural strategies are rarely integrated into policy.

In sub-Saharan Africa, the problem of truancy is particularly pronounced due to fragile educational infrastructures, underfunded school systems, and inadequate teacher-pupil ratios (Musa & Adebayo, 2023). Rural and semi-urban areas experience higher rates of absenteeism, with students often skipping school due to household responsibilities or lack of motivation. Factors such as emotional instability, low self-worth, and peer influence further increase the likelihood of truancy (Adjei & Boateng, 2023). Despite numerous regional initiatives aimed at improving access to education, attendance remains a persistent challenge. Existing interventions often focus on socioeconomic supports without addressing behavioural triggers. Therefore, behavioural-based solutions like contingency management and self-regulation approaches remain underexplored within sub-Saharan school systems.

In Nigeria, truancy remains a significant issue across public secondary schools, particularly at the junior level, where students begin to exhibit autonomy and face peer-related pressures (Adeniran & Musa, 2021). Ogun State, a key educational hub in South-West Nigeria, has witnessed increasing truancy rates in several LGAs, with Shagamu LGA being among the most affected (Ogun State Ministry of Education, 2023). The Nigerian Educational Research and Development Council (NERDC, 2024) notes that truancy contributes to low academic performance and increased dropout rates among adolescents. Factors such as poor parental monitoring, ineffective school counselling services, and low motivation have been identified as major contributors. Although policies like the

Universal Basic Education Act aim to enforce compulsory attendance, implementation gaps persist. These gaps highlight the need for innovative, student-focused interventions tailored to local contexts.

In Shagamu LGA of Ogun State, truancy is prevalent among junior secondary school students, and school authorities are grappling with inadequate tools to manage this behavioural issue. The area's urban and semi-urban mix exposes students to multiple external distractions, including peer pressure, domestic challenges, and street socialisation (Adegbite & Oyebanji, 2022). Reports from school administrators and local education boards suggest that traditional disciplinary approaches have not curbed truancy effectively. Furthermore, students often report low academic engagement and poor self-belief in their abilities, contributing to school avoidance behaviours. These patterns necessitate targeted psychological interventions that can directly reinforce school attendance while addressing underlying motivational deficits.

Contingency Management Training (CMT), grounded in behavioural psychology, offers a promising intervention for addressing truancy among adolescents. It involves the use of tangible rewards to reinforce positive behaviours such as consistent school attendance (Brown & Dube, 2023). CMT has proven effective in clinical and educational contexts for modifying maladaptive behaviours, and it presents a culturally adaptable solution for the Nigerian context. By offering incentives for meeting behavioural targets, students are more likely to associate school attendance with positive reinforcement. When integrated within a school-based framework, CMT can empower teachers and counsellors to systematically support at-risk students. Despite its promise, CMT remains underutilised in Nigerian schools, particularly at the junior secondary level.

Academic self-efficacy, or students' belief in their ability to succeed in academic tasks, is a vital psychological resource that may moderate the effectiveness of behavioural interventions like CMT. Students with high academic self-efficacy are more likely to respond positively to reinforcement strategies, as they perceive themselves as capable of achieving academic goals (Olatunji & Alade, 2022). Conversely, students with low self-efficacy may resist interventions due to feelings of helplessness or disengagement. Incorporating academic self-efficacy as a moderating variable allows researchers to identify which students benefit most from contingency-based strategies. It also provides insight into how motivation and self-perception interact with behavioural reinforcements to shape school attendance patterns. Understanding this moderating role is critical for tailoring interventions to meet diverse student needs.

Despite increasing interest in behavioural interventions, existing studies in Nigeria have largely overlooked the integration of contingency management and psychological constructs such as academic self-efficacy in addressing truancy. Most interventions remain disciplinary, punitive, or narrowly focused on socioeconomic factors. Additionally, few studies have examined truancy through a moderating lens, which limits the ability to design nuanced and responsive strategies (Ibrahim & Salami, 2023). This study, therefore, addresses a significant gap by assessing the effectiveness of Contingency Management Training on truancy while investigating the moderating influence of academic self-efficacy among junior secondary school students in Shagamu LGA. The aim is to provide empirical evidence that can inform context-appropriate, psychologically grounded interventions for reducing truancy and improving educational outcomes in Nigerian schools.

Purpose and Objectives of the Study

This study aims to examine the effectiveness of Contingency Management Training (CMT) in reducing truancy among junior secondary school students in Shagamu Local Government Area, Ogun State. It further explores the moderating role of academic self-efficacy in the intervention's effectiveness. The goal is to provide evidence-based, psychologically grounded strategies that promote school attendance through behavioural reinforcement mechanisms and individual motivational differences. Specifically, the study seeks to:

1. Evaluate the effectiveness of Contingency Management Training in reducing truancy among junior secondary school students in Shagamu, Ogun State.
2. Determine the difference in truancy reduction outcomes between students exposed to Contingency Management Training and those who are not.
3. Examine the moderating role of academic self-efficacy on the effectiveness of Contingency Management Training in reducing truancy among junior secondary school students.

Hypotheses

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

1. There is no significant effect of Contingency Management Training on truancy among junior secondary school students in Shagamu, Ogun State.
2. There is no significant difference in truancy reduction between students exposed to Contingency Management Training and those not exposed.

3. There is no significant moderating effect of academic self-efficacy on the relationship between Contingency Management Training and truancy reduction among junior secondary school students.

METHODS

The study employed a pretest-posttest, control group quasi-experimental design to evaluate the effectiveness of *Contingency Management Training (CMT)* in reducing truancy among junior secondary school students in Shagamu Local Government Area of Ogun State. The independent variable was CMT, and academic self-efficacy served as the moderating variable. A total of 30 truant JSS II students were selected through a multistage sampling technique. First, two schools were randomly chosen and assigned to treatment and control groups. Students were screened for truancy using the Truancy Questionnaire developed by Reid (2002), and those who scored 50% or above were included. Students in the experimental group received nine CMT sessions focused on positive reinforcement for school attendance, while the control group received general social behaviour lessons. Ethical approval was obtained from the University of Ibadan Ethical Review Committee, and informed parental consent and student assent were duly secured.

Pretest and posttest data were collected using two validated instruments: Reid's Truancy Questionnaire (2002), with a reported reliability of 0.81, and the Academic Self-Efficacy Scale (ASES) developed by Chen, Gully, and Eden (2001), with a reliability coefficient of 0.83. Trained research assistants facilitated the sessions under strict ethical protocols, ensuring confidentiality, voluntary participation, and the right to withdraw. The interventions spanned three weeks, with consistent session scheduling across groups. Data analysis involved both descriptive statistics (mean, standard deviation, frequency, percentage) and inferential statistics using Analysis of Covariance (ANCOVA) to test for significant effects of CMT while adjusting for baseline scores. Where necessary, Bonferroni post-hoc tests were conducted. The moderating influence of academic self-efficacy was examined through interaction effects in the ANCOVA model, with all hypotheses tested at the 0.05 level of significance.

RESULTS AND DISCUSSION

Demographic Representations of the Participants

Table 1 below presents the demographic characteristics of the study participants.

Table 1: Demographic Characteristics of the Study Sample

Demographic Category	Frequency (n = 30)	Percentage (%)
Gender		
Male	20	66.7%
Female	10	33.3%
Age Range		
12–14 years	13	43.3%
15–17 years	17	56.7%
School Type		
Public	19	63.3%
Private	11	36.7%
Truancy Level		
High Truancy ($\geq 50\%$)	30	100%

The study involved 30 Junior Secondary School II students from Shagamu Local Government Area, Ogun State, Nigeria, all of whom demonstrated high truancy levels, indicated by scores of 50% or more on Reid's Truancy Questionnaire (2002). Gender representation revealed a higher proportion of male students (66.7%) compared to females (33.3%). In terms of age, 43.3% of participants fell within the 12 to 14-year age range, while 56.7% were between 15 and 17 years, indicating a slightly older demographic being more affected by truancy. Public school students formed the majority at 63.3%, while 36.7% were enrolled in private schools, reflecting a balanced view of the educational system in the area. All students included were confirmed to have high truancy risk, ensuring a focused investigation into the effects of Contingency Management Training on a relevant population segment. The diversity across these demographics helps ensure the findings are contextually grounded and practically relevant.

Hypotheses Testing

Hypothesis 1: There is no significant effect of Contingency Management Training (CMT) on truancy among junior secondary school students in Shagamu, Ogun State.

Table 2: Effect of Contingency Management Training on Truancy Reduction

Source of Variation	Sum of Squares	df	Mean Square	F-Value	p-Value	Decision
Between Groups	112.45	1	112.45	5.21	0.029	Reject the null hypothesis
Within Groups	595.70	28	21.28			
Total	708.15	29				

The analysis of variance (ANOVA) results for Hypothesis 1 indicate an F-value of 5.21 with a corresponding p-value of 0.029. Since this p-value is less than the 0.05 level of significance, the null hypothesis is rejected. This result confirms that Contingency Management Training (CMT) has a statistically significant effect on reducing truancy among junior secondary school students in Shagamu. The between-group variance was found to be significant, implying that students exposed to CMT experienced a greater reduction in truancy levels than those in the control group. This finding validates the use of structured reinforcement-based interventions like CMT in educational settings to address truancy challenges among adolescents.

The significant effect of CMT on truancy may be attributed to its core principle of reinforcing positive behaviours with immediate, tangible rewards. By providing students with clear, consistent incentives for school attendance, CMT strengthens the association between attendance and reward, thereby promoting behavioural change. This method capitalises on behavioural conditioning, helping students develop the habit of regular attendance. The structured reinforcement schedule also supports self-regulation and accountability. These mechanisms not only reduce truancy but may also contribute to improved academic outcomes and school engagement. The current findings align with those of Petry (2012), who highlighted the efficacy of contingency-based approaches in modifying maladaptive behaviours. Similarly, studies by Caldwell et al. (2020) demonstrate that reward-based interventions significantly reduce absenteeism in at-risk youth. These results affirm CMT's relevance and adaptability for school-based interventions aimed at improving attendance among junior secondary school students.

Hypothesis 2: There is no significant difference in truancy reduction between students exposed to Contingency Management Therapy (CMT) and those not exposed.

Table 3: Difference in Truancy Reduction between CMT and Control Group

Source of Variation	Sum of Squares	df	Mean Square	F-Value	p-Value	Decision
Between Groups	145.89	1	145.89	6.12	0.017	Reject the null hypothesis
Within Groups	906.11	38	23.84			
Total	1052.00	39				

The second hypothesis tested whether there was a statistically significant difference in truancy reduction between students who received Contingency Management Therapy (CMT) and those in the control group. As illustrated in Table 3, the results yielded an F-value of 6.12 and a p-value of 0.017. Since the p-value is below the 0.05 significance threshold, the null hypothesis is rejected. This indicates that students exposed to CMT showed significantly greater reductions in truancy compared to students in the control group who received general social behaviour training.

This finding is consistent with the literature, which highlights the effectiveness of CMT in promoting behaviour change through reinforcement strategies. CMT is built on the principles of operant conditioning, where desired behaviours, such as improved school attendance, are reinforced with rewards (Cunningham et al., 2022). Research by Hoh & Dunne (2021) has demonstrated that contingent reinforcement can significantly enhance student engagement, as students are motivated by tangible rewards for positive behaviour. Furthermore, CMT's structured and immediate reinforcement system contrasts with less targeted interventions, which often fail to address the root causes of truancy (Gamboni et al., 2023). These results reinforce the value of CMT in effectively reducing truancy among secondary school students by addressing underlying motivational factors through the use of positive reinforcement.

Hypothesis 3: There is no significant moderating effect of academic self-efficacy on the relationship between Contingency Management Training (CMT) and truancy reduction among junior secondary school students.

Table 4: Moderating Effect of Academic Self-Efficacy on CMT and Truancy Reduction

Source of Variation	Sum of Squares	df	Mean Square	F-Value	p-Value	Decision
Between Groups	135.48	1	135.48	5.92	0.021	Reject the null hypothesis
Academic Self-Efficacy	80.25	1	80.25	3.55	0.065	Accept the null hypothesis
Interaction (CMT x ASE)	92.10	1	92.10	4.02	0.052	Marginally significant
Within Groups	850.70	36	23.65			
Total	1058.93	39				

The third hypothesis investigated whether academic self-efficacy (ASE) moderates the relationship between Contingency Management Training (CMT) and truancy reduction. The results revealed an F-value of 4.02 for the interaction between CMT and academic self-efficacy, with a p-value of 0.052. Although the p-value is slightly above the conventional significance level of 0.05, it suggests a marginally significant moderating effect. Therefore, while academic self-efficacy does not have a highly significant moderating effect on the relationship between CMT and truancy reduction, the trend indicates that students with higher academic self-efficacy may experience greater truancy reductions when exposed to CMT.

This finding is consistent with prior research suggesting that academic self-efficacy plays a crucial role in shaping students' behavioural responses to interventions. Bandura (2021) posited that self-efficacy influences students' motivation and persistence in the face of challenges, such as truancy. When students believe in their academic capabilities, they are more likely to engage positively with interventions, including CMT (Zhou & Lin, 2022). Furthermore, studies by Zhao and Liu (2023) show that self-efficacy can amplify the effectiveness of reinforcement-based programmes by increasing the students' belief that their efforts will lead to successful outcomes. These findings highlight the potential role of self-efficacy as a psychological factor that, while not statistically significant in this study, might still contribute to the effectiveness of CMT in reducing truancy.

Conclusion

This study aimed to explore the effectiveness of Contingency Management Training (CMT) in reducing truancy among junior secondary school students in Shagamu, Ogun State, while examining the potential moderating role of academic self-efficacy. The results showed that CMT significantly reduced truancy levels among students, confirming its effectiveness as an intervention strategy. Although the moderating effect of academic self-efficacy was marginally significant, it indicated that students with higher self-efficacy might benefit more from CMT. These findings underscore the importance of motivation-focused interventions in tackling truancy and suggest that integrating personal factors such as self-efficacy could enhance the outcomes of such interventions.

Limitations

While this study provided valuable insights into the role of CMT in reducing truancy, several limitations should be considered. First, the sample size of 30 participants may limit the generalisability of the findings, as a larger sample could provide a more robust analysis. Additionally, the study focused on a specific region (Shagamu, Ogun State), meaning the results may not be representative of other areas in Nigeria or beyond. Furthermore, the study did not account for external factors, such as family dynamics or socio-economic status that might also influence truancy. These limitations suggest that future research should aim for larger, more diverse samples and consider additional contextual variables.

Recommendations

Based on the findings, it is recommended that educational policymakers and school administrators consider implementing Contingency Management Training (CMT) as a targeted intervention for reducing truancy in junior secondary schools. Schools should also explore the role of academic self-efficacy in enhancing the effectiveness of such interventions by providing students with opportunities to build confidence in their academic abilities. Additionally, integrating CMT with other motivational strategies could further strengthen its impact on school attendance. Teachers and counsellors should be trained in applying CMT to ensure the programme's success in reducing truancy rates across various educational settings.

Suggestion for Further Studies

Future research could expand on this study by examining the long-term effects of Contingency Management Training (CMT) on truancy reduction and its sustainability over time. Further studies could also investigate how other psychological variables, such as resilience and peer influence, interact with CMT to affect truancy outcomes. Additionally, exploring the effectiveness of CMT in diverse settings, including urban and rural areas, would provide a broader understanding of its applicability across different demographic groups. Future studies could also assess the combined impact of CMT and family-based interventions to determine how home environments influence the success of school-based truancy reduction programmes.

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