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EFFECTS OF SELF-CONTROL THERAPY AND CONVENTIONAL COUNSELLING ON UNDERGRADUATE BET GAMBLING: A QUASI-EXPERIMENTAL STUDY

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ABSTRACT

Bet gambling has become a prevalent problem among undergraduates, driven by impulsivity, weak self-regulation, and cognitive distortions about chance and reward. This study investigated the effects of Self-Control Therapy (SCT) and Conventional Counselling (CS) on bet gambling behaviour among tertiary institution undergraduates in Anambra State, Nigeria. Employing a quasi-experimental pretest–post-test control group design, 96 participants were purposively selected from three institutions and assigned to two experimental groups (SCT and cognitive restructuring therapy) and one control group (CS). Data were collected using the Bet Gambling Scale (BGS) and the Undergraduates' Bet Gambling Reduction Scale (SBGRS), validated by experts and tested for reliability (Cronbach's alpha: 0.87 and 0.85). Interventions were delivered over six weeks through structured group counselling sessions, focusing on self-regulatory skill development, impulse management, and modification of irrational gambling beliefs. Analysis of mean scores and ANCOVA revealed that participants exposed to SCT exhibited a significant reduction in bet gambling behaviour (pretest mean = 63.25; post-test mean = 29.50; mean reduction = 33.75) compared with the CS group (pretest mean = 62.91; post-test mean = 66.16; mean reduction = 3.25), with ANCOVA confirming a strong treatment effect ($F(1,61)=1196.004$, $p<0.001$, $R^2=.952$). The findings underscore the efficacy of structured, theory-driven interventions in mitigating gambling behaviour among undergraduates and highlight the limitations of conventional counselling. The study recommends the integration of SCT-based programmes, training of counsellors, preventive education, and policy reforms in tertiary institutions to reduce gambling-related risks.

Keywords: Self-Control Therapy, Cognitive Restructuring, Bet Gambling, Undergraduates, Nigeria, Quasi-Experimental Design

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Introduction

Bet gambling has become increasingly prevalent among undergraduates in tertiary institutions across the globe, with young adults identified as one of the highest-risk groups for the development of gambling-related problems (Derevensky & Gupta, 2019). In addressing gambling-related behaviours, self-control therapy and cognitive restructuring therapy are two prominent psychological interventions. Self-control therapy refers to a behaviourally oriented counselling approach that aims to strengthen individuals' ability to regulate impulses, delay gratification, and modify maladaptive behaviours through techniques such as self-monitoring, goal setting, and reinforcement of adaptive responses (Baumeister & Vohs, 2018; Hagger et al., 2019). Cognitive restructuring therapy, rooted in cognitive–behavioural theory, focuses on identifying, challenging, and replacing irrational or distorted gambling-related beliefs—such as illusion of control, gambler's fallacy, and unrealistic expectations of winning—with more rational and adaptive cognitions (Beck, 2011; Toneatto & Ladouceur, 2019). These therapeutic approaches are particularly relevant for undergraduate populations, where gambling behaviour is often driven by impulsivity, weak self-regulation, and faulty cognitions about chance and reward.

The theoretical foundation of this study is anchored primarily on Self-Control Theory and Cognitive–Behavioural Theory (CBT). Self-Control Theory, as advanced by Baumeister, Vohs, and colleagues, posits that self-control is a limited but trainable psychological resource that enables individuals to override immediate impulses in favour of long-term goals (Baumeister & Vohs, 2018). Within the context of gambling, inadequate self-control increases susceptibility to impulsive betting, loss-chasing behaviour, and continued gambling despite negative consequences. Self-control therapy therefore operates on the assumption that strengthening regulatory capacity will reduce gambling urges and promote behavioural restraint among undergraduates.

Similarly, Cognitive–Behavioural Theory, originally articulated by Beck (2011), provides a strong theoretical basis for cognitive restructuring therapy. CBT maintains that maladaptive behaviours are largely sustained by distorted cognitions and faulty belief systems. In gambling behaviour, these distortions include erroneous beliefs about probability, perceived control over random outcomes, and exaggerated expectations of financial gain. Cognitive restructuring therapy seeks to modify these irrational beliefs, thereby weakening the cognitive drivers of gambling behaviour and promoting healthier decision-making patterns (Toneatto & Ladouceur, 2019).

In addition, the study is indirectly informed by Social Learning Theory, which posits that behaviour is learned through observation, imitation, and reinforcement within social contexts (Bandura, 1986). Among undergraduates, gambling behaviour is often reinforced through peer influence, social normalization, and media exposure to betting

success stories. This theoretical lens helps explain why gambling persists in university environments and why individual-focused interventions such as counselling therapies must also address learned beliefs and behavioural reinforcement patterns.

In Nigeria, the expansion of online sports betting platforms, widespread smartphone ownership, and weak regulatory enforcement have significantly increased undergraduate involvement in gambling activities (Adebayo & Kolawole, 2018; Akinwale, 2020). Studies conducted in Nigerian universities reveal that a substantial proportion of undergraduates engage in betting activities, often motivated by expectations of quick financial gain and social acceptance among peers (Okafor, Eze, & Nwankwo, 2020; Salami & Olugbenga, 2021). In Anambra State, observational reports suggest that bet gambling has become a common behavioural practice among undergraduates, raising serious concerns among educators, counsellors, and public health practitioners.The increasing engagement of undergraduates in bet gambling has serious implications, including financial difficulties, academic underperformance, psychological distress, strained interpersonal relationships, and increased risk of developing problem or pathological gambling, which may have long-term social, emotional, and educational consequences (American Psychiatric Association, 2013; Dowling et al., 2016; Canale et al., 2019)

A growing body of literature has documented the negative consequences of bet gambling among undergraduates. Research across different cultural contexts links excessive gambling with financial difficulties, psychological distress, academic underperformance, and strained interpersonal relationships (Dowling et al., 2016; Canale et al., 2019). Nigerian studies similarly report higher levels of anxiety, depression, poor academic outcomes, and disrupted family relationships among undergraduate gamblers (Okorie & Ezeugwu, 2019; Salami & Olugbenga, 2021). Persistent gambling behaviour may progress into problem or pathological gambling, characterised by impaired control and continued gambling despite adverse outcomes (American Psychiatric Association, 2013).

Studies conducted outside Nigeria have consistently identified poor self-control, impulsivity, peer influence, and distorted gambling cognitions as major predictors of gambling behaviour among undergraduates (Tang & Baker, 2016; Gainsbury et al., 2017; Canale, Vieno, & Griffiths, 2019). These findings further reinforce the relevance of Self-Control Theory and Cognitive–Behavioural Theory as explanatory frameworks for gambling behaviour and as foundations for therapeutic intervention.

In contrast, Nigerian studies have largely focused on prevalence and correlates of gambling behaviour, with limited emphasis on intervention-based research (Ajayi & Ayodele, 2021; Okorie &Ezeugwu, 2019). Most adopted descriptive or correlational designs, offering limited insight into the effectiveness of counselling interventions.

Conventional approaches such as moral admonition and punitive measures have yielded minimal success (Akinwale, 2020), underscoring the need for theoretically grounded and evidence-based counselling strategies as it being done in this study.

More importantly, a methodological gap persists, as few Nigerian studies have employed pretest–post-test comparative designs to evaluate changes in gambling behaviour following structured therapeutic interventions (Akinwale, 2020; Salami & Olugbenga, 2021). Existing studies are limited in scope, rely on weak quasi-experimental designs, and rarely focus on tertiary institutions in Anambra State.

However, the limited availability of well-designed, theory-driven intervention studies constrains understanding of effective counselling approaches for reducing bet gambling among Nigerian undergraduates. This gap necessitates the present study, which evaluates the effects of self-control and cognitive restructuring therapies using a pretest–post-test comparative design, thereby providing context-specific and theoretically informed evidence to guide counselling practice and policy in tertiary institutions in Anambra State.

Consequently, the limited availability of well-designed, theory-driven intervention studies constrains understanding of effective counselling approaches for reducing bet gambling among Nigerian undergraduates. This identified gap necessitates the present study, which evaluates the effects of self-control and cognitive restructuring therapies on bet gambling among tertiary school undergraduates in Anambra State using a pretest–post-test comparative design. By comparing undergraduates exposed to self-control therapy with those receiving conventional counselling, the study provides context-specific and theoretically informed evidence capable of strengthening counselling practice and policy formulation in tertiary institutions. The primary aim of this study is to examine the effects of self-control and cognitive restructuring therapies on bet gambling behaviour among undergraduates in tertiary institutions in Anambra State.

It is based on the aforementioned issues that this study opts out to provide answers to the research question below:
What are the pretest and posttest mean scores of bet gambling between undergraduates exposed to self-control therapy and conventional counselling?

Literature Review

Bet gambling has become increasingly prevalent among undergraduates in tertiary institutions worldwide, with young adults recognized as one of the groups most vulnerable to developing gambling-related problems (Derevensky& Gupta, 2019). To address gambling behaviour, self-control therapy and cognitive restructuring therapy have emerged as two key psychological interventions. Self-control therapy is a behaviourally oriented counselling strategy designed to enhance individuals' capacity to regulate impulses, delay gratification, and

adjust maladaptive behaviours through techniques such as self-monitoring, goal-setting, and reinforcement of adaptive responses (Baumeister & Vohs, 2018; Hagger et al., 2019). Cognitive restructuring therapy, grounded in cognitive–behavioural theory, involves identifying, challenging, and replacing irrational or distorted beliefs related to gambling—such as illusions of control, gambler's fallacy, and unrealistic expectations of winning—with more rational and adaptive thought patterns (Beck, 2011; Toneatto& Ladouceur, 2019). These interventions are particularly pertinent for undergraduate populations, where gambling is often driven by impulsivity, weak self-regulation, and erroneous cognitions about chance and reward. The increasing prevalence of gambling among students has serious implications, including financial strain, diminished academic performance, psychological distress, strained relationships, and a heightened risk of developing problem or pathological gambling, which can have lasting social, emotional, and educational consequences (American Psychiatric Association, 2013; Dowling et al., 2016; Canale et al., 2019).

The theoretical underpinnings of self-control and cognitive restructuring therapies are primarily informed by Self-Control Theory, Cognitive–Behavioural Theory, and Social Learning Theory. Self-Control Theory posits that self-control is a finite yet trainable psychological resource that enables individuals to suppress immediate impulses in favour of long-term goals (Baumeister & Vohs, 2018). In gambling, deficient self-control increases vulnerability to impulsive betting, chasing losses, and continued gambling despite adverse outcomes. Interventions based on self-control theory aim to strengthen regulatory mechanisms, reduce gambling urges, and promote behavioural restraint among students. Similarly, Cognitive–Behavioural Theory, as articulated by Beck (2011), proposes that maladaptive behaviours are sustained by distorted cognitions. In the context of gambling, these include erroneous perceptions of probability, exaggerated control over random outcomes, and inflated expectations of financial gain. Cognitive restructuring therapy targets these distortions to weaken the cognitive drivers of gambling and foster healthier decision-making patterns (Toneatto& Ladouceur, 2019). Complementing these perspectives, Social Learning Theory emphasizes that behaviour is acquired through observation, imitation, and reinforcement within social contexts (Bandura, 1986). Peer influence, social normalization, and media exposure to gambling success stories reinforce gambling behaviour among undergraduates, demonstrating the importance of addressing learned beliefs and behavioural reinforcement in intervention programmes.

In Nigeria, rapid growth of online sports betting platforms, widespread smartphone ownership, and limited regulatory enforcement have substantially increased gambling participation among university students (Adebayo & Kolawole, 2018; Akinwale, 2020). Research conducted in various Nigerian universities indicates that a

significant proportion of undergraduates engage in betting, often motivated by potential financial gain and peer acceptance (Okafor, Eze, & Nwankwo, 2020; Salami & Olugbenga, 2021). Observational reports further suggest that gambling is widespread across multiple states, raising concerns for educators, counsellors, and public health practitioners. Excessive gambling has been linked to financial strain, poor academic performance, psychological distress, and disrupted interpersonal relationships (Dowling et al., 2016; Canale et al., 2019). Nigerian studies reinforce these findings, reporting higher levels of anxiety, depression, and academic difficulties among undergraduate gamblers compared with non-gamblers (Okorie &Ezeugwu, 2019; Salami & Olugbenga, 2021). Left unmanaged, gambling behaviour may escalate into problem or pathological gambling, characterised by impaired control and persistence despite adverse consequences (American Psychiatric Association, 2013).

Empirical studies outside Nigeria have further identified self-control deficits, impulsivity, peer influence, and distorted gambling cognitions as key determinants of gambling among university students (Tang & Baker, 2016; Gainsbury et al., 2017; Canale, Vieno, & Griffiths, 2019). For instance, Tang and Baker (2016) reported that low self-regulatory capacity strongly predicted compulsive gambling in Australian students. Gainsbury et al. (2017) demonstrated that irrational beliefs, including illusions of control and overestimation of winning probabilities, significantly influenced gambling frequency in young adults in the United States. Canale et al. (2019) found that impulsivity and peer norms were significant predictors of problem gambling among European undergraduates. These studies emphasize the central role of self-control deficits and maladaptive cognitions in sustaining gambling behaviour, supporting the relevance of interventions based on self-control and cognitive restructuring.

Additionally, longitudinal research by Calado, Alexandre, and Griffiths (2017) found that higher gambling participation in university students predicted increased impulsivity and emotional distress over time. Ladouceur, Sylvain, and Gosselin (2007) showed in a randomized controlled trial that integrating cognitive restructuring into behavioural therapy effectively reduced cognitive distortions and gambling behaviour among college students compared with controls. Cowlishaw et al. (2012) reported that interventions incorporating self-control techniques, such as self-monitoring and coping skills training, consistently outperformed minimal or no interventions in reducing problem gambling severity. Meyer et al. (2020) observed that psychoeducational sessions targeting gambling risks reduced both gambling frequency and cognitive distortions in European university students relative to general health education. Russell, Hing, and Browne (2019) highlighted that, young adults engaging in online gambling platforms were at elevated risk for problem gambling, mediated by peer modelling and social reinforcement, while Hing et al. (2017) noted that mobile betting accessibility

exacerbated gambling severity. Melville, Hinchy, and Adams (2007) found that brief cognitive-behavioural group interventions yielded sustained reductions in gambling behaviour and cognitive distortions at three-month follow-up. Collectively, these findings underscore both the multifactorial determinants of gambling behaviour and the efficacy of self-control and cognitive restructuring-based interventions.

Despite the empirical documentation of the effectiveness of these therapies internationally, there remains a significant lack of empirical research in Nigeria evaluating their use among undergraduate populations. Most Nigerian studies (Okorie &Ezeugwu, 2019; Ajayi & Ayodele, 2021) are descriptive or correlational, focusing on prevalence and predictors rather than employing robust pretest–post-test comparative designs as utilized in the present research. Moreover, only a few studies (Okorie &Ezeugwu, 2019; Akinwale, 2020; Salami & Olugbenga, 2021) have explored the comparative effects of self-control therapy versus conventional counselling, and there is limited empirical evidence drawn from multiple tertiary institutions across diverse Nigerian states. This lack of comprehensive, intervention-based research underscores the need for the current study, which aims to generate context-specific, theoretically grounded, and empirically informed evidence on the effectiveness of self-control and cognitive restructuring therapies in reducing bet gambling among Nigerian undergraduates, thereby informing institutional counselling policies and guiding the formulation of evidence-based intervention programmes within tertiary institutions.

Methodology

Research Design

This study employed a quasi-experimental, pretest–post-test control group design. This design is suitable when random assignment of participants is not feasible or ethical, allowing the investigation of cause-and-effect relationships in naturalistic settings. According to Ukozor, Onah, Ekwonye, and Ogomaka (2021), a quasi-experimental design resembles an experimental design but lacks random assignment. Onah (2023) notes that such designs are appropriate in schools where pure experimental designs may disrupt educational activities.

Three groups were used in this study: two experimental groups receiving the treatment packages of self-control and cognitive restructuring therapies, and one control group that did not receive any intervention. The dependent variable was bet gambling. The symbolic representation of the design is shown below:

Group	Pretest (O1)	Treatment (X)	Posttest (O2)	Follow-up (O3)	Description
E1	O1	X1 (Self-control therapy)	O2	O3	Experimental Group 1
E2	O1	X2 (Cognitive restructuring therapy)	O2	O3	Experimental Group 2
C	O1	- (No treatment)	O2	O3	Control Group

Key:

- **E1** = Experimental Group 1 (Self-control therapy)
- **E2** = Experimental Group 2 (Cognitive restructuring therapy)
- **C** = Control Group (no treatment)
- **O1** = Pretest measurement of bet gambling
- **X1** = Self-control therapy intervention
- **X2** = Cognitive restructuring therapy intervention
- **O2** = Posttest measurement
- **O3** = Follow-up measurement

Area of Study

The study was conducted across all tertiary institutions in Anambra State, including Nnamdi Azikiwe University Awka, Federal Polytechnic Oko, Chukwuemeka Odumegwu Ojukwu University (COOU) Igbariam, Nwafor Orizu College of Education Nsugbe, Federal College of Education Umunze (FCEU), Anambra State College of Agriculture (ASCA, Mgbakwu), Anambra State Polytechnic, Mgbakwu, School of Nursing Odumegwu Ojukwu University Teaching Hospital, Nkpor, and Anambra State College of Health, Obosi. Anambra State is bordered by Imo State (south), Kogi State (north), Delta State (west), and Enugu State (east). The predominant language is Igbo, and the state is highly literate with significant tertiary enrolment, making it appropriate for the study.

Population of the Study

The population consisted of 106,568 undergraduates, comprising 43,115 males and 63,453 females, across the nine public tertiary institutions in Anambra State (Students' Affairs Units, 2023 academic session).

Sample Size and Sampling Technique

A total of 96 undergraduates were selected using purposive sampling, distributed as 32 participants each from Nnamdi Azikiwe University, Awka; Federal Polytechnic, Oko; and Federal College of Education, Umunze, with equal representation of males and females. Participants were selected based on a score above 75 on the rating scales assessing positive attitude to bet gambling. Screening was conducted using the Bet Gambling Scale (BGS) and Undergraduates' Bet Gambling Reduction Scale (SBGRS) with the assistance of trained research assistants and institutional counsellors. Two institutions served as experimental groups, and one as a control group.

Instrument for Data Collection

The Bet Gambling Scale (BGS) and Undergraduates' Bet Gambling Reduction Scale (SBGRS) were developed by the researcher, based on Andreas, Nic, Lisa, and Osborne (2015). Both instruments contained two parts: Part A (bio-data) and Part B (30 items measuring cognitive, affective, and behavioural attitudes toward gambling). Responses were rated on a 4-point Likert scale (SA=4, A=3, D=2, SD=1), with higher scores (≥75) indicating a positive attitude

AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.17 (1), January-April, 2026; https://ajemates.org

toward bet gambling. Items were reversed for negative statements.

Validation of the Instrument

The instruments were validated by three Guidance and Counselling specialists and two Measurement and Evaluation experts from Imo State University, Owerri. Their feedback led to the refinement of the instrument from forty to thirty items, aligning it with the study objectives (Appendix VIII, pg. 178).

Reliability of the Instrument

A trial test was conducted at COOU Igbariam with 30 undergraduate gamblers not in the main study. Data were analysed using Cronbach's alpha, yielding 0.87 for BGS and 0.85 for SBGRS, indicating high reliability

Method of Data Collection

Research assistants administered the instruments after orientation and explanation. Negative items were reverse-scored, and total scores were calculated for pretest purposes.

Treatment Plan

Group counselling sessions lasted six weeks (two sessions per week, 45 minutes each). The sessions included introduction, discussion of gambling, self-control and cognitive restructuring techniques, practice, reinforcement, homework, and rewards. Self-control therapy focused on enhancing regulation and adaptive behaviour, while cognitive restructuring aimed to challenge irrational gambling beliefs and replace them with rational alternatives. The control group received conventional counselling.

Week	Session	Duration	Activities	Focus
1	1 & 2	45 mins	Orientation & familiarization	Understanding therapy principles
2	3 & 4	45 mins	Lesson plan development	Integrating therapy techniques
3	5 & 6	45 mins	Presentation & skill practice	Mastery of techniques
4	7 & 8	45 mins	Discussion & reinforcement	Challenging irrational beliefs
5	9 & 10	45 mins	Review & practice	Strengthening skills
6	11 & 12	45 mins	Homework & evaluation	Ensuring sustainability

Control of Extraneous Variables

i. Research assistants were familiar counsellors to minimize Hawthorne effects.
ii. Same venue and moderate duration were maintained for all sessions.
iii. Different institutions were used for experimental and control groups to prevent interaction effects.
iv. Training and uniform supervision ensured consistent implementation.

Method of Data Analysis

Data were analysed using mean scores and standard deviations to answer research questions. Pre-test and post-test scores determined treatment effects. Analysis of Covariance (ANCOVA) at 0.05 significance level tested null hypotheses, adjusting for within-group error variance. Positive items were scored directly; negative items were reversed.

AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.17 (1), January-April, 2026; https://ajemates.org

Decision Rule

Higher mean scores indicated greater manifestation of positive attitudes toward bet gambling. A score of 2.5 or above on direct statements indicated positive attitude; reversed for negative statements. Null hypotheses were rejected if $P \leq 0.05$ and accepted if $P > 0.05$ (Dallal, 2012).

Data Analysis and Discussion of Findings

Research Question: What are the pretest and posttest mean scores of bet gambling between undergraduates exposed to self-control therapy and conventional counselling in Anambra State tertiary institutions Nigeria?

Table 1: Pre-test and Post-Test Mean Difference in Bet Gambling Scores and Standard Deviation of Undergraduates Exposed to Self-Control Therapy (SCT) and Conventional Counselling (CS)

Group	Pretest			Posttest		Mean reduction Scores	Mean reduction difference
	n	Mean	SD	Mean	SD		
SCT (Exp.)	32	63.25	5.029	29.50	4.472	33.75	30.50
CS (Ctrl)	32	62.91	6.935	66.16	5.594	3.25	

Source (Field Survey, 2025)

Table 1 presents the pre-test and post-test mean scores, standard deviations, and mean reduction in bet gambling scores for undergraduates exposed to Self-Control Therapy (SCT) and those who received Conventional Counselling (CS). At the pretest stage, the SCT group had a mean score of 63.25 with a standard deviation of 5.029, while the CS group had a similar mean score of 62.91 with a standard deviation of 6.935, indicating that both groups were relatively equivalent in terms of their initial gambling behaviours prior to any intervention. This equivalence at baseline confirms that the groups were comparable, ensuring that any subsequent differences in posttest scores could be attributed to the interventions rather than pre-existing disparities.

After the six-week intervention, the SCT group's mean score decreased markedly to 29.50 (SD = 4.472), reflecting a substantial reduction in bet gambling behaviour. In contrast, the CS group's mean score increased slightly to 66.16 (SD = 5.594), suggesting that conventional counselling had little to no impact on curbing gambling behaviours. The mean reduction in the SCT group was 33.75 points, compared to a minimal reduction of 3.25 points in the CS group. The difference in mean reduction between the two groups was 30.50, highlighting a clear and pronounced effect of Self-Control Therapy in reducing gambling tendencies among the undergraduates.

These results indicate that SCT was highly effective in helping participants develop better self-regulatory behaviours, manage impulses, and resist the urge to engage in bet gambling. The negligible change in the CS group implies that conventional counselling

AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.17 (1), January-April, 2026; https://ajemates.org

methods, as applied in this study, may not provide sufficient structure or strategies to produce significant behavioural change in gambling habits. Overall, the findings suggest that targeted interventions such as Self-Control Therapy, which actively train self-regulation and coping skills, are significantly more impactful than traditional counselling approaches for reducing gambling behaviour in undergraduate populations. This underscores the importance of adopting structured, evidence-based psychological therapies in university counselling programmes to effectively address the growing problem of bet gambling among students.

Research hypothesis: There is no significant difference between the pretest and posttest mean scores of bet gambling between undergraduates exposed to self-control therapy and conventional counselling.

Table 2: ANCOVA F-test Analysis for the Test of Hypothesis 1

Tests of Between-Subjects Effects

Dependent Variable: Posttest

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	21983.999[a]	2	10991.999	606.737	.000
Intercept	198.118	1	198.118	10.936	.002
Pretest	485.108	1	485.108	26.777	.000
Group	21667.492	1	21667.492	**1196.004**	**.000**
Error	1105.111	61	18.117		
Total	169491.000	64			
Corrected Total	23089.109	63			

a. R Squared = .952 (Adjusted R Squared = .951)

Source (Field Survey, 2025)

The results presented in table 2 indicate the outcomes of the ANCOVA F-test conducted to examine the effect of Self-Control Therapy (SCT) and Conventional Counselling (CS) on post-test bet gambling scores, controlling for pre-test scores. The analysis shows that the corrected model was statistically significant, $F(2,61) = 606.737, p < .001$, explaining a substantial proportion of variance in posttest scores ($R^2 = .952$, adjusted $R^2 = .951$), which implies that approximately 95% of the variance in post-test bet gambling behaviour can be accounted for by the combination of group membership and pre-test scores.

The intercept was significant ($F(1,61) = 10.936, p = .002$), indicating that the baseline level of posttest scores is meaningful when all other variables are held constant. The pre-test covariate was also significant ($F(1,61) = 26.777, p < .001$), confirming that initial gambling behaviour had a notable influence on posttest scores, justifying the use of ANCOVA to control for baseline differences. Most importantly, the effect of the intervention group on post-test scores was highly significant ($F(1,61) = 1196.004, p < .001$), demonstrating a strong

AJEMATES
African Journal of Educational Management, Teaching and Entrepreneurship Studies
VOL.17 (1), January-April, 2026; https://ajemates.org

treatment effect of SCT compared to CS. This confirms that undergraduates who received Self-Control Therapy exhibited a significantly greater reduction in bet gambling behaviour than those in the conventional counselling group, even after controlling for their initial pretest scores. The high F-value and extremely low p-value suggest that the observed difference in post-test scores is not due to chance, and the large R-squared value reinforces the conclusion that the intervention had a substantial and meaningful impact on reducing gambling behaviours.

Discussion

The results presented in Tables 1 and 2 collectively demonstrate the robust effectiveness of Self-Control Therapy (SCT) in reducing bet gambling behaviour among undergraduates, compared to Conventional Counselling (CS). Table 1 shows a marked reduction in mean gambling scores for the SCT group, from 63.25 at pretest to 29.50 at post-test, resulting in a substantial mean reduction of 33.75 points. In contrast, the CS group showed minimal improvement, with pretest and post-test means of 62.91 and 66.16, respectively, yielding a negligible mean reduction of 3.25 points. The pronounced difference in mean reduction of 30.50 points between the groups underscores the superior efficacy of SCT in curbing gambling tendencies among the participants. These results suggest that structured interventions targeting self-regulation and cognitive restructuring can produce significant behavioural change, whereas conventional counselling, which often lacks systematic skill-building or cognitive modification strategies, may be insufficient in achieving meaningful reductions in gambling behaviour.

The ANCOVA analysis in Table 2 corroborates these descriptive findings. The corrected model was highly significant, $F(2,61) = 606.737$, $p < .001$, explaining approximately 95% of the variance in posttest scores ($R^2 = .952$, Adjusted $R^2 = .951$). The pretest covariate was also significant ($F(1,61) = 26.777$, $p < .001$), confirming the importance of controlling for baseline gambling behaviour. Crucially, the effect of the intervention group was highly significant ($F(1,61) = 1196.004$, $p < .001$), indicating that the reduction in gambling behaviour among undergraduates exposed to SCT was not due to chance and was considerably greater than that observed in the CS group. This provides strong empirical evidence supporting the causal impact of SCT in reducing gambling tendencies among Nigerian undergraduates.

These findings align with international empirical studies emphasizing the role of self-control and cognitive restructuring in gambling reduction. For example, Tang and Baker (2016) found that low self-control significantly predicted compulsive gambling among Australian university students, while Gainsbury et al. (2017) demonstrated that distorted cognitions such as illusion of control and overestimation of winning probabilities strongly influenced gambling frequency in the United States. Similarly, Canale, Vieno, and Griffiths (2019) reported that impulsivity and peer norms significantly

affected problem gambling among European undergraduates. Intervention studies further reinforce these patterns; Ladouceur, Sylvain, and Gosselin (2007) showed that cognitive restructuring integrated with behavioural strategies significantly reduced gambling frequency and cognitive distortions in Canadian college students, while Cowlishaw et al. (2012) reported that interventions incorporating self-control components consistently produced meaningful reductions in gambling severity. Melville, Hinchy, and Adams (2007) similarly found sustained reductions in gambling behaviours following brief cognitive–behavioural group interventions in university samples. The current results replicate these international findings within a Nigerian context, extending the cross-country evidence that structured, theory-driven interventions are effective in curbing gambling behaviour among young adults.

Theoretically, the observed outcomes can be explained through Self-Control Theory (Baumeister & Vohs, 2018) and Cognitive–Behavioural Theory (Beck, 2011; Toneatto & Ladouceur, 2019). Self-Control Theory posits that self-regulation is a limited but trainable resource, and strengthening this capacity allows individuals to resist immediate impulses, delay gratification, and engage in adaptive decision-making. The substantial reduction in posttest scores for the SCT group reflects the successful enhancement of self-regulatory capacities among undergraduates, enabling them to manage gambling urges effectively. Cognitive–Behavioural Theory complements this by highlighting that, maladaptive behaviours are sustained by irrational cognitions; the cognitive restructuring component of SCT directly targets erroneous beliefs about gambling outcomes, challenging illusions of control, gambler's fallacy, and unrealistic expectations of winning. The integration of behavioural self-control techniques with cognitive restructuring therefore addresses both the impulsive and cognitive drivers of gambling behaviour, resulting in significant behavioural change.

The findings from tables 1 and 2 demonstrate that SCT is significantly more effective than conventional counselling in reducing bet gambling among Nigerian undergraduates. These results are consistent with both domestic and international empirical evidence, highlighting the critical role of self-regulation and cognitive restructuring in mitigating gambling behaviours. For instance, Tang and Baker (2016) reported that low self-control significantly predicted compulsive gambling among Australian university students, while Gainsbury et al. (2017) found that distorted cognitions such as illusion of control and overestimation of winning probabilities strongly influenced gambling frequency among young adults in the United States. Canale, Vieno, and Griffiths (2019) demonstrated that impulsivity and peer norms significantly affected problem gambling among European undergraduates. Intervention studies further support these findings: Ladouceur, Sylvain, and Gosselin (2007) showed that cognitive restructuring integrated with behavioural

strategies significantly reduced gambling frequency and cognitive distortions in Canadian college students; Cowlishaw et al. (2012) reported that interventions incorporating self-control components consistently produced meaningful reductions in gambling severity; and Melville, Hinchy, and Adams (2007) found sustained reductions in gambling behaviours following brief cognitive–behavioural group interventions in university samples. The findings also align with Nigerian studies (Okorie &Ezeugwu, 2019; Salami & Olugbenga, 2021), which noted that descriptive or moral-admonition-based counselling approaches were less effective in reducing gambling. Collectively, these empirical evidences reinforce the theoretical propositions of Self-Control Theory (Baumeister & Vohs, 2018) and Cognitive–Behavioural Theory (Beck, 2011; Toneatto& Ladouceur, 2019), emphasizing the importance of structured, empirically grounded interventions for policy and practice in tertiary institutions. They suggest that universities should adopt SCT-based counselling programmes to address the growing prevalence of bet gambling, ensuring interventions are not only theoretically informed but also effective across diverse cultural and educational contexts.

Conclusion

The findings of this study clearly demonstrate that Self-Control Therapy (SCT) is highly effective in reducing bet gambling behaviour among undergraduates, significantly outperforming Conventional Counselling (CS). Participants exposed to SCT exhibited substantial reductions in gambling tendencies, indicating enhanced self-regulatory capacities, improved impulse control, and the successful modification of irrational gambling cognitions. In contrast, conventional counselling produced minimal changes, highlighting the limitations of non-structured, non-theory-driven interventions. The study validates the theoretical underpinnings of Self-Control Theory and Cognitive–Behavioural Theory, illustrating that, interventions targeting both behavioural regulation and cognitive restructuring can produce meaningful and sustained behavioural change. Empirical evidence from both domestic studies (Okorie & Ezeugwu, 2019; Salami & Olugbenga, 2021) and international research (Tang & Baker, 2016; Gainsbury et al., 2017; Canale, Vieno, & Griffiths, 2019; Ladouceur, Sylvain, & Gosselin, 2007; Cowlishaw et al., 2012; Melville, Hinchy, & Adams, 2007) supports these conclusions, underscoring the universal relevance of structured, evidence-based therapeutic strategies for curbing gambling behaviours in young adults. Overall, SCT provides a robust, practical, and contextually relevant intervention model for reducing bet gambling among undergraduates in Nigerian tertiary institutions.

Policy Recommendations

i. Integration of Structured Counselling Programmes: Tertiary institutions should adopt structured, theory-driven counselling programmes, incorporating SCT and cognitive

restructuring techniques, as part of routine student support services.

ii. Training of Counsellors: University counsellors should receive specialized training in self-control and cognitive-behavioural interventions to effectively implement SCT-based programmes.

iii. Preventive Education and Awareness: Institutions should develop awareness campaigns and workshops targeting gambling risks, promoting self-regulation skills, and addressing cognitive distortions among students.

iv. Monitoring and Evaluation: Regular assessment of students' gambling behaviour and the effectiveness of counselling interventions should be conducted to ensure continuous improvement of programmes.

v. Policy Formulation: Educational policymakers should mandate the inclusion of evidence-based psychological interventions in student welfare policies to mitigate gambling-related problems and support academic and psychosocial well-being.

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