

MANAGING GAMBLING BEHAVIOUR AMONG SECONDARY SCHOOL STUDENTS IN NIGERIA: AN INTERVENTION STUDY OF RATIONAL EMOTIVE BEHAVIOURAL THERAPY

Adene, Friday Mamudu¹, Offordille, Edmund Eberechukwu^{1*}, Okwarajiaku, Promise Odinaka², Ntui, Victor Ntui³, Okoh, Simon Chigozie¹, Chukwu, Chukwuemeka Joseph¹, Agbo, Peter Chika⁴, Agbo, Chinaeherem Ndidiamaka⁵

¹. Department of Educational Foundations, University of Nigeria, Nsukka

². Milwaukee Public Schools, Milwaukee

³. Department of Educational Psychology, University of Calabar

⁴. Mater Dei Parish Umuogudu Oshia Ngbo, Abakaliki Ebonyi State

⁵. Department of Arts Education, University of Nigeria, Nsukka

*Corresponding Author: Offordille Edmund Eberechukwu (edmund.offordille@unn.edu.ng)

ABSTRACT

The high rate of gambling across the world and specifically Nigerian as a country is worrisome as many secondary school students are fast engaging in gambling behaviour. Gambling behaviour is becoming increasingly prevalent and is an important mental health priority. The study investigated effect of rational Emotive behavioural therapy on gambling behaviour among students in Enugu state. The study adopted the pre-test, post-test control group quasi-experimental research design. Two research questions and two null hypotheses guided the study. The population for the study was 60 participants who met the criterion for selection. Researchers made questionnaire titled; Students Gambling Assessment Scale (SGAS) adapted from Kim., Grant, Adson and Shin.(2001) Gambling Symptom Assessment Scale (GSAS) was used to collect data for this study. Mean and standard deviation was used in answering the research questions while ANCOVA was used to test the null hypotheses at 0.05 level of significance. The findings revealed that there was a significant effect of REBT technique in reducing gambling behaviour among students in Nsukka Education Zone. Based on the findings, it was recommended that; Gambling students should be encouraged to receive psychotherapeutic programme like REBT and other therapies that have the efficacy of reducing or removing in totality every form of gambling behavioural problems. Counsellors should be well equipped in this area of using this therapeutic skill. Also, Parents, significant others, stakeholders in the school, and adult members of the family should be encouraged to maintain and live a peaceful and healthy family relationship.

KEYWORDS: Gambling Behaviour, Rational Emotive Behaviour Therapy, and Students

INTRODUCTION

The high rate of gambling across the world and specifically Nigerian as a country is worrisome as many secondary school students are fast engaging in gambling behaviour. Gambling behaviour is becoming increasingly prevalent and is an important mental health priority. Over 70% of U.S. adults reported gambling at least once in the past year, and the number of people displaying risky gambling behavior increased from 7% in 2018 to 11% in 2021 (National Council on Problem Gambling (NCPG), 2023). Gambling disorder has been linked to a multitude of consequences, including decreased quality of life, poor mental health, heavy substance use, financial issues, damage to social relationships, and adverse impact on work and education (Abbott, 2023; Moreira et al., 2023). By 2028, net gambling losses by consumers worldwide are expected to reach almost \$700 billion (Wardle, Degenhardt, Marionneau, Reith, Livingstone, Sparrow & Saxena, 2024). Increased attention is being paid to gambling in light of rapidly changing gambling policies and technologies worldwide, which are ultimately making gambling more accessible (Abbott, 2023). There has been a significant rise in online and mobile gambling, and the rapid and intensive nature of online gambling products increases prevalence, frequency, and potential harms. The commercial gambling industry has increased advertising and social media messaging to target consumers, utilizing consumer data to tailor marketing and increase engagement (Wardle et al, 2024).

In the U.S. specifically, gambling is legal under federal U.S. law, with varying policies among states related to lotteries, casino gambling, online gambling, and sports betting. Forty-eight U.S. states allow some form of gambling, and 26 states have legalized online gambling (Taylor, McCarthy, & Wilbur, 2024). Sometimes it is the kind of activities people engage in life for survival that may in turn affect their thinking pattern. There are so many activities

students engage in secondary and tertiary education that could have positive or negative relationship with their mental wellbeing like cyber bullying, over concentration on online games, online sports betting (e.g., football and pool promotions), lotteries and slot machines (Oyebisi et al., 2012). Also inclusive are movies of different kinds. Other popular forms of gambling activities include lotteries, slots, sports betting, card games, scratch cards, internet gambling, slot games, bingo and private betting (Zack et al., 2020). In Nigeria, Nariabet, Merrybet, Bet9ja, Naijabet, Surebet247, Supabets, 1960bet, winnergoldenbet, 360bet, Lovingbet, Plusbet, Skybetnaija, 9jadollarbet, Visabet and many more are some of the gambling center names available (Adigun, 2020). Participation in all these activities at home and gambling centers is what could lead to gambling behaviour

Gambling behaviour is an activity which involves an attempt to win money by staking money on uncertain events. Gambling behaviour is a socially acceptable and legal leisure activity which involves wagering something of value (usually money) on a game or event whose outcome is unpredictable and determined by chance (Temitope, 2019). Inherent in all forms of gambling is the uncertainty and risk aspect, and gambling itself is a risk-taking activity (Rizeanu, 2012). The compulsion to gamble progressively takes over an increasing amount of gambler's time, money and energy. For most people gambling behaviour is a leisure activity without any negative consequences. Such people are the non-addictive gamblers who have control over gambling that results in insignificant harm for the gambler or people in his/her immediate social network (American Psychiatric Association, 2021). However, others develop excessive gambling behavior which has severe negative consequences not only for the gambler, but also for his or her relationships with partners, family members, friends, or colleagues and is called addictive gambling behaviour or problem gambling.

Addictive gambling Behaviour is marked by a loss of control over gambling behaviour that affects an individual's day-to-day functioning and causes significant psychological distress (American Psychiatric Association 2013). It is associated with severe consequence like interpersonal, financial, and legal problems (Lee, 2011). The American Psychiatric Association (2021) defines addictive gambling behaviour as impaired control over gambling that results in significant harm for the gambler or people in his/her immediate social network. Addictive gambling behaviour occurs when a person continues to engage in it without regard for its negative consequences for the individual player, his or her relationship with family and friends or pursue the person's study and performance or work. (Adebisi, Alabi, Arisukwu, and Asamu 2021; Amazue, Awo, Agbo, Ekwe, and Ojiaku 2021). It also occurs when it creates problems in one's life, such as mounting debt, relationship problems, job loss, stress, or loss of valuable assets, value and performance. (Cecillia, Apeh, Ugwu, Onyishi, Obayi, Odo, Onyedire, & Nwaizugbo, 2020).

In addition, gambling leads to personal difficulties such as loss of money, anxiety and depression, risk of suicide, and relationship problems (Ioannidis et al., 2019). Addictive gambling is any gambling behaviour that disrupts one's life and makes one spend more and more time and money on it, chasing losses, or gambling despite serious consequences in one's life (Segal et al., 2021). Research has also suggested that some individuals with addictive gambling behaviours may be disposed to the risk of developing mood disorders; anxiety disorders; substance use disorders, personality disorders, and impulse control disorders (MartinezLoredo et al., 2019). However, addictive gambling remains a significant public health concern both in Canada (Granero et al., 2020) and internationally (Kim & Choi, 2019; National Gambling Control Commission, 2019). Because gambling can lead to serious adverse consequences and become a progressive disease, many adolescents who have ever gambled are at risk of developing a gambling problem (Kim & Jang, 2016). Problem gambling is more common among online gamblers, especially among vulnerable people (Hakansson et al., 2017; Diaz & Perez, 2021). Lee et al. (2007) identified five-factor gambling motivations. The five factors/motives were: (1) the excitement motive, (2) the socialization motive, (3) the avoidance motive, (4) the monetary motive, and (5) the amusement motive.

The main motivations for continuing gambling are "money motivations" and "excitement motivations". The motivation for money is to give many gamblers the expectation that they can grab a large sum of money and recover the money they have lost so far, thus deeply involved in gambling behavior. The motivation for excitement is to create a primary awakening experience through gambling behavior, which makes one deeply involved in gambling by the strange pleasures of winning and losing money. These two motivations were said to be important factors in sharing social gambling, problem gambling, and pathological gambling, respectively. Blaszczynski and Nower (2002) presented three paths to gambling addiction. Path one is a path that increases participation in gambling due to classical and operational conditions and subsequently becomes habitual gambling. It is a common route for all gamblers to start gambling, and the possibility of gambling addiction increases when accessibility and availability increases, such as online gambling, which is frequently accessible to teenagers. Path two is the path to gambling because of emotional vulnerability, such as high levels of depression and anxiety, or low self-esteem, and high levels of stress before problem gambling. They gamble because of their avoidance motivation to escape from negative moods and have low motivation for treatment and poor prognosis. Finally, Route three is a path in which an individual suffers from behavioral control difficulties, tends to have ADHD, impulsiveness, lack of patience, criminal behavior, and substance abuse (Blaszczynski & Nower, 2002). On this regards, empirical evidence has shown that gambling behaviour is motivated by impulsivity and accompanied stress. Impulsivity is defined as taking an action without thinking or bordering about the consequences of the action. It can also be seen as actions without foresight that are poorly conceived, prematurely expressed, unnecessarily risky, and inappropriate to the situation (Salters-Pedneault, 2020).

Impulsivity is associated with undesirable, rather than desirable outcomes (American Psychiatric Association (APA, 2013). A Study by Kici., Yıgman and Güriz (2021) indicated the efficacy of REBT on gambling disorder behaviour in Ankara, Turkey and found out that REBT was significant in reducing the gambling behaviour.

In other words, Gambling behaviour has emotional characteristics that could be managed by Rational emotive behavioural therapy (REBT). Thus, rational emotive behaviour therapy (REBT) could be exposed to students with addictive gambling behaviour in order to overcome such behaviour and improve on their daily living as well as reducing the perception of behaviours that are inimical to learning in the school system for better life ahead. (Ellis, 1994) This is because primary school children's core thoughts stand in the way of making the changes that will help them have a better life (Melinda, 2019). To that end, rational emotive behaviour Therapy is one of the therapies that help students change such stressful thoughts of gambling behaviours that could lure them into addiction. REBT is a kind of therapy that looks at the philosophic bases of emotional problems (Ellis & Becker, 1982). In the view of REBT responding to life troubling events like gambling behaviour, can activate a set of irrational thoughts and beliefs that can breed the development of addiction that could lead to posttraumatic depression disorder (PTDD) for students and others (Blayney et al., 2016; Ellis, 2001a, 2001b). It is a therapy used in addressing unpleasant emotions and maladaptive behaviours by learning techniques to solve immediate and future problems as they unfold (Mahfar et al., 2014). REBT theory is of the view that people sometimes are faced with events or situation that will activate Irrational thoughts and Beliefs (ITBs) which could result to unhealthy emotions (e.g., anxiety, aggression, guilt) and dysfunctional behaviors; whereas, such events or situation can as well activate Rational Thoughts and Beliefs (RTBs) that could result to healthy emotions and functional behaviors (Maclaren, et al., 2016; Wood et al., 2017).

Another evidence about REBT program is its efficacy in disputing negative thoughts among clients (Mahfar, Aslan, Noah, Ahmad, & Jaafar, 2014), including those negative thoughts of children with aggressive behaviours. Eseadi, Ezurike, Obidua and Ossia (2017) in one of their studies noted that one important thing about REBT is that it gives opportunity to group members to interact about their problems as well as allowing the members and their leader in giving feedback and possible suggestions that could offset certain behavioural problems. In so doing, participants of REBT programme are encouraged to put into extinction such upsetting experiences that are likely to breed aggressive behavior through irrational thoughts and beliefs and put on rational thoughts and beliefs that will instigate a healthy emotional, cognitive and behavioural functioning (Corey, 2016; David et al., 2010). Corey (2016) further stated that the most important aspect of REBT is that it is capable of changing human beliefs and philosophies, thereby initiating radical change of their state of mental health. Thus, the thought of inadequacy, worthlessness, hopelessness, self-blame and pessimism are symptoms of aggression which students with intellectual disabilities could be struggling with that interfere with their normal functioning. Such negative thought triggers aggressive behaviour. In this study, REBT is targeted to help students who engage in gambling behaviour restrain from it and behave or manifest rationally accepted behaviour. The manifestations of these gambling behaviours may be seen to be gender based.

Gender is the categorization of physical and biological characteristics based distinctions of human beings into males and females (Odo, 2012). It is perceived in terms of the social roles assigned to males and females in the society, which influence their individual identities and behaviours (Nnachi, 2010). The researchers' then perceived gender as the societal distinction which identifies males and females in terms of the assigned social roles in the environment. Previous studies have indicated that male manifest gambling behaviours more than female in some countries of the world (Wong, Zane, Saw & Chan, 2013). Lortyer, Tavershina and Saanyil (2018) carried out a study on assessment of gender differences on aggressive behaviour among undergraduates in Markudi, Benue State and found out that male had greater manifestation of physical aggression than female while female had greater manifestation of verbal aggression. In another study, carried out by Wakoli (2019) on manifestation of aggressive behaviour based on gender in secondary schools in Bungima, Kenya found a higher rate of aggression manifestation among boys more than girls by 8.0749 units. The researchers may want to know whether such differences in gender manifestation among students in this part of Nigeria are obtainable in gambling behaviour. As a moderating variable, this study, tries to find out the intervening influence of gender on the manifestations of gambling behaviours in the study area.

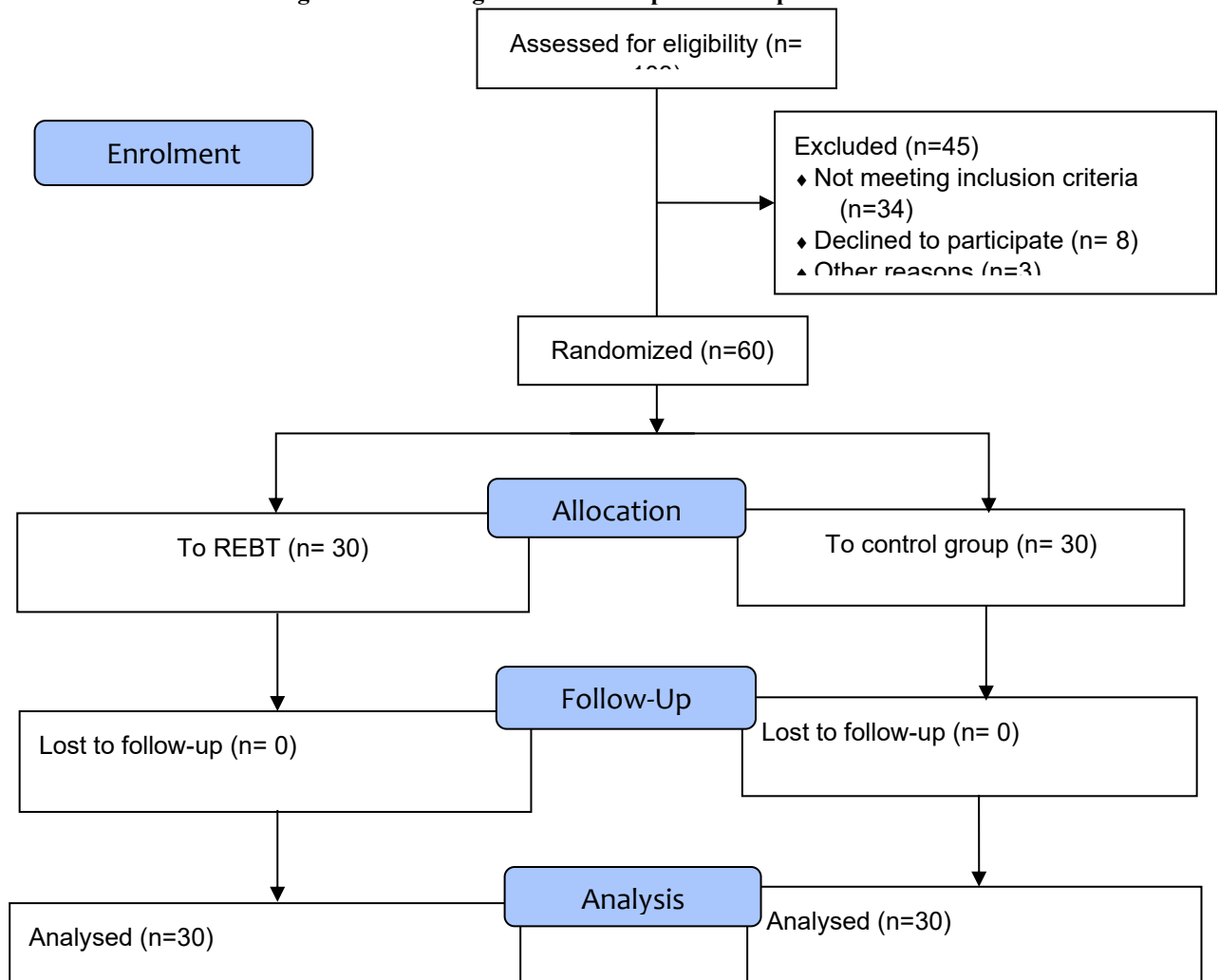
Regrettably, gambling behaviour among students in the area of study, often result in fighting among betters, destruction of school property, disruption of classroom teaching and learning as result of betting on phone during classes. Such ugly situations also affect the teaching profession. Psychologists, counsellors, teachers and other stakeholders in the community wondered how effective teaching and learning could take place in such environment. In spite of the measures put in place to correct these abnormal behaviours, such as innovative teaching strategies that take care of inclusive classroom, effective counselling and other punitive measures, manifestations of these gambling behaviours persist. It is based on these worries that the researchers sought to employ the use of REBT to help in reducing the gambling behaviours of students in the study area. Therefore, the problem of this study put in question form is: what is the effect of REBT on gambling behaviour of students in Nsukka education zone? Based on that, the researchers hypothesized that there will be a significant effect of REBT on gambling behaviour of students in Nigerian schools.

METHODS

The study used a pretest- posttest control group design. The population for the study consisted of all the 60 students who met the criterion for the study. The pretest was conducted before the exposure of REBT in order to acquire the

baseline data using the Students Gambling Assessment Scale (SGAS) adapted from Kim., Grant, Adson and Shin.(2001) Gambling Symptom Assessment Scale (GSAS) which was validated by three experts in University of Nigeria Nsukka. Thereafter the SGAS was subjected to an internal consistency reliability using cronbach alpha statistics and 0.77 reliability index was obtained. The Students Gambling Assessment Scale (SGAS) has twelve items which address the degree of time one had the unwanted urges to gamble; the degree to which one is able to control the urge of gambling; the number of times one thought of gambling or placing bet in a week; number of hours spent in a day gambling on any kind of activities; the kind of excitement or pleasure gained during and after gambling; to what extent has ones gambling behaviour affected ones relationship, job, finances, and health. To be included in the study, the participants met the conditions of gambling behaviour. The researchers also took account of criteria slated in Diagnostic and Statistical Manual of Mental Disorders-V during the recruitment exercise. Participants who met the inclusion characteristics mentioned above were enrolled for the study; those who were not associated with the characteristics mentioned above were not part of the study. As part of the exclusion criteria, we also excluded participants whose scores on SGAS are low. At the end 60 eligible participants were selected and randomly assigned to the REBT group and the control group. A simple randomization procedure was conducted in which the participants were asked to deep their hands inside a plastic bucket full of wrap white papers, in each of these papers contained a write up First Group (FG) for treatment group or Second Group (SG) for control group. The random assignment produced a total of 30 participants for REBT and 30 participants for the control condition as shown in Figure 1.

Figure1: Flow Diagram of the Sampled Participants



The treatment process was based on the REBT intervention package developed by the researchers. Participants in the REBT group were exposed to 20 sessions, each lasted for 50 min. Sessions were held twice in a week for weeks 1–8 and sessions were held once for weeks 9–12. At the end of the intervention, a posttest was administered to both groups (time2). The basic rules of the therapy were explained to the participants and the rationale behind the use of REBT and its ADCDE model. Thereafter, the major goals of REBT were discussed with the participants. From weeks 1–4, the therapists introduced the treatment by adopting the conceptualization of gambling incorporating stress-related

issues that cut across physiological, psychological, and socio-cultural basis based on the information gathered from the participants during the therapists' fieldwork, which served as their assessment. Secondly, the therapists built a therapeutic relationship with the participants by empathizing with them, making sure that the group members interact with each other as they share their past experiences together. Also, the therapists made sure that all the participants are treated equally. The therapists educated the participants about the REBT model as well as eliciting their expectations for the therapy and finally, made the participants to understand the nature of their problems and the necessary steps to take for total recovery of wellbeing throughout the psychotherapy process. In sessions 2–8 each problem from the list was approached based on the ABC (DEF) model of REBT. From weeks 5–8, the therapists use the REBT techniques in decreasing the participants' irrational thoughts and beliefs that has the symptoms of gambling behaviour and encouraged their irrational thoughts and beliefs that will bring about well-being, as well as encouraged the participants by guiding the participants' perception on how to relate problems that have similar features of irrational thoughts and beliefs.

From weeks 9–12, at this point, the therapists prepared the participants for the task of becoming their own future therapist by exposing them to the various techniques (Cognitive, Behavioural and Emotive) responsible for changing their thoughts and belief patterns as well as discussing personal problems and relapse strategy the participants will adopt and how it will decrease their gambling behaviour symptoms. After the active engagement sessions and post-assessment, the researchers and the participants met for the third time for a follow-up assessment. The assessment took place after three months of posttest and lasted for three months, that is between September to November 2024. The data collected were analyzed using mixed design repeated analysis of variance. Statistically, a mixed design repeated measures analysis of variance was used to identify the within-group and between-group effects. An essential premise or assumption of repeated-measures ANOVA is sphericity or the condition where the variances of the differences between all conceivable pairings of within-subject conditions are the same. The assumption of sphericity was not violated (Mauchly $W = .789$, $p = .425$).

RESULTS

Table 1: Mean analysis of pretest, posttest and follow-up scores of the participants of the experimental and control groups

	N	Pretest		Posttest		Follow-up	
		Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
REBT Group	30	85.72	9.67	31.93	5.02	30.82	5.45
Control Group	30	85.89	9.46	82.41	12.01	81.51	12.63

Table 1 shows that the REBT group participants had a pretest gambling behaviour score of ($M = 85.72$, $SD = 9.67$) while the control group participants had a pretest mean gambling behaviour score of ($M = 85.72$, $SD = 9.67$). This indicates close gambling behaviours of the participants of the REBT group and control group at the baseline assessment. However, at the posttest and follow-up measures, the gambling behaviour scores of the REBT group ($M = 31.93$, $SD = 5.02$ and ($M = 30.82$, $SD = 5.45$) decreased more than those of the control group ($M = 82.41$, $SD = 12.01$ and ($M = 81.51$, $SD = 12.63$).

Table 2: Analysis of within-subjects effect and between-subjects effects using simple repeated measure ANOVA

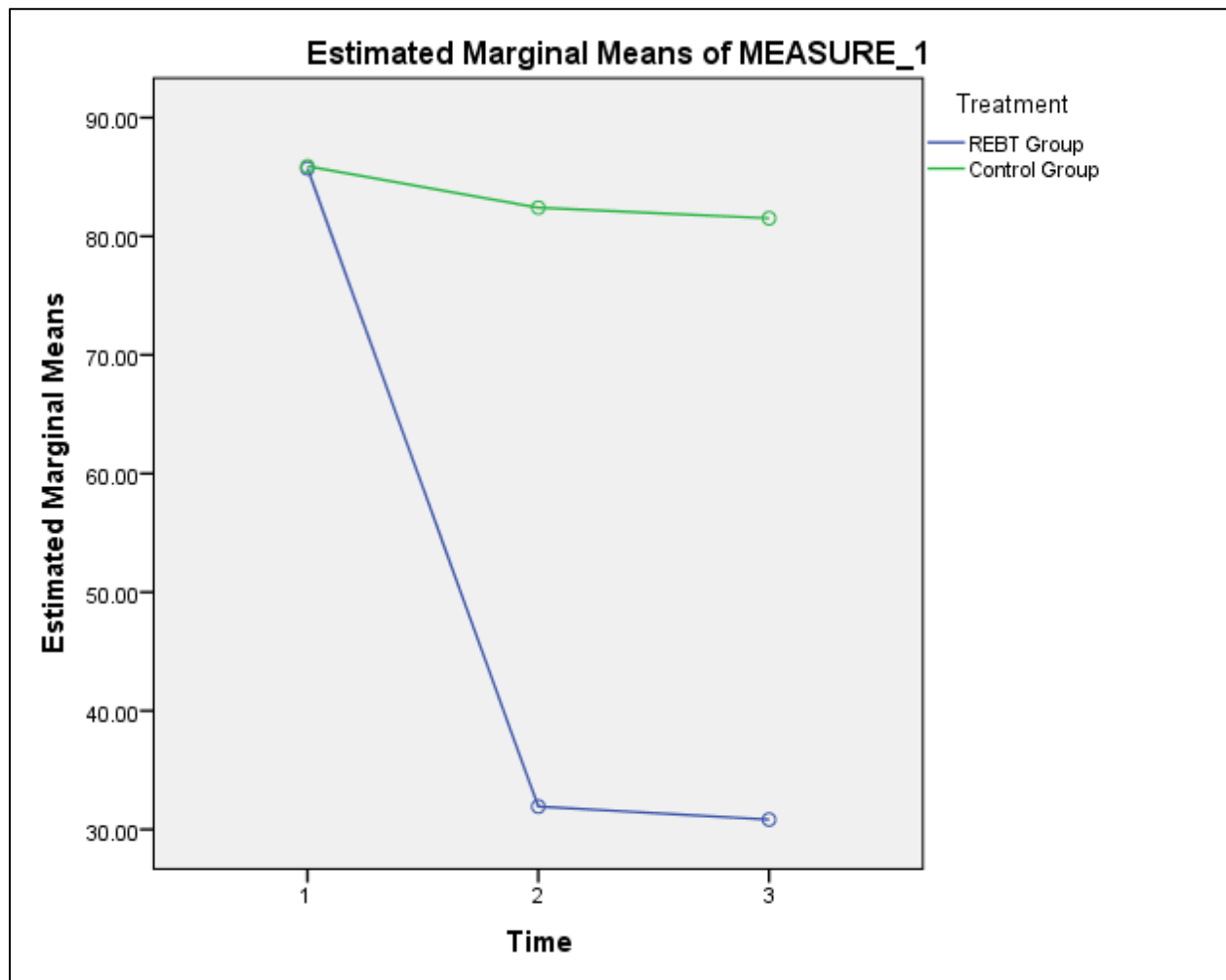
Tests of Within-Subjects Effects							
Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Time	Sphericity Assumed	32857.736	2	16428.868	497.445	.000	.899
Time * Treatment	Sphericity Assumed	24568.632	2	12284.316	371.954	.000	.869
Error(Time)	Sphericity Assumed	3698.966	112	33.026			
Tests of Between-Subjects Effects							
Intercept		766813.799	1	766813.799	3741.274	.000	.985
Treatment		49642.075	1	49642.075	242.203	.000	.812
Error		11477.793	58	204.961			

It was discovered that students gambling behaviour varied significantly throughout the three-time measurements, as shown in Table 2, with $F(2, 112) = 497.445$, $p = .000$, $\eta^2 = .899$, and between groups, with $F(1, 56) = 242.203$, $p = .000$, $\eta^2 = .812$. Besides, time-treatment interaction was significant, $F(2, 112) = 371.954$, $p = .000$, $\eta^2 = .869$ (see Figure 2). This significant interaction effect demonstrated that there was no significant difference in the baseline and control group's capacity to moderate gambling behaviour over time. However, over time, the mean gambling behaviour ratings of the REBT group did decrease, indicating that REBT was effective in reducing gambling behaviour among students.

Table 3: Pairwise comparison test

(I) Time	(J) Time	Mean Difference (I-J)	Std. Error	Sig. ^b	95% Confidence Interval for Difference ^b	
					Lower Bound	Upper Bound
1	2	28.638*	1.253	.000	25.547	31.729
	3	29.638*	1.315	.000	26.393	32.883
2	1	-28.638*	1.253	.000	-31.729	-25.547
	3	1.000*	.344	.016	.150	1.850
3	1	-29.638*	1.315	.000	-32.883	-26.393
	2	-1.000*	.344	.016	-1.850	-.150
Based on estimated marginal means						
*. The mean difference is significant at the .05 level.						
b. Adjustment for multiple comparisons: Bonferroni.						

According to the pairwise comparisons with Bonferroni tests in Table 3, the mean differences between posttest 2 (Time 4) and pretest 1 (Time 1), posttest 2 (Time 4) and pretest 2 (Time 2), and posttest 2 (Time 4) and pretest 1 (Time 1), had the highest positive mean differences and thus made the largest contributions to the significant effect of REBT on students' gambling behaviour.

**Figure 2: Time*treatment interaction plot**

DISCUSSION OF FINDINGS

The result shows that students exposed to Rational Emotive Behavioural therapy had lower mean score in their gambling behaviour than those who were not exposed. The hypothesis tested revealed a significant effect of REBT in reducing gambling behaviour of students in the study area. This implies that students exposed to REBT (Experimental group) had their gambling behaviour reduced than those in the control group. This also implies that REBT could be a veritable tool for the reduction of gambling behaviour among students. The finding of this study

is in support of Kici., Yiğman and Güriz (2021) who carried out a study on the efficacy of REBT on gambling disorder behaviour in Ankara, Turkey and found out that REBT was significant in reducing the gambling behaviour. The study also revealed difference in the mean gambling behaviour score of male and female students indicating that male manifest gambling behaviour more than female in the study zone. The finding of the study is in support of the study carried out by Wong, zane. Saw and Chan (2013) which reported that male manifest gambling behaviour more than the female young adults. The findings of this study invariably shows that REBT is effective in reducing irrational thoughts that produces irrational behaviour like high gambling behaviour among secondary school students.

According to the results of this study, in open and remote learning institutions in southeast Nigeria, cognitive behavior therapy significantly improved the capacity of administrative, language, science, and agricultural education staff to manage occupational stress (Igwe et al., 2024). Additionally, after receiving logical, emotional occupational health coaching, Southeast school administrators' stress management techniques were greatly affected (Chinweuba et al., 2024). In a similar vein, Tóth et al. (2023) found that REBT was an effective intervention for improving specific parts of executive functioning (cognitive flexibility and inhibition) as well as reducing negative thoughts, perfectionism, and competitive anxiety. In the same vein, these findings aligned with the various findings of researchers in the same issue (Onuigbo et al., 2018; Ezegebe et al., 2019; Ogba et al., 2020; Onuigbo et al., 2020; Agboeze et al., 2020; Ukamaka et al., 2021; Ugwuanyi, Okeke, & Agboeze, 2021; Ugwuanyi, Okeke, & Ekwueme, 2022; Ugwu et al., 2022; Okeke et al., 2023; Eneog). In a comparable study, Okeke et al. (2023) discovered that the rational-emotive behavior intervention significantly reduced the treatment group's mean depression levels when comparing preservice adult education instructors in the treatment arm to those in the control arm.

Additionally, it has been demonstrated that rational emotive behavior therapy group counseling effectively reduces students' exam anxiety (Arnita & Netrawati, 2023).

Similarly, rational emotive behavioral therapy works better than relaxation therapy for deaf kids' arithmetic anxiety (Adigun et al., 2024). Therefore, the CBT intervention significantly reduced total stress, conflict with other nursing staff, nursing role conflict, qualitative and quantitative workload, conflict with patients, problem avoidance due to negative thoughts, escape-avoidance, and emotional exhaustion of burnout (Ohue & Menta, 2024). Thus, majority of education research conducted in the United States has demonstrated that REBT intervention significantly improved mental health outcomes (like depression), increased rational beliefs, and decreased illogical beliefs, supporting the aforementioned findings (King et al., 2024). Additionally, Ocheni et al. (2025) emphasized how well REBT works to address exam cheating behavior. According to Ede et al. (2025), group cognitive behavioral therapy consistently and significantly reduced psychological discomfort. According to Avola et al. (2025), the majority of mindfulness and meditation interventions as well as therapy-based therapies had a favorable effect on teachers' well-being. In a similar vein, Khan et al. (2025) discovered that CBT considerably decreased the experimental group's anxiety, and the advantages persisted at 3- and 6-month follow-ups, demonstrating the efficacy of CBT as a treatment for reducing anxiety symptoms in teenagers and offering a systematic, evidence-based approach to managing this prevalent mental health problem.

Rational emotive behavioral therapy effectively reduces procrastination in educational situations, as evidenced by a related study in which participants' academic procrastination remained much reduced three months after the REBT session (Amoke et al., 2025). Furthermore, in the post-exam phase, cognitive-behavioural therapy significantly improved the intervention group's intolerance of uncertainty, emotional regulation issues, and cognitive mixing (Nedaei et al., 2025). Also, first-degree graduates who participated in rational-emotive career coaching treatment demonstrated a significant increase in their entrepreneurial intention when compared to those who only received traditional career, employment, and counseling services or usual-care treatments, supporting the effectiveness of CBT (Otu, 2025). The aforementioned empirical results have shown that REBT is a successful treatment approach for controlling negative thoughts.

CONCLUSION

Having seen the findings of this study, the researchers concluded that this study validated previous studies on the efficacy of rational emotive behavior therapy on gambling behavior of students in general and other related problems. Based on the findings of the study, the study demonstrates that Rational Emotive Behavioural Therapy is a gender-neutral and effective intervention for managing gambling behaviour among students. The results underscore the importance of integrating evidence-based psychological interventions into secondary school support services to enhance students' wellbeing and academic functioning. Rational Emotive Behaviour Therapy within secondary schools in Enugu State and similar educational contexts may contribute to reduced gambling behaviour levels and improved learning outcomes among students in secondary education. Hence, we suggested for replication of this study using population from other cultural background, location and determinism.

Contribution to Knowledge

The present study provides valuable insights into the efficacy of rational emotive behavioural therapy in reducing gambling behaviour among students in secondary school. The research findings suggest that prioritizing REBT as an intervention strategy giving the high levels of gambling behaviour identified among students across secondary

schools in the state will likely help to witnessing greater reduction among students. To this end, the study recommends that REBT be prioritize as an intervention provision for every secondary education in the state, thereby offering extensive training programs for their school psychologists.

Declaration Section

Ethical approval statement

The ethical approval for the conduct of this research was granted by the Faculty of Education, University of xxxx, Research Committee on Ethics. We attest that all aspects of this study were conducted in compliance with the University of xxxx's policies for research involving human subjects. This study's ethical approval number, REC/FOE/2025/00014, was granted on June 1st, 2025.

Informed consent statement

Written informed consent forms dated June 24th, 2025, were given to each participant before the start of the data collection. The researchers wrote these consent forms. To confirm their agreement to fully participate in the study, the participants were asked to read and sign the consent forms.

Consent to participate and publish

The participants' involvement, data use, and consent to publish were all included in the consent's scope. Every participant received comprehensive information on the research's purpose, how their data would be used, the assurance of their anonymity, and any dangers associated with taking part.

Funding Statement

There is no available funding for this research

Data availability statement

The data for this research are available and can be made available on request.

REFERENCES

- ⁶ Abbott, M. W. (2020). The changing epidemiology of gambling disorder and gambling-related harm: Public health implications. *Public Health*, 184, 41-45.
- ⁷ Adah, C., Uche, O., Nwatu, L., Vita, B., Jude, I., John, E., Agah, J., Chinecherem, B., Oguguo, E., & Obiamaka, A. (2025). Application of Rational Emotive Behavioral Therapy (REBT) in the Treatment of Examination Cheating Behavior among Students. *Journal of Academic Ethics*, 0123456789. <https://doi.org/10.1007/s10805-025-09596-1>
- ⁸ Adigun, O. T., Kent, C. D., Khanare, F., & Matsie, N. (2024). The effects of rational emotive behavioural and relaxation therapies on mathematics anxiety among deaf learners. *Journal of Research in Special Educational Needs*, 24(1), 94-107. <https://doi.org/10.1111/1471-3802.12615>
- ⁹ Agboeze, M. U., Ugwuanyi, C. S., Okeke, C. I. O., Ugwu, G. C., Obikwelu, C. L., Obiozor, E. E., Oyigbo, D. N., & Mbam, D. (2020). *Matthias U. Agboeze, PhD*. 34(June).
- ¹⁰ American Psychiatric Association(2013).Diagnostic and statistical manual of mental disorders: *DSM-5*. (5th ed.). Washington, D.C.:
- ¹¹ Amoke, C. V., Ede, M. O., & Obeagu, I. E. (2025). *Disputing and challenging academic procrastination behaviors in students using REBT approach*. 1-9.
- ¹² Arnita, F., & Netrawati, N. (2023). The Effectiveness of Group Counseling with Rational Emotive Behavior Therapy (REBT) in Reducing Student Anxiety in Facing Exams. *Edunesia : Jurnal Ilmiah Pendidikan*, 5(1), 219-234. <https://doi.org/10.51276/edu.v5i1.615>
- ¹³ Avenyo, S. J., Kwashie, N. S., & Demuyakor, J. (2024). Online sports betting in universities: Does online sports betting addictions impact the academic achievements and social relations of students? *Journal of Digital Educational Technology*, 4(1), ep2402.
- ¹⁴ Avola, P., Soini, T., & Anne, I. (2025). Interventions to Teacher Well - Being and Burnout A Scoping Review. In *Educational Psychology Review*. Springer US. <https://doi.org/10.1007/s10648-025-09986-2>
- ¹⁵ Basaran, I.E.(2000). *Educational Psychology*: Ankara: FeryalMatbaasi
- ¹⁶ Bisson, J. (2024, July 9). U.S. sports betting revenue and handle: Tracking betting market data 2024. Sportsbook Review. Retrieved from <https://www.sportsbookreview.com/news/usbetting-revenue-tracker>
- ¹⁷ Caldeira, K. M., Arria, A. M., O'Grady, K. E., Vincent, K. B., Robertson, C., & Welsh, C. J. (2017). Risk factors for gambling and substance use among recent college students. *Drug and Alcohol Dependence*, 179, 280-290.
- ¹⁸ Chen, X., Huang, X., Chang,L., Wang, L.,& Li, D.(2010).Aggression, social competence, and academic achievement in chinese children: A 5 year longitudinal study. *Developmental and psychology*, 22(3), 583-592. <https://doi.org/10.1017/S0954579410000295>

19. Chinweuba, N. H., Chigbu, B. C., Aham, A. C., Onyi, I. E., Ezeugo, N. C., Anakpua, B. C., Enebechi, R. I., Kalu, I. A., Eze, N. J., & Ugwuanyi, C. S. (2024). *Management of work stress among arts and science school administrators in Nigeria using rational emotive occupational health coaching*.
20. Corey, G. (2016). Theory and practice of counselling and psychotherapy (10th ed.). Brooks/Cole World Health Organization. (1998). Programme on mental health WHOQOL user manual. WHO
21. Ellis, A. (1994). Reason and emotion in psychotherapy (Rev. ed.). Birch Lane
22. Ellis, A. (2000). Rational-emotive therapy. In: Corsini RJ and Wedding D (eds) Current psychotherapies
23. Ellis, A., & Blau, S. (1998). Rational emotive behavior therapy. *Directions in Clinical and Counseling Psychology*, 8, 41-56.
24. Ellis, N., Upton, D. & Thompson, P. (2000). Epilepsy and the family: a review of current literature. *Seizure*, 9, 22-30.
25. Eneogu, N. D., Ugwuanyi, C. K., & Ugwuanyi, C. S. (2023). Efficacy of Cognitive Behavioral Therapy on Academic Stress Among Rural Community Secondary School Economics Students: A Randomized Controlled Evaluation. *Journal of Rational - Emotive and Cognitive - Behavior Therapy*. <https://doi.org/10.1007/s10942-023-00508-z>
26. Ezegbe, B. N., Eseadi, C., Onyemaechi, M., Igbo, J. N., Anyanwu, J. I., Ede, K. R., Egenti, N. T., Nwokeoma, B. N., Mezieobi, D. I., Oforka, T. O., Omeje, G. N., Ugwoezuonu, A. U., Nwosu, N., Amoke, C. V., Offordile, E. E., Ezema, L. C., Ikechukwu-Ilomuanya, A. B., & Ozoemena, L. C. (2019). Impacts of cognitive-behavioral intervention on anxiety and depression among social science education students. *Medicine (United States)*, 98(15). <https://doi.org/10.1097/MD.00000000000014935>
27. Eseadi, C., Ezurike, C. A., Obidoa, M. A., & Ossai, V. O. (2017). Effect of rational emotive behavior therapy on re-offending thoughts of Nigerian prison inmates. *The Educational Psychologist (NICEP)*, 11(1), 267-275.
28. Evans, R.L. Dingus, C.M. & Haselkorn, J.K. (1993). Living with a disability: a synthesis and critique of the literature on quality of life, 1985- 1989. *Psychological Reports*, 72, 771-777.
29. Freeman, J.L., Scars, D.O., & Carlsmith, J.M., (1993). Social psychology (A. Donmez Cev.). Ankara: Imge Katabevi
30. Gonzalez, J. E., Nelson, J. R., Gutkin, T. B., Saunders, A., Galloway, A., & Shwery, C. S. (2004). Rational emotive therapy with children and adolescents: a meta-analysis. *Journal of Emotional and Behavioral Disorders*, 12 (4), 222-235.
31. Grant, J. E., Lust, K., Christenson, G. A., Redden, S. A., & Chamberlain, S. R. (2019). Gambling and its clinical correlates in university students. *International Journal of Psychiatry in Clinical Practice*, 23(1), 33-39.
32. Hawthorne, G., Herrman, H., & Murphy, B. (2006). Interpreting the WHOQOL-BREF: Preliminary population norms and effect sizes. *Social Indicators Research*, 77, 37-59.
33. Id, A. M. K., Plateau, C. R., Id, M. J. T., & Id, P. Y. (2024). *A systematic review of the nature and efficacy of Rational Emotive Behaviour Therapy interventions*. 1-26. <https://doi.org/10.1371/journal.pone.0306835>
34. Igu, N. C. N., Ogba, F. N., Eze, U. N., Binuomote, M. O., Elom, C. O., Nwinyinya, E., Ugwu, J. I., & Ekeh, D. O. (2023). Effectiveness of cognitive behavioral therapy with yoga in reducing job stress among university lecturers. *Frontiers in Psychology*, 13(January), 1-17. <https://doi.org/10.3389/fpsyg.2022.950969>
35. Igwe, J. N., Edikpa, E. C., Chikaodinaka, O. A., Ani, M. I., Ekeh, D. O., Eze, N. J., Nweze, B. N., Metu, I. C., Mbelede, N. G., Ezemoyih, C. M., & Ugwuanyi, C. S. (2024). *A randomized controlled trial evaluation*. 9(January).
36. Khan, Z., Zaib, Q., Saeed, K., Khan, B., Pal, M. H. A., & Zaman, M. (2025). *The Effect of Cognitive Behavioral Therapy on Anxiety in Adolescents*. 3, 217-222.
37. Kici, E., Yiğman, F., & Güriz, O. (2021). A case report of administering rational emotive behavioral therapy in gambling disorder. *Addicta: The Turkish Journal on Addictions*, 8(3), 215-217
38. Kim S.W., Grant J.E., Adson D., & Shin Y.C. (2001) Double-blind naltrexone and placebo comparison study in the treatment of pathological gambling. *Biological Psychiatry* 49:914-921
39. Kostelnik, M. (2010). Helping Children Resolve Conflict: Aggressive Behavior of Children. NebGuide. Retrieved from <http://ianpubs.unl.edu/live/g2016/build/g2016.pdf>
40. Kotch, J.B, Lewis T, Hussey J. M, English, J.D, Thompson, R, Litrownik A. J, Runyan, D.K, Bangdiwala S.I, Margolis, B., Dubowitz H (2008). Importance of Early Neglect for Childhood Aggression. *Pediatrics*
41. Lederer, A. M., Oswalt, S. B., Hoban, M. T., & Rosenthal, M. N. (2024). Health-related behaviors and academic achievement among college students. *American Journal of Health Promotion*, 38(8), 1129-1139
42. Lin, J.D., Hu, J., Yen, C.F., Hsu, S.W., Lin, L.P., Loh, C.H., et. al. (2009). Quality of life and caregivers of children and adolescents with intellectual disabilities: use of WHOQOL-BREF survey. *Research in Developmental Disabilities*, 30 (6), 1448-1458.
43. Li-Tsang, W.P.C., Yau, M.K.S. & Yuen, H.K. (2001). Success in parenting children with developmental disabilities: some characteristics, attitudes and adaptive coping skills. *British Journal of Developmental Disabilities*, 47, 61-71
44. Lyons, L. C., & Woods, P. J. (1991). The efficacy of rational- -emotive therapy: a quantitative review of the outcome research. *Clinical Psychology Review*, 11 (4), 357-369

45. Maclaren, C., Doyle, K. A., & Diguseppe, R. (2016). *Rational emotive behavior therapy (REBT) Theory and Practice*. SAGE Publications.
46. Mahfar, M., Aslan, A. S., Noah, S. M., Ahmad, A., & Jaafar, W. M. (2014). Effects of rational emotive education module on irrational beliefs and stress among fully residential school students in Malaysia. *Procedia Social and Behavioral Sciences*, 114, 239–243. <https://doi.org/10.1016/j.sbspro.2013.12.692>
47. Miller, G. E. (1994). School violence ministries impressions and implications. *School psychology Review* 23, (2) 257-261
48. Moreira, D., Azeredo, A., & Dias, P. (2023). Risk factors for gambling disorder: A systematic review. *Journal of Gambling Studies*, 39(2), 483-511.
49. Ede, M. O., Anyanwu, J. I., Onuigbo, L. N., Ifelunni, C. O., Alabi-Oparaocha, F. C., Okenyi, E. C., ... & Victor-Aigbodion, V. (2020). Rational emotive family health therapy for reducing parenting stress in families of children with autism spectrum disorders: a group randomized control study. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 38(2), 243-271.
50. National Council on Problem Gambling. (2023). National Detailed Report: National Survey on Gambling Attitudes and Gambling Experiences 2.0. https://www.ncpgsurvey.org/wpcontent/uploads/2023/06/FINAL_NGAGE2.0-text-charts.pdf
51. CAA. (2023). National Study on Collegiate Wagering and Social Environments. National Collegiate Athletic Association.
52. Nedaei, A., Givi, H. G., Sheykholeslami, A., & Sadri, E. (2025). *The Effectiveness of " Cognitive-Behavioral Therapy " on the Difficulties of Emotional Regulation , Intolerance of Uncertainty and Thought Fusion in People Suffering From Comorbid Depression and Anxiety*, 13(5).
53. Nnachi, R.O. (2010): Gender equity in Education: A challenge to school system in Igbo speaking states of Nigeria. *Journal of the Nigerian Academy of Education*, 6(1), 102 – 116.
54. Odo, V.O. (2012): Internet usage, Social support and gender as predictors of Self– concept of University undergraduates (Unpublished master's thesis) University of Nigeria, Nsukka.
55. Ogba, F. N., Onyishi, C. N., Victor-Aigbodion, V., Abada, I. M., Eze, U. N., Obiweluzo, P. E., Ugodulunwa, C. N., Igu, N. C. N., Okorie, C. O., Onu, J. F. C., Eze, A., Ezeani, E. O., Ebizie, E. N., & Onwu, A. O. (2020). Managing job stress in teachers of children with autism A rational emotive occupational health coaching control trial. *Medicine (United States)*, 99(36). <https://doi.org/10.1097/MD.00000000000021651>
56. Ohue, T. (2024). *Effectiveness of Mentorship Using Cognitive Behavior Therapy to Reduce Burnout and Turnover among Nurses : Intervention Impact on Mentees*. 1026–1036.
57. Okeke, N. M., Onah, B. O., Ekwealor, N. E., Ekwueme, S. C., Ezugwu, J. O., Edeh, E. N., Okeke, P. M. D., Onwuadi, C. C., & Obeagu, E. I. (2023). Effect of a randomized group intervention for depression among Nigerian pre-service adult education teachers. *Medicine (United States)*, 102(27), E34159. <https://doi.org/10.1097/MD.00000000000034159>
58. Onuigbo, L. N., Eseadi, C., Ugwoke, S. C., Nwobi, A. U., Anyanwu, J. I., Okeke, F. C., Agu, P. U., Oboegbulem, A. I., Chinweuba, N. H., Agundu, U. V., Ololo, K. O., Okpoko, C., Nwankwor, P. P., Eze, U. N., & Eze, P. (2018). Effect of rational emotive behavior therapy on stress management and irrational beliefs of special education teachers in Nigerian elementary schools. *Medicine (United States)*, 97(37). <https://doi.org/10.1097/MD.00000000000012191>
59. Onyemacchi, M., Daphney, E., Liziana, M., Onuigbo, N., & Aigbodion, V. V. (2025). Treating the Psychological Distress in Children with Adventitious Blindness. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*. <https://doi.org/10.1007/s10942-024-00565-y>
60. Otu, M. S., & Africa, S. (2025). *The Effectiveness of Rational Emotive Career Coaching in Enhancing Recent First-Degree Graduates ' Entrepreneurial Intentions*. 20(1), 77–95.
61. Stacks, A. & Goff, J. (2006). Family correlates of internalizing and externalizing behavior among boys and girls enrolled in head start. *Early Child Development and Care*, 176(1), 67-85, <https://doi.org/10.1080/0300443042000302609>
62. Taylor, W., McCarthy, D., & Wilbur, K. C. (2024). Online gambling policy effects on tax revenue and irresponsible gambling. Available at SSRN 4856684
63. Tóth, R., Turner, M. J., Mannion, J., & Tóth, L. (2023). The effectiveness of rational emotive behavior therapy (REBT) and mindfulness-based intervention (MBI) on psychological, physiological and executive functions as a proxy for sports performance. *BMC Psychology*, 11(1), 1–13. <https://doi.org/10.1186/s40359-023-01486-8>
64. Tortyer, K. M., Tavershina, T., Saanyi, B., D. (2018). Assessment of gender differences on aggressive behavior among undergraduates of benue State university markudi Nigeria. *International Journal of Education and Evaluation*. 4, 43-58
65. Ugwu, C. J. (2009). Attitude of parents of mentally retarded children: Rational Emotive Behaviour Counseling for Effective attitudinal Adjustment. *Journal of Child Development and Communication Disorder* 12, 128-139

66. Ugwu, C., J. (2018). Rational Emotive Behaviour Therapy (REBT): An Intervention Strategy for Counselling Parents of Children Living with Disability. *American Journal of Educational Research*, 6(3), 214-219. DOI: 10.12691/education-6-3-9
67. Ugwu, G. C., Ugwuanyi, C. S., Okeke, C. I. O., Uzodinma, U. E., & Aneke, A. O. (2022). Efficacy of Rational Emotive Behavior Therapy on Depression Among Children with Learning Disabilities: Implications for Evaluation in Science Teaching. *Journal of Rational - Emotive and Cognitive - Behavior Therapy*, 40(2), 313–333. <https://doi.org/10.1007/s10942-021-00417-z>
68. Ugwuanyi, C. S. (2022). Management of Mental Health Problem among Primary School Teachers using Rational-Emotive Behavior Therapy. *The Open Public Health Journal*, 15(1). <https://doi.org/10.2174/18749445-v15-e221226-2022-HT21-4315-2>
69. Ugwuanyi, C. S., Okeke, C. I. O., & Agboeze, M. U. (2021). Management of Test Anxiety Among Pupils in Basic Science Using Music-Based Cognitive Behavior Therapy Intervention: Implication for Community Development. *Journal of Rational - Emotive and Cognitive - Behavior Therapy*, 39(3), 285–305. <https://doi.org/10.1007/s10942-020-00371-2>
70. Ugwuanyi, C. S., Okeke, C. I. O., & Ekwueme, U. H. (2021). Management of work stress in science education lecturers' population using rational emotive occupational health coaching: Implication for educational evaluators. *Journal of Community Psychology*, 49(7), 2517–2531. <https://doi.org/10.1002/jcop.22667>
71. Ukamaka, F., Chiedu, I., & Chisom, E. (2021). Effect of School - based Rational - Emotive Behaviour Program on Burnout Among Adult Learners : Moderating Influence of Participants ' Demographic Variables. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 39(4), 712–729. <https://doi.org/10.1007/s10942-021-00393-4>
72. Wang, M., Turnbull, A.P., Summers, I., Little, T.D., Poston, D.J., Mannan, H., et. al. (2004). Severity of disability and income as predictors of parents' satisfaction with their family quality of life during early childhood years. *Research and Practice for Persons with Severe Disabilities*, 29 (2), 82-94.
73. Wardle, H., Degenhardt, L., Marionneau, V., Reith, G., Livingstone, C., Sparrow, M., ... & Saxena, S. (2024). The Lancet Public Health Commission on gambling. *Lancet Public Health*, 9, e950-e994
74. WHO (2009). The World Health Organization Quality of Life (WHOQOL
75. Wong G., Zane, N., Saw, A., and Chan, K., K. (2013) Examining Gender Differences for Gambling Engagement and Gambling Problems Among Emerging Adults *J Gambl Stud.*;29(2):171–189. doi: 10.1007/s10899-012-9305-1