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**Efficacy of Rational Emotive Behavioural Therapy on Depression Behaviour of Students Enrolled in Counselling, Psychology & Sociology of Education (CPSE)**

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**ABSTRACT:** *This paper assessed the efficacy of a REBT-based programme in the reduction of undergraduate students' depressive behaviour. Pre-test post-test randomized control trial experimental design was adopted by the researchers for the study. Sixty two (62) counseling, psychology and sociology education undergraduate students who were drawn through proportionate stratified random sampling technique constituted the sample for the study. The students were randomly assigned to experimental (32) and control (30) groups. Depression Assessment Scale for Students (DASS) and Academic Depression Behaviour Scale (ADBS) were used for data collection. DASS and ADBS were properly validated by experts in test development and the internal consistency reliability indices of the items estimated as 0.77 and 0.81 respectively using Cronbach Alpha method. Before the commencement of the testing and treatment package, the researchers assured the participants of confidentiality of interactions and personal information as they work together in self-disclosure. Thereafter, pre-treatment assessment (pre-test) was conducted using the DASS and ADBS in order to collect baseline data (Time 1). After that, the experimental group was exposed to 90 minutes of the REBT programme twice for a period of 6 weeks. The treatment took place between September and November 2021. Post-test (Time 2) assessment was conducted 1 week after the last treatment session. Besides, a follow-up assessment was conducted after 2 months of the treatment (Time 3). Data collected were analyzed using repeated-measures analysis of variance. The findings of the study revealed that the efficacy of rational emotive behavioural therapy on the reduction of depression behaviour among counselling, psychology and sociology education undergraduate students was significant at post-test and follow-up measures. One of the implications of the findings is that if undergraduate students are not properly counseled, their depression behaviour will continue to increase. Based on the findings, it was recommended among others that Federal Government or relevant education authorities should provide enough guidance counselors in the various institutions of higher learning who will assist in the counseling of the students on dangers of depression using REBT.*

**KEYWORDS:** rational emotive behavioural therapy, depression.

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## INTRODUCTION

Education in the 21st century is faced with a lot of challenges in new economy that is driven by technologies and innovations. This situation has led so many students especially those in higher institutions to depression symptoms. Students face a lot of problems and situations that make them vulnerable to depression. Depression affects all areas of an individual's well being including sleep, diet, mental and physical health, self-esteem, social interaction and academic performance (Jamison, 2019). Students who have these disorders are at risk of suffering from poor academic performance and resistance to anything school-related (Bums, 2020). Depression is a mental health disorder characterized by persistently depressed mood or loss of interest in activities, causing significant impairment in daily life (Kerr, 2019). The author noted that possible causes of depression include a combination of biological, psychological and social sources of distress. Depression according to Brun and Gibbs (2006) is a common mental disorder that presents with feeling of sadness often accompanied by other symptoms such as loss of interest or pleasure, feelings of guilt or low self-worth, low energy, poor concentration, changes in appetite or weight, sleeping difficulties, and can be manifested by anybody irrespective of race, age, gender or socio economic status. This implies that depressed students are vulnerable to anti-social behaviour which usually leads them astray. Depression is any down turn in mood, a mental state resulting from reduction in the amount of neurotransmitters located in the central nervous system of an individual and with the deficiency in serotonin and adrenalin, the nerve cells that sends impulses to the other nerve cells which reduces activity in the brain and causes slowness in certain parts of the brain (Brun & Gibbs, 2006). Depression may have an effect on students' personality traits and their learning. Collingwood (2013) found that depression was recorded in 18 percent of students entering the University of Massachusetts Medical School and the increase overtime was greater females and those with more perceived stress. The report also indicated that combined anxiety disorder and depression affected about 16 percent of undergraduates at the University of Michigan in 2007, with thoughts of suicide among two percent of the students. Kerr (2012) disclosed that suicide is the third learning cause of death among students and young people diagnosed with depression are five times more likely to attempt suicide than adults.

Different factors appears to contribute towards depression among university students particularly, lack of guidance and encouragement, inappropriate time management skills, illness, social problems, emotional stress, students with financial problems, among others. Kerr (2019) posits that irrational believes of the students may develop in them depression symptoms which leads them into disturbing circumstance. According to Ncheke (2018), students' depression arises from academic stress including difficulty with school work, pressure to get good grade, financial worries, failed relationships with parents and peers and conflicts with roommates. This may lead to engaging in high-risk behaviours such as having unprotected sex, violence against others, abusing alcohol and other substances, changes in eating and sleeping habits, dropping out of school with an increased risk of suicide which have nearly tripled in the last 50 years (Centre for Disease Control, 2003; World Health Organization, WHO, 2012). Depression appears to make university students engage in high-risk behaviours such as abusing alcohol and other

substances, violence against others, having unprotected sex, drop out of school among others. It seems a common practice that university students are at a greater risk of depression because of financial worries, failed relationships with parents and peers and conflicts with classmates. Research indicates that depression is very common, particularly among university students (Ken, 2012; Bultar, 2013; Ncheke, 2018). According to Burns (2020), approximately 70% of university students are depressed, and study conducted by Michigan found depression symptoms among 53% of university students. Furthermore, research reveals that depression can negatively affect students' academic positions, life quality and performance (Kerr, 2012; Collingwood, 2013). Depression affects academic performance negatively (Bultar, 2013) and also related to increased stress and anxiety (Ncheke, 2018).

Depression can also lead to guilt, decreased confidence, and stress, eventually resulting in numerous diseases (Burns, 2014). In addition, there is a correlation between high levels of depression and low levels of mental health (Peron, Bitsko, Blumberg, Pastor, Ghandour & Gfroever, 2013). Ncheke (2018) stated that students who are depressed experiences negative consequences such as failing courses, extending periods of study, and dropping out of school. Jamison (2019) states that 52% of students need to receive help with depression. The negative consequences of depression on academic achievement and emotional and physical well-being reveal the need for intervention studies on this topic (Burns, 2020). Such intervention includes rational emotive behavioural therapy (Gayford, 2019; Dryden, 2020).

Rational emotive behavioural therapy (REBT) is a type of therapy introduced by Albert Ellis in the 1950s. Rational emotive behavioural therapy according to Ellis (1993) assumes that human beings have both rational and irrational tendencies and learning. The rational tendencies are self-helping while the irrational tendencies are self-defeating and unhelpful. Rational emotive behavioural therapy (REBT) posits that people are depressed because of established ways of thinking and within this framework, REBT highlights the importance of replacing irrational beliefs with rational ones (Dryden, 2009). REBT is a therapy that is aimed to help individual to reason properly and shun irrational or illogical thoughts (Leo, 2017). Numerous experimental studies have focused on the management of depression among students (Binder, 2000; Kutlesa, 1998; Schubert, et al. 2000). According to Rozental and Carlberg (2013), Rozental et al. (2013), lack of effective therapy or intervention programmes have been emphasized in both national and international literature. Meanwhile, experimental studies on managing depression are new and quite limited in developed countries which include Turkey (Kagan, 2010; Uzun, 2010). Mostly, existing research focuses on organizing psycho-educational programmes on the management of these behaviours, providing counseling and highlighting the need to create and increase awareness through seminars (Balks & Duru, 2012; Kandemir, 2010; Ozor & Altun, 2011; Uzun, 2010). In the Nigerian context, there is a dearth of empirical evidence on the efficacy of REBT in the management of depression among undergraduate students in Enugu State, Nigeria. From the aforesaid, this research sought to investigate how to use REBT in the managing and reducing the widespread depression and undergraduate students, which remains essential as long as it continues to have negative effect for these students. In the REBT context according to Gayford (2019) REBT had positive effect on unstable marriage depression. However, Kanter (2021)

noted that divorced couples who were exposed to REBT adjusted their depression behaviour more than those who were not exposed to treatment. Because depression is connected to maladjusted beliefs such as illogical expectations, low self-efficacy, and negative thoughts, the use of rational emotive behaviour therapy has been suggested as a remedy (Yuleh, 2020). Leo (2017) posits that in REBT, depressive individuals are taught to dispute their irrational thoughts and beliefs, develop goals and develop a mindset that enables them to reduce depression. Thus this study assessed the effectiveness of a REBT-based programme in the reduction of undergraduate students' depression. The researchers, therefore, tested the hypothesis that there is a significant effect of Rational Emotive Behavioural Therapy on the reduction of depression behaviour of undergraduate students.

## **METHODS**

### **Design of the Study**

A total of 62 undergraduate students comprising male (n=32) and female (n=30) from sampled public universities in Enugu State Nigeria who met the inclusion criteria constituted participants for the study. G-power, Version 3.1 gave 0.93 which is an adequate sample size for this study (Faul et al. 2007). Sixty-two (62) counseling, psychology and sociology education students who were drawn through proportionate stratified random sampling technique constituted the sample for the study. The students were stratified based on their area of disciplines (counseling, psychology and sociology) from where the students were proportionately sampled (18 counselling students, 16 psychology students, and 28 sociology students). A total of 270 students showed interest and volunteered to participate in the intervention programme. All the 270 students who volunteered to participate in the study were screened for suitability based on the suitability criteria set by the researchers, including that: (1) the students must be undergraduate students in counselling, psychology or sociology education; (2) students must have an element of depression behaviour. Volunteers who did not meet all the inclusion criteria were excluded. After that, the 62 undergraduate students who met the inclusion criteria were randomly assigned to experimental and control group conditions using a simple randomization procedure (participants were asked to pick 1 envelop containing pressure-sensitive paper labeled with either E-experimental group or C-control group from a container. The students were randomly assigned to experimental (32) and control (30) groups as shown in Figure 1.

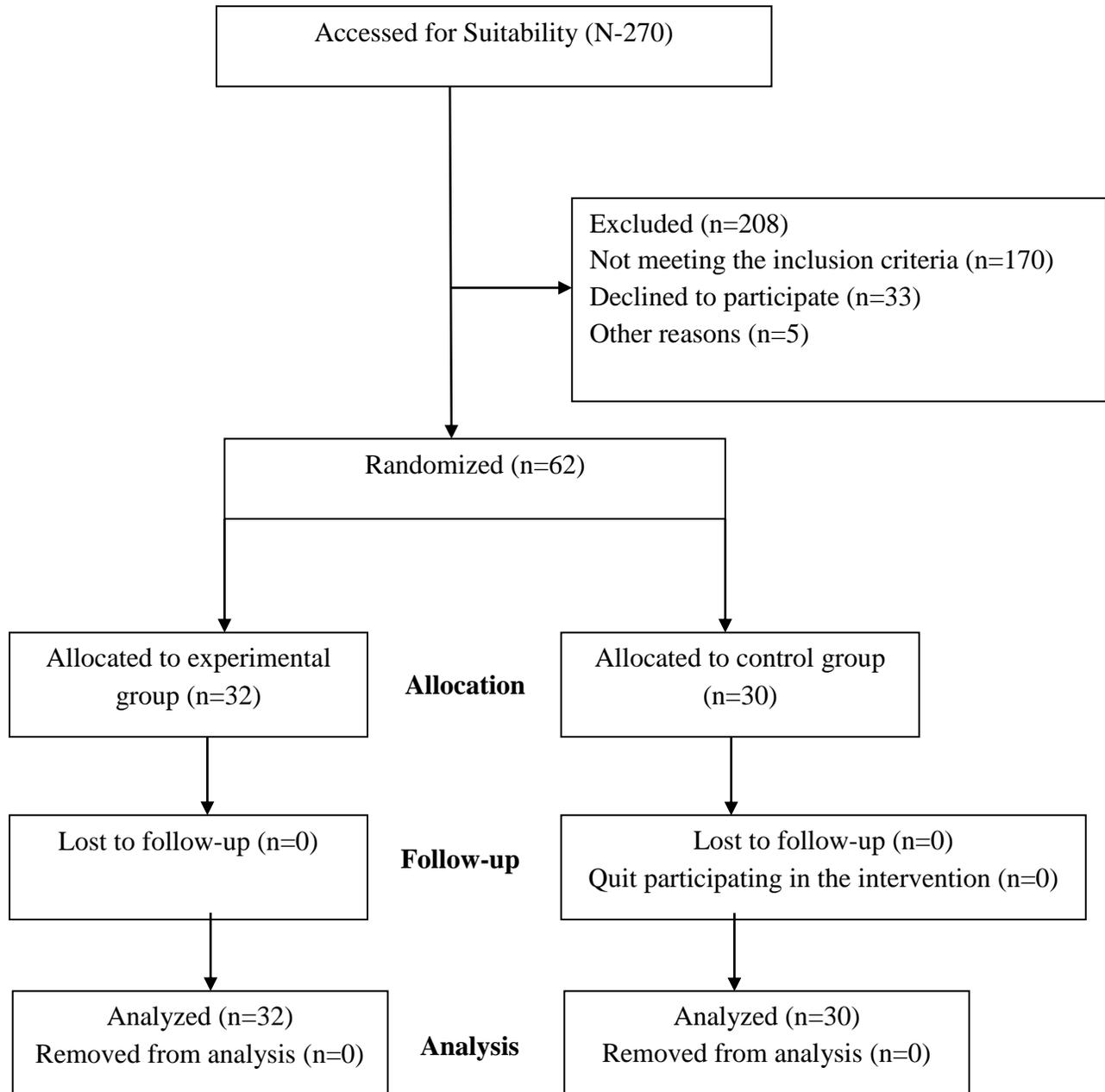


Fig. 1: Sampling Distribution for the Study

## Measures

### Demography Questionnaire

A demographic questionnaire was administered to the students (participants) in order to obtain their demographic characteristics such as gender, age and location. Each of the participants was instructed to tick the appropriate demographic information that may be applicable to him or her.

Table 1 shows that there is a significant difference in the number of male and female undergraduate students who participated in the intervention programme. The same results apply to age, tribe, and religion of the participants.

**Table 1: Demographic characteristics of the participants**

Demographic Characteristics	REBT Group	No Intervention Group	N(%)	X <sup>2</sup>	$\rho$
<b>Gender</b>					
Male	17	15	30(46.88)	4.52	.002
Female	15	15	32(53.13)		
<b>Age</b>					
≤20	6	4	10(15.63)	35.56	.000
20-30	24	25	51(79.69)		
≥30	2	1	3(4.69)		
<b>Tribe</b>					
Igbo	17	18	37(57.81)	12.05	.000
Others	15	12	27(42.19)		
<b>Religion</b>					
Christianity	22	20	21(32.81)	9.08	.000
Muslim	10	10	19(29.69)		

### Depression Assessment Scale for Students (DASS)

Depression assessment scale for students (DASS) developed by the researchers was used for data collection. DASS is a 20 item scale with five response options of Never (1), Rarely (2), Occasionally (3), Often (4), and Always (5) which was properly validated by three experts in the area of test development. Example of item statement on DASS is “difficult to concentrate when teaching is going on in the class”. A minimum of 20 points and a maximum of 100 points can be earned on the scale, with higher scores indicating greater depression behaviour. However, the initial development of the DASS involved 35 items but after construct validation, the number of the items was reduced to 20. In other words, 15 items of DASS did not survive the construct validation. Out of the 15 items, 9 items loaded more than 3.50 in more than one factor while the remaining 6 items could not load up to 0.35 in any of the factors. After that, the internal consistency reliability index of 0.79 was obtained using Cronbach Alpha method for the 20 items of DASS that survived the construct validation. Besides, the test-retest reliability of the DASS was established to be 0.84 using Pearson’s

product moment correlation coefficient. This was done by re-administering the DASS after the 2 weeks of first administration.

### **Academic Depression Behaviour Scale (ADBS)**

Academic depression behaviour scale (ADBS) developed by the researchers is a 10 item scale with five response options of Never (1), Rarely (2), Occasionally (3), Often (4) and Always (5) with lowest and highest scores of 10 and 50 respectively. Example of item statement on ADBS is “depend on other students to solve academic problems”. However, the initial development of the ADBS involved 18 items but after construct validation, the number of the items was reduced to 10. In other words, 8 items of ADBS did not survive the construct validation. Out of the 8 items, 6 items loaded more than 3.50 in more than one factor while the remaining 2 items could not load up to 0.35 in any of the factors. After that, the internal consistency reliability index of 0.81 was obtained using cronbach alpha method for the 10 items of ADBS that survived the construct validation. Besides, the test-retest reliability of the ADBS was established to be 0.87 using Pearson’s product-moment correlation coefficient. This was done by re-administering the ADBS after the 2 weeks of first administration.

### **Procedure**

A demographic questionnaire was administered to the eligible participants to access their gender, age and location as undergraduate students. In order to avoid randomization bias, information from the demographic questionnaire were not made known to the person who randomized the participants to experimental and control conditions. Before the commencement of the testing and treatment package, the researchers assured the participants of confidentiality of interactions and personal information as they work together in self-disclosure. Thereafter, pre-treatment assessment (pretest) was conducted using the DASS and ADBS in order to collect baseline data (Time 1). After that, the experimental group was exposed to 90 minutes of the REBT programme twice a week for a period of 6-weeks. The treatment took place between September and November, 2021. Post-test (Time 2) assessment was conducted 1 week after the last treatment session. Besides, a follow-up assessment was conducted after 2 months of the treatment (Time 3). Data collected from the experimental group at each evaluation were compared to that from the no-intervention control group.

### **Intervention Programme**

The programme that was used in this study was designed by Onuigbo et al. (2019) to improve the experimental group’s ability to manage their academic depression behaviour and was based on Ellis (1993). REBT theory is based on the ABC model, where A stands for activating events, B for beliefs, and C for various psychological outcomes and these principles guided the development of eight 90 minutes group education session, a general plan for the whole process was prepared as well as specific plans for each session. The experimental programme content focused on automatic thoughts, intermediate thoughts related to academic depression behaviour. During each of the treatment sessions, 30 minutes were spent on the automatic thoughts while the remaining 60 minutes were spent on the intermediate thoughts or irrational beliefs and discussion sessions. In addition, based on the cognitive, affective and

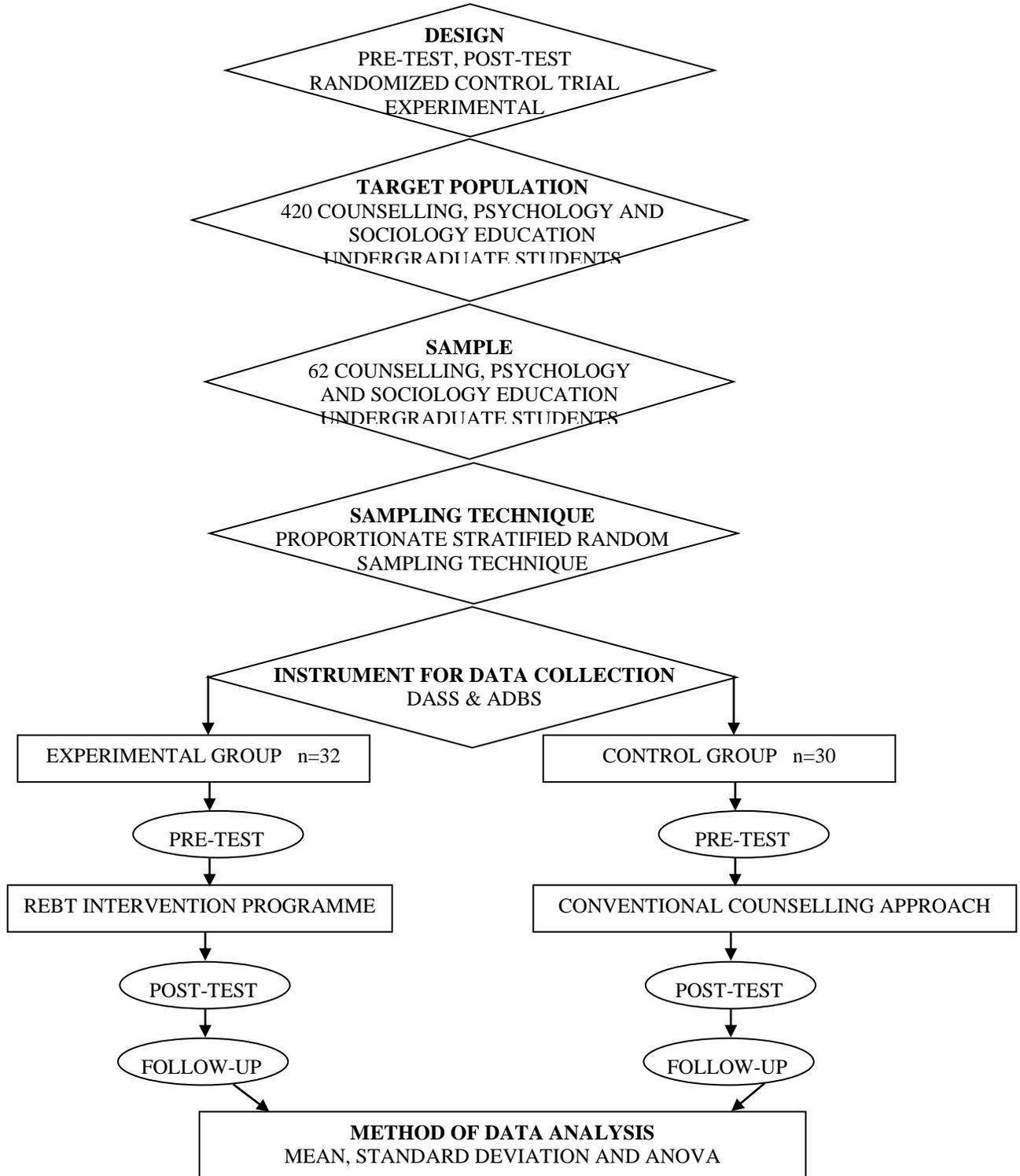
behavioural dimensions of academic depression, problem-solving, cognitive and behavioural techniques were used together. The content of the sessions were supported by purposive activities, visual materials, (diagrams, illustrations among others), and homework. Each session began with a summary of the previous session (except for the first session) followed by discussing the homework, explaining the current sessions ended with summarizing, giving feedback and homework (except for the eight session), and a closing activity.

The general outlines of the sessions and brief information are provided below:

- To help students become familiar with the basic logic of the REBT-based psycho-educational programme and determine their personal goals.
- To ensure that students were informed about the rational emotive behavioural therapy approach.
- To help students gain awareness in terms of false attributions of failure (“I failed”), academic self-esteem beliefs and outcomes, and process-oriented and motivational perspectives.
- To help students develop self-confidence and motivation to study behaviour.
- To help student develop skills to change irrational thoughts.
- To help students realize the strong possible long-term influence on the self-esteem of permanently avoiding unpleasant academic tasks and poor relationship with peers and teachers.
- To help students avoid disinterest in pursuing passions and planning for the future.
- To help students to avoid resistance to anything school-related.
- To help students avoid lack of engagement in the classroom.
- To help students improve academic performance.
- To help students develop skills for breathing, relaxation, and safe place techniques in cases of extreme stress.

The manual as adapted from Onuigbo et al. (2019) was written in English and can be accessed from <https://www.researchgate.net/publication/3263>.

**Schematic Representation of the Method and Materials**



**Data Analysis**

The effect of Rational Emotive Behavioural Therapy on the reduction of academic depression behaviours among undergraduate students in public universities in Enugu State, Nigeria was established statistically using repeated measures analysis of variance (ANOVA). Partial Eta squared and adjusted R<sup>2</sup> values were used to report the effect size of the intervention on the dependent measure. The assumption of the sphericity of the test statistic was tested using the Mauchly test of sphericity which was not significant (Mauchly  $w=0.768$ ,  $\rho=.647$ ), implying that the assumption was not violated. Thus, the variances of the differences between all combinations of the related measures are equal. The analysis was done using statistical package for social sciences version 18.0.

**Table 2: Repeated analysis of variance for the effect of rational emotive behavioural therapy on the reduction of academic depression among undergraduate students**

Time	Measures	Group	Mean (SD)	F	$\rho$	$\eta^2$	$\Delta R^2$	95% CI
1	Pre-treatment	DASS	Experimental 82.21(6.55) Control 86.14(5.04)	.132	.822	.005	0.09	0.10,1.77
		ADBS	Experimental 42.52(10.31) Control 41.68(11.51)	.451	.651	.007	.1010	0.26, 1.89
2	Post-treatment	DASS	Experimental 20.51(2.44) Control 73.41(8.24)	867	.123	.000	.821	.880804.31, 901.14
		ADBS	Experimental 16.84(8.52) Control 41.61(5.51)	106	.521	.000	.678	.762.100.45, 120.76
3	Follow-up	DASS	Experimental 21.10(3.01) Control 72.11(7.22)	712	.421	.000	.801	.815810.32, 695.32
		ADBS	Experimental 14.02(1.51) Control 41.82(6.02)	120	.674	.000	.792	109,56, 146.71

DASS: Depression Assessment Scale for Students; ADBS: Academic Depression Behaviour Scale; Mean (S): Mean (standard deviation);  $\rho$ : Probability Value; CI: Confidence interval;  $\eta^2$ : effect size;  $\Delta R^2$ : adjusted R<sup>2</sup>

**Table 3: Tests of within-subjects effect for the intervention group**

Source	Types III sum of squares	Df	Mean square	F	Sig.	Partial Eta squares
Measure: APB						
Time						
Sphericity assumed	94.335	2	46.622	10.624	.000	.690
Greenhouse -	94.335	1.962	47.641	10.624	.000	.690
Geisser Huynh-Fedt	94.335	2.000	46.622	10.624	.000	.690
Lower-bound	94.335	1.000	94.435	10.624	.000	.690

**Table 4: Post hoc test for the significant of time**

(I) Time	(J) Time	Mean difference (I-J)	Std. error	Sig.
Pre-treatment	Post-treatment	63.651	.008	.000
	Follow-up	63.125	.007	.000
Post-treatment	Pre-treatment	-63.651	.008	.000
	Follow-up	-.524	.008	.000
Follow-up	Pre-treatment	-63.125	.007	.000
	Post-treatment	.524	.008	.000

## RESULTS

Table 2 reveals that there was no significant difference between the experimental and control groups in initial academic depression among counseling, psychology and sociology education undergraduate students as measured by DASS,  $F(1,61)=0.132$ ,  $\rho = .822$ ,  $n^2 = .005$ ,  $\Delta R^2 = .009$ .

At the post treatment and follow-up measures, the efficacies of rational emotive behavioural therapy on the reduction of academic depression among counselling, psychology and sociology education undergraduate students were significant,  $F(1,61)=.867.123$ ,  $\rho = .000$ ,  $n^2 = .821$ ,  $\Delta R^2 = .880$ ; and  $F(1,61)=712.421$ ,  $\rho = .000$ ,  $n^2 = .801$ ,  $\Delta R^2 = .815$ .

Similarly, using ADBS as a measure, there was no significant difference in the initial academic depression of the participants,  $F(1,61)=0.451$ ,  $\rho = .651$ ,  $n^2 = .007$ ,  $\Delta R^2 = .010$ . At the post treatment and follow-up measures, the efficacies of rational emotive behavioural therapy on the reduction of academic depression among counselling, psychology and sociology education undergraduate students were significant,  $F(1,61)= 712.421$ ,  $\rho = .000$ ,  $n^2 = .801$ ,  $\Delta R^2 = .801$ ; and  $F(1,61)= 120.674$ ,  $\rho = .000$ ,  $n^2 = .792$ ,  $\Delta R^2 = .803$ .

Table 3 revealed that the mean depression behaviour scores of the intervention group were significantly differently different at pre-treatment, post-treatment and follow-up measures,  $F(2,31) = 46.622$ ,  $\rho < 0.05$ ,  $n^2 = .780$ .

Table 4 gives us the significance level for differences between the individual time points. It shows that there were significant differences in academic depression behaviours of the undergraduate students between post-treatment and pretreatment ( $\rho = 0.000$ ). This implies that the academic depression behaviours of the undergraduate drastically reduced after the intervention programme.

## **DISCUSSION OF THE RESULTS**

The findings of the study revealed that at the post-treatment and follow-up measures, the efficacy of rational emotive behavioural therapy on the reduction of academic depression among counselling, psychology and sociology education undergraduate students was significant. This finding has shown the superiority nature of the REBT over the conventional counselling approach in the reduction of maladaptive behaviours among the students of higher learning. The students who were counselled on the dangers of academic depression using REBT were optimally motivated during the intervention session and that led to the drastic reduction in their academic depression after the intervention and even at the follow-up measure. This finding is similar to the findings of Onuigbo et al. (2019), whose quantitative findings indicated that university students with blindness scores decreased and that the decline was still observed on a retention test after the students participated in a programme based on REBT, which aimed to reduce academic depression behaviours. According to Onuigbo, et al. (2019), there was no significant change in the control group's score, which indicated that the applied programme was effective and that the decline in the experimental group's depression scores occurred as a result of the programme. Corroborating these findings are findings of Gagford (2019); Kanter (2021); Leo (2017); Yuleh (2020). Academic depression behaviour requires intervention on affective, behavioural, and cognitive dimensions (Burka & Yuen, 2008; Khaus, 2010; Steel, 2007). Researchers from various fields of study have focused on the cognitive behaviour therapy to address patients with insomnia and depression, Guiyn et al (2020); Holmes (2020) and Rupke (2006); Skedel and Byars (2021); Wade, Holland and Katie (2022); Swiner (2020) demonstrated that students' depression behaviours decreased following a cognitive behavioural therapy programme for preventing academic depression. Gantam (2020) found out that depression behaviour scores of secondary school students exposed to cognitive behavioural therapy programme also decreased. Binder (2000) and Schubert et al. (2000) found a correlation of depression behaviour with rational attributions and beliefs. Rozental and Carlbring (2013) conducted a study on rational emotive behavioural therapy on depression and found out that there was a mean decrease in depression scores at post-test which proved that REBT is effective. The above findings validated the efficacy of the REBT intervention for managing academic depression among undergraduate students in public universities in Enugu State, Nigeria. The implication of these findings is that if undergraduate students are not properly counselled, their depression behaviours will continue to increase.

### **Strength of the Study**

This study explored an area which addresses the contemporary problems among students in Nigerian universities. The intervention is considered timely given the potential impacts of academic depression in students' academic achievement in universities. The intervention successfully validated the effectiveness of REBT in reducing academic depression among undergraduate students using a randomized control trial. The use of experimental and control

groups enabled the researchers to compare both within- group factors and between-group factors.

### **Limitations**

Like other empirical-based studies, this present study has some limiting factors. The study utilized data to evaluate the effectiveness of REBT on reduction of academic depression among undergraduate students without considering the moderating effects of demographic variables like age, ethnicity, gender, marital status among others. The experimental group in this study reported disliking studying, wanting to commit suicide and fear of failure as causes of their academic depression behaviours. These may have affected the outcome of the study. With these limitations, generalizing the findings should be done with care. Besides, future studies should explore how these demographic variables could moderate the effectiveness of REBT on the reduction of academic depression among undergraduate students.

### **CONCLUSION**

Based on the findings of the study, the researchers concluded that REBT is effective in the reduction of academic depression behaviour among undergraduate students in public universities.

### **Recommendations**

It was recommended that:

- (1) Federal government should provide enough guidance counsellors in the various institutions of higher learning who will assist in the counseling of the students on the dangers of academic depression using REBT.
- (2) Available guidance counsellors in institutions of higher learning should be properly trained on how to use REBT in reducing academic depression.
- (3) Guidance counsellors should master REBT through workshops and seminars to ensure effective counselling to reduce depression of students.

### **Compliance with Ethical Standards**

- **Conflict of Interest:** The authors declare that they have no conflict of interest.
- **Ethical Standard:** The authors adhered to the ethical standard specification of the American Psychological Association APA (2017), and with that of the World Medical Association (2013).

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