

Intervention for burnout among English education undergraduates: implications for curriculum innovation

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Abstract

Background/Objective: The present study investigated the effect of Rational Emotive Behavior Therapy (REBT) intervention on burnout among English education undergraduates in southeastern Nigeria.

Method: The study adopted a randomized controlled trial design. A total of 96 English education undergraduates with high burnout symptoms in the participating universities took part in the study. These were randomly assigned to groups – intervention group (n=48) and control group (n=48). The Oldenburg Burnout Inventory for students (OLBI-S) was used for data collection. The collected data were analyzed using 2-way mixed repeated measure ANOVA at .05 probability level.

Result: Results showed that the REBT program significantly reduced the burnout level among English education undergraduates in the intervention group compared to the students in the no-intervention control group as measured by the OLBI-S subscales. Also, the students who benefited from the REBT program maintained reduced burnout levels when the researchers conducted a follow-up.

Conclusion: Given the present finding, the REBT program is an effective intervention for preventing and managing burnout among students. The present study has important curriculum innovation implications as far as English education is concerned especially in the Nigerian context. This intervention program can be included in the students' curriculum activities so as to equip the students with necessary therapeutic skills to manage burnout symptoms presently and in the future.

Abbreviations: ANOVA = analysis of variance, OLBI-S = Oldenburg Burnout Inventory for students, REBT = rational emotive behavior therapy.

Keywords: burnout, curriculum innovation, English education, intervention, rational emotive behavior therapy, undergraduates

1. Introduction

The general mental health of students has been a source of concern. This could be due to the increasing demands of academic life and high societal expectations which act as potential physical

and psychological stressors.^[1] These demands can trigger stress and other dysfunctional behaviors such as burnout. Burnout can be described as a condition of fatigue and cognitive weariness experienced by someone.^[1] When a student suffers from burnout, he/she shows a complete lack of psychological drive and energy to engage in any meaningful academic activities usually as a result of exposure to prolonged stressful conditions. Student burnout can be defined as a 3-pronged syndrome consisting of a feeling of exhaustion as a result of demands of studying, a cynical attitude of detachment and withdrawal, and a diminished professional efficacy with respect to academic requirements.^[2] The introduction of Maslach Burnout Inventory-Student Survey (MBI-SS) in 2002 brought the concept of student burnout to limelight.^[2] Since then, several studies have been carried out across the globe which confirmed the prevalence of burnout among different student populations particularly undergraduate students.^[1-5] In particular, a study conducted among undergraduate students in 3 Spanish universities revealed that majority of the students showed that there was an average level of emotional exhaustion and academic efficacy (mean=2.68±1.02 and 2.90±0.92 respectively) and high level of cynicism (mean=4.60±0.74) as recorded by the MBI-SS.^[6] In Nigeria, a similar study conducted reported that about 68% of students experience burnout.^[7]

In terms of interventions to reduce and manage burnout, a meta-analysis report showed that Cognitive Behavioral Therapies

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(CBTs) have been popularly used for burnout intervention among different populations.^[8] In Nigeria, Rational Emotive Behavior Therapy (REBT), a form of CBT has been widely used in recent studies among adolescents and different student population as an intervention for stress, burnout and related psychological conditions.^[9–11] Albert Ellis developed REBT which was previously known as Rational Emotive Therapy (RET).^[12] REBT philosophy aligns with Stoicism which accepts the basic tenet of the philosopher Epictetus that man is disturbed not by things but by his view of things.^[12] Thus, the effect of a particular situation in a man's life is largely dependent on his view and interpretation of such a situation. Hence, changing his (irrational) views of things (to a more rational and positive view) can significantly bring about improved positive change in his life. Therefore, as a therapeutic model, REBT proposes that if therapists and clients can work collaboratively to change and replace the irrational thoughts and beliefs associated with undesirable emotions and conditions in a client's life with more healthy and positive thoughts and beliefs, the client's quality of life and fulfillment can improve significantly.^[13] This is because REBT presupposes that cognition, feeling and behavior are tied together and interact with one another and therefore would serve better clinically when viewed together than in isolation.^[13] Since burnout is seen as a prolonged response to long-term interpersonal and emotional stressors, students who suffer burnout can be helped to overcome this condition by being guided to change their (irrational) views, reactions and interpretations of potential stressors. This is the goal of REBT, that is, to replace irrational thoughts and beliefs (which could trigger burnout) with rational and healthy thoughts and beliefs through a series of cognitive, behavioral and emotive techniques.

Even though the global literature suggests that there is a huge pool of studies on student burnout and associated interventions, the evidence in a Nigerian context is sparse, particularly for English education undergraduates. This obvious research gap in the Nigerian context need to be addressed as the differences in socio-cultural background, educational system and field of study might limit the generalizability of previous research findings. In Nigeria, English education undergraduates are pre-service teacher trainees of English language basically trained to teach in primary and secondary schools. The 4-year program is aimed at preparing the students to become future creative, reflective and effective teachers of English with broad and profound knowledge in pedagogy, and English literature. Students are meant to take courses in linguistics, writing, oral language, English language teaching methodologies in different settings, a wide range of literature in different genres, cognitive and developmental psychology, and a number of other inter-departmental and faculty courses. Apart from the regular courses and lectures, the program also involves in most cases 2-time teaching practice exercise ranging for a period of 6 weeks to 6 months, usually done in year 2 and final year. During this exercise, the student-teachers are posted to different schools as auxiliary teachers where they are expected to improve upon and strengthen their pedagogical skills and acquire other relevant teaching experiences. At the end of the program, each student is expected to submit a compulsory research project in partial fulfillment of the program requirement before graduation.

Given the prevalence of burnout syndrome among Nigerian undergraduates and the peculiar nature of English education teacher training in Nigeria, the authors believe that a lot of English education undergraduates could be suffering from burnout syndrome and require urgent intervention. Regrettably, there is a paucity of evidence-based intervention for burnout

among Nigerian undergraduates. In particular, to the best of our knowledge, no such intervention has been designed for managing burnout among English education undergraduates in Nigeria. Therefore, bearing in mind the widely reported success of REBT program in previous studies in Nigeria, the objective of the present study was to assess the effect of REBT intervention for burnout among English education undergraduates in Nigeria. Our hypothesis is that students who participate in the REBT program could have a significant reduction in burnout level when compared to students who did not participate in the program. We also hoped that the gains of the REBT program will be sustained after a 3 months follow-up check on the intervention group.

2. Method

2.1. Ethical approval

While all the participants completed an informed consent form, the study was equally approved by the Department of Arts Education Research Ethics Committee. The study met the ethical conditions of the World Medical Association *Declaration of Helsinki*.

2.2. Study participants

This study involved 96 English education undergraduates in public institutions in southeastern Nigeria who met the inclusion criteria. The inclusion criteria stipulates that: one must be an undergraduate student in English education, one must show signs of high burnout (which was ascertained using the Oldenburg Burnout Inventory for students), one must not be involved in any other burnout intervention program during the time of the study, one must not be suffering from or has previously suffered from mental related illness, one must pledge to complete the program once started and have a functional email and WhatsApp phone number. Those who did not meet these criteria were excluded from the study. Participants' demographics are contained in Table 1. The sample size was determined using G-power 3.1 software^[15] based on a chosen effect size of 0.25, alpha level of 0.05 and statistical power of 0.95 for repeated measures between-factors F-test analysis of variance (ANOVA).

3. Measure

3.1. Oldenburg burnout inventory for students (OLBI-S)

The main instrument for data collection in this study was the Oldenburg Burnout Inventory for students (OLBI-S) as adapted

Table 1
Reliability of the OLBI-S.

Items	Cronbach alpha if item is deleted	
	Exhaustion	Disengagement
1	0.834	0.756
2	0.823	0.822
3	0.834	0.783
4	0.852	0.856
5	0.858	0.766
6	0.897	0.789
7	0.879	0.819
8	0.869	0.872
Cronbach alpha	0.873	0.833

and used in a previous study.^[8] The OLBI is a well-known burnout assessment instrument previously developed in German to make up for some perceived shortcomings of the Maslach Burnout Inventory and later translated to English by Demerouti et al.^[14] To measure academic burnout, we used the student version of OLBI as adapted and validated in a previous study.^[8] The OLBI-S consisting of 16 items was designed to measure academic burnout in 2 dimensions – Exhaustion (due to the demands of studying) and Disengagement (an attitude and detachment from one's study). Each subscale contains eight questions; 4 of the questions are worded positively while the other 4 are worded negatively for each subscale. The items are rated with a 4-point rating scale of strongly agree (1) to strongly disagree (4). To determine burnout, we reversed the negatively worded items before scores were summed up so that high scores would refer to a high level of exhaustion and disengagement. The minimum burnout level is a total burnout score of 16 (8 for each subscale) while the maximum burnout level is a total burnout score of 64 (32 for each subscale). In this study, a total score ranging from 16 to 32 for both subscales was considered low burnout while a total score ranging from 33 to 48 was considered moderate burnout and a total score ranging from 49 to 64 was considered high burnout. Participants who scored high (total burnout score of 49 and above) on the OLBI-S during the pre-test were recruited for this study. Both the exhaustion (Cronbach alpha = 0.873) and the disengagement (Cronbach alpha = 0.833) subscales were reliable (see Table 1).

3.2. Demographic questionnaire

This was used to obtain the demographic characteristics of the participants. We sought the following information: gender, year of study, residence (campus or off-campus), sponsorship, monthly allowance, ethnicity and parental status. See Table 1 for participant demographic characteristics.

3.3. Study design

Randomized controlled trial.

3.4. Procedure

Data collection for this study was done by the researchers between September 2018 and February 2019 from 2 participant groups (intervention and no-intervention control groups), and 3 measurements (pre-test (baseline data), post-test, and follow-up test) were administered. The universities in the study area which were marked for this study were visited and a meeting with the students was scheduled through their class representatives with permission from the head of the department. They were encouraged to partake in the study after being assured of the confidentiality of the information they provide and then enlightened on the purpose and conditions of the study. Volunteers were made to fill the informed consent form and also submit their phone numbers and email addresses. Afterwards, volunteers were mailed a copy of the OLBI-S with an instruction to complete within 2 weeks. As a reminder for the completion of the instrument before the deadline, 5 batches of bulk text messages were sent at different intervals. The 194 students completed and submitted the OLBI-S. Their responses were analyzed to determine those with high burnout scores. Thus, those whose total burnout scores were 49 and above (high

burnout scores) were recruited for the study. The 96 respondents were finally recruited for the study out of the 194 respondents. This formed the baseline data (Time 1). The students were then randomly assigned to either of the 2 groups- intervention group (n=48) and control group (n=48) (see Fig. 1). The random allocation sequence used to assign students to the groups was generated by a Random Allocation Software.^[22] The procedure adopted for assigning students to the groups was as described in Onuigbo et al.^[16] To minimize bias, data analysts were blinded as some portions of the data collection instrument was blurred.

We created a WhatsApp group for each of the groups. For participants in the control group, they received motivational quotes and posts daily in their WhatsApp group page. Whereas students in the intervention group received the daily motivational quotes together with a weekly REBT burnout treatment program for a period of 10 weeks of 80 minutes each. We adapted an REBT burnout treatment manual for the intervention program.^[17-19] After this period, students' burnout levels were assessed both for the intervention and control groups to obtain the data for Time 2 (post-test). We then conducted a 2-weeks follow-up meeting 3 months after Time 2. We met twice a week and at the end of the second week, the students' burnout levels were assessed again for the third time. This gave us the follow-up data (Time 3). The WhatsApp groups served as a place where we could meet at any time to discuss and fix our meeting days. The REBT program was delivered in English language by 2 of the researchers and we monitored the filling of the questionnaires at Time 2 and Time 3 to ensure they were filled accordingly. Afterwards, they were collected on the spot for assessment.

3.5. Intervention

3.5.1. REBT burnout treatment manual. The REBT burnout treatment manual is meant to guide the students as they consciously and intentionally change and modify their irrational thoughts and beliefs (believed to be the precursor to burnout) by engaging them in series of REBT prescribed exercises aimed at reducing burnout. We adapted this manual from REBT manual used in previous related studies.^[17-19] The burnout treatment program was conducted for 10 weeks with 2 sessions in a week lasting for 80 minutes. In each of the sessions, the treatment involves guiding the students to identify and note their school and non-school related stressors, irrational beliefs and negative thoughts. Then, the students are guided as they engage in the various therapeutic techniques and approaches to combat and dispute these ill thoughts, irrational beliefs and stressors. To dispute students' irrational beliefs once they have been identified, the counselor uses 3 processes: debating, discriminating and defining. *Debating* involves asking questions such as 'what evidence is there to support this belief?'; *discriminating*, on the other hand, helps the student to distinguish between notions such: want and need, desires and demands, absolute and non-absolute values; *defining* are meant to help the students choose their options and terms more precisely.^[12] The therapeutic techniques used consist of the cognitive, behavioral and emotive techniques. The cognitive techniques include cognitive homework, reframing, cognitive distraction and rational self-statements. The emotive techniques include unconditional acceptance, self-disclosure, role-playing, rational emotive imagery, humor and shame-attacking exercises. The behavioral techniques include rewards and penalty, fixed role, anti-procrastination exercises, implosive desensitization, stay-in-there activities,

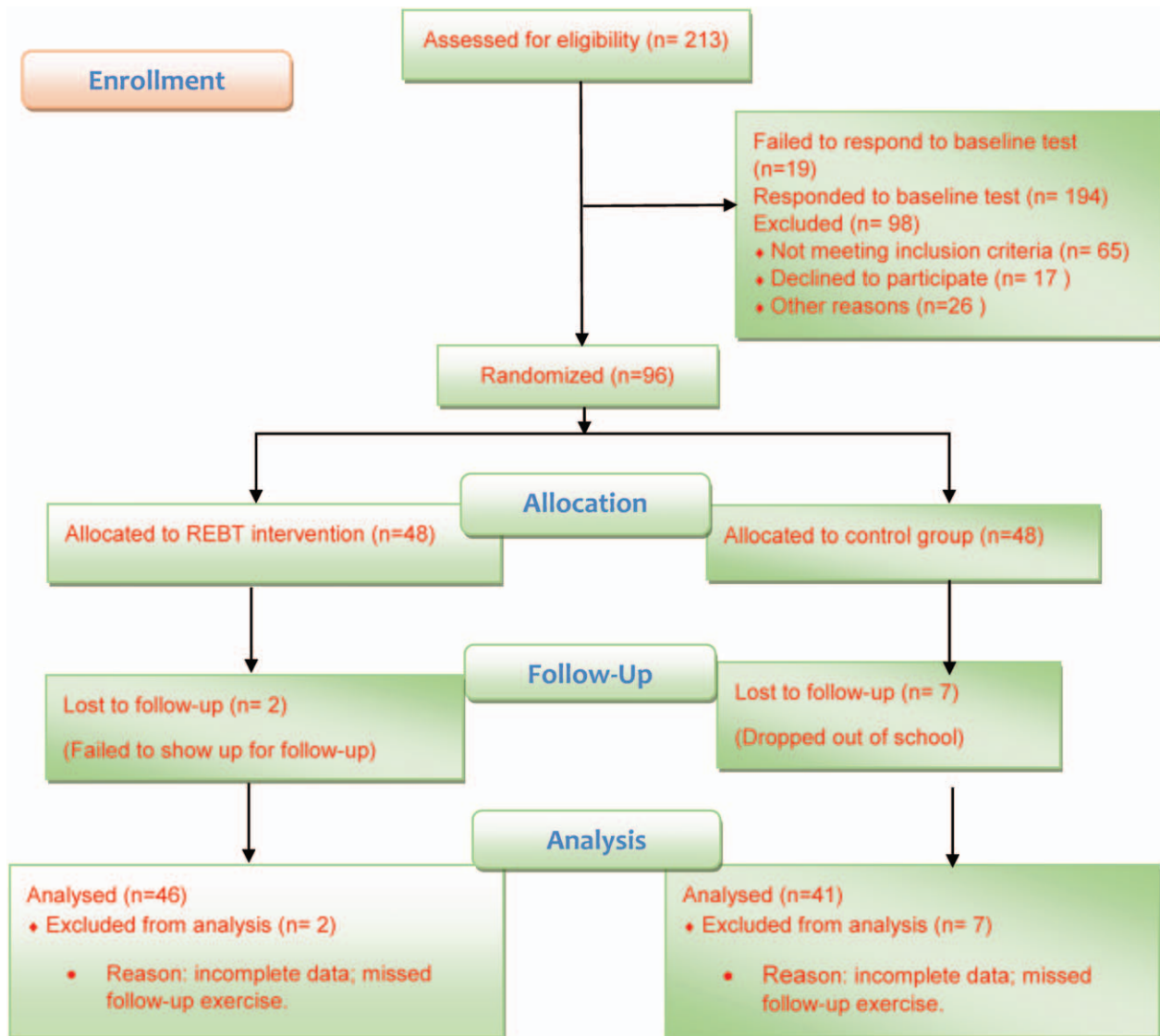


Figure 1. Participant eligibility criteria.

relaxation and other forms of physical distractions. Each therapeutic session ends with a homework assignment which is expected to be completed before the next session. The WhatsApp group served as an avenue to remind and encourage participants to complete their homework exercises. The present REBT student burnout treatment manual was validated by 3 REBT practitioners.

3.6. Method of data analysis

We started by conducting a within-between-subject factors 2-way mixed repeated measures analysis of variance (ANOVA) to determine the main effect of treatment condition, the main effect of time (before treatment vs after treatment and follow-up); and the time × group interaction effect in the different subscales of OLBI-S. Partial eta squared was calculated to show the effect size of the REBT treatment intervention. Since the group effect, time effect and the time × group interaction effect were all significant, a post-hoc analysis was performed with the Bonferroni correction

in order to determine the specific significant effect of the intervention for the different times for each of the group. We ensured that the assumptions of the repeated measure ANOVA was met by conducting the Mauchly test for sphericity for each of the burnout subscales. The result showed that sphericity assumption was met for Exhaustion subscale ($\chi^2(2) = 3.081, P=.214$) but not met for Disengagement ($\chi^2(2) = 9.679, P=.008$), thus we used the Huynh-Feldt correction for the Disengagement subscale.^[20] All the statistical analysis including screening for missing values were done using SPSS Statistics 17.

4. Results

From Table 2, it can be observed that the mean age of both the intervention and control groups were 21.06 ± 1.83 and 20.38 ± 1.41 respectively, and the difference between the means was significant. We had more females both in the intervention group and control group (72.9% and 79.1% respectively); thus more females in the entire sample. The second-year students were the

Table 2**Demographic characteristics of participants.**

Characteristics	Levels	Intervention	Control	t -test	significance
Age		21.06 ± 1.83	20.38 ± 1.41	2.065	.042
		n(%)	n (%)	χ^2	significance
Gender	Male	13 (56.52)	10 (43.48)	26.042 ^a	<.001
	Female	35 (47.95)	38 (52.05)		
Year of study	Year 1	11 (55.00)	9 (45.00)	3.750 ^b	.290
	Year 2	16 (50.00)	16 (50.00)		
	Year 3	10 (43.48)	13 (56.52)		
	Year 4	11 (42.86)	10 (47.62)		
Residence	Off campus	15 (45.45)	18 (54.55)	9.375 ^a	.002
	Campus	33 (52.38)	30 (47.62)		
Sponsorship	Dependent	41 (48.81)	43 (51.19)	54.00 ^a	<.001
	Self-dependent	7 (70.00)	5 (30.00)		
Monthly allowance	N10,000 or less	33 (52.38)	30 (47.67)	49.563 ^c	<.001
	Between N10,000 and N20,000	10 (40.00)	15 (60.00)		
	More than N20,000	5 (62.50)	3 (37.50)		
Ethnicity	Ibo	35 (46.61)	37 (51.39)	137.00 ^b	<.001
	Hausa	2 (100.00)	0 (0.00)		
	Yoruba	1 (33.33)	1 (66.67)		
	Others	10 (52.63)	9 (47.37)		
Parental status	Both parents alive + living together	29 (45.31)	35 (54.69)	90.750 ^b	<.001
	Both parents alive + seperated	6 (66.67)	3 (33.33)		
	Either of the parents alive	8 (50.00)	8 (50.00)		
	Neither of the parents alive	5 (71.43)	2 (28.57)		

most represented in either of the group (33.3% for each group). In each group also it could be observed that the majority of the students live on campus; 68.8% for intervention and 62.5% for the control group. Majority of the students earned N10000 or less (65.6% overall) and are dependent too (85% overall). Since the study was conducted in the Southeastern part of Nigeria, it was not surprising that the study sample had more of the Igbo ethnic group (75% overall) who predominantly occupy the southeastern part of Nigeria. Most of our study participants also have both parents alive and living together (66.6% overall).

From Table 3, the result of the 2-way mixed ANOVA indicates that the overall main effect of time on students' burnout level was significant for each of the burnout subscales as recorded by the OLBI-S [Exhaustion: $F(2,170) = 115.16, P < .001, \eta_p^2 = 0.575$; Disengagement: $F(2, 158.28) = 451.17, P < .001, \eta_p^2 = 0.841$]. With an average effect on students' exhaustion and a very high effect on students' disengagement as indicated by the values of the partial eta squared, the REBT program had an overall high significant effect over time on students' burnout levels. Similarly, there was a significant main effect of group on students' burnout level as shown in the OLBI-S subscales [Exhaustion: $F(1,85)$

$= 192.94, P < .001, \eta_p^2 = 0.694$; Disengagement: $F(1,85) = 686.02, P < .001, \eta_p^2 = 0.890$]. From this, we can infer that the REBT group which participants belonged had an overall high significant effect on their burnout level as indicated by the value of partial eta squared which represent the effect size of the REBT program. Thus, overall, students who benefited from the REBT program (intervention group) had a significantly different (lower) burnout scores when compared to those who did not benefit from the program.

In addition, our ANOVA result indicated that the interaction between Time and Group was significant as shown in the OLBI subscales [Exhaustion: $F(2,170) = 128.13, P < .001, \eta_p^2 = 0.601$; Disengagement: $F(1.86,155.28) = 437.92, P < .001, \eta_p^2 = 0.837$]. This means that depending on the participant's group, his/her burnout level would change over time. To further validate these observations and ascertain the exact direction and location of the significant differences and change in burnout levels by time, group and time \times group interactions, we conducted a post-hoc analysis for pairwise comparison using Bonferroni (see Tables 4 and 5).

Pairwise comparison in Table 4 showed what happened to the burnout level of students in each group at each point in time. For

Table 3**Repeated measure ANOVA result of the overall effect of Time, Group and Time x Group interaction of REBT intervention on the burnout levels of English education undergraduates.**

Source	Burnout subscale	SS	df	MS	Error (df)	F	Significance	η_p^2
Time	exhaustion	983.34	2	491.68	170	115.16	<.001	0.575
	disengagement	3291.69	1.86	1767.71	158.28	451.17	<.001	0.841
Groups	exhaustion	2664.81	1	2664.81	85	192.94	<.001	0.694
	disengagement	5163.83	1	5163.83	85	686.02	<.001	0.890
Time*groups	exhaustion	1094.08	2	547.04	170	128.13	<.001	0.601
	disengagement	3194.95	1.86	1715.76	158.28	437.92	<.001	0.837

df = degree of freedom, MS = mean square, SS = sum of squares (type iii).

Table 4

Within-group pairwise comparison of the effect of REBT intervention on burnout of English education undergraduates at different times for each group.

Burnout subscale	Group	(I) time	(J) time	Mean Difference (I-J)	Sig. ^a	95% Confidence Interval for Difference ^a	
						Lower Bound	Upper Bound
Disengagement	Control	1	2	-0.244	1.000	-0.988	0.501
			3	0.098	1.000	-0.697	0.892
		2	1	0.244	1.000	-0.501	0.988
			3	0.341	0.356	-0.194	0.877
		3	1	-0.098	1.000	-0.892	0.697
			2	-0.341	0.356	-0.877	0.194
	Intervention	1	2	7.196*	0.000	6.029	8.362
			3	17.217*	0.000	16.290	18.145
		2	1	-7.196*	0.000	-8.362	-6.029
			3	10.022*	0.000	8.544	11.500
		3	1	-17.217*	0.000	-18.145	-16.290
			2	-10.022*	0.000	-11.500	-8.544
Exhaustion	Control	1	2	-0.610	0.320	-1.533	0.313
			3	0.000	1.000	-0.983	0.983
		2	1	0.610	0.320	-0.313	1.533
			3	0.610	0.315	-0.309	1.529
		3	1	0.000	1.000	-0.983	0.983
			2	-0.610	0.315	-1.529	0.309
	Intervention	1	2	7.674*	0.000	6.355	8.993
			3	9.065*	0.000	7.808	10.322
		2	1	-7.674*	0.000	-8.993	-6.355
			3	1.391*	0.006	0.344	2.438
		3	1	-9.065*	0.000	-10.322	-7.808
			2	-1.391*	0.006	-2.438	-0.344

Based on estimated marginal means.

^aAdjustment for multiple comparisons: Bonferroni.

* The mean difference is significant at the .05 level.

the control group, the change in burnout levels of the students across the 3 times was not significantly. Thus, the burnout levels of students in the control group were fairly the same throughout the study period. On the other hand, there was a significant difference in the burnout levels of students in the intervention group across the 3 Times. The students' burnout level showed a decreasing trend from time 1 to Time 2 and finally at follow-up.

From Table 5, apart from Time 1 when both burnout subscales (Exhaustion and Disengagement) recorded a non-significant

difference in mean scores of the 2 groups, there was a significant difference in mean scores in both the engagement and exhaustion subscales of the OLBI for Time 2 and Time 3 in the 2 groups (intervention and control) with all *P* values <.001. The results from the table suggest a steady significant decline in the burnout scores of the students in the intervention group over time (particularly in Time 2 and follow-up) when compared to students in the control group. These significant changes in burnout scores are connected to the REBT program the students

Table 5

Between-group pairwise comparison of the effect of REBT intervention on English education undergraduates' burnout levels at different times.

Burnout subscale	Time	Group (I)	Group (J)	Mean difference (I-J)	Sig. ^a	95% CI
Disengagement	Time 1	Control	Intervention	-0.537	0.277	-1.520, .447
		Intervention	Control	0.537	0.277	-0.447, 1.520
	Time 2	Control	Intervention	-7.805*	0.000	-8.930, -6.680
		Intervention	Control	7.805*	0.000	6.680, 8.930
	Time 3	Control	Intervention	-17.854*	0.000	-18.612, -17.095
		Intervention	Control	17.854*	0.000	17.095, 18.612
Exhaustion	Time 1	Control	Intervention	0.415	0.403	-0.576, 1.405
		Intervention	Control	-0.415	0.403	-1.405, 0.576
	Time 2	Control	Intervention	8.220*	0.000	7.012, 9.427
		Intervention	Control	-8.220*	0.000	-9.427, -7.012
	Time 3	Control	Intervention	9.366*	0.000	8.102, 10.630
		Intervention	Control	-9.366*	0.000	-10.630, -8.102

Based on estimated marginal means.

^aAdjustment for multiple comparisons: Bonferroni.

* The mean difference is significant at the .05 level.

were exposed to. Thus, these outcomes indicate the effectiveness of the REBT program in combating burnout among English education undergraduates.

5. Discussion

The purpose of this study was to investigate the effect of Rational Emotive Behavior Therapy (REBT) as an intervention towards the reduction of burnout symptoms among English education undergraduates in Southeastern Nigeria. The overall finding indicated that the REBT program was highly effective in reducing symptoms of burnout among English education undergraduates. In particular, we noted that just as reported by previous studies, there is burnout among undergraduate students.^[1-7] English education students showed a high level of burnout symptoms at the commencement of the study. However, we observed that the student burnout level significantly dropped in the intervention group who participated in the REBT program when compared to those of the students in the control group who did not participate in the intervention program. This trend was also maintained even after 3 months follow-up. This implies that the REBT program was an efficacious strategy when applied as an intervention for the reduction of burnout symptoms among English education undergraduates. These findings align with previous studies which reported the effectiveness of the REBT program as an effective intervention for combating academic burnout and other stress-related challenges.^[9,10,16-19] Globally, various approaches had been applied in previous literature as measures for managing burnout and other related health challenges.^[8] The present study has added another evidence-based strategy for managing symptoms of burnout to the existing pool of literature, particularly for English education undergraduates. This is important and particularly significant because the present study adopted a psychotherapeutic approach in managing burnout symptoms among students, thus, providing a viable option to other pharmacotherapeutic methods of managing burnout symptom, especially among students.

In Nigeria, there is a dearth of evidence-based studies which has sought to provide a viable intervention for academic burnout among Nigerian students, particularly English education undergraduates. A few available studies on burnout among Nigerian students largely reported its prevalence and possible causes among the student population.^[7] Therefore, the present study is significant having made available an effective and proven intervention through the REBT program for academic burnout among Nigerian students in general and English education undergraduates in particular. More diverse disciplinary research studies are however needed in this direction to validate the REBT program approach for student burnout management which is hoped would make it more generalizable, trustworthy, and applicable.

The present study has important curriculum innovation implications as far as English education is concerned especially in the Nigerian context. First, as a matter of urgency, the English education curriculum should be innovated to accommodate burnout prevention and management course. Given the scanty literature on students' burnout prevalence among Nigerian students, the result of the present study might be a tip of the iceberg as the situation might be worse than imagined. And since the school's activities are guided by the curriculum, a curriculum based approach is necessary and required as it will definitely carry the needed information about burnout management to the target

audience (students) faster and more efficiently. Also having ascertained the efficacy of the REBT program in reducing academic burnout symptoms, we suggest it is adopted as the preferred student burnout intervention program in the proposed burnout prevention and management course. If these suggestions are followed, the students will be equipped with burnout prevention and coping skills which would benefit them presently as students, and in their future careers as teachers.

It is not enough to introduce an REBT burnout prevention and management course into the English Education curriculum. Other curriculum-based structures which govern the English education program need to undergo frequent innovation to ensure that they are in line with global best practices. Structures like the number of courses offered per semester, course contents and arrangement, time allocated for each course, number of available lecturers, the unit loads attached to different courses, duration and management of the teaching practice exercise among others should be constantly innovated to ensure they measure up to best practices obtained elsewhere. This will most probably, make the course less stressful and reduce the possibility of developing burnout symptoms such as disengagement and exhaustion.

It has been argued that organizational level approach to burnout prevention and management is more preferred to the individual or group level approach.^[21] This is because it covers a wider scope with a more pronounced and lasting impact. The organizational level approach here involves realigning the organizational structures, activities, goals, and objectives to reflect that which potentially support burnout prevention and management. This is best achieved when an organization such as the school embraces a burnout management program such as REBT and aligns the schools' structure and activities with the REBT ideology. Since at the core of the REBT ideology is the belief that our thoughts (about things and situations around us) determine how we feel about them and our reactions towards them, English education in Nigeria could be structured such that its objectives and activities engender positive thoughts in students which will, in turn, generate positive feelings and then healthy actions and reactions. This will not only make learning very effective but will, in turn, prevent burnout among students by eliminating potential academic and environmental stressors encountered in the school. The school can achieve this through appropriate curriculum innovations and other necessary actions such as providing a conducive physical and psychological learning environment.

As lecturers are partners in progress to the administration and progress of the school, part of the curriculum innovation plan could involve training the lecturers on stress and burnout prevention and management. This is necessary as their actions towards students could not be entirely unconnected to their inner state of mind. And if they are stressed or burned out, this could affect their relationship with the students which in turn could determine to a great extent students' views and notion about a particular course. This is also in line with the organizational notion or approach to burnout prevention and management in the school setting as nobody or part of the organization is left out. As such, English education undergraduates would benefit immensely here if their lecturers are such that do not transfer aggression, possess the capability to manage their individual varied problems, understand students' plights, struggles, challenges and are willing to help and support them (the students) whenever it is possible. This will make the students physically and

psychologically connected to the school, boost their academic performance and improve their psychological well-being.

Similarly, the role of the academic adviser could be expanded to involve psychological counseling. This is because counseling is an important skill and practice that will enable the teacher/lecturer to access and assess the students' affective domain so as to make immediate and appropriate recommendations. In the process, minor behavioral and emotional issues could be easily corrected while tougher ones would be detected early and given appropriate attention. Also, the school could incorporate periodic check-up of students for burnout symptoms into the school curriculum. Such exercise could lead to the early detection of English education undergraduates with burnout symptoms and enrolling these students in an REBT program organized by the school/department which could be the surest way to help them gain back their academic vigor and interest.

5.1. Limitation of the study

The first limitation of this study is the use of only self-report method for data collection. This quantitative method even though is commonly used for data collection is highly prone to report bias. Future research should explore other qualitative methods for possible triangulation. Second, several aspects of the study should be carefully considered when making an attempt to generalize the results of our study. For instance, the geographical scope of the work made it non-representative as a particular ethnic group (Ibo) dominated the study sample. Again, this study used only English education undergraduates. Since different disciplines have stressors peculiar to them, further research is needed to ascertain whether the outcome of the present study can be applied and generalized to other disciplines. Similarly, the choice of an undergraduate sample limits the study as further research is required before the present result can be generalized to postgraduate students of English education. Future research should consider this. Third, the present research can be regarded as primary and global research. It did not consider the specific effect of the intervention on other intervening student variables such as gender, year of study, monthly allowance and marital status. Future research could seek an answer to such question such as: which gender responds most to REBT treatment for burnout? Does one's marital status affect their response to REBT treatment for burnout? How does a student monthly allowance affect their response to REBT burnout treatment? Answer to these questions is important for future therapeutic prescriptions.

6. Conclusion

This study investigated the effect of Rational Emotive Behavior Therapy (REBT) as a burnout management intervention among English education undergraduates in southeastern Nigeria. The result showed a significant effect of REBT in reducing the symptoms of student burnout in the intervention group compared to students in the control group at posttest and follow-up as recorded by the OLBI-S subscales. Therefore, it was recommended that since the REBT program was effective at reducing burnout symptoms among undergraduates, the REBT ideology and practice should be adopted and incorporated into the school system through appropriate and effective curriculum innovation. This will ensure that the full potentials of REBT are maximized for the effective promotion of students' overall well-being and development.

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References

- [1] Almeida GC, Hercilio RS, Paulo CP, et al. The prevalence of burnout syndrome in medical students. *Arch Clin Psychiatry* 2016;43:6–10.
- [2] Wickramasinghe ND, Dissanayake DS, Abeywardena GS. Prevalence and correlates of burnout among collegiate cycle students in Sri Lanka: a school-based cross-sectional study. *Child Adolesc Psychiatry Ment Health* 2018;Doi:10.1185/s13034-018-0238-z.
- [3] Boni RA, Palva CE, Oliviera MA, et al. Burnout among medical students during the first years of undergraduate school: prevalence and associated factors. *PloS One* 2018;13:e0191746.
- [4] Al-Alawi M, Al-Sinawi H, Al-Qubtan A, et al. Prevalence and determinants of burnout syndrome and depression among medical students in Sultan Qaboos University: A cross-sectional analytical study from Oman. *Arch Environ Occup Health* 2017;1–0. doi: 10.1080/19338244.2017.1400941.
- [5] Lou Y, Wu Liansong W, Lui H. A study of non-english-majored graduates' learning burnout in a local comprehensive university in China. *Creative Education* 2016;7:999–1006.
- [6] Navarro-Abal Y, Gómez-Salgado J, López-López MJ, et al. Organisational justice, burnout, and engagement in University students: A comparison between stressful aspect of labour and university organisation. *Int J Environ Res Public Health* 2018;15:E2116doi: 10.3390/ijerp15102116.
- [7] Olujide AA, Alao AA, Odukoya AJ, et al. Predicting perceived psychological burnout among sophomore students of Covenant. *Social Sci* 2017;12:2022–7.
- [8] Ries D, Xanthopoulou D, Tsaousis I. Measuring job and academic burnout with the Oldenburg Burnout Inventory (OLBI): factorial invariance across samples and countries. *Burn Res* 2015;2:8–18.
- [9] Ogbuanya TC, Eseadi C, Orji CT, et al. Effect of rational emotive behavior therapy program on the symptoms of burnout syndrome among undergraduate electronics works students in Nigeria. *Psychol Rep* 2018;122:4–22. doi: 10.1177/0033294117748587.
- [10] Onyechi CN, Eseadi C, Okere AU, et al. Effects of cognitive behavioral coaching on depressive symptoms in a sample of type 2 diabetic inpatients in Nigeria. *Medicine (Baltimore)* 2016;95:e444.
- [11] Ntamu BA. Rational emotive behavioural therapy, fear of failure and examination malpractice behaviour among secondary school students in Calabar municipality. *J Educ Prac* 2017;8:129–38.
- [12] Theoretical Perspectives of Rational Emotive Behaviour Therapy. Available at http://shodhganga.inflibnet.ac.in/bitstream/10603/119316/10/10_chapter%202.pdf [Accessed February 26, 2019].
- [13] Terjesen MD, Kurasaki R. Rational emotive behavior therapy: application for working with parents and teachers. *Estudos Psicologia: Campinas* 2009;26:3–14.
- [14] Demerouti E, Mostert K, Bakker AB. Bournout and work engagement: a thorough investigation of the independency of both constructs. *J Occup Health Psychol* 2010;15:209–22.
- [15] Faul F, Erdfelder E, Buchner A, et al. Statistical power analyses using G*Power3.1: tests for correlation and regression analyses. *Behav Res Methods* 2009;41:1149–60.
- [16] Onuigbo LN, Eseadi C, Ugwuoke SC, et al. Effect of rational emotive behavior therapy on stress management and irrational beliefs of special education teachers in Nigerian elementary schools. *Medicine (Baltimore)* 2018;97:e12191.
- [17] Ugwuoke SC, Eseadi C, Onuigbo LN, et al. Effect of rational-emotive stress management for reducing burnout and dysfunctional distress intervention among special education teachers. *Medicine (Baltimore)* 2018;97:e0475.
- [18] Ogbuanya TC, Eseadi C, Orji CT, et al. Effects of rational emotive behavior coaching on occupational stress and work ability among electronics workshop instructors in Nigeria. *Medicine (Baltimore)* 2017;96:e6891.
- [19] Ugwuoke SC, Eseadi C, Igbokwe CC, et al. Effect of rational-emotive health education intervention on stress management and irrational beliefs among technical college teachers in Southeastern Nigeria. *Medicine (Baltimore)* 2017;96:e7658.
- [20] Field A. *Discovering Statistics: Repeated Measures ANOVA* 2016. Available at <http://www.discoveringstatistics.com/docs/repeatedmeasures.pdf> [Accessed March 5, 2019].
- [21] Public Health England Intervention to prevent burnout in high risk individuals: evidence review. London: PHE publications; 2016.
- [22] Saghaei M. *Random Allocation Software*. 2004. Available At: <Http://Mahmoodsaghaei.Tripod.Com/Softwares/Randalloc.Html>. [Accessed October 18, 2018].