

Effect of Cognitive Behavioural Therapy and Acceptance and Commitment Therapy on Emotional Exhaustion Management among Secondary School Teachers in Lagos, Nigeria

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Abstract

Emotional exhaustion, a core component of burnout is prevalent among secondary school teachers due to high job demands and limited resources. This study examines the effectiveness of Cognitive Behavioural therapy (CBT) and Acceptance and Commitment therapy (ACT) in managing emotional exhaustion among secondary school teachers in Lagos, Nigeria. The study employs a quasi-experimental design with pre-test and post-test measures. A multi-stage sampling technique was used to select 60 participants (25 male and 35 female) in three secondary schools from three of the six educational districts of Lagos state. The modified Maslach Burnout Inventory –Educators Survey (MMBI-ES), with reliability indices of 0.91 was used to collect data for the study. Data collected was analysed using descriptive and inferential statistics. Findings indicate that both CBT and ACT significantly reduce emotional exhaustion among teachers with CBT showing slightly higher effectiveness. This study underscored the potential of cognitive behavioural therapy and acceptance and commitment therapy as effective interventions for reducing emotional exhaustion among teachers. Recommendations based on the findings of the study includes incorporating CBT and ACT based interventions into teacher well-being programs designed and executed by educational institutions and policy makers.

Keywords: Acceptance and Commitment Therapy, Cognitive Behavioural Therapy, Emotional Exhaustion, Secondary School, Teachers

Introduction

Teaching is a profession that demands significant emotional and psychological investment, often leading to high levels of stress and burnout. Secondary school teachers, in particular, face unique challenges such as managing adolescent behaviours, meeting curriculum standards, and handling administrative responsibilities. These stressors can culminate in emotional exhaustion, a core component of burnout characterized by feelings of being emotionally overextended, drained and depleted. (Hui, Yao, Li, & You, 2022). Central to the educational landscape is the teacher's mental health therefore, emotional exhaustion not only affects teachers' well-being but also impairs their teaching effectiveness, potentially leading to higher turnover rates and adversely impacting student outcomes. (Mérida-López, & Extremera, 2017; Zhang, & Yuan, 2020).

Research indicates that secondary school teachers are among the occupational groups most susceptible to burnout. A systematic review highlighted that these demographic experiences significant levels of emotional exhaustion, depersonalization, and reduced personal accomplishment (García-Carmona, Marín, & Aguayo, 2019). Factors contributing to this phenomenon include excessive workload, lack of a suitable working environment and a lack of social support within the school environment. (Räsänen, Pietarinen, Soini, Väisänen, & Pyhältö, 2022). Work ability, work experience, age, and gender, are also known to influence the level of emotional exhaustion among teachers (Räsänen, Pietarinen, Pyhältö, Soini, & Väisänen, 2020; Roloff, Kirstges, Grund, & Klusmann, 2022).

Various studies have established links between high levels of emotional exhaustion and adverse outcomes among teachers. For instance, emotional exhaustion correlates with decreased job satisfaction and triggers a decline in teachers' commitment to their profession (Skaalvik & Skaalvik, 2017; Wang, Yang, Chen & Zheng, 2024). The consequences of prolonged emotional exhaustion are profound, encompassing diminished job satisfaction, increased absenteeism, and a decline in the quality of education provided to students (Mérida-López & Extremera, 2017). Emotional exhaustion is also a significant predictor of turnover intentions among teachers (Haerens, Matos, Koc, Benita, & Abos, 2022). Teachers experiencing high levels of emotional exhaustion might consider leaving the profession due to overwhelming emotional demands and reduced job satisfaction (Grayson & Alvarez, 2008; Wang, Yang, Chen & Zheng, 2024). In addition, emotional exhaustion has also been associated with detrimental mental health outcomes, including symptoms of anxiety and depression (Skaalvik & Skaalvik, 2017).

To mitigate these effects, various interventions have been explored, with Cognitive Behavioural Therapy (CBT) and Acceptance and Commitment Therapy (ACT) emerging as prominent approaches. CBT aims to identify and modify negative thought patterns and behaviours, thereby equipping individuals with coping strategies to manage stress more effectively. A meta-analysis evaluating interventions to reduce teacher burnout found that CBT-based programs significantly decreased emotional exhaustion among educators (Iancu, Rusu, Măroiu, Pacurar & Maricutoiu, 2018). ACT, on the other hand, focuses on enhancing psychological flexibility by encouraging individuals to accept their thoughts and feelings without judgment and commit to actions aligned with their values. An evaluation of an ACT-based intervention for educators demonstrated reductions in self-reported burnout and improvements in psychological flexibility (Paliliunas, Burke, Taylor, Frizell, Durbin, & Hutchings, 2022). These findings suggest that ACT can be an effective tool in addressing emotional exhaustion by promoting adaptive coping mechanisms and resilience.

Despite the demonstrated effectiveness of these interventions, there remains a need for further research to directly compare the impacts of CBT and ACT on emotional exhaustion among secondary school teachers. Understanding the relative efficacy of

these approaches can inform the development of targeted support programs, ultimately enhancing teacher well-being and educational quality.

Cognitive Behavioural therapy

CBT which is a form of Cognitive Behavioural Intervention (CBI) is not one specific method or set of steps, it mainly combines cognitive training and strategic behavioural practices to provide teachers with the knowledge and skills needed to manage work-related stress (Li, Xue, & He, 2023). In a study conducted by Ghasemi, Herman, and Reinke (2023), the effects of a cognitive-behavioural group therapy program in reducing burnout symptoms among teachers was examined. The study was a randomized controlled trial conducted in the United States, involving 46 elementary and middle school teachers who reported high levels of burnout. Participants were randomly assigned to either the intervention group or a wait-list control group. The intervention group received an 8-week cognitive-behavioural group therapy program that focused on developing coping skills, stress management strategies, and cognitive restructuring techniques. The wait-list control group did not receive any intervention during the study period but were offered the therapy program after the study was completed. The results of the study showed that the cognitive-behavioural group therapy program was effective in reducing burnout symptoms among teachers.

Acceptance and Commitment Therapy

Acceptance and commitment therapy (ACT) is a Mindfulness based intervention, it is a form of psychotherapy that aims to increase psychological flexibility by helping individuals to develop acceptance of their thoughts and feelings, and to commit to values-based actions (Hayes, Luoma, Bond, Masuda, & Lillis 2006; Paliliunas et al., 2022). Awareness and acceptance without judgment are key components of ACT. Recent studies show that, mindfulness-based interventions such as ACT produces a positive effect on teachers' burnout. In a study by Cheng, Zhang, Cao, and Ma, (2022) a hybrid approach was designed to assess the feasibility and effectiveness of a mindfulness-based adaptive program for kindergarten teachers. The results showed that, compared to the control group, the mindfulness training group showed significant improvements in emotional intelligence and mindfulness in teaching. Biglan, Layton, Jones, Hankins, & Rusby, (2013) in a randomized wait-list control design, assessed the effect of ACT workshops delivered to educators' early education and exceptional education staff to be precise and concluded that the interventions reduced experiential avoidance and increased mindful awareness, and sense of efficacy among participants.

Objective of the study

The objective of this study was to examine the effect of cognitive-behavioural and acceptance-commitment therapies in the management of emotional exhaustion among secondary school teachers in Lagos, Nigeria.

Research Question

This research question was answered in the course of this study;

To what extent would there be any significant difference in the post test mean scores of emotional exhaustions on the participants exposed to experimental conditions and control group?

Research Hypothesis

This research hypothesis was tested in the course of this study;

H₀₁: Post-test mean scores on emotional exhaustion will not significantly differ among teachers exposed to experimental conditions and control group.

Methodology

The study design

The research design for this study was the quasi-experimental, pre- test, post- test, control group design. There were three experimental groups for the study. Two treatment groups and one control group. One treatment group was exposed to Cognitive Behavioural Therapy (CBT) while the second treatment group was exposed to Acceptance and Commitment Therapy (ACT). The control group was not exposed to any treatment. Pre-test and post-test were administered to the three groups.

Independent Variables: cognitive behavioural therapy and acceptance and commitment therapy

Dependent variable: emotional exhaustion

Sample and sampling

Multi-stage sampling process was used to select Secondary School teachers for the study. In the first stage of the process, three Education Districts were selected from the six Education Districts in Lagos State using the hat and draw method. The second stage involved the selection of one school from each district using a simple random sampling technique. The third stage involved administration of the modified Maslach Burnout Inventory educators survey to all willing and available teachers. A total number of sixty (60) teachers who met the inclusion criteria were included in the sample. They were assigned into the three treatment groups; cognitive behaviour therapy (19), acceptance and commitment therapy (21), and control group (20).

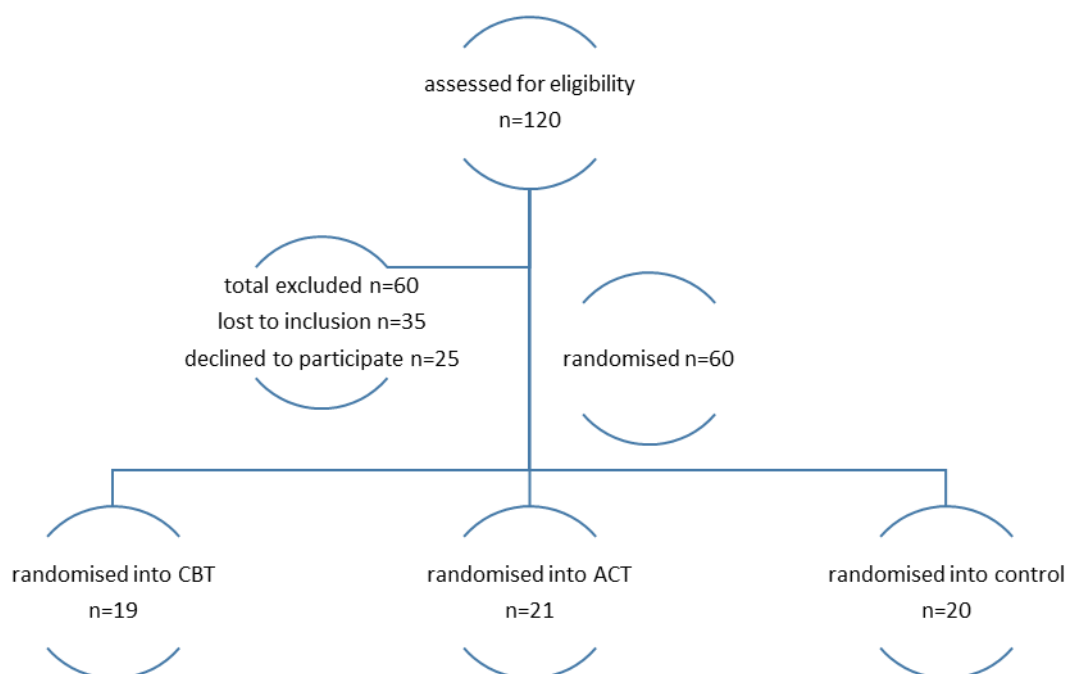


Figure 1: The study's progress

Inclusion Criteria

Only participants who met the following criteria were enlisted for participation:

- They were teachers of a public secondary school in Lagos State.
- Teachers score between moderate i.e 11–15, and high i.e ≥ 15 on the emotional exhaustion scale of the modified MBI-ES
- They were willing to participate in the treatment and control programme.

Research Instrument

The instrument used to collect data for this study was a modified version of The Maslach Burnout Inventory Educators Survey (MBI-ES). The Maslach Burnout Inventory Educators Survey (MBI-ES), was developed by Maslach, Jackson and Schwab in 1996 it consists of 22 burnout items divided into three subscales: 9 items that assess emotional exhaustion (EE) in relation to work; 5 items that assess depersonalization (DP) or negative work attitudes; and 8 items that assess personal achievement (PA) or feelings of achievement or competence in one's own work. The MBI-ES is originally a seven-point likert scale ranging with response ranging from never to Every day. The current study reduced the response to six eliminating the never response.

Validity

The validity of the questionnaire was established through expert review where experts in educational psychology and measurement and evaluation examined the instrument for

content validity, ensuring that it adequately captured the variables that were relevant to the context of the study.

Reliability

Reliability was determined using Pearson Product Moment Coefficient, which yielded a coefficient of 0.91. This high-reliability score confirms the internal consistency of the instrument and its appropriateness for assessing burnout among the selected samples.

Intervention

A cognitive-behavioural and acceptance and commitment programme was developed to manage burnout among teachers. Six sessions were provided for each treatment program at the rate of one session per week, and each session lasts between 60 and 120 minutes depending on the nature of each session. The intervention sessions were conducted face to face from 4 pm to 6 pm Nigerian Time.

Statistical analysis

After the administration of the pre-test, and post test data collected was analysed using inferential statistics including Analysis of Covariance (ANCOVA) where significance effect of treatment is noticeable. Each of the hypotheses was analysed at 0.05 level of significance using Statistical Product for Service and Solution (SPSS) version 24.

Results

Sociodemographic data

Table 1: sociodemographic table

	Categories	Frequency	Percentage
Gender	Male	25	41.7%
	Female	35	58.3%
Years of experience	1-5 years	11	18.3%
	6-10 years	12	20.0%
	11-15 years	17	28.3%
	16 – 25 years	10	16.7%
	25 and above	10	16.7%
Class size	Below 50 students	17	28.3%
	50-100 students	24	40.0%
	Above 100 students	19	31.7 %

Table 1 shows that the participants for the study who are female (n=35,58.3%) and male (n=25,41.7%), have spent 1-5 years (n=11, 18.3%), 6-10 years (n=12, 20.0%), 11-15 years (n=17, 28.3%), 16-25 (n=10, 16.7%) and 25 –above years (n=10, 16.7%) teaching and taught in a class size of below 50 students (n=17, 28.3%), 50-100 students (n=24,40.0%), and above 100 students (n=19,31.7%).

Hypothesis Testing

H0: Post-test mean scores on emotional exhaustion will not significantly differ among teachers exposed to experimental conditions and control group.

Table 2: Descriptive analysis of emotional exhaustion scores before and after the intervention

Experimental Groups	N	Pre-test Score		Post-test Score		Mean Difference
		Mean	SD	Mean	SD	
Cognitive behavioural therapy	19	32.32	4.74	18.74	4.09	-13.58
Acceptance and commitment therapy	21	32.24	4.15	20.71	3.23	-11.52
Control group	20	32.30	3.64	31.60	3.14	-0.70
Total	60	32.28	4.12	23.72	6.64	-8.57

The results presented in Table 2 indicate that participants receiving cognitive behavioural therapy experienced the greatest reduction in emotional exhaustion, with a decrease of -13.58, followed by those in acceptance and commitment therapy, who showed a reduction of -11.52. The control group exhibited only a slight reduction of -0.7. To assess the significance of these mean differences, ANCOVA was conducted. The findings of this analysis are displayed in Table 3.

Table 3: ANCOVA results for emotional exhaustion based on experimental conditions

Source	Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	1988.906	3	662.969	60.735	0.000
Intercept	191.625	1	191.625	17.555	0.000
Covariate	85.492	1	85.492	7.832	0.007
Group	1902.005	2	951.002	87.123	0.000
Error	611.278	56	10.916		
Corrected Total	2600.183	59			

The F-value of 87.123 ($p < 0.05$) was deemed significant as it exceeds the critical value of 3.15, based on 2 and 56 degrees of freedom at the 0.05 level of significance. This finding suggests that the post-test scores on emotional exhaustion significantly differed among teachers exposed to cognitive behavioural therapy, acceptance and commitment therapy, and the control group. Based on these results, the null hypothesis was rejected. To identify the specific groups with significant differences, a post-hoc analysis was conducted, and the results are presented in Table 4.

Table 4: Pairwise comparisons of the effect of experimental conditions on emotional exhaustion

(I) Experimental Groups	(J) Experimental Groups	Mean Difference (I-J)	Sig. ^a
Cognitive behavioural therapy	Acceptance and commitment therapy	-2.00	0.061
	Control group	-12.87*	0.000
Acceptance and commitment therapy	Cognitive behavioural therapy	2.00	0.061
	Control group	-10.87*	0.000
Control group	Cognitive behavioural therapy	12.87*	0.000
	Acceptance and commitment therapy	10.87*	0.000

Based on estimated marginal means

a. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

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

As shown in Table 4, when cognitive behaviour therapy ($t = -12.87$; $p < 0.05$) and acceptance and commitment therapy ($t = -10.87$; $p < 0.05$) were each paired with the

control group, differences were observed. The results indicate that both CBT and ACT significantly reduced emotional exhaustion compared to the control group. However, when comparing CBT and ACT directly, the mean difference was -2.00 ($p=0.061$), which was not statistically significant. This indicates that while CBT had a slightly greater effect in reducing emotional exhaustion compared to ACT, the difference between the two interventions was not large enough to be considered significant.

Discussion

The outcome of the hypothesis indicates that post-test mean scores on emotional exhaustion were significantly different among teachers exposed to cognitive behavioural therapy, acceptance and commitment therapy, and the control group. These results suggest that both cognitive behavioural therapy and acceptance and commitment therapy were effective in reducing emotional exhaustion compared to the control group. One plausible reason for this outcome is that cognitive behavioural therapy and acceptance and commitment therapy provide teachers with effective coping strategies and tools to manage stress and burnout. Cognitive behavioural therapy helps individuals identify and challenge negative thought patterns that contribute to emotional exhaustion, while acceptance and commitment therapy focuses on accepting difficult experiences and aligning actions with personal values (Maricuțoiu, Sava, & Butta, 2016). By equipping teachers with these skills, the interventions may have helped reduce their emotional exhaustion levels. This is in alignment with the findings of Li *et al.* (2023) where a meta-analysis was conducted on burnout intervention types and their result showed that cognitive based intervention had the best intervention effect on teacher burnout followed by mindfulness-based intervention, they also discovered that emotional exhaustion is highly susceptible to intervention.

Conclusion

This study examined the effects of cognitive behavioural therapy and acceptance and commitment therapy on the management of emotional exhaustion among secondary school teachers in Lagos State. The findings revealed significant statistical differences in emotional exhaustion levels among participants after intervention. Based on the findings of this study, cognitive behavioural therapy and acceptance and commitment therapy are effective counselling interventions in managing emotional exhaustion among secondary school teachers.

Recommendations

Educational institutions and policy makers should consider incorporating CBT and ACT based interventions into teacher well-being programs. These interventions may help teachers develop coping strategies for managing emotional exhaustion and they can be delivered through workshops, structured counselling programs or professional development sessions. In addition, school counselling services should be strengthened by training counsellors in both CBT and ACT techniques. Providing teachers with

accessible, evidence-based support within the school can help manage emotional exhaustion and promote job satisfaction. consider the use of cognitive behavioural therapy and acceptance and commitment therapy strategies in teacher's emotional exhaustion management.

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