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Effectiveness of rational emotive occupational health coaching in reducing burnout symptoms among teachers of children with autism

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Abstract

Background/Objectives The negative impacts of Job-related burnout on job performance have been widely documented in the literature. Burnout accounts for both physical and mental health outcomes that increase work turnover in teachers, especially those who teach special needs children, like those with Autism Spectrum Disorders (ASD). The current study assessed the effectiveness of Rational Emotive Occupational Health Coaching (REOHC) in minimizing job burnout amongst autistic children teachers in Anambra state, Nigeria.

Method The study used a group-randomized waitlist control trial design. teachers who teach ASD children in private and public special and inclusive schools participated in the study. All participants were randomly allocated to REOHC and waitlist group (WLG). REOHC group were exposed to a single session 120 min REOHC programme every week for 12 weeks. Data were collected using Maslach Burnout Inventory for Educators (MBI-ES), at baseline; post-intervention as well as follow-up evaluations I and 2 evaluations. All the data gathered for the study were analysed using mean, Standard Deviation (SD), t-test statistics, repeated measures ANOVA, and charts.

Results Results indicated a significant decrease in teachers' burnout, following REOHC intervention, which was sustained through follow-ups I and 2.

Conclusion In conclusion, we stated that REOHC is valuable in treating burnout symptoms in teachers of children with ASDs.

Keywords

Rational emotive occupational health coaching, job-burnout, teachers, children, autism spectrum disorders

Introduction

Educators who teach learners with special education needs tend to experience an elevated level of job stress, resulting in burnout.^{1_3} Teaching children with neuro-developmental conditions such as Autism Spectrum Disorders (ASD) exacerbate burnout tendencies among teachers^{4,5} due to such factors as work demands that emerge following the children's learning needs. For instance, teachers' burnout may crop up as a result of specific demand to adapt curriculum resources and environment to meet the children's needs;^{6,7} or due to teachers' lack of training/skills.⁴ This is because, children with autistic conditions present both behavoural and educational challenges⁷ that tend to intimidate teachers' resources and make them question their job efficacy, leading to burnout syndrome^{4,8,9}

Besides, due to the specificity and diversity of children living with ASD, their teachers tend to find it difficult to follow a working plan compared to those teaching children with other disabilities and or the typically developing ones.⁸ Hence, teachers of children with autism tend to experience a high level of work ambiguity^{6,10} placing them at increased risk of job burnout. Such conditions could be highly distressing and could result to a feeling of burnout symptoms.^{6,8,10} Burnout is an outcome of chronic stress symptomatized in continual exhaustion disorder.^{11,12} Burnout syndrome manifests in some specific symptoms including cognitive fatigue, emotional tiredness, and chronic bodily weakness or fatigability.¹¹ Occupational burnout is typified in three major outcomes including feelings of exhaustion, increased mental withdrawal from the job, and reduced professional effectiveness.¹²

Teachers who are burned out find it difficult to establish, and sustain positive relationships with the learners, recognize learners' needs, or update themselves with trends in teaching and pedagogy, especially as it applies to special education.¹² Additionally, job burnout can result in low confidence, poor effectiveness, increased absenteeism, poor dedication to work, and job turnover. It also results in depression, lack of happiness, and generally poor well-being and quality of life.¹³ Hence, pieces of evidence indicate that job burnout tends to destabilize teachers' occupational outcomes,^{6,14_17} and impact negatively on the child's development, as well as school and society.⁴ Teachers' burnout has been said to cost about 255 billion Euro in the global economy annually due to associated teachers' turnover.¹⁸

Teachers in Nigeria are at elevated risk of impending burnout syndrome, given the high occupational stress widely recorded among teachers in the school contexts.^{19_23} This is especially true of those who teach children with ASD, and other neurodevelopmental disorders.^{2_5} Such burnout reactions may emanate from negative perceptions that teachers may have about the psychological disorder and the occupational experiences associated with teaching children victims.^{24,25} To this end, the unhelpful mental judgment of work experiences could lead to unhelpful responses, resulting in burnout indicators in teachers who teach autistic children.²⁶

To minimize such burnout emanating from the negative perception of job experiences, a rational emotive occupational health coaching (REOHC) modality may be helpful. REOHC aims at helping employees develop useful dexterity to cope with job-related stress reactions. It is a Rational Emotive Behavioural Therapy (REBT) modality, meant to assist employees in coping with work stress.^{26,27} In REOHC, the counsellors and the clients work collaboratively to dispute dysfunctional thoughts and the associated feelings, as well as reducing physical symptoms associated with individuals' work-related experiences.^{25,28_31}

These goals of REOHC is normally achieved through ABCDE model which is an acronym which represents: A-Activating event, B - Belief/ cognition/worldview about activating event, C - Consequence of belief, D - Disputation and E - New emotional Effect..^{25,2930,33} According to this perspective, it is not actually the event-A that causes negative behavioural consequences such as burnout, but the dysfunctional beliefs (B) held about that event or situation. Thus Disputation (D) is meant to refute such beliefs that results in symptomatic consequences that threaten occupational health and improve general outlook (E). This model considerably explains why people react differently to negative situations (see Figure 1). As stated earlier, some of the experiences teachers have in teaching children with ASD may be overwhelming.^{2,5,21,23} Then, coupled with the already culturally-based negative orientations about such children, their behavioural and learning challenges, majotity of their teachers develop devasitating job burnout that hamper educational progress.^{28,30,31}

REOHC intervention framework shares a common perspective with other ABCDE models of therapy for workplace stress and burnout (see Figure 1), which have recorded a great success among special education teachers.^{26,31_33} It uses problem-solving techniques, cognitive restructuring and healthy coping strategies.^{34_36} Analytical skills, assertiveness, social skills, executive skills, and conflict resolution abilities are all developed through problem-solving procedures. Restructuring approaches include logic or reasoning tactics, guided imagery, and visualization, as well as reframing, or looking at events in a different manner, comedy, and irony. Introduction to a scary scenario and refuting erroneous beliefs are two examples of coping mechanisms involved in REOHC.



Figure 1. The ABCDE model of burnout in teacher of children with ASD.

The value of rational emotive interventions approach to burnout management is based on the understanding that irrational thought patterns relate significantly to stress and burnout syndrome.³⁷ For instance, a study investigated a blended rational-emotive occupational health coaching on job-stress among teachers of children with special education needs and found that the REOHC modality was effective in reducing stress arising from teaching children with special needs.³⁴ A related study used REOHC in a randomized control trial for managing stress in teachers of children with ASD³¹ and their findings showed that the model was effective in reducing stress symptoms. Though a majority of trial studies found in the literature on REOHC are used for stress, it is evident that the rational-emotive interventions are promising for burnout reduction since burnout is a syndrome that comes up due to chronic stress.³³

However, extensive examination of the available literature shows a scarcity of empirically-based context-specific studies that have investigated the effectiveness of REOHC in mitigating burnout syndrome among teachers teaching children with ASDs. This study validated the REOHC in decreasing burnout in a sample of teachers of children with ASDs. It was therefore hypothesized that REOHC intervention will lead to a decline in burnout symptoms in the REOHC group compared to the waitlisted control group, and that the minimized burnout would be sustained through two follow-up assessments.

Research questions

The major objective of this study is to investigate the effectiveness of a REOHC intervention in reducing symptoms of burnout among teachers of children with ASD. Based on the study objective, the study was guided by the following three research questions.

- 1. What is the difference in burnout symptoms between the participant of REOHC intervention and a waitlisted control group at baseline? This research question sought the establish the similarity of the intervention and the control group at baseline.
- 2. Will REOHC intervention lead to a reduction in burnout symptoms in the REOHC group compared to the waitlisted group at post-intervention evaluation? This research question was designed to ascertain whether REOHC lead to a reduction in burnout among the intervention group in comparison to the control group.
- 3. Will the reduced burnout symptoms in the REOHC group be sustained through two follow-up assessments over the comparison waitlisted group? This research sought to ascertain whether the effect of REOHC was relatively permanent.

Methods

Ethical consideration

We obtained ethical approval for the work from the Research Committee, Faculty of Education, University of Nigeria, Nsukka, Nigeria. We also registered the study in the Randomized Control Trial registry, American Economic Association (ID: AEARCTR-0005471). Further, the American Psychological Association,³⁵ and World Medical Association³⁶ ethical standards guided the study. Written informed consents were signed by study participants before the commencement of the study.

Measures

Maslach burnout inventory-educators' survey (MBI-Es)

MBI-ES was used to gather information about teachers' burnout at pre-intervention, postintervention, and follow-up assessments. The instrument is a 22-items questionnaire,³⁸ covering three dimensions of burnout, including exhaustion, cynicism/depersonalization, and professional efficacy in teachers and workers in educational settings. Items were weighed on a 7-point scale: 0 = ``never''; 1 = ``a few times a year or less''; 2 = ``once a month or less''; 3 = ``a few times a month''; 4 = ``once a week'', 5 = ``a few times a week'' and 6 = ``every day''. MBI-ES has been generally useful in burnout research worldwide and is of high psychometric quality.³⁹ Further, the MBI-ES questionnaire yielded suitable reliability when trial-tested in 65 teachers in Nigeria ($\alpha = .88$).

Participants and procedure

A sample of 86 teachers teaching children with ASDs (29 males and 59 females) in schools for special needs in Anambra State, Nigeria was used for the study (see Figure 2). Participants were selected based on inclusion criteria: i) teaching must be teaching in a Special Education school for at least 1 year; ii) having at least one child formally diagnosed of autism condition in his/her class iii) Possessing a personal Smartphones, an email address, and Whatsapp contact; iv) willingness to give personal

contacts for easy communication; v) signing a written consent of being available throughout the intervention period.

In sampling, we visited 28 Special Education schools in Anambra state Nigeria to sensitize them of the REOHC programme. The school visits were to explain job burnout and its effect on workers' health, and to also sensitize possible participants about REOHC programme and its benefits to work and well-being, after which they were invited for the screening exercise. Based on the invitation, 97 teachers responded to the screening exercise.

Out of the 97 volunteers who were screened for eligibility based on the eligibility criteria, 11 potential participants were dropped based on falling short of the inclusion criteria or other reasons. The 86 possible participants who met all the selection criteria were randomly placed in either REOHC (43 participants) or wait-List group (WLG) (43 participants) (see Figure 2). A sequence allocation software was used to assign the participants to either group (asking participants to pick from a randomization container, an envelope containing pressure-sensitive paper labeled with either REOHC or WLG-Waitlist Group). Randomization information was concealed from both participants and the research assistants till after the assignment of the intervention. We created two separate WhatsApp chat groups for REOHC and WLG. Thereafter, the researcher and two research assistants administered a pre-test (MBI-ES) to both the REOHC group and the waitlist group (WLG) to gather the pre-intervention (Time 1) data.

After the baseline evaluation, the REOHC group received inter-session REOHC intervention for 12 weeks (February to April 2019). During the 12 weeks, we held 2-h sessions in weekly contacts. Each session was followed by practice exercises. At about 2 weeks after the 12 weeks intervention, post-test data (time 2) were collected using MBI-ES, from the participants in both groups. Further, we held follow-up 1 and 2 interactions and collected follow-up data (Time 3 and 4) at 3 and 6 months respectively after the post-test evaluation (see Figure 3).

After the 6months follow-up assessment, the wait-listed group received REOHC intervention (October-December, 2019), following the same process for the REOHC group. The rational-emotive occupational health coaching intervention was facilitated and moderated by the researchers, together with four research assistants (2 experts in REOHC and 2 occupational therapists). All the research assistants were given remuneration for their services. We sent a reminder on the WhatsApp platform, a day before each programme time, and early morning hours on each day of the meeting to ensure active participation in the sessions. Apart from the baseline evaluations which the participants completed and submitted questionnaires on-the-spot, post-test and follow-up assessments were completed via emails. Data collected from both groups at each assessment were compared in analyses.

Demographic information of the participants

On the whole, participants were made up of 23 (26.74%) males, and 63 (73.26%) females. 11 (12.79) males and 32 (37.20%) females were allocated to the REOHC, while 12 (13.92%) males and 31 (36.04%) females were in the control group. In



Figure 2. CONSORT diagram.



Figure 3. Interaction effect of time X intervention on participants' MBI-ES scores.

respect of experience, 24 (27.91%) had 1–2 years of experience; 35 (40.70%) while 27 (31.39%) were above 5 years in teaching children with ASDs. The participants' average age was 32.31. Considering qualifications, 41 (47.67%) had NCE; 44 (52.30%) participants had Bachelors' degree; 1 (0.01%) had Masters; degree and above.

Intervention

A REOHC programme manual,^{26,40} was adapted and used in the study. The adapted modules utilized the "ABCDE" model (Activating event, Beliefs, Consequences, Disputing, and Effective new philosophy) in changing unhelpful, and self-limiting beliefs related to work experiences. In REOHC, ABCDE was followed to dispute, challenge, and question employees' irrational beliefs associated with work, and replace such with more supportive and practical beliefs.²⁶

The model was adopted in elucidating the links between activating events (A) in teaching children with ASD, which may include negative children's problem behaviour, poor achievement, limited resources, learning difficulties of the children, extra work-load, and teachers' personal experiences.^{41,42} The "B" is the illogical thoughts, or cognitions that arise from those events, which may include: the interpretation and cognitive imagery formed due to "A", and may include a range of problematic worldviews about children with disabilities in general and those with ASDs in particular.^{41,42} The "C" is the emotional and behavioural consequences of the beliefs^{41,42} which may be adaptive or maladaptive depending on "B". Maladaptive consequences may include anxiety, depression, stress symptomatology, and burnout. Disputation (D) eliminates the unhelpful, and self-limiting beliefs that result in negative consequences^{41,42} through countering the irrational thoughts/beliefs with more rational/adaptive ones. Accordingly, it is suggested that to counter irrational beliefs it is necessary to consider more realistic and logical ones that could lead to positive outcomes.⁴³ Hence, as an individual gets aware of their irrational beliefs, they oppose such and come up with alternative and effective philosophies (E) that make them more productive. Table 1.

Recruitment, response rates, dropouts, and adherence

There was a generally high level of compliance and adherence to the intervention. Out of the 97 possible participants, 86 participants met the inclusion criteria, and were included in the study. Eleven (11) potential participants did not meet the inclusion criteria and were excluded from the study. The 86 participants who were included in the study were randomly placed in REOHC and waitlist groups. All the randomized participants completed the sessions and evaluations. However, during the last phase of the study, which was an intervention for the waitlisted group, two participants did not respond to the invitation to participate. The researchers communicated through e-mail and WhatsApp, but they did not reply. So there was a high adherence rate in this study.

Treatment integrity

The REOHC sessions were implemented by two expert coaches who were PhD students in Educational Psychology and Guidance and counselling, and are licensed to practice by the Counseling Association of Nigeria. Based on the importance of effective and adequate implementation of the REOHC-intervention manual, two of the researchers were also part of the research team to monitor the implementation processes of the intervention. Specifically, the integrity checkers or raters were designated to ensure that the therapists followed the guidelines and steps embedded in the treatment manual. The checkers were developed to evaluate two major dimensions of treatment integrity which include adherence to the coaching manual, and the coaches competence⁴⁴ The adherence to REOHC manual dimension was checked using an adapted form of the Cognitive Behavioural Therapy-Adherence Scale (CBT-AS) used in earlier studies^{44_46}

The adapted checker is named which was named REOHC Adherence and is measured on a 3-point scale of not adherent = 0; partly adherent = 1, and adherent = 2. Scale and showed inter-rater high reliability (IRR = .72). It consists of nine components including (a) management of time, (b) use of material, (c) coaching content implementation, (d) implementation of general REOHC principles, (e) development of REOHC model, (f) amendment of irrational thoughts and negative behaviour, (g) homework assignment, (h) prevention of relapse, and (i) the exclusion of nonadherent techniques.⁴⁴ Data collected with this instrument were analysed, giving a mean score of 1.89 (SD: 0.51), which shows that the manual was followed to a high extent.

Coaches' competency in carrying out specific aspects of REOHC was measured in 12 items assessing (a) goal setting, (b) problem-solving, (c) clarity in communication, (d) interpersonal effectiveness, (e) resource activation, (f) reviewing previously set homework, (g) using feedback and summaries, (h) guided discovery, (i) focus on central cognitions and behaviour, (j) selecting appropriate strategies, (k) appropriate implementation of techniques, and (l) homework assignment.^{44,45} The Coach's Competence scale is measured on a 4-point scale of 0 = poor, 1 = satisfactory, 2 = good, 3 = excellent. The coach's competence items showed inter-rater reliability (IRR=.81) which shows that the scale is

Table 1. Sun	mmary of the rational	emotive occupational heal	th coaching intervention programme.	
Dura tion	Phase/S ession		Activities	Psychological mechanisms
Week I–2	Phase I-2	Introduction and Baseline testing	Familiarizing with the participants. Setting confidentiality rules. Collection of baseline data on the job-stress of the participants. Establish a working atmosphere with the participants. Collaborating with the participants to set coaching goals. Discussing the expectations of the intervention; discussion of the coach and coachees' responsibilities during coaching and basic rules of the rational emotive	Assessments; problem formulation/ identification; goal setting
Week 3-4	Phase 2 Modules I and 2	A-events associated with teaching autistic children	occupational health coaching. The module guides the participants to create a problem list with regards to occupational health challenges associated with teaching children with autism. The module is designed to help participants to approach each the problems by explaining them using REBT framework. The focuses were to identify and refute unhelpful beliefs and orientations about their job which constitute stress. This was done by listing and encouraging rational beliefs and thoughts following negative experiences. Coaching was also geared towards reducing stress. Techniques described in the intervention programme were strictly adhered to Participants were aven a	Disputation; homework tasks, discussion, Problem- solving. Rational coping statements; Unconditional self-acceptance
5—6		Treatment phase 2	homework assignment after each session.	Consequence analysis; Disputation;
				(Continued)

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Dura tion	Phase/S ession		Activities	Psychological mechanisms
	Phase 3 Modules 3-4		completed homework assignment. The coach and the participants shared weekly experiences at the onset of each session. Further disputation of irrational belief associated with teaching children with ASD occupation experience and replacing them with rational ones using the coaching modalities and techniques. Emphases were laid in developing rational self-beliefs, rational occupational health thoughts, and practices in teaching learners with ASD, linking occupational health thollenges with associated irrational beliefs. Leading the participant to find out how the belief system affect their emotions and then weakening negative affect associated occupation health of the participating officers. Homework assignments were given to the participants after each exercine	homework tasks, discussion, cognitive- restructuring
8-7-	Phase 4 Module 5-7	Treatment Phase 3	Further application of rational emotive occupational health coaching modalities and techniques that would develop in the participants the skills to become their own self-coach in occupational health challenges threatening their life satisfaction, happiness and positive affect as regards their occupation. Discussing healthy practices and risk management approaches within and outside	Guided imagery; Rationalizing techniques; reframing; Relaxation- technique; hypnosis

(Continued)

Dura tion	Phase/S ession		Activities	Psychological mechanisms
			the school. Coaching on other extra-curricular activities that could keep the participants' healthy and effective in the workplace. Toward developing the habit of functional health practices and positive psychology in the work place. Assignments	
9-10	Phase 5 Module 8–10	Treatment phase 5	were given at the end of each session Further helping the participant develop the skills for self-coaching and coaching others in stress management and healthy thoughts Towards developing problem-solving, rational thinking and occupational risk- management skills necessary for maintaining a healthy	Homework assignments; Unconditional others and self- acceptance; relaxation;Decision making
1-12	Phase 6 Module 11–12	Treatment phase 6	relationship job Encouraging the participant to highlight what they have gained from the coaching programme and how they are going to apply them in the future. Discussing other related personal issues and experiences associated with keeping healthy in the workplace and the gain associated. Evaluation of individual commitments during the programme based on contribution to group discussions and	Preventing relapse
14 th week	Post-test	Post-treatment evaluation 1	completion of assignments.	Testing
18 th week	Follow-up	Post-treatment evaluation 2	Conducting the follow-up after three months of post-test	Testing

Table 1. (continued)

adequate and reliable. Data collected with this instrument were analysed, giving a mean score of 2.37 (SD: 0.57), which shows that the coaches were competent. As part of their roles, they recorded the attendance of the participants and coaches. Those who missed two consecutive sessions were discontinued from participating. They took account of the number of times each participant asked and answered questions during the treatment sessions.

Design and data analyses

The study used a group-randomized waitlist control trial design.⁴⁷ Hence participants were assigned either to REOHC group or the waitlist group (WLG). The REOHC group is the intervention group that participated in REOHC intervention immediately after the baseline data collection, whose data were used to test the efficacy of the intervention. Data collected from this group were compared to that of the WLG. The WLG is a control group that does not receive the experimental intervention during the period of investigation, but is placed on a standby list to receive it after the active treatment group has received it. The control group that is waitlisted has two purposes. Firstly, it gives the active experimental/intervention group an untreated comparison to see if the intervention had any benefit. Researchers can isolate the independent variable and examine its impact by using it as a comparison group. Secondly, it gives others on the waiting list a chance to get the intervention to address their condition at a later period.⁴⁷ Thus a waitlist control trial design is promising for finding out the effectiveness of a psychotherapeutic intervention through effective comparison and providing therapeutic opportunities for the comparison group.

Participants were evaluated at pretest, post-test, and follow-up 1 and 2. The design aided us to validate the efficacy of REOHC in reducing job burnout in teachers of children with autism. The t-test statistics were used to analyse the baseline data. In comparing the pre-test, post-test, and follow-up data, we used 2-way analysis of variance (ANOVA) with repeated measures. The Effect-size of the intervention on the dependent measures was reported using partial eta squared. To establish the changes in participants' scores across Time 1 and 2; Time 2 and 3; and Time 3 and 4, we used a paired sample t-test Further, 2×3 ANOVA statistics was used to explore the interaction effects of group × Time on the study variables. The percentage was used to analyse the participants' satisfaction with therapy. Statistical Package for Social Sciences (SPSS) version 24.0 and Microsoft Excel were used for analyses. We presented all the results in tables and charts.

Results

Results are presented in tables and figures according to the research questions. Research Question 1: What is the difference in burnout symptoms between the participant of REOHC intervention and a waitlisted control group at baseline?

Table 2 shows a non-significant difference in the mean emotional exhaustion (EE) scores of the REOHC group and WLG at Time 1, t = -.23, p = .81. This suggests that participants in both REOHC group and WLG had an equally high level of EE associated with their occupation (REOHC group = 5.76 ± 1.38 ; WLC = 5.83 ± 1.22). Also, both

Group	Measure	Subscale	Ν	Х	SD	Df	т	Ρ	95%CI
REOHC Group	MBI-ES	EE	43	5.76	1.38				
Wait List Control			43	5.83	1.22	85, 84.36	23	.812	63,.49
REOHC		DP	43	6.00	1.39				
Wait List Control			43	6.12	1.20	85, 84.53	−.4 I	.67	6743
REOHC		LPE	43	6.00	1.13				
Wait List Control			43	6.00	1.32	85, 80.97	02	.98	5153
REOHC		MBI-ES score	43	5.91	1.19	85, 84.96	22	.82	5543
Wait List Control			43	5.97	1.13				

Table 2. t-test analysis of the baseline data on participants' MBI-ES dimensions.

EE-Emotional exhaustion; DP- Depersonalization; LPE- Low Professional Efficacy; MBI-Total Malach Inventory Score; X - Mean, SD- Standard Deviation, df = Degree of Freedom, t = t-test statistic, p = probability value, CI - Confidence Interval.

REOHC group (6.00 ± 1.39) and WLG (6.12 ± 1.20) recorded a non-significant difference in their depersonalization scores at baseline, t (84) = -.41, p = .67. Furthermore, there was a non-significant variation in the Low Professional Efficacy (LPE) score of the participants in REOHC (6.00 ± 1.13) and WLG (6.00 ± 1.23), t (84) = -.02, p = .98. On the whole, participants in both REOHC and WLC groups) recorded a non-significant difference in their total MBI-ES rating. A non significant difference was also recorded [t (84) = -.22, p = .82] for REOHC group (5.91 ± 1.19) and WLG (5.97 ± 1.13) in their MBI-ES scores at baseline data. Mean scores of the two groups indicated the participants in both groups experience a high level of burnout symptoms.

Research questions 2 and 3 are addressed in Table 3. Research Question 2: Will REOHC intervention leads to a reduction in burnout symptoms in the REOHC group compared to the waitlisted group at post-intervention evaluation? Research Question 3: Will the reduced burnout symptoms in the REOHC group be sustained through two follow-up assessments over the comparison waitlisted group?

Data in Table 3 reveals the results of a repeated-measures ANOVA on the effect of REOHC on post-test, follow-up 1, and follow-up 2 ratings on the participants in EE, DP, LPE, and tMBI-ES. The results indicated that REOHC had a significant main effect on EE, at Time 2, 3, and 4 (post-treatment) evaluations. Participants in REOHC group (3.02 ± 1.69) had significantly lower mean score (F (1, 84) = 132.37, p = .000, $\eta^2 = .60$) than WLG ($6.17 \pm .54$) at Time 2. There is a significant difference, F (1, 84) = 146.63, p = .000, $\eta^2 = .63$ in the mean rating of participants in REOHC (2.99 ± 1.68) and WLG ($6.23 \pm .42$) at Time 3 evaluation. At follow-up 2 (Time 4), a significant difference, F (1, 84) = 146.63, p = .000, $\eta^2 = .63$ was also found in the mean scores of participants in REOHC group (2.95 ± 1.89) and WLG ($6.36 \pm .23$) as measured by EE

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Time	Measures	Subscales	IREOHC (n =44) X, SD	WLCG (n = 43) X, SD	ď	щ	Ч	95%CI	ŋ²
Time 2		出	3.02 ±1.69	6.17 ±.54	I, 84	132.37	000	2.51, 6.34	.60
Time 3			2.99 ±1.68	6.23 ±.42	I, 84	146.63	000	2.47, 6.37	.63
Time 4			2.95 ±1.89	6.36 ±.23	I, 84	146.63	000	2.40, 6.43	.63
Time 2		P	3.55 ± 1.60	6.30 ±.36	I, 84	116.65	000	3.07, 6.41	.57
Time 3			3.53 ±1.50	6.38 ±.34	I, 84	129.95	000	3.76, 6.58	.60
Time 4			3.26 ±1.65	6.39 ±.63	I, 84	131.94	000	2.16, 6.58	.62
Time 2	MBI-ES	LPE	4.20 ± 1.25	5.38 ±.48	I, 84	112.49	000	3.83, 6.53	.57
Time 3			2.88 ±1.77	6.13 ±.37	I, 84	135.10	000	2.35, 6.25	9.
Time 4			4.14 ±1.23	6.13 ±.39	I, 84	100.04	000	3.77, 6.25	.5 4
Time 2		tMBI-ES	3.43 ± 1.54	6.29±.18	1,84	141.56	000.	2.97, 6.35	.62
Time 3			3.14±1.62	6.25±.17	1,84	152.50	000.	2.65, 6.30	.64
Time 4			3.53 ± 1.09	6.28±.18	1, 84	139.23	000	3.08, 6.34	.62
EE- Emotio	1 Exhaustion, 1	DP-Depersonal	ization, LPE-Low Professional Effi	cacy, X - Mean, SD- Standard Deviati	ion, df = Deg	gree of Freed	lom, F=Ar	alysis of variance	test

-up 2 scores of	
I and follow	
test, follow-up	
-tion on post-	
OHC interver	
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Repeated me	nts on MBI-ES
Table 3.	participa

ò statistic, p = probability value, CI – Confidence Interval and $\eta^2 = Partial Eta$ square (effect size). subscale. These indicated that reduced EE among beneficiaries of REOHC was sustained across the two follow-up evaluations at 3 and 6 months respectively.

The mean rating of REOHC group on their feeling of depersonalization (3.55 ± 1.60) reduced significantly (F (1, 84) = 146.63, p = .000, η^2 = .57), compared to WLG (6.30 ± .36) during Time 2 measurement. This reduction in DP score was sustained as there was still significant differences in the DP scores of the two groups at follow-up 1 (F (1, 84) = 129.95, p = .000, η^2 = .60) and follow-up 2 (F (1, 84) = 131.94, p = .000, η^2 = .62). This implies that REOHC could reduce the burnout symptoms in the participants.

Considering total score of data from the LPE at posttest (Time 2), REOHC group had lower mean rating (4.20 ± 1.25) than the waitlist (5.38 ± .48), which was significant (F (1, 84) = 112.49, p = .000, η^2 = .57). At follow-up 1 (Time 3) LPE mean rating of the REOHC group (2.88 ± 1.77) was low compared to the WLG (6.13 ± .37). This difference was significant (F (1, 84) = 135.10, p = .000, η^2 = .61). Also, a significant difference (F (1, 84) = 100.04, p = .000, η^2 = .54) in LPE ratings of the REOHC group (4.14 ± 1.23) and WLG (6.13 ± .39) was recorded at follow-up 2 (Time 4).

Participants in REOHC group (3.43 ± 1.54) had significantly lower mean score (F (1, 84) = 141.56, p = .000, η^2 = .62) than WLG (6.29 ± .18) at Time 2. There is also a significant difference, F (1, 84) = 152.50, p = .000, η^2 = .64 in the mean rating of participants in REOHC (3.14 ± 1.62) and WLG (6.25 ± .17) at Time 3 evaluation. At follow-up 2 (Time 4), a significant difference, F (1, 84) = 139.23, p = .000, η^2 = .62 was also shown in the mean rating of participants in REOHC group (3.53 ± 1.09) and WLG (6.28 ± .18) as measured by total MBI-ES score. These indicated that reduced overall burnout symptoms of the participants following REOHC intervention. It also suggests that all the positive effects of the intervention were sustained across the two follow-up evaluations at 3 and 6 months respectively.

Additionally, we conducted a paired sample t-test investigate the changes in the MBI-SE global scores across pre, post and follow-up 1 and 2 scores in REOHC and WLC groups. In this respect, there was significant main effects of Time (baseline data, posttest, follow-up 1 and follow-up 2) on the total MBI-SE scores across Time 1 and 2 (t (86) = -12.81, p = .000, CI = -.3.37, -2.35); but non significant differences across Time 2 - 3 (t (86) = -.22, p = .67, CI = -.27, -.14) and Time 3-Time 4 (t (86) = -.36,

p = .57, CI = -.27,.15) (See Figure 3). In the contrary, WLC group participants recorded non-significant changes in their MBI-ES scores across Time 1–2 (t (86) = -16.93, p = .71, CI = -.27, -.13); Time 2–3 (t (86) = -2.36, p = .71, CI = -.27, -.08); and Time 3–4 (t (86) = -5.21, p = .80, CI = -.27, -.71) (See Figure 3).

Discussion

The present study examined the effectiveness of REOHC in reducing job burnout in a sample of teachers of children with autism in Nigeria. Results from baseline data showed a non-significan difference in burnout symptoms between participants in REOHC and a waitlist control group. There were significant diminution in the three dimensions of teachers' burnout (emotional exhaustion, depersonalization, and poor professional efficacy) and the total burnout scores of the REOHC group over the WLCG at post-test (Time 2). The reduction in the burnout dimensions scores were sustained across

Time 3 (follow-up 1) and Time 4 (follow-up 2). Time and intervention interaction effect was also significant on burnout of the participants, revealing that the reduction in burnout of the REOHC group's across time was strictly on the account of the REOHC intervention and not owing to change in time. While burnout scores of the WLCG had non-significantly changed across baseline, post-intervention, and follow-up evaluations, the REOHC group reported a significant reduction in their MBI-SE score between baseline and post-treatment evaluations. These indicated that REOHC alters the participants' self-limiting thoughts and beliefs that are linked to work experiences, reducing burnout symptoms.

The significant reduction in the teachers' burnout through REOHC shows that through REOHC, teachers' perception of job stress can change, leading to reduced burnout symptoms. This result supports the findings of prior studies which indicated the invaluable effect of rational emotive packages in reducing burnout in teachers.^{33,48,49} REOHC works within the framework of ABCDE model as also found in Cognitive behavioural therapy (CBT), and REBT. So research findings in such areas are also used to validate the findings of the present study. Based on that, REBT-based intervention approach, is effective for treating burnout. This suggests that applying REOHC which is also based on REBT principles in psycho-educational intervention contexts can be productive in solving the problems of maladjustments that are linked to irrational thoughts, beliefs, feelings, and attitudes, such as burnout. REOHC reduces negative thoughts and behaviours that trigger negative emotions in teachers and substitutes them with new resourceful functional ones by altering their thinking patterns as regards their job, themselves, and the children with autism whom they teach.³³

Therefore, using REOHC to treat teachers with burnout follows a mechanism of change that is based on changing their views about challenging job conditions and assisting them to build more affirmative emotional reactions, thereby minimizing the symptomatology emanating from distresses and burnout.³³ REBT can help one decrease the intensity of unhelpful emotions that result in symptoms of burnout, such as weariness, sleep problems, absentmindedness, extreme poor concentrating, poor appetite, weight issues; depression, and anxiety.³³ This study has also offered additional insight into the existing knowledge by showing that REOHC modalities could be a valuable way of reducing burnout.

Prior studies^{50,51} indicated that an optimistic perception of stressful situations can lead to a decrease in health dampening physiological and psychological warning signs associated with burnout. This is well conventional in the ABCDE viewpoint, which works through opposing negative thoughts, feelings, emotions associated with stressors (occupational environments) and replacing them with more helpful ones. Other Nigerian studies showed that REOHC was effective in stress management.⁵² and subjective well-being²⁷ of employees. A related study,⁵³ using blended REBT, which is a hybrid version of REBT for stress management in teachers of children with neurodevelopmental disorders, where they found that the intervention to be invaluable in reducing stress among teachers of children with neurodevelopmental disorders.

The work of Obiweluozo and the current study differ significantly in two ways. Firstly, while their work adopted a therapeutic modality using a rational emotive approach, the current study utilized an occupational health coaching model. An occupational health

coaching technique is unlimited in up-skilling participants for occupational efficacy and maintaining a healthy outlook in the workplace. Further this study used REOHC for minimizing burnout symptoms, which are psychologically, and physiologically more injurious than mere stress. Therefore, to the best of our knowledge, the finding of the current study is a new finding that has not been observed previously in a sample of teachers of children with autism. None of the stated works on REOHC was used in treating teachers of children with ASD of job burnout. Hence, the present findings serve as a base for further studies, and researchers are encouraged to replicate and confirm in other studies using REOHC treatment format.

The outcome of this study is in line with a prior study that showed that group-based CBT interventions decreased burnout significantly among parents of children with chronic conditions.⁵⁴ In a review study,⁵⁵ found that CBT resulted in to decrease in EE. In a group cognitive-behavioural therapy for nurses' burnout using Maslach Burnout Inventory (MBI), it was found that burnout decreased significantly due to intervention.⁵⁶ Furthermore, an intervention study of undergraduate students in Nigeria.⁵⁷ found that REBT was effective in treating students' burnout. A minireview of the clinical befits of REBT suggested that the framework could be of good clinical value in treating burnout in special education teachers.^{33,58}

These positive outcomes following REBT-based interventions are not surprising, given that CBT is a dynamic technique that targets psychoeducation, problem-solving, and is useful for achieving better psychological elasticity,⁵⁹ especially among teachers who teach children with special education needs. When Ugwoke and colleagues tested a rational-emotive stress management intervention for reducing job burnout and dysfunctional distress among special education teachers,⁴⁹ it was found that rational emotive framework was efficacious in minimizing burnout symptoms in special educators. This group of teachers experiences burnout with somatic symptoms ranging from nausea, gastrointestinal problems, headaches, and depression.⁶⁰ REOHC can develop in the participants, a coping mindset that reduces symptoms. Hence, decreasing burnout reduces psychopathological symptoms, including headache, anxiety, and musculoskeletal problems.²⁶ that could increase job turnover. As such reduction of burnout in teachers could reduce negative health conditions and increase their classroom effectiveness,.^{14,16,17} The improvement in teachers' effectiveness translates to positive outcomes in children with autism kept under their care..^{51,61_63} Additionally, pessimistic judgments and job burnout are likely to reduced efficiency and increase health challenges in the teachers and the learners.^{21,64,65} REOHC is a cost-effective scheme for improving teachers' wellbeing resulting to positive outcomes in students with autism.

Strength of the study

The present study addressed an important, and overlooked area of the present need of Nigerian society, given that ASD is still confusing and novel to the entire society. The mental health of teachers who teach such children is paramount given the occupational stress they pass through, coupled with the need for their ingenuity in bringing about positive learning outcomes. The intervention is considered timely, given the heightened burnout reactions among teachers. Another major strength of the study is the use of

robust methodology with waitlisted control. This enables all the study participants, irrespective of groups to eventually develop personal skills. Considering the effect size in data interpretations gave credence to the value of the study outcomes. Treatment Integrity was ensured by closely monitoring coaching sessions with integrity check raters to check participants' responses and participation.

Limitations and suggestions for further studies

This study used a somewhat small sample and this may limit generalization of the outcomes outside the context. Further validatory studies may be conducted using a larger sample to strengthen the outcomes of this study, regarding the effectiveness of the REOHC. The present study did not analyse data based on participants' demographic variables that could moderate the effect of REOHC on the teachers. Future studies may seek to fill this gap by using a triangulated method to explore the variables that can influence treatment outcomes. The package (REOHC) could also be utilized in different employees populations with chronic conditions of burnout. Coaching practitioners working with those teaching children with ASDs can consider REOHC in the treatment of burnout.

Conclusion and practice implications

In conclusion, we state that REOHC is an invaluable treatment modality for burnout in teachers of children with ASD. We further wrap up by stating that teachers who participate in REOHC are more likely to show positive philosophies about their work, and are more effective in teaching special children like those with ASD. REOHC is context-friendly, cost-effective, and usable for the novice coach.

In practical terms, coaches across diverse contexts may try the REOHC in helping teachers of learners of ASD and other special educators with symptoms of burnout. Coaching teachers is necessary to improve school outcomes. Hence, for optimum development of children with ASD, the mental health of their teachers should be a priority, and REOHC framework can help school psychologists and counsellors achieve optimum goals. Since the study outcomes have shown a long-term effect of REOHC, behavioural therapists, psychologists, school counsellors, and other health professionals can use it in helping teachers with mental health issues. By practicing the assumptions of REOHC, pathological reactivity to unfriendly working conditions can be minimized, and occupational outcomes may be uptimized.

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Data accessibility statement

Data for this study can be accessed from the corresponding author on a reasonable demand.

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