



Testing the efficacy of Blended Rational Emotive Occupational Health Coaching in the treatment of Occupational Stress in Teachers of Children with Autism.

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Abstract

Stress is among the high ranked work-related injury all over the world, and has become almost general among the Nigerian workforce. Teachers of children with Autism Spectrum Disorders (ASD), face enormous work-related threats leading to occupational stress. When teachers are stressed, the children's functional development and entire educational outcomes are at risk. As a result, managing occupational stress is particularly important in teachers of children with autism as such is among the sure way of improving developmental and educational outcomes in the children. This study looked at the effectiveness of blended Rational Emotive Occupational Health Coaching (bREOHC) in lowering occupational stress among teachers of children with ASD. Teachers of children with ASD having at least one year of experience were among the participants (N=89). Participants were divided into two groups: bREOHC (N=44) and waitlist (N=45). For 12 weeks, the bREOHC group engaged in a 2 hour intersession face-to-face and online REOHC program. The Single Item Stress Questionnaire (SISQ), Teachers' Stress Inventory, and Participants' Satisfaction Questionnaire (PSQ) are the three measures used. Four sets of data were collected at baseline, post-test, and follow-up 1 and 2 evaluations, and were analyzed using mean, standard deviation, t-test statistics, repeated measures ANOVA, and bar charts. When comparison to the waitlisted group, the TSI scores of the bREOHC group reduced significantly at post-test (Time 2) and follow-up evaluations (Time 3 and 4) (Effect size $d = .72; .71; \text{and } .81$, respectively). Between pre, post, and follow-up 1 and 2 measurements, there were no significant differences in occupational stress index scores. Participants were also quite thrilled with the intervention method. Instructors of children with ASD found bREOHC to be helpful in lowering stress.

Keywords: Rational emotive occupational health coaching; job-stress, children with autism, teachers.

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Introduction

Autism Spectrum Disorders (ASD) is among the developmental conditions that present serious difficulties in learning, behaviour and development (González-Herrera, Pérez-Jorge, DíazFuentes, Rodríguez-Jiménez, & Ariño-Mateo, 2021). Teachers who teach children with ASD are twice more likely to be stressed than general Education teachers, and about three times more vulnerable to job stress than other employees (Boujut, Popa-Roch, Palomares, Dean, & Cappe, 2017; Kebbi, 2018; Ogba, Onyishi, Victor-Aigbodion, Abada, Eze, Obiweluzo, ... & Onwu, 2020). Teachers of children with ASD are special Education teachers who work with learners with ASD. Teaching children with mild, moderate, or severe cognitive, emotional, or physical problems, such as ASD, necessitates adapting the general curriculum to fit the child's unique needs and giving appropriate modified training, which can be stressful for instructors.

Consequently, teachers of children with ASD tend to be more vulnerable to increased stress as their professional resources are often threatened and overstretched, needing personalized skills towards stress management and coping resilience (Boujut, et al. 2017). Such job stress in teacher has negative implications for the children they teach, and for the entire education system. In Nigeria like in other countries, high level of stress has been consistently the outcome of research on caregivers of children with ASD, including their teachers (Akanaeme, Ekwealor, Ifeluni, Onyishi, Obikwelu, Ohia, ... & Dike, 2021; Oduyemi, Okafor, Eze, Akodu & Robert, 2021). A considerable number of studies have pointed out the need for stress management intervention among teachers of children with ASD (Akanaeme, Ekwealor, Ifeluni, Onyishi, Obikwelu, Ohia, ... & Dike, 2021; Lundin, 2021; Kebbi, 2018; Skaalvik, & Skaalvik, 2015). This is because, most teachers teaching children with ASD find their work daunting (Bolourian, Losh, Hamsho, Eisenhower,

& Blacher, 2021; Bolourian, Stavropoulos, & Blacher, 2019; Emam, & Farrell, 2009), and such emotional state can negatively impact on the children they teach.

The number of school age children living with ASD in Nigeria is increasing (Bakare, Taiwo, Bello-Mojeeed, & Munir, 2019) and most of them are enrolled in special schools, given the critical need for their optimum development and learning. With the increasing need for building children with ASD to reach their maximum potentials (Murray, 2015; Pawlett, 2017), there is a quintessential requirement for supporting their teachers for maximum output on the children's outcomes (Boujut, Popa-Roch, Palomares, Dean, & Cappe, 2017). For example, aiding teachers of children with autism in reducing stress and achieving stable socio-emotional stability might be credited to their professional resources in the development of children with ASD (McDougal, Riby, & Hanley, 2020). We employed blended Rational Emotive Occupational Health Coaching (bREOHC) to reduce occupational stress among teachers of children with ASD in Nigeria in this randomized trial. It is expected that this study will benefit both the teachers of children with ASD, the school and the children with ASD, as it will ultimately improve school social, health and learning outcomes.

Job Stress

Stress arises if there is a conflict between external demands/events and the body's capacity to deal with such events or activities (Rao, & Chandraiah, 2012). There are three major dimensions or models in which stress might be felt: the stimulus-based model, the response-based model, and the cognitive transactional process model (Papathanasiou, Tsaras, Neroliatsiou & Roupia, 2015; Rao, & Chandraiah, 2012). The stimulus-based perspective is of the view that stress occurs when there are objective activating events, called stressors (Papathanasiou, 2015). According to this model stress level is simply a measure of stress sources, or stressful events/experiences.

Close to this perspective, the response-based model suggests is based on the stance that stress is the emotional, physiological, and behavioural reactions/response to the objective stressor. In this sense, an individual's level of stress is a combination of stress sources and subjective personal factors/ modifiers, such as the interpretation/ cognitions perspective on the stressor. Stress, according to the transaction-based model, is caused by negative sensory interpretations/cognitions about the triggering condition (Abrams & Ellis, 1994; Quick & Henderson, 2016; Rao, & Chandraiah, 2012). This model holds that stress is the subjective feelings of emotional, behavioural, and physical symptoms that are consequential to the interaction between the stimulus and response (Quick & Henderson, 2016; Rao, & Chandraiah, 2012). In this study, we followed an encompassing approach to define stress as both the process and product of the interaction between the stressors, the perception about the stressors, and the symptomatic outcomes following the interaction about the stressors and the outlook. It is based on this eclectic viewpoint that we define job stress which is our study variable.

Job stress is described as a bad subjective emotion that occurs when a worker's perceived personal and social skills to deal well with work demands exceeds the needs of the job (Manabete, John, Makinde & Duwa, 2016). Job stress is a typical event in the lives of teachers, but it turns negative when they become chronically activated as a result of prolonged exposure to stressors and a dysfunctional attitude toward their work, resulting in major cognitive, bodily, and/or emotional health consequences (Chadha, Sood & Malhotra, 2012). Job stress can also be explained in the form of damaging bodily and psycho-emotional reactions that follow when an employee lacks the capabilities and resources to cope with the work requirements (World Health Organization, WHO, 2020). Operationally, job stress refers to the psycho-physiological condition where the perceived work-related demands become so overpowering that they have a negative impact on employees' emotional and physical health. Thus, job stress includes both the perceived stress sources associated with job, and the symptomatic reactions due to such sources.

Job stress is generally caused by working conditions (e.g: work over/underload, long hours, too many decisions, deadlines, and time pressures); organizational roles (eg: role include role ambiguity, role-conflict, responsibility for people and things, lack of participation in decision-making, lack of support and poor standards of performance); poor interpersonal relationships at work (eg: work over/under load, long hours, too many decisions, deadlines, and time pressures); and poor career development (feeling of getting stagnated, under/over promotion, lack of job security, and fear of redundancy).

Employees' productivity, physical health and overall well-being are jeopardized with increasing occupational stress (Chadha, et al., 2012; Hamlett, 2016; Okwaraji, & Aguwa, 2015; Nwimo & Onwunaka, 2015). Job stress leads to both physical and mental health symptoms (Boujut, et al., 2017; Manjula, 2012), including posttraumatic stress disorders, sleep disorders depression, and anxiety (Yang, Zhao, Wang, Liu, Zhang, Li, & Cui, 2015). It is also implicated in fatigue/burnout (Cappe, et al., 2017; Zarafshan, Ahmadi, & Arsalani, 2013; Atiyat, 2017), absenteeism, inefficiency, attrition (Hagaman & Casey, 2018; DeMik, 2008; Rao & Chandraiah, 2012) and suicidal attempt (Arun, Garg, & Chavan, 2017). Physical symptoms such as headaches, decreased immunological function, and increased musculoskeletal pains, and cardiovascular disorders have also been linked to occupational stress (Malik & Björkqvist, 2018). Thus, in this study, job stress is addressed as a measure of both perceived sources of stress and the symptomatic manifestations.

Job Stress in Teachers of Children with ASD

Stress associated with occupation is a common issue, affecting about 88% of teachers worldwide (AbuMadini, & Sakthivel, 2018; Cappe, et al., 2017; Sumathy & Sudha, 2013). This high degree of anxiety is amplified for special education teachers who work with children with ASD (Blacher, Howell, Lauderdale-Littin, Reed, & Laugeson, 2014;

Boujut, et al., 2017; De Stasio, Fiorilli, Benevene, Uusitalo-Malmivaara & Chiacchio, 2017; Ghani, Ahmad, & Ibrahim, 2014; Major, 2012). This is because, teachers of children with ASD, in addition to the normal teaching stress, also face the challenges of addressing social and behavioural problems which are specific to ASD conditions (Cappe, Smock, & Boujut, 2016). ASD is a group of neurodevelopmental disorders marked by difficulties with social communication and interaction, as well as restricted and repetitive stereotyped behaviours, interests, and activities (American Psychiatric Association, 2013). Teachers face additional obstacles as a result of ASD's emotional and behavioural characteristics. Teachers of this group of students face significant challenges in modifying curriculum materials and the environment to meet the needs of the students (Cappe, et al., 2017; Poirier & Cappe, 2016) which may increase their stress.

Further, due to the heterogeneity of ASD, their teachers find it difficult to work in preplanned structures (Skaalvik & Skaalvik, 2015). For instance, most times, the classroom children with ASD are most likely to be disrupted by the children's behaviours (Skaalvik & Skaalvik, 2015), including property decimation, physical animosity, self-damage, and tantrums which significantly obstruct social and instructive advancement (Paquette & Rieg, 2016). These tend to threaten class order, and increase the level of work ambiguity, causing stress (Atiyat, 2017; Cappe, et al., 2017; Zarafshan, 2017). Besides, in Nigeria, other working conditions, such as time pressure, and lack of professional efficacy as well as poor remuneration among teachers of children with ASD (Akanaeme, et al., 2021; Dankade, Bello, & Deba, 2016; Hashim & Kayode, 2010; Manabete, John, Makinde, & Duwa, 2016; Ogba, et al., 2020; Ukou & Edeogaq, 2019; Yusuf, Olufunke & Valentine, 2015) could be highly upsetting and can lead to a feeling of job stress if not well managed. Such conditions if well managed could offer the teacher improved skills, enhanced teaching self-efficacy, and job satisfaction (Ogba, et al., 2020). Thus, when stress is reduced, the teacher may stand to enjoy the benefit of self-development as they teach children with ASD.

Teachers' high levels of stress reactivity could be linked to their faulty perspective of their experiences rather than being a direct result of their job pressures (Ellis, 1958; 1996; Mahfar & Aslan, 2013). From the socio-cultural background, children with ASD are generally stigmatized due to their behavioural differences (Akanaeme, Ekwealor, Ifeluni, Onyishi, Obikwelu, Ohia,... & Dike, 2021; Ekom-Idorenyin, 2020; Oduyemi, Okafor, Eze, Akodu, & Roberts, 2021). Some of the teachers teaching children with ASD may have negative notions about such children, thereby increasing their perceived stress (Akanaeme, et al., 2021). To this end, the negative cognitive judgment of job experiences may bring negative emotional and physical reactions (stress), limiting occupational outcomes (Ogbuanya, Eseadi, Orji, Ohanu, Bakare, & Ede, 2017; Onyishi, Ede, Ossai, and Ugwuanyi, 2020). To manage such negative reactions associated with job stressors, changing perception toward the job through rational emotive occupational health coaching (REOHC) may be helpful.

Extant literature suggests that workplace stress tends to undermine/weaken teachers' job performance when working with children with ASD (Cappe, et al., 2017; Hamlett, 2016; Okwaraji, & Aguwa, 2015; Nwimo, & Onwunaka, 2015). For instance, Kebbi and Al-Hroub (2018) outlined that stress among teachers who support and instruct children with ASD manifest in an increased rate of turnover, missing work due to health complaints, attrition, and children not being educationally served and, or in many cases children being harmed. This clearly outlines the need for stress management in teachers of children with ASD, in which a bREOHC can be useful.

Blended Rational Emotive Occupational Health Coaching (bREOHC)

A bREOHC combines face-to-face coaching sessions with online material/meeting in an a Rational Emotive Occupational Health Coaching (REOHC). REOHC is a hybrid intervention framework for maintaining occupational safety and improving the mental and physical health of employees in different occupations. It is a coaching modality meant to draw for occupational experience to develop resilient skills for managing mental health and physical occupational hazards in workplaces (Ene, Ugwuanyi, Ejimonye, Ani, Eneogu, Ikeh,... & Nwachukwu, 2021; Nwokeoma, Ede, Nwosu, Ikechukwu-Illomuanya, Ogba, Ugwoezuonu, ... & Nwadike, 2019; Onyishi, Ede, Ossai, & Ugwuanyi, 2021). REOHC is an occupational health coaching model that draws from the viewpoints of Rational Emotive Behavioural Therapy (REBT) developed by Albert Ellis. It is based on the conviction that health-related reactions to job experiences (including stress) arise following a dysfunctional belief that accrues from work challenges (Onyishi, et al., 2021). REOHC uses psychological procedures to argue and attack flawed feelings, fuzzy cognitive dispositions, and dysfunctional behaviors towards work and work experiences; and improve the professional wellbeing of workers (Agu, Chigbu, Ede, Okeke, Chinweuba, Amaeze,... & Ezeaku, 2021).

In REOHC, employees are coached to recognize the important function of thoughts, beliefs, feelings, and behavior in the workplace. As a result, the ABCDE model of REBT serves as the foundation upon which counselors and clients collaborate to address dysfunctional ideas and emotions, as well as physical symptoms connected with work-related events (Warren, 2010; 2013; Warren, & Gerler, 2013; Warren, & Hale, 2016). The ABCDE method can aid workers in comprehending the progression of their anguish and tension (Mahfar & Aslan, 2013; Turner & Barker, 2014). In this case, "A" stands for the objective stressor, which could be events related to the workplace (Activating events). This provokes "B," which contains functioning or dysfunctional beliefs, cognition, perception, and worldview regarding the activating event. A psychological/physical reaction "C," also known as consequence, is generated as a result of the nature of "B." The complete trajectory of the teacher/employees' good living and stress-free personality is contesting challenging unreasonable, dysfunctional, and self-limiting thoughts (D) and replacing them with more effective ones (E) (Onyishi, Ede, Ossai & Ugwuanyi, 2021). REOHC participants are helped to build their resilience so that they may coach themselves and others.

Furthermore, given the complex nature of stress-related health challenges in teachers of children with ASD, as discovered in a previous study (Ogba, et al., 2020), a more innovative intervention approach was recommended for the special educator population in general and teachers of children with ASD in particular. Furthermore, it has been shown that REBT-based treatment recipients are more likely to report substantial symptoms following the face-to-face intervention (Tolin et al., 2015). As a result, because of its time and cost-effectiveness, a blended therapy has been recommended for improved outcomes in cognitive and behavioral interventions (Erbe, Eichert, Riper, & Ebert, 2017; Fitzpatrick, Nedeljkovic, Abbott, Kyrios & Moulding, 2018; Fitzpatrick, Nedeljkovic, Abbott, Kyrios & Moulding, 2018; Mackie, Dunn, MacLean, Testa, Heisel & Hatcher, 2017).

In psychotherapy interventions, blended therapy refers to the use of both face-to-face sessions with therapists and internet-based content (Erbe, Eichert, Riper, & Ebert, 2017). It can take the form of various combinations of face-to-face and online treatments in various therapeutic approaches (Erbe, Eichert, Riper, & Ebert, 2017; Fitzpatrick, Nedeljkovic, Abbott, Kyrios & Moulding, 2018; Mackie, Dunn, MacLean, Testa, Heisel & Hatcher, 2017). Online modules are combined with in-person therapy in blended therapies, which can be used in between face-to-face sessions (inter-session), or before face-to-face sessions to prepare the client for therapy, or after face-to-face interventions as supplementary therapy. Blended therapy has been proposed as a way to promote therapeutic relationships between therapists and clients as well as long-term improvement after therapy (Fitzpatrick, et al., 2018; Kemmeren et al., 2016; Vernmark, Hesser, Topooco, Berger, Riper, Luuk,... & Andersson, 2019).

When compared to traditional face-to-face REOHC, bREOHC could give employers more flexibility in terms of when and where they can access the additional support program (Romijn et al., 2015). In an undefined setting, it lowers the cost of therapeutic visits and improves support-seeking abilities (Carroll and Rounsaville, 2010). In this trial, bREOHC was given as a face-to-face treatment with inter-session internet-based therapy. The online component of treatment is made available in mobile apps to allow clients to participate in therapy and complete homework projects in the absence of their therapists, hence increasing intervention compliance. The bREOHC modality may aid therapists and clients in overcoming time restrictions, reducing spending and physical demand in therapeutic connections between therapists and clients, and ensuring long-term success following therapy (Erbe, Eichert, Riper & Ebert, 2017; Newman et al., 2003; Richards and Simpson, 2015). Blended therapy, according to Onget al. (2015), has the advantages of connectivity, reduced prices, and relatively low time commitment for both clinicians and clients; assisting the client in taking a more active role in treatment; maintaining clients' motivation and momentum; and allowing the transfer of information and images between the participant s and the therapist in order to check the client's progress and improve transparency.

Empirical Studies on Stress Management interventions for Teachers of Children with ASD

REOHC intervention for job stress has recorded a great success among special education teachers (Onuigbo, et al., 2018; Ogbuanya, Esiadi, Orji, Ede, Ohanu & Bakare, 2017; Ogbuanya, Eseadi, Orji, Ohanu, Bakare, & Ede, 2017; Ogbuanya, et al., 2018). Additionally, REOHC was effective in reducing stress in teachers of children with ASD (Ogba, Onyishi, Victor-Aigbodion, Abada, Eze, Obiweluozo,... & Onwu, 2020). However, most of these interventions used for managing stress in teachers of children with ASD were based on face-to-face therapy (Akanaeme, et al., 2021; Ogba, et al., 2020). In a related study, Onyishi, et al., (2021) used REOHC for subjective well-being and work-ability of police officers. The outcome of the study was promising as it showed that the modality was effective in improving police officers' subjective well-being and work-ability. As mental health services are evolving, extant suggests that in cases where the therapeutic meetings are constrained by economic, social, or time factors, blending face-to-face consultations with online interventions can be effective for coaching interventions (Banbury, Nancarrow, Dart, Gray, & Parkinson, 2018; Doherty, Coyle, & Sharry, 2012; World Health Organization, 2019).

In a qualitative study, Mackie, et al., (2017) showed that internet-augmented contacts between face-to-face therapy sessions increases participants compliance, greater exposure to treatment, and motivating participation in both blended therapy (Richards and Simpson, 2015). The efficacy of integrated therapy has been demonstrated in a number of studies such as on men who report to the hospital with purposeful self-harm (Mackie, et al., 2017); depression (Nakao, Nakagawa, Oguchi, Mitsuda, Kato, Nakagawa,... & Mimura, 2018; Vernmark, et al., 2019), and hoarding disorders (Fitzpatrick, et al., 2018).

Only a few studies have used blended approaches for stress reduction in teachers generally, and none has used bREOHC for stress management in teachers of children with ASD. For instance, a study from Nigeria has shown that Blended rational emotive behavior therapy was effective in minimizing stress among teachers of children with neurodevelopmental disorders (Obiweluozo, Dike, Ogba, Elom, Orabueze, Okoye-Ugwu, ... & Onyishi, 2021). Though this study was blended, it is different from the present study in several ways. First, while the present study takes a coaching approach, which is targeted towards skill development, the work by Obiweluozo and colleagues followed a therapeutic modality. Secondly, the work addressed teachers of children with neurodevelopmental disorders, while the present study is focused on teachers teaching children with ASD.

The Current Study

It is still unclear whether combining a regular REOHC program with inter-session online modules can help teachers of children with ASD reduce job stress. Most of the related studies reviews were either REOHC delivered physically, or blended REOHC delivered to other population of special education teachers. No study was found in the literature using bREOHC for stress in teachers of children with ASD. In addition, there is a lack of empirical information regarding

whether teachers of children with ASD would be satisfied with bREOHC intervention. The current study offers better insight towards using bREOHC for stress reduction in teachers of children with ASD. In addition, participants' satisfaction with bREOHC will be explored.

Research Questions and hypotheses

The study was guided by the questions: i) will bREOHC lead to a significant reduction in stress among teachers of children with ASD? ii) Will changes in job stress brought about by exposure to bREOHC among teachers of children with ASD be sustained over time? It is therefore, hypothesize that bREOHC would lead to a significant reduction in job stress among teachers of children with ASD. It is further claimed that bREOHC group will lead to a sustained significant decrease in job stress of bREOHC over those in the waitlist group

Method

Ethical considerations

The Faculty of Educational Research Committee, University of Nigeria, Nsukka, Nigeria, provided ethical permission for this work (REC/ED/18/00037). The study was also registered prospectively in the American Economic Association's registry for Randomized Control Trial, with ID AEARCTR-0005471. The study also met the American Psychological Association's (APA) and World Medical Association's (WMA) research ethical standards (APA, 2017; WMA, 2014). The study participants also gave their informed written consent.

Measures

The Single Item Stress Questionnaire (SISQ)

One of the inclusion/exclusion criteria for the study was this single-item measure of stress symptoms. In stress studies, the instrument has repeatedly been confirmed to be valid and trustworthy (Fredrikson-Larsson, Brink, Grankvist, Jonsdottir & Alsen, 2015; Moldovan, 2017), showing Chronbach reliability indices ranging from 0.80-0.86. The instrument reads: "stress means a situation when a person feels tense, restless, nervous, anxious or unable to sleep at night because his or her mind is troubled all the time. Do you feel that kind of stress these days?" The SISQ is scored on a 5-point scale, with 1 being "not at all" and 5 being "very." In this study, low stress was assigned a score of 1-2, moderate stress was assigned a score of 3, and high stress was assigned a score of 4-5. For SISQ, the researcher discovered a Chronbach Alpha reliability index of 0.79 among 20 adult Nigerian workers.

The Teachers' Stress Inventory (TSI)

This is a questionnaire used by teachers to assess their stress levels. The TSI (Fimian, 1984) is a 49-item questionnaire with a five-point Likert scale that was employed in this investigation. The instrument has ten subscales that cover two major stress dimensions (Stress Sources-SS, and Stress Manifestations-SM). SS subscale measures sources of stress and the management practices, while SM measures physiological and psychological symptoms of stress (Fimian, 1984). The TSI by Fimian (1984) is quite old but has remained the best scale for measuring teachers' stress across studies (Kourmoussi, Darviri, Varvogli, & Alexopoulos, 2015). Due to its unbeatable validity, TSI has been widely used in world standard contemporary studies (Ogba, et al., 2020). In South Africa, the TSI was discovered to have good psychometric properties (Boshoff, 2011; Fimian & Fastenau, 1990). We also conducted a reliability test to determine the instrument's suitability for use in Nigeria. In this regard, data from 47 Nigerian instructors was subjected to the Cronbach alpha statistic, which resulted in a good reliability coefficient ($=.81$).

The Satisfaction with Therapy and Therapist Scale-Revised (STTS-R)

The participants' satisfaction with the REOHC intervention was assessed using the STTS-R for group psychotherapy created by Oei & Shuttlewood (1999). The STTS-R is a 5-point Likert scale with Strongly Disagree (1), Disagree (2), Neutral (3), Agree (4), and Strongly Agree (5) options (5). The measure consists of 13 measures that address client satisfaction with the therapy, therapist satisfaction, and a measure of overall change in the clients' condition. The STTS-R has excellent psychometric properties (Oei & Green, 2008). Though the scale is relatively old, it has also proved valid in more recent studies (Sidani, Epstein & Fox, 2017) and is continual valuable in measuring the acceptability of internet therapy (Simon, McGillivray, Roberts, Barawi, Lewis, & Bisson, 2019) and other recent clinical studies (Demidova, 2017). The STTS-R was trial tested on 47 Nigerian teachers in order to validate its applicability in the Nigerian setting. Cronbach Alpha statistics yielded an Alpha coefficient of .67, indicating that the instrument was trustworthy among Nigerian teachers.

Participants

The study included 89 teachers who taught children with ASD (male=29; female=60) across all special needs schools in Enugu State, Nigeria. Table 1 contains detailed demographic information about the individuals. The following criteria were used to choose participants: a) the participant must have a stress score of 3-5 on the Single-Item Measure of Stress Symptoms, indicating a moderate to high level of stress; b) the teacher must have worked in a Special Education school for at least one year; c) the participant must have a personal Smartphone with a functional email address and be connected to Whatsapp; d) the participant is willing to submit personal contacts and phone numbers; e) the teacher has up to two children with autism in the present class.

Procedure

The researcher and four trained research assistants visited 28 public and private Special Education schools in Enugu State, Nigeria, during the first stage of the sample (March 2018- April 2018) to inform them of the intervention program. Following that, the teachers were invited to participate in a screening exercise. A total of 104 teachers agreed to take part in the initiative as volunteers.

The 104 potential participants were evaluated for eligibility using the previously mentioned eligibility criteria. As a result, 15 potential participants were ruled out for failing to meet the inclusion criteria or for other reasons, and 89 who met up with the criteria were included to participate. Using G-power, version 7 sequence allocation software (participants were asked to choose 1 envelope containing pressure-sensitive paper labelled with either "Intervention" or "No-Intervention" from a container. Accordingly, the 89 teacher participants were randomly assigned to the Intervention-bREOHC group (44 participants) or No-Intervention-waitlist control group (45 participants) (see Table 1). Until the intervention was assigned, the participants were kept in the dark about the randomization method. For better communication about the stages of the intervention, the researcher created two WhatsApp chat groups with the support of two research assistants who are skilled at handling online platforms and added the participants according to the groups they were assigned to (one for bREOHC and the other for WLG). Following that, both the REOHC group and the waitlist group (WLG) were given a pre-test utilizing TSI to determine the baseline (Time 1) data. The wait-listed participants were then advised that their intervention program would begin after the follow-up exams. The researcher and the participants in the bREOHC prior to the intervention's start date.

During stage 4, participants of the bREOHC received an inter-session bREOHC intervention for 12 weeks (3 months), from February to April 2019. Face-to-face intervention was held for six two-hour sessions in alternating weeks, with inter-session two-hour online interventions held in six alternate weeks, for a total of 12 sessions. The researcher provided financial support to the participants to assure their compliance by covering their transportation and data

bundle every month, allowing them to engage in face-to-face and online sessions. The participants completed a practice activity after each session.

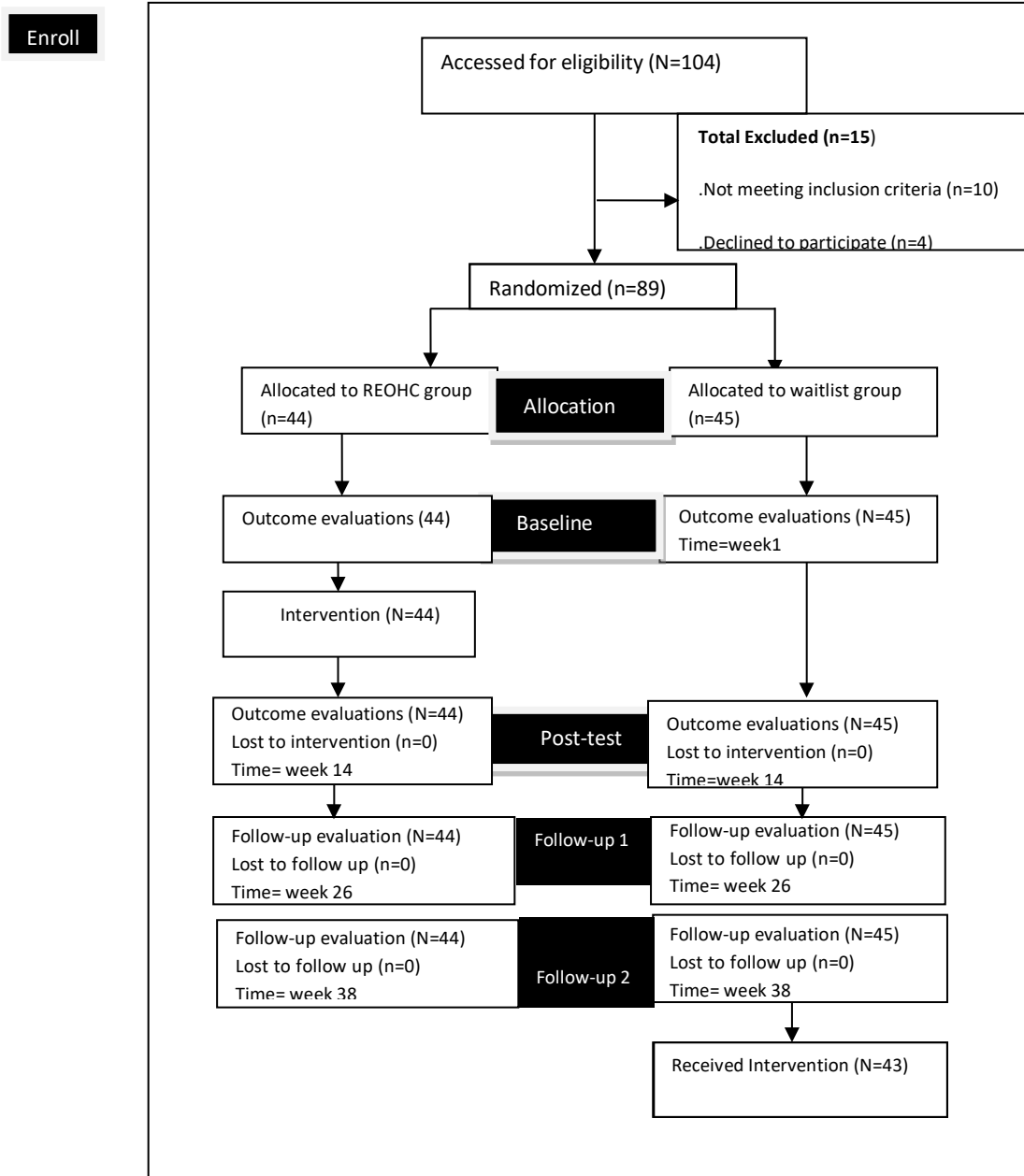


Figure 1: Design/Participants’ Flow Chart

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During the stage 5, TSI was used to collect post-test (time 2) data from both bREOHC and WLG. This occurred two weeks following the previous intervention session. Furthermore, 3 and 6 months following the post-test evaluation, follow-up online interactions and data collecting (Time 3 and 4) were conducted. After the post-test Time 2, the same instrument (TSI) was utilized to collect data for 3 months (Time 3) and 6 months (Time 4) follow-ups (July and October 2019 for Time 3 and Time 4 data collection exercises, respectively) (see figure 1). The online platform was used for all data gathering sessions.

Finally, the intervention program for the wait-listed group began immediately after the 6-month follow-up examination (October-December, 2019). The technique was the same as for the bREOHC group. One of the researchers, along with four research assistants, gave and moderated the hybrid rational-emotive occupational health coaching intervention (2 experts in REOHC and 2 occupational therapists-Ph.D students who were conversant with online interventions). All of the research assistants were paid for their work. To ensure active involvement in the intervention sessions, the researcher sent reminder messages to the participants via the WhatsApp app one day before each scheduled time and early morning hours on each face-to-face meeting day.

The online module was also given to participants through email and shared to the group Whatsapp in the early morning of the appointed day. Participants were expected to complete and submit module activities by 10 p.m. the same day, as well as ask questions. The researcher was also available to answer to specific questions and demands of the participants on a constant basis via WhatsApp and phone conversations. Aside from the baseline assessments, which participants completed and submitted on the spot, post-test and follow-up assessments were performed through email. The intervention sessions and evaluations were conducted entirely in English. At each assessment, data from the bREOHC group was compared to data from the WLC group.

Table 1: Participants Demographic Information

Characteristics		bREOHC N(%)	Control N (%)	Total N(%)
Gender	Male	15 (16.85)	14 (15.73)	29(32.58)
	Female	29 (32.58)	31 (34.83)	60 (67.42)
	Total	44 (49.44)	45 (50.56)	89(100.00)
Age	Mean	31.02	33.31	32.17
Year of Experience	1-2	11 (12.35)	14 (15.73)	25(28.08)
	3-5	19 (21.35)	17 (19.10)	36(40.45)
	5 and above	14 (15.73)	14 (15.73)	28(31.47)
	Total	44(49.44)	45 (50.56)	89(100.00)
Level of school	Secondary Schools	19 (21.35)	19 (21.35)	38 (42.70)
	Primary schools	25 (28.09)	26 (29.21)	51 (57.30)
	Total	44 (49.44)	45 (50.56)	89(100.00)
Teachers' Quatification	NCE	25 (28.09)	28 (31.46)	53(59.55)
	Bachelors' degree	18 (20.22)	17 (19.10)	35(39.32)
	Masters' degree	1 (1.12)	0 (0)	1(1.14)

The participants personal demographics are presented in Table 1. Males made up 32.58 percent of the participants, while females made up 60 (67.42 percent). The bREOHC group consisted of 15 (16.85%) males and 29 (32.58%) females, while the control group consisted of 14 (15.73 percent) male teachers and 31 (34.83 percent) female teachers. 11 (12.35%) and 14 (15.73%) of the participants in the bREOHC and WLC groups, respectively, had 1-2 years of

experience; 19 (21.35%) and 17 (19.10%) of the participants in the bREOHC and WLG groups, respectively, had 3-5 years of experience; and 14 (15.73%) and 14 (15.73%) of the participants in the bREOHC and WLG groups, respectively, had above 5 years of experience in teaching children with ASD. For bREOHC and WLG, the average age of the participants was 31.02 and 33.31, respectively. A total of 51 (57.30%) participants are teachers in elementary schools, while 38 (42.70%) are teachers in secondary schools. The bREOHC group included 25 (28.09%) primary school teachers and 19 (21.35%) secondary school teachers, while the Waitlisted group included 26 (29.21percent) and 19 (21.35percent) and 28 (31.46 percent) participants had NCE in REOHC and WLG, respectively; 18 (20.22 percent) and 17 (19.10 percent) participants had Bachelors' degrees in bREOHC and WLG, respectively; and 1 (1.12 percent) and 0 (0 percent) participants had Masters' degrees and above in bREOHC and WLG, respectively

Intervention

Phase	Session/ Duration	Activities	Psychological mechanisms
Phase 1 (Initial/Introductory Phase)	Week 1-2 Face-to-face modules 1-2	Introduction and Baseline testing Data on the participants' occupational stress was collected as a baseline. Create a collaborative environment with the participants. Setting coaching goals in collaboration with the participants. Discussing the intervention's expectations, as well as the coach's and coachees' obligations during coaching and the logical emotive occupational health coaching's core rules.	Assessments; problem formulation/ identification; goal setting
	Week 3-4 Internet modules 1 and 2	Introduction to ABCDE model as it relates to teaching autistic children The participants are guided through the creation of a problem list related to occupational health concerns linked with educating children with autism in this session. Explaining the ABC framework to participants to assist them in approaching each of the difficulties. The emphasis was on identifying and refuting stress-inducing beliefs and orientations about their jobs. Following negative experiences, this was accomplished by listing and encouraging sensible views and thinking. Coaching was also designed to help people cope with stress. The intervention program's techniques were followed to the letter. After each session, the participants were given a homework assignment.	Dissension, homework assignments; Unconditional self- acceptance; conversation, and problem- solving; rational coping statements
Phase 2 (Treatment Phase)	Week 5-6 Face-to-face modules 3- 4	Intervention The coaching session went on. Examining and debating the homework assignment that has been done. At the start of each session, the coach and the participants discussed their weekly experiences. Using coaching modalities and methodologies, further disputation of irrational beliefs related with teachers' occupation experience is being conducted, with the goal of replacing them with logical beliefs. In teaching children with autism, emphasis was placed on building rational self-beliefs, rational occupational health concepts, and behaviors, as well as correlating occupational health issues with associated illogical beliefs. Finding instructors'	Discussion, homework problems, discussion, and cognitive reorganization are all examples of consequences analysis.

			irrational assumptions regarding autistic youngsters. Getting the participants to understand how their belief system influences their emotions, and subsequently reducing the negative effects on the teachers' occupational health. Following this class, the participants were given homework assignments.	
	Week 7-8 Online module 3 and 4	Intervention continued	Further application of rational emotive occupational health coaching modalities and approaches to create in participants the ability to become their own self-coach in occupational health difficulties that threaten their job satisfaction, happiness, and positive affect. In and out of the workplace, discussing healthy habits and risk management strategies. Coaching on additional extracurricular activities that can help participants stay healthy and productive at work. Towards instilling positive psychology and functional health practices in the workplace. At the end of each session, students were given homework.	Relaxation method; hypnosis; guided visualization; reasoning tactics; reframing
	Week 9-10 Face-to-face module 5-6	Intervention Continued	Helping the participant acquire skills in stress management and healthy thinking, as well as self-coaching and coaching others. Towards the development of problem-solving, rational thinking, and occupational risk-management skills that are essential for maintaining a healthy work-life balance.	Homework assignments; Unconditional others and self-acceptance; relaxation;
	Week 11-12 Online Module	Preventing relapse	Encourage the participant to talk about what they've learned from the coaching program and how they'll use it in the future. Discussing various personal issues and experiences relating to staying healthy at work and the benefits that come with it. Personal commitments are assessed throughout the program based on participation in group discussions and completion of assignments.	Meditation; humour and irony; decision-making; conflict resolution
Phase 3 (Conclusion and Relapse prevention)	14th Week	Post-test evaluation	Conduction post-test measurement.	Testing
	3 months	Follow-up assessment	Conducting the follow-up after three months of post-test	Testing

A rational-emotive occupational health coaching program manual (Ogbuanya, et al., 2017) was adapted and integrated with the online module and used in the study by Onyishi, et al., (2020). The "ABCDE" technique was employed in the designed modules to change dysfunctional and irrational beliefs related to work settings (Triggering event, Beliefs, Consequences, Disputing, and Effective new philosophy). The main goal of bREOHC was to use an ABCDE face-to-face group treatment model in combination with an online module to "dispute" – Employees' job irrational and problematic ideas should be challenged and replaced with more beneficial and functioning views (Ogbuanya, Eseadi, Orji, Ohanu, Bakare, & Ede, 2017; Ogbuanya, Eseadi, Orji, Ede, Ohanu, & Bakare, 2017). primary and secondary schools respectively.

The researcher used the ABCDE model to describe the relationships between stimulating (A) events related to teaching children with ASD, dysfunctional thoughts and feelings arising from such situations (B), and the emotional and social consequences of such belief systems (C) (DiGiuseppe, Doyle, Dryden, & Backx, 2014). In educating children with ASD, the activating event (A) could be a difficult circumstance including the children's learning difficulties, behavioural problems, excessive work-load, and teachers' personal experiences; The perception and cognitive representation created as a result of "A" is the belief (B). Such event perception (B) elicits a consequence/effect (C) for the teacher, that might be appropriate or regressive. Aversive consequences include anxiety, depression, and stress symptomatology. The maladaptive, dysfunctional, and self-limiting ideas and perceptions are then eliminated using disputation techniques (D) (David, 2015; David, & Szentagotai, 2006; DiGiuseppe, Doyle, Dryden, & Backx, 2014; David, & Szentagotai, 2006; David, & Szentagotai, 2006; David, & Szentagotai, 2006; David, & Szentagotai, 2006; David (Warren, 2010; 2013; Warren, & Gerler, 2013; Warren, & Hale, 2016). Disputation entails challenging and contrasting maladaptive and adaptive thinking. The greatest strategy to challenge illogical views, according to Ellis (1959), is to explore realistic and reasonable ones. As a result, individuals develop more effective worldviews as they become aware of and overcome their problematic ideas (E). The ABCDE model, which was first utilized in an earlier study by the first author, served as the foundation for all activities during the intervention (See Table 2).

We created a module face-to-face therapy with intersession internet-based therapy, made up of six face-to-face interventions delivered in alternate sessions with six internet-based modules (Okeke, et al., 2021). The bREOHC program was implemented in three parts of phases 1-3 (Table 2). Phase 1 of the program, which lasted four weeks, featured introduction and baseline testing, as well as an introduction to the ABCDE paradigm as it relates to teaching autistic children. There were two face-to-face sessions and two online sessions (See Table 2). To familiarize themselves with the participants, the coaches and participants received a personal introduction. During this phase, confidentiality guidelines were established, and baseline data was collected at week 1.

The second week of the first phase involves working with the participants to develop coaching goals and clarify the intervention's expectations by leading them to write down all of their stress responses on worksheets. The coaches also provided information about stress and advised the participants to be on the lookout for stress-related symptoms. Other experience problems that will encourage engagement were covered by both the coaches and the participants. The third and fourth weeks were held online, and participants were led to construct a problem list related to occupational health concerns linked with educating children with autism using sharing modules. The goal was to identify harmful job-related attitudes and orientations that cause stress. Some examples of sensible and irrational beliefs about job stress were given in the online modules. It promotes rational beliefs and thoughts in the aftermath of negative situations. After each session, participants were given on-the-spot practice tasks, homework assignments, and feedback forms on which they may record their weekly experiences and comments.

Phase 2 was 6 weeks (6 sessions), including 4 face-to-face and 2 online meetings, and included REOHC treatment sessions (See Table 2). The focus of the first two face-to-face meetings in this phase (weeks 5 and 6) was on building rational self-beliefs, rational beliefs and practices in teaching children with autism, with workplace health symptoms linked to irrational views. Through talks, it was also possible to uncover instructors' erroneous attitudes regarding children with autism. The participants were encouraged to challenge illogical assumptions that influenced their emotions and to reduce negative affect related with occupational health. It also featured conversations about healthy behaviors and risk management techniques both at work and at home. In weeks 9 and 10, face-to-face meetings were arranged to help the participant develop skills in stress management and healthy thinking through self-coaching and coaching others. Finally, coaching was provided to assist them in developing problem-solving, rational thinking, and occupational risk-management skills, all of which are critical for maintaining a productive working relationship.

All disagreements were settled at this point. The third and fourth phases, which focused on preventing relapse, were held over the course of two weeks of online meetings (See Table 2). The purpose of the two online sessions was to encourage participants to highlight what they had learned from the coaching program and how they planned to use it in the future. Other personal issues and experiences relating to staying healthy at work and the benefits that come with it were discussed. Finally, individual commitments during the program will be assessed based on contributions to group discussions and assignment completion. The phase also included the completion of a template for progress feedback.

Recruitment, response rates, dropouts, and adherence

We obtained well-versed approval the potential participants before recruiting. A total of 104 people responded to the request to participate in the study, with 89 of them being accepted. Others were turned away because their qualifications did not fulfill the standards. All 89 participants who were randomly assigned to study groups completed the sessions and assessments. However, two participants did not reply to the invitation to participate in the last phase of the study, which was an intervention for the waitlisted group. The researchers were contacted via e-mail and WhatsApp but did not respond. As a result, there were a high percentage of adherences in this trial. In general, the participants replied quickly to both face-to-face and online interactions, with only a few exceptions.

Design and Data Analyses

With pretest, post-test, and follow-up evaluations, the current investigation used a group-randomized waitlist control trial design (Desveaux et al, 2016). The researcher used this design to evaluate the impact of the bREOHC intervention

on occupational stress. There were two groups of participants: bREOHC and wait-list. The baseline data was evaluated using T-test statistics. To compare baseline, post-intervention, and follow-up 1 and 2 data, a 2-way analysis of variance (ANOVA) with repeated measures was employed. The effect size of the intervention on the dependent measure was estimated using partial Eta square analysis (TSI).

The difference in participant ratings between Time 1 and 2; Time 2 and 3; and Time 3 and 4 was determined using a paired sample t-test. The interaction effects of group x Time on the study SS, SM, and TSI were further investigated using 2 x 3 Analysis of Variance (ANOVA) statistics. The percentage was used to assess how satisfied the participants were with their therapy.

Result

Table 3: t-test Analysis of The Baseline Data on Participants' TSI Dimensions

Group	Subscale	N	\bar{X}	SD	Df	T	P	95%CI
REOHC Group	SS	44	3.59	.36	87,86.02	1.80	.993	-.01, .34
Wait List Control		43	3.38	.42				
REOHC Group	SM	44	3.50	.51	85,78.53	2.28	.120	.03, .54
Wait List Control		43	3.49	.66				
REOHC Group	TSI	44	3.52	.45	85,83,33	2.16	.492	.01, .43
Wait List Control		43	3.41	.51				

SS - Stress Sources; SM- Stress Manifestation; TTSIS- Total Teachers' Stress Inventory Score; \bar{X} - Mean, SD- Standard Deviation, df = Degree of Freedom, t = t-test statistic, p = probability value, CI - Confidence Interval.

At Time 1, the mean stress sources (SS) scores of the bREOHC group and the wait-list group (WLG) were non-significantly different ($t = 2.05, p = .63$). This indicates that both the REOHC and WLG groups had similar sources of job-demand perception (bREOHC group = 3.59; .36; WLC= 3.42; .39). At baseline, the bREOHC group (3.59; .44) and the WLG group (3.55; .60) had significantly different Stress Manifestation ratings, $t(87) = 2.18, p = .52$. The total TSI rating of participants in the bREOHC and WLC groups did not differ substantially. In pretest data a non significant difference was recorded in TSI scores between the bREOHC group (3.58; .39) and the WLG group (3.59; .47) ($t(87) = 2.06, p = .59$). The participants in both groups not only perceived their employment as demanding, but also had stress-related symptoms, according to the mean ratings of the two groups.

Table 4: Repeated Measure Analysis of Variance of the Effectiveness of the REOHC intervention on Post-test, Follow-up 1 and Follow-up 2 Scores of Participants on TSI

Time	Measures	IREOHC Group (n = 33) \bar{X} , SD	Wait list control Group (n = 32) \bar{X} , SD	Df	F	P	95%CI	η^2
Posttest (Time 2)		1.91±.96	3.59±.43	1, 84	106.69	.000	1.68, 3.83	.56
Follow-up1 (Time 3)	SS	1.97±1.11	3.58±.43	1, 84	77.22	.000	1.70, 3.86	.47
Follow-up2 (Time 4)		1.74±.58	3.61±.38	1, 84	291.74	.000	1.59, 3.76	.77
Posttest (Time 2)		1.30±.28	3.56±.46	1, 84	633.03	.000	1.28, 3.67	.88
Follow-up1 (Time 3)	SM	1.59±.34	3.56±.46	1, 84	478.89	.000	1.47, 3.68	.85
Follow-up2 (Time 4)		1.98±.55	3.94±.49	1, 84	180.94	.000	1.82, 3.70	.68
Posttest (Time 2)		1.65±.52	3.58±.44	1, 84	327.02	.000	1.51, 3.72	.79
Follow-up1 (Time 3)	TTSI	1.78±.63	3.57±.44	1, 84	224.60	.000	1.61, 3.75	.72
Follow-up2 (Time 4)		1.86±.56	3.57±.43	1, 84	240.00	.000	1.71, 3.73	.71

SS – Stress Sources; SM- Stress Manifestation; TTSIS- Total Teachers’ Stress Inventory Score; \bar{X} - Mean, SD- Standard Deviation, df = Degree of Freedom, F = Analysis of variance test statistic, p = probability value, CI - Confidence Interval and η^2 = Partial Eta square (effect size)

In SS, SM, and TTSI, the effect of the REOHC on post-test, follow-up 1, and 2 assessments is reported in Table 4 as a repeated-measures analysis of variance. At Time 2, 3, and 4 (post-treatment) evaluations, the data revealed significant primary effects of REOHC on stress sources. At Time 2, participants in the REOHC group (2.04; .83) had a substantially lower mean score than WLG (3.58; .39) ($F(1, 87) = 123.12, p = .000, \text{Effect size} = .58$). The mean rating of participants in REOHC (1.98; 1.00) and WLG (3.58; .37) as determined by SS at Time 3 evaluation differs significantly, $F(1, 87) = 97.49, p = .000, \text{Effect-size} = .52$. A significant difference, $F(1, 87) = 295.83, p = .000, \text{Effect-size} = .77$, was also seen in the mean rating of participants in the REOHC group (1.90; .52) and WLG (3.59;.39) as measured by SS at follow-up 2 (Time 4). These results showed that recipients of REOHC had a lower perception of stress causes during the course of two follow-up evaluations, at three and six months, respectively.

At Time 2, the mean rating of the bREOHC group on stress manifestation (1.57; .34) decreased significantly ($F(1, 87) = 53.78, p = .000, \eta^2 = .85$) as compared to the WLG (3.55; .34). At follow-up 1 ($F(1, 87) = 394.91, p = .000, \eta^2 = .81$) and follow-up 2 ($F(1, 87) = 27; 23, p = .000, \text{effect size} = .71$), minimized SM score of the bREOHC group was sustained. This suggests that REOHC could lessen the individuals’ negative perceptions of work stress as well as their stress symptoms. In the posttest (Time 2) of the TSI, the bREOHC group had a lower mean rating (1.65;.52) than the waitlist (3.58;.44), which was statistically significant ($F(1, 87) = 317.67, p = .000, \text{Effect size} = .78$). The REOHC group’s TSI mean rating (1.81; .51) was lower than the WLG group’s (3.70;.40) at follow-up 1 (Time 3). This distinction was statistically significant ($F(1, 87) = 220.85, p = .000, \eta^2 = .71$). At follow-up 2, there was also a significant difference ($F(1, 87) = 302.78, p = .000, \eta^2 = .77$) in TSI ratings between the REOHC group (1.88; .50) and the WLG (3.56; .39) (Time 4).

Table 5: Frequency and Percentage of Participants Satisfaction with Therapy

S/N	Item	Low		Moderate		High	
		F	%	F	%	F	%
1	Satisfaction with the therapy	2	2.24	6	6.74	81	91.01
2	Satisfaction with the therapists	0	0	13	14.61	76	85.39
3	Global improvement on clients’ condition	1	1.2	18	20.22	70	78.65
4	Overall STTS–R score	1	1.2	12	13.48	75	86.2

According to the participants’ rating in STTS–R, 75 of the 89 participants who participated in the intervention (86.2 percent)] were very satisfied with the bREOHC program. These results demonstrate the effectiveness of bREOHC in reducing teacher stress. Figure 5 shows more information about this outcome.

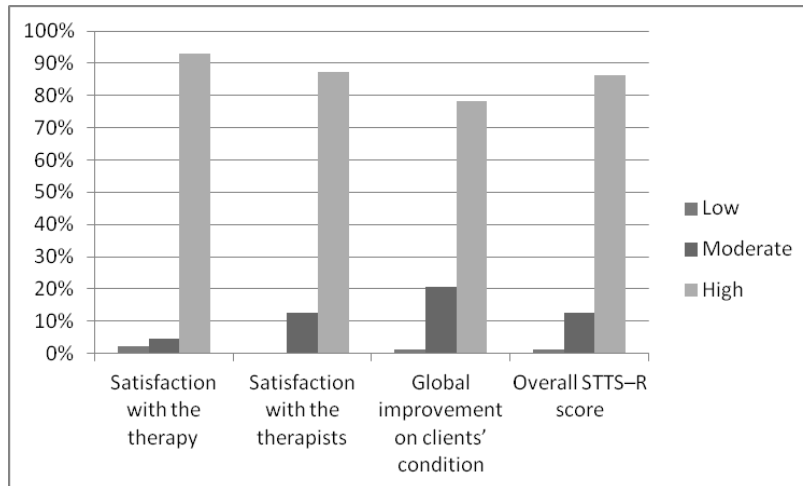


Figure 5: Bar Chart Showing Participants' Satisfaction with Therapy

Discussion

The goal of this study was to confirm the efficacy of bREOHC in lowering job stress among teachers of children with ASD. At baseline, the Stress Sources (SS) ($t = 1.80, p = .993$), Stress Manifestation (SM) ($t = 2.28, p = .120$), and Total Teachers' Stress Inventory (TTSI) scores ($t = 2.16, p = .492$) of the bREOHC and wait-list groups (WLG) did not differ substantially. When compared to the WCG, the bREOHC intervention resulted in a significant ($p=000$) reduction in all dimensions of teachers' stress (SS, SM, and TTSI) at Time 2 (post-test), which was sustained through Time 3 (follow-up 1) and Time 4 (follow-up 2). (follow-up 1). The findings also demonstrated a significant interaction effect of Time and intervention on the measures of participants' stress, suggesting that the decrease in the bREOHC group's stress levels over time was due solely to the bREOHC intervention and not to the passage of time. While the stress levels of the WLG did not alter significantly between baseline, post-intervention, and follow-up assessments, the bREOHC group saw a significant reduction in stress between baseline and post-treatment tests. The bREOHC intervention was also well received by the participants, according to the results. Approximately 91.02 percent of bREOHC participants expressed excellent satisfaction with the bREOHC intervention, 85.39 percent with the therapists, and 78.65 percent with the intervention. This indicates that bREOHC alters participants' self-defeating cognition associated with work experience.

The significant reduction in participants' job stress as a result of bREOHC demonstrates that, even when objective working conditions remain same, a teacher can change his or her perceptions regarding stressful experiences, resulting in reduced stress symptoms. The capacity of internet-based programs to preserve therapeutic advantages after discharge from face-to-face treatment was also reported in a previous study (Simon, McGillivray, Roberts, Barawi, Lewis & Bisson, 2019). Kenter, van de Ven, Cuijpers, Koole, Niamat, Gerrits, ..., & van Straten (2015), on the other hand, found that blended care is more expensive than established face-to-face therapies and did not result in increased benefits in terms of general functioning in their study.

According to the three stress models of stimulus-based, response-based, and transaction-based models (Papathanasiou, Tsaras, Neroliatsiou, & Roupa, 2015), the three models might be described utilizing the ABCDE therapeutic modalities, giving relief to the teachers. Stress, according to the stimulus-based model, arises when objective activating events (A) called stressors occur, whereas stress, according to the response-based model, occurs when emotional, physiological, and behavioral reactions (C) to the stressor occur (A). Finally, transaction-based research suggests that stress is caused by the negative subjective interpretation/cognitions perspective (B) of an activating situation/stressor (A) (Abrams & Ellis, 1994; Quick & Henderson, 2016; Rao, & Chandraiah, 2012). (see figure 7).

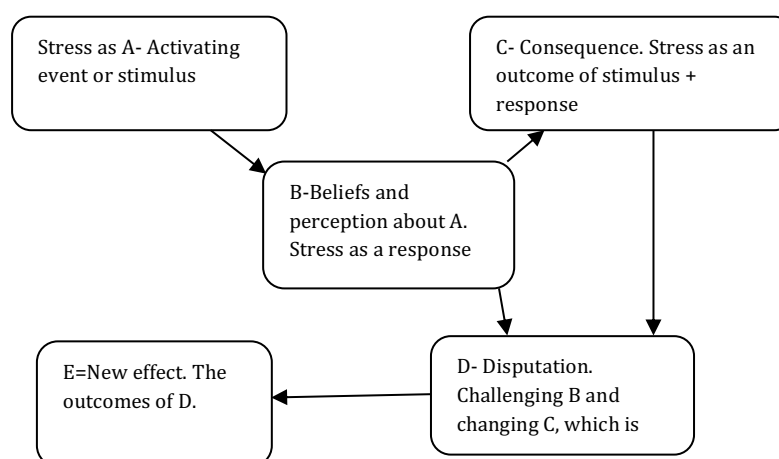


Figure 6: Aligning the ABCDE model to three dimensions of stress proposed by Papathanasiou, et al., (2015)

The model in figure 6 suggests that the positive results of the current study could be explained by a simple mechanism of disputing (D) the negative and dysfunctional perception 'B' about the stressful situation 'A' (stressors, according to the stimulus-based model) and replacing them with healthier ones (E). According to the response-based model, this could result in a considerable reduction in the cognitive, physical, and/or emotional repercussions on health and well-being (C), which is emotional, physiological, and behavioral reactions (Chadha, Sood & Malhotra, 2012). bREOHC assists clients in developing self-coaching skills that enable them to better understand their thoughts and cope with stress in a good way. Stress is managed in this way by using the transactional model's route of lowering negative consequences (C) by contesting (D) the negative subjective perspective (B) about the activating situation/stressor (A) in order to promote beneficial emotions (E).

As a result, the ABCDE therapy modality lends itself to stress reduction by working on the transactional relationships across the three stress models, including stress as a stimulus, stress as a reaction, and stress as a result of the stimulus (stressor) and response's transactional interactions (perceptions). So, with bREOHC, participants are instructed to find a positive balance in ABC to produce E through disputation-D. Participants tend to gain more expertise in stress management as they continue to employ these abilities, and their perceptions of their occupations become less stressful (Thomas, 2017). As a result, a previous study (Suleman, Hussain, Shehzad, Syed, & Raja, 2018) found that a positive shift in stress perception can lead to a decrease in physiological and psychological symptoms linked with job stress. This is standard bREOHC thinking, which works by opposing negative ideas, feelings, and emotions connected with stresses (workplace surroundings) and replacing them with more beneficial ones. REOHC was found to be beneficial in stress management (Jaiyeoba & Jibril, 2008; Nwokeoma, et al., 2019) and employee subjective well-being (Onyishi, et al., 2020) in other Nigerian investigations.

However, to our knowledge, the current study's findings are unique and have never been seen previously, owing to the fact that all previous REOHC research has been conducted face-to-face. On REOHC, none of the works were paired with online therapy sessions. As a result, the current findings can be utilized as a starting point for future research, and researchers are encouraged to replicate and confirm the findings in other blended therapy studies.

Other studies have looked into combining other psychological techniques, such as Cognitive Behavioural Therapy in blended frameworks (Bykowski, 2016; Kenter et al., 2015; Hedman, Ljotsson, Kaldo, Hesser, El Alaoui, Kraepelien, Andersson, Ruck, Svanborg, Andersson, Lindfors, 2014b; Fitzpatrick, Nedeljkovic, Abbott, Kyrios, & Moul Moulding, 2018; Mackie, Dunn, MacLean, Testa, Heisel, & Hatcher, 2017; Simon, McGillivray, Roberts, Barawi, Lewis, & Bisson, 2019; Wilhelmsen, Lillevoll, Risor, Hoifodt, Johansen, Waterloo, Eisemann, Kolstrup, 2013; Vernmark, et al., 2019). Blended therapy has shown to be effective in treating stress in teachers of children with ASD because it allows the teacher to participate in sessions from home, minimizing the time required for face-to-face interventions. Allowing teachers of children with ASD to participate in coaching interventions from a distance would allow them to enjoy the session with high accessibility, flexibility, cost, and time savings (Andersson & Titov, 2014), hence preserving adherence (Andersson & Titov, 2014).

The bREOHC intervention was shown to be well-liked among participants in the study. Only a few studies have looked into treatment preferences, expectations, usefulness, and satisfaction with mixed psychiatric treatments (Campos et al., 2018). Natalie Simon, Leah McGillivray, Neil, Roberts, Kali Barawi, Catrin Lewis, and Bisson (2019) found internet-based CBT to be agreeable to participants based on a review of empirical studies. The therapy and study protocols were favorably regarded in other trials (Mackie et al., 2017; Simon et al., 2019). Participants in blended therapy can access treatment materials and exercises from the comfort of their own homes during online sessions, which reduce

the cost and frequency of meetings (Hedman, Andersson, Ljotsson, Andersson, Ruck, Lindefors, 2011; Hedman, et al., 2014b). Furthermore, when compared to traditional face-to-face sessions, blended therapy saves therapist time while still allowing for face-to-face therapeutic interaction, which is crucial in psychotherapy (Wilhelmsen, et al., 2013).

Reduced job stress reduces psychopathological symptoms such as headache, anxiety, and musculoskeletal difficulties, which can reduce employee effectiveness (Ogbuanya, et al., 2017). As a result, reducing stress in instructors of children with ASD may help to improve their health and classroom effectiveness (Hamlett, 2016; Okwaraji, et al., 2015; Nwimo, et al., 2015). The improvement in job effectiveness of teachers of children with ASD translates to positive health and academic outcomes of the children they teach (David, et al., 2016; David, & Matu, 2013; McCraty, Atkinson, & Tomasino, 2003; Suleman, et al., 2018). Negative thoughts and emotional stress reactions, on the other hand, tend to impair productivity and increase health risks (Gharib, et al., 2016; Gitonga & Ndagi, 2016; Manabete, et al., 2016). bREOHC is a low-cost program that improves the well-being and outcomes of instructors of children with ASD and their students (Ogba, et al., 2020). This study has contributed to the existing pool of knowledge about the efficacy of bREOHC in a non-clinical group setting for stress reduction. It has helped to establish that group-based bREOHC is valuable for stress treatment and that the beneficiaries are satisfied with the modality.

Study Limitation and Suggestion for Future Studies

This study is not without limitations. First, this study used a relatively small sample, and this may limit the generalization of the study result. Further study could apply a larger sample to confirm the effectiveness of the bREOHC. This study did not analyze data based on any mediating variable; future studies may fill this gap by considering mediating variables such as gender, experience, and level of education of the participants. Intention to treat or per-protocol analyses were not done; future studies may fill this gap. The bREOHC package could also be tested in different groups of employees who are suffering from chronic stress. Future research could compare blended and traditional face-to-face REOHC, as the current study did not look into this. Coaching practitioners who deal with teachers of children with ASD should think about using bREOHC to manage stress in order to provide the necessary intervention for teachers of children with ASD. When working with teachers of special needs kids who are facing moderate to severe stress at work, experts in school occupational health and behavioral coaching should adopt bREOHC.

Conclusion

The conclusion is that bREOHC is effective in reducing occupational stress among instructors of autistic children. The bREOHC intervention for occupational stress was well received by the participants.

References

- Abrams, M., & Ellis, A. (1994). Rational emotive behaviour therapy in the treatment of stress. *British Journal of Guidance & Counselling*, 22(1), 39-50
- AbuMadini, M. S., & Sakthivel, M. (2018). A Comparative Study to Determine the Occupational Stress Level and Professional Burnout in Special School Teachers Working in Private and Government Schools. *Global Journal of Health Science*, 10(3). doi:10.5539/gjhs.v10n3p42
- Agu, P. U., Chigbu, B. C., Ede, M. O., Okeke, C. I., Chinweuba, N. H., Amaeze, F. E., ... & Ezeaku, P. (2021). Rational emotive occupational health coaching for quality of work-life among primary school administrators. *Medicine*, 100(29). doi: 10.1097/MD.00000000000026541
- Akanaeme, I. N., Ekwealor, F. N., Ifeluni, C. N., Onyishi, C. N., Obikwelu, C. L., Ohia, N. C., ... & Dike, I. C. (2021). Managing job stress among teachers of children with autism spectrum disorders: A randomized controlled trial of cognitive behavioral therapy with yoga. *Medicine*, 100(46).
- Andersson, G., & Titov, N. (2014). Advantages and limitations of Internet-based interventions for common mental disorders. *World Psychiatry*, 13(1), 4-11. doi: 10.1002/wps.20083.
- Andersson, G., Nordgren, L. B., Buhrman, M., & Carlbring, P. (2014). Psychological treatments for depression delivered via the internet and supported by a clinician: An update. *Revista de Psicopatología y Psicología Clínica*, 19(3),
- Arun, P., Garg, R., & Chavan, B. S. (2017). Stress and suicidal ideation among adolescents having academic difficulty. *Industrial psychiatry journal*, 26(1), 64. doi: 10.4103/ipj.ipj_5_17
- Atiyat, O.K., 2017. The Level of Psychological Burnout at the Teachers of Students with Autism Disorders in Light of a Number of Variables in Al-Riyadh Area. *Journal of Education and Learning*, 6(4), pp.159-174. doi.10.5539/jel.v6n4p159,
- Bakare, M. O., Taiwo, O. G., Bello-Mojeed, M. A., & Munir, K. M. (2019). Autism spectrum disorders in Nigeria: A scoping review of literature and opinion on future research and social policy directions. *Journal of health care for the poor and underserved*, 30(3), 899. doi: 10.1353/hpu.2019.0063
- Banbury, A., Nancarrow, S., Dart, J., Gray, L., & Parkinson, L. (2018). Telehealth interventions delivering home-based support group videoconferencing: systematic review. *Journal of medical Internet research*, 20(2), e8090.

- Blacher, J., Howell, E., Lauderdale-Littin, S., Reed, F. D. D., & Laugeson, E. A. (2014). Autism spectrum disorder and the student teacher relationship: A comparison study with peers with intellectual disability and typical development. *Research in Autism Spectrum Disorders*, 8(3), 324-333. doi:10.1016/j.rasd.2013.12.008.
- Bolourian, Y., Losh, A., Hamsho, N., Eisenhower, A., & Blacher, J. (2021). General Education Teachers' Perceptions of Autism, Inclusive Practices, and Relationship Building Strategies. *Journal of Autism and Developmental Disorders*, 1-14. doi.org/10.1007/s10803-021-05266-4
- Bolourian, Y., Stavropoulos, K. K., & Blacher, J. (2019). Autism in the Classroom: Educational Issues across the Lifespan. Grantee Submission. doi:10.5772/intechopen.84790
- Bolourian, Y., Stavropoulos, K. K., & Blacher, J. (2019). Autism in the Classroom: Educational Issues across the Lifespan. Grantee Submission. Boshoff, S. M. (2011). Validation of the Teacher Stress Inventory (TSI) in a South African context: the SABPA study (Doctoral dissertation, North-West University).
- Boujut, E., Popa-Roch, M., Palomares, E. A., Dean, A., & Cappe, E. (2017). Self-efficacy and burnout in teachers of students with autism spectrum disorder. *Research in Autism Spectrum Disorders*, 36, 8-20. doi. 10.1016/j.rasd.2017.01.002.
- Cappe, E., Bolduc, M., Poirier, N., Popa-Roch, M. A., & Boujut, E. (2017). Teaching students with Autism Spectrum Disorder across various educational settings: The factors involved in burnout. *Teaching and Teacher Education*, 67, 498-508. doi.org/10.1016/j.tate.2017.07.014.
- Carroll, K. M., & Rounsaville, B. J. (2010). Computer-assisted therapy in psychiatry: Be brave—it's a new world. *Current psychiatry reports*, 12(5), 426-432.
- Chadha, M., Sood, K., & Malhotra, S. (2012). Effects of organizational stress on quality of life of primary and secondary school teachers. *Delhi Psychiatry Journal*, 15(2), 342-346.
- Dankade, U., Bello, H., & Deba, A. A. (2016). Analysis of job stress affecting the performance of secondary schools' vocational technical teachers in north east, Nigeria. *Journal of Technical Education and Training*, 8(1).
- David, D. (2015). Rational emotive behavior therapy (REBT). In R. L. Cautin and S. O. Lilienfeld (eds), *Encyclopedia of Clinical Psychology*. New Jersey: Wiley-Blackwell.
- David, D., & Szentagotai, A. (2006). Cognitions in cognitive-behavioral psychotherapies; toward an integrative model. *Clinical psychology review*, 26(3), 284-298.
- David, O. A., & Matu, S. A. (2013). How to tell if managers are good coaches and how to help them improve during adversity? The managerial coaching assessment system and the rational managerial coaching program. *Journal of Cognitive & Behavioral Psychotherapies*, 13.
- De Stasio, S., Fiorilli, C., Benevene, P., Uusitalo-Malmivaara, L., & Chiacchio, C. D. (2017). Burnout in special needs teachers at kindergarten and primary school: investigating the role of personal resources and work wellbeing. *Psychology in the Schools*, 54(5), 472-486.
- Demidova, I. (2017). Treating Adult Women With Depression Through Videoconferencing. Retrieved from <https://scholarworks.waldenu.edu/cgi/viewcontent.cgi?article=4447&context=dissertations>
- DiGiuseppe, R. A., Doyle, K. A., Dryden, W. and Backx, W. (2014). *A Practitioner's Guide to Rational-emotive Behavior Therapy*. New York: Oxford University Press.
- Doherty, G., Coyle, D., & Sharry, J. (2012, May). Engagement with online mental health interventions: an exploratory clinical study of a treatment for depression. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 1421-1430).
- Ekom-Idorenyin, W. V. (2020). ATTITUDE OF TEACHERS TOWARDS PUPILS WITH AUTISM SPECTRUM DISORDERS (ASD) IN SELECTED PRIMARY SCHOOLS IN RIVERS STATE, NIGERIA. *European Journal of Education Studies*.
- Ellis, A. (1996). Changing rational-emotive therapy (RET) to rational emotive behavior therapy (REBT). *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 13(2), 85-89.
- Emam, M. M., & Farrell, P. (2009). Tensions experienced by teachers and their views of support for pupils with autism spectrum disorders in mainstream schools. *European journal of special needs education*, 24(4), 407-422.
- Ene, C. U., Ugwuanyi, C. S., Ejimonye, J. C., Ani, M. I., Eneogu, N. D., Ikeh, F. E., ... & Nwachukwu, V. N. (2021). Effects of rational emotive occupational health coaching on work stress among academic staff of science and social science education in Nigerian universities: A randomised trial evaluation. *Medicine*, 100(34). doi: 10.1097/MD.00000000000026963.
- Erbe, D., Eichert, H. C., Riper, H., & Ebert, D. D. (2017). Blending face-to-face and internet-based interventions for the treatment of mental disorders in adults: systematic review. *Journal of medical Internet research*, 19(9), e306. doi: 10.2196/jmir.6588.
- Fimian, M. J. (1984). The development of an instrument to measure occupational stress in teachers: The Teacher Stress Inventory. *Journal of Occupational Psychology*, 57(4), 277-293.
- Fimian, M. J., & Fastenau, P. S. (1990). The validity and reliability of the Teacher Stress Inventory: A re-analysis of aggregate data. *Journal of Organizational Behavior*, 151-157

- Fitzpatrick, M., Nedeljkovic, M., Abbott, J. A., Kyrios, M., & Moulding, R. (2018). "Blended" therapy: The development and pilot evaluation of an internet-facilitated cognitive behavioral intervention to supplement face-to-face therapy for hoarding disorder. *Internet interventions*, 12, 16-25
- Fredriksson-Larsson, U., Brink, E., Grankvist, G., Jonsdottir, I. H., & Alsen, P. (2015). The single-item measure of stress symptoms after myocardial infarction and its association with fatigue. *Open Journal of Nursing*, 5(04), 345. doi.10.4236/ojn.2015.54037.
- Gersten, R., Keating, T., Yovanoff, P., & Harniss, M. K. (2001). Working in special education: Factors that enhance special educators' intent to stay. *Exceptional Children*, 67(4), 549-567. <http://dx.doi.org/10.1177/001440290106700408>.
- Ghani, M. Z., Ahmad, A. C., & Ibrahim, S. (2014). Stress among special education teachers in Malaysia. *Procedia-Social and Behavioral Sciences*, 114, 4-13.
- Gitonga, M. K., & Ndagi, J. M. (2016). Influence of occupational stress on teachers' performance in public secondary schools in Nyeri County, Nyeri South Sub County Kenya. *International Journal of Business and Management Invention*, 5(5), 23-29.
- González-Herrera, A. I., Pérez-Jorge, D., Díaz-Fuentes, Y., Rodríguez-Jiménez, M. D. C., & AriñoMateo, E. (2021). Dealing with stress and intervention models in families with children with autism spectrum disorder. *Humanities and Social Sciences Communications*, 8(1), 1-6. <https://doi.org/10.1057/s41599-021-00988-3>.
- Hagaman, J. L., & Casey, K. J. (2018). Teacher attrition in special education: Perspectives from the field. *Teacher Education and Special Education*, 41(4), 277-291.
- Hamlett, C. (2016). How Stress Affects Your Work Performance, Retrieved from smallbusiness.chron.com/stress-affects-your-work-performance-18040.html on 14/11/2016
- Hashim, C. N., & Kayode, B. K. (2010). Stress management among administrators and senior teachers of private Islamic school. *Journal of Global Business Management*, 6(2), 1.
- Hedman, E., Andersson, G., Ljótsson, B., Andersson, E., Rück, C., Mörtberg, E., & Lindefors, N. (2011). Internet-based cognitive behavior therapy vs. cognitive behavioral group therapy for social anxiety disorder: a randomized controlled non-inferiority trial. *PloS one*, 6(3).
- Hedman, E., Ljotsson, B., Kald, V., Hesser, H., El Alaoui, S., Kraepelien, M., Andersson, E., Ruck, C., Svanborg, C., Andersson, G., Lindefors, N., 2014b. Effectiveness of Internet-based cognitive behaviour therapy for depression in routine psychiatric care. *J. Affect. Disord.* 155, 49–58.
- Jaiyeoba, A. O., & Jibril, M. A. (2008). Sources of occupational stress among secondary school administrators in Kano State, Nigeria. *African research review*, 2(3), 116-129.
- Kebbi, M. (2018). Stress and coping strategies used by special education and general classroom teachers. *International Journal of Special Education*, 33(1), 34–61.
- Kemmeren, L. L., Van Schaik, D. J. F., Riper, H., Kleiboer, A. M., Bosmans, J. E., & Smit, J. H. (2016). Effectiveness of blended depression treatment for adults in specialised mental healthcare: study protocol for a randomised controlled trial. *BMC psychiatry*, 16(1), 113.
- Kenter, R. M., van de Ven, P. M., Cuijpers, P., Koole, G., Niamat, S., Gerrits, R. S., ... & van Straten, A. (2015). Costs and effects of Internet cognitive behavioral treatment blended with face-to-face treatment: results from a naturalistic study. *Internet Interventions*, 2(1), 77-83.
- Kourmoussi, N., Darviri, C., Varvogli, L., & Alexopoulos, E. C. (2015). Teacher Stress Inventory: validation of the Greek version and perceived stress levels among 3,447 educators. *Psychology research and behavior management*, 8, 81.
- Lundin, F. (2021). Occupational Stress, Burnout and Teacher efficacy in teachers, special educators and habilitation professionals with and without formal ABA training.
- Mackie, C., Dunn, N., MacLean, S., Testa, V., Heisel, M., & Hatcher, S. (2017). A qualitative study of a blended therapy using problem solving therapy with a customised smartphone app in men who present to hospital with intentional self-harm. *Evidence-based mental health*, 20(4), 118-122.
- Mahfar, M., & Senin, A. A. 2013 Managing Stress at Workplace Using The Rational-Emotive Behavioral Therapy (REBT) Approach Major, A. E. (2012). Job design for special education teachers. *Current Issues in Education*, 15, 1–8.
- Malik, N. A., & Björkqvist, K. (2018). Occupational Stress and Mental and Musculoskeletal Health Among University Teachers. *Eurasian Journal Of Medical Investigation*, 2(3), 139-147. DOI: 10.14744/ejmi.2018.41636.
- Manabete, S. S., John, C. A., Makinde, A. A., & Duwa, S. T. (2016). Job stress among school administrators and teachers in Nigerian secondary schools and technical colleges. *International Journal of Education, Learning and Development*, 4(2), 1-9.
- Manjula, C. M. A. (2012). A study on Personality Factors Causing Stress among Second ary School Teachers, *Strength for Today and Bright Hope for Tomorrow*, 12(2).
- McDougal, E., Riby, D. M., & Hanley, M. (2020). Teacher insights into the barriers and facilitators of learning in autism. *Research in Autism Spectrum Disorders*, 79, 101674. doi.org/10.1016/j.rasd.2020.101674

-
- Moldovan, C. P. (2017). AM Happy Scale: Reliability and Validity of a Single-Item Measure of Happiness. Loma Linda University Electronic Theses, Dissertations & Projects. 438. Retrieved from <http://scholarsrepository llu.edu/etd/438>
- Murray, J. (2015). Practical Teaching Strategies for Students with Autism Spectrum Disorder: A Review of the Literature. *BU Journal of Graduate Studies in Education*, 7(2), 68-75.
- Nakao, S., Nakagawa, A., Oguchi, Y., Mitsuda, D., Kato, N., Nakagawa, Y., ... & Mimura, M. (2018). Web-based cognitive behavioral therapy blended with face-to-face sessions for major depression: randomized controlled trial. *Journal of medical Internet research*, 20(9), e10743. doi: 10.2196/10743.
- Nwimo, I. O., & Onwunaka, C. (2015). Stress among Secondary School Teachers in Ebonyi State, Nigeria: Suggested Interventions in the Worksite Milieu. *Journal of Education and Practice*, 6(26), 93-100.
- Nwokeoma, B. N., Ede, M. O., Nwosu, N., Ikechukwu-Illomuanya, A., Ogba, F. N., Ugwoezuonu, A. U., ... & Nnamani, O. (2019). Impact of rational emotive occupational health coaching on workrelated stress management among staff of Nigeria police force. *Medicine*, 98(37). doi: 10.1097/MD.0000000000001672
- Obiweluo, P. E., Dike, I. C., Ogba, F. N., Elom, C. O., Orabueze, F. O., Okoye-Ugwu, S., ... & Onyishi, C. N. (2021). Stress in teachers of children with neuro-developmental disorders: Effect of blended rational emotive behavioral therapy. *Science Progress*, 104(4), 003685042111050278.
- Oduyemi, A. Y., Okafor, I. P., Eze, U. T., Akodu, B. A., & Roberts, A. A. (2021). Internalization of stigma among parents of children with autism spectrum disorder in Nigeria: a mixed method study. *BMC psychology*, 9(1), 1-12.
- Oei, T. P. S., & Shuttlewood, G. J. (1999). Development of a satisfaction with therapy and therapist scale. *Australian and New Zealand Journal of Psychiatry*, 33, 748-753.
- Ogba, F. N., Onyishi, C. N., Victor-Aigbodion, V., Abada, I. M., Eze, U. N., Obiweluo, P. E., ... & Onwu, A. O. (2020). Managing job stress in teachers of children with autism: A rational emotive occupational health coaching control trial. *Medicine*, 99(36). doi: 10.1097/MD.00000000000021651
- Ogbuanya, T. C., Eseadi, C., Orji, C. T., Ede, M. O., Ohanu, I. B., & Bakare, J. (2017). Effects of rational emotive occupational health therapy intervention on the perceptions of organizational climate and occupational risk management practices among electronics technology employees in Nigeria. *Medicine*, 96(18). doi: 10.1097/MD.0000000000006765.
- Ogbuanya, T.C., Eseadi, C., Orji, C.T., Anyanwu, J.I., Joachim, O.C. & Otu, M.S., (2018). The effect of rational emotive behavior therapy on irrational career beliefs of students of electrical electronics and other engineering trades in technical colleges in Nigeria. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 36(3), pp.201-219.
- Okeke, F. C., Onyishi, C. N., Nwankwor, P. P., & Ekwueme, S. C. (2021). A blended rational emotive occupational health coaching for job-stress among teachers of children with special education needs. *Internet Interventions*, 26, 100482.
- Okwaraji, F. E., & Aguwa, E. N. (2015). Burnout, psychological distress and job satisfaction among secondary school teachers in Enugu, southeast Nigeria. *J Psychiatry*, 18(1), 237-45. DOI: 10.4172/2378-5756.1000198.
- Onuigbo, L.N., Eseadi, C., Ugwoke, S.C., Nwobi, A.U., Anyanwu, J.I., Okeke, F.C., Agu, P.U., Oboegbulem, A.I., Chinweuba, N.H., Agundu, U.V. and Ololo, K.O., (2018). Effect of rational emotive behavior therapy on stress management and irrational beliefs of special education teachers in Nigerian elementary schools. *Medicine*, 97(37).
- Onyishi, C. N., Ede, M. O., Ossai, O. V., & Ugwuanyi, C. S. (2020). Rational Emotive Occupational Health Coaching in the Management of Police Subjective Well-Being and Work Ability: a Case of Repeated Measures. *Journal of Police and Criminal Psychology*, 1-16.
- Onyishi, C. N., Ede, M. O., Ossai, O. V., & Ugwuanyi, C. S. (2021). Rational emotive occupational health coaching in the management of police subjective well-being and work ability: A case of repeated measures. *Journal of Police and Criminal Psychology*, 36(1), 96-111. <https://doi.org/10.1007/s11896-019-09357-y>.
- Papathanasiou, I. V., Tsaras, K., Neroliatsiou, A., & Roupa, A. (2015). Stress: Concepts, theoretical models and nursing interventions. *American Journal of Nursing Science*, 4(2-1), 45-50.
- Pawlett, J. (2017). Removing Barriers to Learning for Children with Autism Spectrum Disorder. *BU Journal of Graduate Studies in Education*, 9(2), 31-36.
- Peltzer, K., Shisana, O., Zuma, K., Van Wyk, B., & Zungu-Dirwayi, N. (2009). Job stress, job satisfaction and stress-related illnesses among South African educators. *Stress and Health: Journal of the International Society for the Investigation of Stress*, 25(3), 247- 257. doi.10.1002/smi.1244
- Poirier, N. & Cappe, É., (2016). Québec and French School Facilities for Students with Autism Spectrum Disorders. *Psychology Bulletin*, (4), pp.267-278.
- Quick J, & Henderson D. (2016). Occupational stress: Preventing suffering, enhancing wellbeing. *International journal of environmental research and public health*.13(5), 459. doi: 10.3390/ijerph13050459
- Rao, J. V., & Chandraiah, K. (2012). Occupational stress, mental health and coping among information technology professionals. *Indian journal of occupational and environmental medicine*, 16(1), 22. doi: 10.4103/0019-5278.99686
-

- Reddy, G.L. & Anuradha, R.V. (2013a). Occupational stress of higher secondary teachers working in Vellore District. *International Journal of Educational Planning and Administration*, 3(1), 9-24
- Richards, D., & Richardson, T. (2012). Computer-based psychological treatments for depression: a systematic review and meta-analysis. *Clinical psychology review*, 32(4), 329-342.
- Romijn G, Riper H, Kok R, Donker T, Goorden M, Hakkaart van Roijen L, et al. Cost-effectiveness of blended vs. face-to-face cognitive behavioural therapy for severe anxiety disorders: study protocol of a randomized controlled trial (2015). *BMC Psychiatry* doi: 10.1186/s12888-015- 0697-1
- Sidani, S., Epstein, D. R., & Fox, M. (2017). Psychometric evaluation of a multi-dimensional measure of satisfaction with behavioral interventions. *Research in nursing & health*, 40(5), 459-469.
- Simon, N., McGillivray, L., Roberts, N. P., Barawi, K., Lewis, C. E., & Bisson, J. I. (2019). Acceptability of internet-based cognitive behavioural therapy (i-CBT) for post-traumatic stress disorder (PTSD): a systematic review. *European journal of psychotraumatology*, 10(1), 1646092. doi:10.1080/20008198.2019.1646092
- Skaalvik, E. M., & Skaalvik, S. (2015). Job satisfaction, stress and coping strategies in the teaching profession: What do teachers say? *International Education Studies*, 8(3), 181–192. <https://doi.org/10.5539/ies.v8n3p181>
- Suleman, Q., Hussain, I., Shehzad, S., Syed, M. A., & Raja, S. A. (2018). Relationship between perceived occupational stress and psychological well-being among secondary school heads in Khyber Pakhtunkhwa, Pakistan. *PloS one*, 13(12), e0208143
- Sumathy V & Sudha, G. (2013). Teachers' stress and type of school: Is there link? *Research Expo International Multidisciplinary Research Journal*, 11(4):23-30.
- Thomas, G. (2017). *How to do your research project: A guide for students*. Sage. Turner, M., Slater, M., & Barker, J. (2014). The season-long effects of rational emotive behavior therapy on the irrational beliefs of professional academy soccer athletes. *International Journal of Sport Psychology*. doi: 10.7352/IJSP
- Ukonu, I.O. & Edeoga, G (2019). Job-Related Stress among Public Junior Secondary School Teachers in Abuja, Nigeria. *International Journal of Human Resource Studies*. 9 (1), 2162-3058. doi:10.5296/ijhrs.v9i1.13589
- Vernmark, K., Hesser, H., Topooco, N., Berger, T., Riper, H., Luuk, L., ... & Andersson, G. (2019). Working alliance as a predictor of change in depression during blended cognitive behaviour therapy. *Cognitive behaviour therapy*, 48(4), 285-299. Doi:10.1080/16506073.2018.1533577
- Warren, J. M. (2010). School counselor system support using mental health interventions. *The New York State School Counseling Association Journal*, 7, 30–39.
- Warren, J. M. (2013). School counselor consultation: Teachers' experiences with rational emotive behavior therapy. *Journal of Rational-Emotive & Cognitive-Behavior Therapy*, 1–15. doi:10.1007/s10942-011-0139-z
- Warren, J. M., & Gerler, E. R. (2013). Effects of cognitive behavioral consultation on irrational and efficacy beliefs of elementary school teachers. *The Professional Counselor*, 3, 6–15. doi:10.15241/jmw.3.1.6
- Warren, J. M., & Hale, R. W. (2016). Fostering Non-Cognitive Development of Underrepresented Students through Rational Emotive Behavior Therapy: Recommendations for School Counselor Practice. *Professional Counselor*, 6(1), 89-106. doi:10.15241/jw.6.1.89
- Wilhelmsen, M., Lillevoll, K., Risor, M.B., Hoifodt, R., Johansen, M.L., Waterloo, K., Eisemann, M., Kolstrup, N., 2013. Motivation to persist with internet-based cognitive behavioural treatment using blended care: a qualitative study. *BMC Psychiatry* 13, 296.
- World Health Organization, WHO, (2020). Occupational health: Stress at the workplace. Retrieved from <https://www.who.int/news-room/questions-and-answers/item/occupational-health-stress-at-the-workplace>
- World Health Organization. (2019). Recommendations on digital interventions for health system strengthening: WHO guideline. In *Recommendations on digital interventions for health system strengthening: WHO guideline* (pp. 150-150).
- World Medical Association (2014). General Assembly of the World Medical Association Declaration of Helsinki: ethical principles for medical research involving human subjects. *The Journal of the American College of Dentists*, 81(3), 14
- Yang, L., Zhao, Y., Wang, Y., Liu, L., Zhang, X., Li, B., & Cui, R. (2015). The effects of psychological stress on depression. *Current neuropharmacology*, 13(4), 494-504.
- Yusuf, F. A., Olufunke, Y. R., & Valentine, M. D. (2015). Causes and impact of stress on teachers' productivity as expressed by primary school teachers in Nigeria. *Creative Education*, 6(18), 1937. doi:10.4236/ce.2015.618199
- Zarafshan, H., Mohammadi, M.R., Ahmadi, F. & Arsalani, A., (2013). Job burnout among Iranian elementary school teachers of students with autism: A comparative study. *Iranian journal of psychiatry*, 8(1), 20