

Management of work stress in science education lecturers' population using rational emotive occupational health coaching: Implication for educational evaluators

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Abstract

Introduction: Nigerian university lecturers face a lot of works in the day-to-day discharge of their responsibilities as academics. This constitutes a lot of stress for them as documented in the literature. However, literature is scarce on how these lecturers manage their work stress. Thus, the researchers explored the efficacy of rational emotive occupational health coaching (REOHC) on the management of work stress among lecturers.

Method: A randomised controlled trial group experimental research design was adopted using a sample size of 84 lecturers in Science Education Departments of the sampled universities. An occupational stress index was used in the gathering of necessary data for the study. The REOHC treatment lasted for 12 weeks after which the participants were posttested and a follow-up measure followed after 3 months of the termination of the treatment. Repeated measures analysis of variance statistical approach was used to analyse the obtained data.

Results: It was revealed that REOHC was significantly ($p < 0.05$) effective in the management of work stress in a population of science education lecturers in Nigeria.

Conclusion: REOHC enables science education lecturers to effectively manage their work stress to maximise their

work outputs. This finding implicates the expertise of Educational Evaluators.

KEYWORDS

management, rational emotive occupational health coaching, science education lecturers, work stress

1 | INTRODUCTION

1.1 | Prevalence and impact of work stress on lecturers

Experience of work stress among university lecturers has been documented over the years (Malik et al., 2017; Darabi et al., 2017). Soetan (2018) found that in a population of lecturers in South Western Nigeria, high-stress level is prevalent. Based on current evidence, the world of education is highly associated with stressful conditions which account for about 60.4% prevalence of work-related stress (Kabito et al., 2020). Most of university lecturers experience a lot of stress as a result of too much usage of technology to solve students' academic problems (Du Plessis, 2019). In recent times, work stress is a major problem for lecturers due to increased job expectations resulting in more workload (Onu et al., 2019). Isa and Palpanadan (2020) found that university factors, social factors, and individual factors constitute sources of work stress to the lecturers.

Besides, literature has documented that lecturers' trying to be effective in the use of information and communication technology tools, experience stress in the process (Poalses & Bezuidenhout, 2018). One of the major causes of lecturer's stress is the poor working environment in some of the universities (Dewe & Cooper, 2005). In line with this, Douglas and Nkporbu (2017) confirmed the stressful nature of the Nigerian working environment. Nwokeoma et al. (2019) found that one of the factors that pose threats to the discharge of duties by Nigerian workers is stress. Lecturers' low level of productivity, poor attendance to work among others are attributed to work stress (Workers of America, 2009 as cited in Ogbuanya et al., 2017b). Buttressing the above point, Dorenkamp and Weiß (2018), Mudrak et al. (2018) found that some of the major causes of work stress among the lecturers are impaired work performance, poor psychological well-being, reduced employee engagement, job dissatisfaction, among others.

Studies have shown that lecturers are exposed to high-level of stress in Australia and New Zealand (Broadbent, 2013), Canada (Catano et al., 2010), United Kingdom (Darabi et al., 2017; Johnson et al., 2019), South Africa (Dhanpat et al., 2019; Poalses & Bezuidenhout, 2018), and Nigeria (Awodele et al., 2015; Jiman et al., 2015; Oyekale, 2015; Odewabi & Ekor, 2016). Ekpenyong and Inyang (2014) as cited in Ogbuanya et al. (2017a) reported that in a population of Nigerian workers, 39.25% experience work-related stress. In line with the above assertion by Ekpenyong and Inyang, Azodo and Ezeja (2013) found that in every ten (10) respondents of Nigerian workers, there is an experience of a high level of work-related stress. Based on the foregoing, the researchers explored the effectiveness of rational emotive occupational health coaching (REOHC) on the management of work stress in a population of Nigerian university lecturers.

1.2 | Rational emotive behaviour therapy/theoretical background

REOHC is a coaching intervention that helps workers to develop adequate and functional skills for managing workplace stress (Onyishi et al., 2021). REOHC intervention program is based on rational emotive behaviour therapy (REBT) which can be implemented either through physical group counselling or using smartphones inform of WhatsApp chat application or any other electronic means (Ogbuanya et al., 2017a). REOHC believes that

positive emotions can be affected by employees' negative cognitive evaluations of workplace climate which leads to poor work output (Ogbuanya et al., 2017a, 2017b). Through REBT psychotherapeutic setting, personality traits that are usually troublesome can be effectively managed (Dempsey et al., 1994 as cited in Diego et al., 2017). For Blau et al. (2006), negative behaviour resulting from particular adverse personality traits can be ameliorated using REBT disputing. REOHC makes use of the ABCDE model of REBT in treating clients with irrational beliefs or mental health problems.

Ellis (1994) believed that people develop irrational beliefs when reacting to preferential goals not being achieved and as a result, the ABCDE model emerged to take care of such issues. According to Ellis (1994), "A" means activating an event or adversity that is responsible for the stress or change in emotion. "B" means belief system which represents the person's cognitive component in reaction to the events. "C" means consequences as a result of an emotional perspective. "D" means disputation which is responsible for challenging the irrational or limited belief. "E" means the effect produced by challenging the self-defeating belief system. Effective use of this model has led to the positive management of irrational beliefs or mental health problems (Onyishi et al., 2021; Ogbuanya et al., 2017a, 2017b).

1.3 | Review of related empirical studies

A lot of empirical studies have validated the effectiveness of counselling therapies in the management of work-related stress among workers in different fields of work. Eseadi et al. (2016) found that the participants exposed to cognitive restructuring treatment conditions had a significant reduction in irrational thoughts. Ogbuanya et al. (2017a) revealed that rational emotive behaviour coaching significantly reduced occupational stress experienced by the electronics workshop instructors. Eseadi et al. (2017) indicated that rational emotive cognitive behaviour coaching (RECBC) treatment significantly reduced participants' feelings of depression. Ogbuanya et al. (2018) found that rational emotive behaviour therapy intervention led to a significant reduction of participants' irrational career beliefs. A significant reduction in the level of burnout among undergraduate students was found after their exposure to the group-focused form of rational emotive behaviour coaching (Ezenwaji et al., 2019). Nwokeoma et al. (2019) revealed that REOHC significantly reduced work-related stress in a sample of the Nigerian Police Force. Onyishi et al. (2021) found that REOHC had a significant effect on the management of subjective well-being among police officers who work under stressful conditions. The rational emotive occupational intervention had a significant effect on the reduction of the negative work value of primary school teachers in Nigerian (Abiogu et al., 2021). FEAR-Model of Cognitive Behavioural Therapy was found to be significant in the reduction of stress in a population of public university undergraduate students in Nigeria (Agah et al., 2021).

The foregoing indicated that REBT is effective in the reduction of irrational beliefs among workers and students. Among the studies reviewed, only Nwokeoma et al. (2019) determined the effect of REOHC on the management of work-related stress management among the staff of the Nigerian Police Force, and the subjective well-being of Nigerian police officers who work under chronic stressful conditions (Onyishi et al., 2021). Just like the Nigerian police officers, lecturers of science education in Nigerian universities work under stressful conditions. This by implication indicates that the lecturers will continue to work in their various universities under stressful conditions without knowing how to manage the situation if not exposed to REBT intervention like REOHC. Science education lecturers in South East Nigerian universities are saddled with the responsibilities of teaching, marking, invigilating examinations, supervision of undergraduate, postgraduate students' project and thesis, attending professional conferences, engaging in academic publications among others. There is no doubt that these various responsibilities do not mar the effectiveness of the lecturers in discharging their duties as those responsibilities are sources of stress for them. Thus, university education which is expected to build and prepare students for healthy living in society seems insufficient or unproductive due to the inability of the lecturers to discharge their responsibilities to the maximum as a result of work stress (Uleanya et al., 2019).

However, no study considered the effectiveness of REOHC in the management of work stress among lecturers in Universities in Nigeria. This thus created a gap in the literature in the Nigerian context on whether REOHC can be effective in managing work-related stress among the lecturers. The study, therefore, sought to determine the effect of REOHC on work stress management in a population of science education lecturers in South East Nigerian Universities. It was hypothesised that REOHC would lead to a significant reduction of work stress among the study population.

2 | METHOD

2.1 | Ethical approval

Faculty of Education Ethics Committee on research at the University of Nigeria, Nsukka approved the conduct of this study. Before the commencement of the treatment, the participants were given informed consent forms to read carefully, fill and sign before participating in the intervention program.

2.2 | Design of the study

The researchers adopted a randomized controlled trial (RCT) design. RCT study involves the random assignment of participants to different treatment conditions (William, 2018). Similarly, Ogbuanyia et al. (2017a), (2017b), Nwokeoma et al. (2019), Onyishi et al. (2021), Ugwuanyi et al. (2020a, 2020b, 2020c, 2020d), Ede et al. (2020), Ogba et al. (2020), Okide et al. (2020), Umoke et al. (2020), Agboeze et al. (2020), Omeje et al. (2021) have adopted the design in their recent studies.

2.3 | Participants

A total of 84 lecturers of science education, randomly sampled from the federal universities in Nigeria constituted the sample for the study. The participants were sampled through an advert placed on the selected Academic Staff Union of Universities' WhatsApp groups of the federal universities. The participants were requested to declare their willingness to participate in the study. Eventually, 168 lecturers volunteered to participate. After that, the volunteered lecturers were screened for eligibility to participate based on set criteria: (1) Must be a lecturer in the department of science education lecturer of any of the Federal universities in south west Nigeriam (2) Must manifest signs of stress, (3) must use WhatsApp chat very often. After checking for eligibility, 84 participants were selected. Using a 3.1 version of G-Power, a power of 0.93 yielded an adequate sample size of 84 for this study at a medium effect size of 0.15 and a 5% probability level. According to Faul et al. (2007), a power of 0.93 is considered good enough to determine an adequate sample size (Faul et al., 2007). Finally, 42 of the participants were randomly assigned to the REOHC intervention group while 42 of them were assigned to waitlist control group.

2.4 | Measure

2.4.1 | Occupational stress index

The device which helped in the collection of necessary data for this study was Srivastava and Singh's (1981) occupational stress index (OSI). The 46-item OSI was adopted for the study. This index measures the stress levels of

employees in their working environment. OSI was structured on 5-point response options of—absolutely true rated as 5, almost true rated as 4, partially true rated as 3, almost false rated as 2, and absolutely false rated as 1. The minimum and maximum scores obtainable from the OSI are 46 and 230 with a score below 115 indicating low-stress level, scores between 116 and 161, indicating a moderate level of stress, and a score above 161 indicating a high level of stress. Using the Cronbach alpha method, the internal consistency reliability of OSI items estimated as 0.87.

2.5 | Procedure

Before the commencement of the intervention program, OSI was administered to the volunteered participants. That was done to enable the researchers to select the qualified participants for the study based on set inclusion criteria. This exercise led to the selection of 84 participants for the study.

Thereafter, the participants were assigned to the intervention group and nonintervention group using a simple random sampling technique. The objectives of the research were made very clear to both groups' participants. While the treatment group participants were exposed to REOHC intervention, the control group participants were not exposed to any form of treatment. The REOHC intervention was implemented via WhatsApp online group conference call. For the researchers to maintain the active participation of the participants, incentives in form of money for data bundles were provided to them. The meeting time and day for the intervention program were scheduled for 5–7 pm twice a week (Tuesday and Thursday) for a period of 12 weeks. At every contact of the intervention program, the participants were exposed to REOHC using the ABCDE model for the 12 weeks period. At the end of the treatment, both groups were given the OSI items to respond to as the posttest measure. Thereafter, three months were set aside for a follow-up measure to find out the level of retention of the effect of the REOHC.

2.6 | Intervention

The intervention manual used for this study was adapted from David et al. (2004) and Onyishi et al. (2021) as indicated by Ellis and Grieger (1977). The manual contained the therapeutic strategies for assisting science education lecturers to become their coaches. The training skills that helped in the implementation of this intervention include cognitive, affective, emotive techniques, relaxation training among others.

REBT treatment was focused on the irrational beliefs in which cognitive (i.e., disputation), behavioral and emotive techniques were used to change the target irrational beliefs. The intervention was a 12-week clinical trial of full treatment in which one meeting was held twice a week (Ellis & Grieger, 1977; David et al., 2004). The 12-week treatment period was divided into three phases with weeks 1–4 as phase 1, weeks 5–8 as phase 2, and weeks 9–12 as phase 3.

2.6.1 | Phase 1: Weeks 1–4

The first meeting for the first week was used for introduction, familiarisation, and clarification of the aspects of the intervention with the participants. The issues discussed after the introduction were:

- General intervention conceptualization using an integrative work stress index based on the assessment of previously collected information.
- Building a therapeutical relationship through empathy, collaboration, congruence, unconditional acceptance of participant as a person.

- REBT education and intervention expectations
- Listing of the participants' stress-related problems: The order of components targeted in the intervention process was maintained among participants to ensure that every one of them was carried along. Moreover, the build of a therapeutical relationship started from the first meeting with the participants and the check of its status continues during the whole intervention process.

After the first week, the rest of the remaining three weeks were used to handle each problem from the list based on the ABCDE model of REBT.

2.6.2 | Phase 2: Weeks 5–8

Before the commencement of the actual activities for this phase, the assignments and homeworks given in the previous sessions were shared and discussed among the participants. After that, phase 2 was targeted towards strengthening the participants' rational beliefs and weakening the irrational beliefs by encouraging the participants to see the links between problems, particularly those which are characterized by common irrational beliefs. The coaching at this phase was targeted at de-emphasizing some of the irrational beliefs or experiences of the participants that lead to stressful conditions. In other words, emphasis was on the development of rational self-beliefs that will promote a healthy working environment with less stress. Assignments and homework were given to the participants at the end of each section.

2.6.3 | Phase 3: Weeks 9–12

This last phase comprising of four weeks was used to prepare the participants for the task of becoming their future therapist or coach. Before that, the assignments and homework were given in phase 2 were shared and discussed with the participants. The last part of this phase was used to discuss dependency problems and relapse prevention structure of the first session by:

- Starting to build an emphatic and collaborative therapeutic relationship
- Setting the agenda and providing a rationale for doing so
- Doing a mood check, including objective scores
- Briefly reviewing the presenting problems and obtaining an update
- Identifying problems and setting goals
- Educating the participants about the REBT model
- Eliciting the participants' expectations for therapy
- Educating the participants about her/his disorder and psychotherapy process
- Setting the homework
- Providing a summary and eliciting feedback from the participants.

Similarly, the ABCDE model of REBT has been used by Ogbuanya et al. (2017b), Ogbuanya et al. (2017a), Onyishi et al. (2021).

2.7 | Method of data analysis

For the proper data analysis, the data were screened and cleaned by monitoring errors, standardizing the processes, validating the accuracy, and scrubbing for duplicates before carrying out the actual data Analysis.

Statistically, repeated measures analysis of variance was used to analyse the data. The assumption of the sphericity of the repeated measures analysis of variance was ensured (Mauchly $W = 0.753$, $p = 0.376$). The effect size of the treatment condition was reported using Partial Eta squared (η^2_p) value.

3 | RESULTS

3.1 | Demographic characteristics of the participants

The following demographic characteristics of the participants were considered: gender, age, tribe, university affiliation, and religion.

Table 1 shows that there was no significant difference in the demographic characteristics (gender, age, tribe, university, religion) of the participants, $\chi^2(1) = 0.051$, $p = 0.821$, $\chi^2(2) = 0.234$, $p = 0.889$; $\chi^2(2) = 0.199$, $p = 0.905$; $\chi^2(4) = 0.842$, $p = 0.933$ and $\chi^2(1) = 0.429$, $p = 0.513$.

Table 2 showed that at the pretest stage, the REOHC intervention group had mean work stress rating of ($M = 172.55$, $SD = 9.70$) while that of waitlist control group was ($M = 172.07$, $SD = 9.99$). At the posttest, the REOHC intervention group had mean work stress rating of ($M = 52.16$, $SD = 0.85$) while that of waitlist control group was ($M = 163.88$, $SD = 21.62$). At the follow-up stage, the REOHC intervention group had mean work stress rating of ($M = 51.04$, $SD = 6.92$) while that of the waitlist control group was ($M = 161.02$, $SD = 20.76$) (Figure 1).

TABLE 1 Demographic characteristics of the participants

Demographic characteristics		REOHC intervention group	Waitlist control group	χ^2	p		
Gender	Male	26 (61.9)	27 (64.3)	.0051	0.821		
	Female	16 (38.1)	15 (35.7)				
Age	Below 25	5 (11.9)	6 (14.3)	0.234	0.889		
	25 to 40	18 (42.9)	16 (38.1)				
	>40	19 (45.2)	20 (47.6)				
Tribe University	Igbo	9 (21.4)	8 (19.0)	0.199	0.905		
	Yoruba	15 (35.7)	18 (42.9)				
	Housa	18 (42.9)	16 (38.1)				
	FUNAAB	9 (21.4)	10 (23.8)				
	OAU	10 (23.8)	8 (19.0)				
	ATBU	7 (16.7)	9 (21.4)			0.842	0.933
	ABU	9 (21.4)	7 (16.7)				
FUOYE	7 (16.7)	8 (19.0)					
Religion	Christian	22 (52.4)	19 (45.2)	0.429	0.513		
	Moslem	20 (47.6)	23 (54.8)				

Abbreviations: ATBU, Abubakar Tafawa Balewa University; ABU, Ahmadu Bello University; FUNAAB, Federal University of Agriculture Abeokuta; FUOYE, Federal University Oye-Ekiti; OAU, Obafemi Awolowo University; REOHC, rational emotive occupational health coaching.

TABLE 2 Means, standard deviations, and repeated ANOVA for independent and dependent Variables

Measure	REOHC group (n = 42)		Waitlist group (n = 42)		rmANOVA				
	M	SD	M	SD	Effect	F-ratio	df	η_p^2	95% CI
Time 1	172.55	9.33	172.07	9.99	G	527.982*	1, 82	0.866	(-4.10, 4.29)
Time 2	52.16	4.85	163.88	21.62	T	1549.89*	2, 164	0.950	(-85.51, -71.91)
Time 3	51.04	6.92	161.02	20.76	G x T	349.70*	2, 164	0.810	(-85.69, -72.25)

Abbreviations: ANOVA, analysis of variance; CI, confidence interval; G, group; G x T, group by time interaction; M, mean; OSI, occupational stress index; T, time.

* $p < 0.05$.

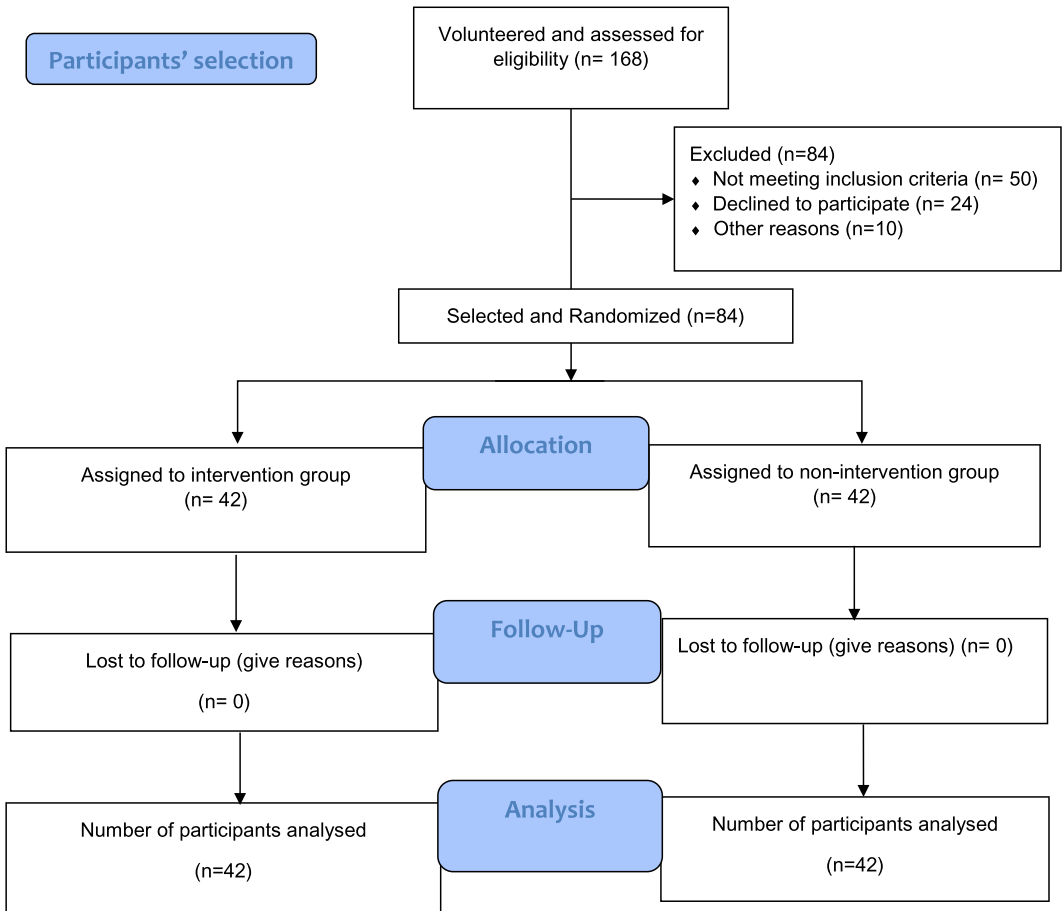


FIGURE 1 Flow diagram of the sampled participants

Table 2 revealed that there was a significant group difference in the participants' mean work stress after the treatment, $F(1, 82) = 527.982, p \leq 0.050, \eta^2 = 0.866$. It was also revealed that there was significant difference in the mean work stress of the participants across the three-time measures, $F(2, 164) = 1549.89, p \leq 0.050, \eta^2 = 0.950$. See Table 3 for the post hoc pairwise comparison for the significant difference across the time measures. The interaction effect of group and time was significant, $F(2, 164) = 349.70, p \leq 0.050, \eta^2 = 0.810$ see Figure 2.

TABLE 3 Post hoc pairwise comparisons for the significant difference across the three times

(I) Time	(J) Time	Mean difference (I-J)	95% CI
1	2	82.595*	(70.922, 94.268)
	3	83.583*	(71.862, 95.305)
2	1	-82.595*	(-94.268, -70.922)
	3	0.988	(-257, 2.233)
3	1	-83.583*	(-95.305, -71.862)
	2	-0.988	(-2.233, 0.257)

Abbreviation: CI, confidence interval.

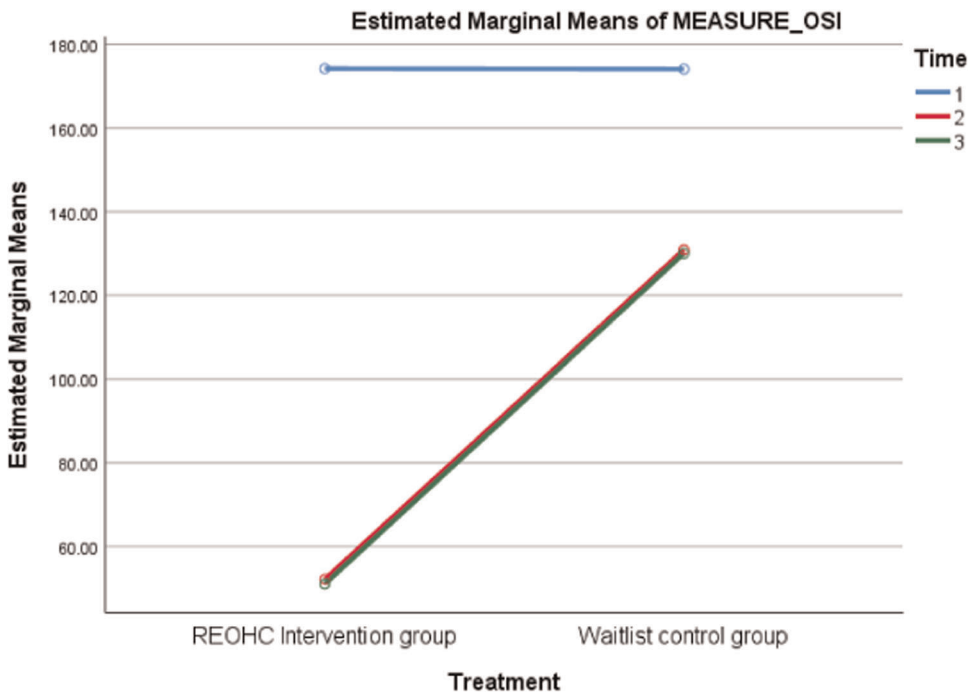


FIGURE 2 Nature of the interaction graph of group and time

3.1.1 | Analysis of possible moderators

In this study, the researchers carried out the analysis of the possible moderators to ascertain if the variables moderated the effectiveness of REOHC in the management of work stress in a population of Nigerian university lecturers.

Table 4 revealed that tribe, age, gender, university and religious affiliations of the lecturers had no significant moderating effect on the effectiveness of REOHC in the management of work stress, $t = .8203, p = 0.4154$; $t = 0.7887, p = 0.4335$; $t = -0.2703, p = 0.7879$; $t = 1.0350, p = 0.3050$, and $t = -1.4731, p = 0.1461$. Similarly, the interaction effects of the treatment and each of the moderator variables were not statistically significant, $t = -1.3378, p = 0.1862$; $t = -1.1428, p = 0.2578$; $t = 0.2531, p = 0.8011$; $t = -1.7883, p = 0.0789$, and $t = 1.9772,$

TABLE 4 Regression analysis of the possible moderators

Variable	Coefficient	SE	t	p	LLCI	ULCI
Constant	-30.8702	34.2225	-0.9020	0.3708	-99.3743	37.6340
Treatment	97.0968	8.3184	11.6726	0.0000	80.4456	113.7479
Tribe	5.5446	6.7593	0.8203	0.4154	-7.9856	19.0749
Int_1	-5.8227	4.3523	-1.3378	0.1862	-14.5349	2.8896
Age	9.4561	11.9896	0.7887	0.4335	-14.5437	33.4560
Int_1	-9.2867	8.1265	-1.1428	0.2578	-25.5539	6.9804
Gender	-3.0444	11.2627	-0.2703	0.7879	-25.5892	19.5005
Int_1	1.8106	7.1526	0.2531	0.8011	-12.5069	16.1281
University	3.7221	3.5962	1.0350	0.3050	-3.4764	10.9206
Int_1	-3.9438	2.2053	-1.7883	0.0789	-8.3583	0.4706
Religion	-18.3439	12.4526	-1.4731	0.1461	-43.2706	6.5829
Int_1	17.5157	8.8590	1.9772	0.0528	-.2176	35.2491

Abbreviations: LLCI, lower limit confidence interval; ULCI, upper limit confidence interval.

$p = 0.0528$. This implies that the use of REOHC in the management of work stress favoured all the lecturers who participated in the intervention program irrespective of their tribe, age, gender, university, and religious affiliations.

4 | DISCUSSION OF THE FINDINGS

This study sought the effect of REOHC on the management of work stress among science education lecturers in Nigerian Universities. The findings of the study revealed that the groups did not differ significantly at the baseline measure, but the non-intervention group did not change over time in their management of work stress. However, the mean stress ratings of the intervention group decreased significantly over time, indicating the effectiveness of REOHC in the management of work stress among science education lecturers. The findings also showed that the use of REOHC in the management of work stress favoured all the lecturers who participated in the intervention program irrespective of their tribe, age, gender, university, and religious affiliations. These findings go to explain the engaging nature of the REOHC intervention program. The intervention program has the inherent ability to managing the client's irrational thoughts or believes to produce a positive outcome and that has been empirically proven by this study. The study findings validated the argument by the REBT specialists that irrational beliefs can be treated using REOHC (Onyishi et al., 2021). Mehrnaz (2015), Sanjuán et al. (2011) found that the use of cognitive behavioural therapy led to a significant reduction in the negative affect of subjects and an increase in life satisfaction and positive affect. David et al. (2016), Neenan (2008) indicated that stress resilience and performance are enhanced by the use of coaching intervention. Buttressing the above points are the findings of Eseadi et al. (2016), Ogbuanya et al. (2017a, 2017), Eseadi et al. (2017), Ogbuanya et al. (2018), Ezenwaji et al. (2019), Nwokeoma et al. (2019), and Onyishi et al. (2021).

The cognitive restructuring intervention programme significantly reduced participants' irrational thoughts (Eseadi et al., 2016). Ogbuanya et al. (2017a) found that REOHC significantly enhanced university employees' perceptions of occupational risk management. Ogbuanya et al. (2017b) also found that there was a significant reduction in occupational stress of the participants as a result of REBC treatment intervention. Eseadi et al. (2017)

found that RECBC intervention had a significant decrease in the participants' depression. Onuigbo et al. (2018) found that the use of the REBT approach had a significant effect on the management of stress at the workplace.

Ogbuanya et al. (2018) found that irrational career beliefs of the participants decreased significantly after exposure to rational emotive behaviour therapy. Ezenwaji et al. (2019) indicated that group-focused rational emotive behaviour coaching significantly led to a drastic reduction in the level of burnout symptoms among undergraduate students. Nwokeoma et al. (2019) revealed that work-related stress management among the staff of the Nigerian Police Force significantly increased after being exposed to the REOHC program. Onyishi et al. (2021) found that REOHC had a significant effect on subjective well-being management among police officers who work under stressful conditions in Nigeria. The rational emotive occupational intervention had a significant effect on the reduction of the negative work value of primary school teachers in Nigerian (Abiogu et al., 2021). FEAR-Model of Cognitive Behavioural Therapy was found to be significant in the reduction of stress in a population of public university undergraduate students in Nigeria (Agah et al., 2021).

The findings of this study have implications on the work efficiency of the science education lecturers. This by implication indicates that the lecturers will continue to work in their various universities under stressful conditions without knowing how to manage the situation in the absence of the REOHC intervention program. According to Du Plessis (2019), academics in higher institutes and universities depend mainly on technology to remain employable and attend to students' demands. Consequently, Poalses and Bezuidenhout (2018) opined that the lecturers in an attempt to keep up with information and communication technology experience stress in the higher education environment. Thus, adequate use of the intervention program in the various Nigerian universities from time to time to counsel the lecturers will help them to increase their work output with less stress. The findings of this study implicate the expertise of Educational Evaluators. This means that, the Educational Evaluators need to come up with the best valued judgement based on the findings of this study to enhance the management of work stress among science education lecturers and other related academics in the field.

4.1 | Limitations of the findings

Some factors may have limited the generalizability of the findings of this study. One of the major limitations of the findings of this study is the poor browsing network encountered during the implementation of the intervention via WhatsApp medium. Such an ugly occurrence led to obstructions in the delivery of the contents of the intervention. However, the researchers made several efforts to mitigate the negative impact of such conditions on the target of the research. That notwithstanding, the researchers recommended the replication of this study using a face-to-face medium of intervention rather than the WhatsApp medium.

5 | CONCLUSION AND STRENGTH OF THE STUDY

This study has shown that REOHC is very effective in the management of work stress among science education lecturers in Nigerian universities. The outcome of this study has a major contribution in the area of science education giving the reason that no such study in the Nigerian context except it has proved the effectiveness of REOHC in the management of work stress among science education university lecturers. Therefore, the researchers recommended that the relevant university authorities should be sensitised through seminars and workshops on the effectiveness of REOHC in the management of work stress among science education lecturers. This will help in the proper counselling of the lecturers using the REOHC intervention program.

ACKNOWLEDGMENTS

The researchers appreciate all the research participants for their cooperation throughout the intervention.

CONFLICT OF INTERESTS

The authors declare that there are no conflict of interests.

AUTHORS CONTRIBUTIONS

Christian S. Ugwuanyi, Chinedu I. O. Okeke, and Uchechukwu H. Ekwueme completed Conceptualization, data curation, funding acquisition, investigation, project administration, resources, supervision, and writing–original draft. Christian S. Ugwuanyi and Chinedu I. O. Okeke finished methodology, visualization. Christian S. Ugwuanyi provided software.

PEER REVIEW

The peer review history for this article is available at <https://publons.com/publon/10.1002/jcop.22667>

DATA AVAILABILITY STATEMENT

The data are at the custody of the corresponding author. The data for this study are at the custody of the corresponding author and can be made available on request.

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How to cite this article: Ugwuanyi, C. S., Okeke, C. I. O., & Ekwueme, U. H. (2021). Management of work stress in science education lecturers' population using rational emotive occupational health coaching: Implication for educational evaluators. *Journal of Community Psychology*, 1–15. <https://doi.org/10.1002/jcop.22667>