

Gender-Based Effects of Rational-Emotive Health Education Programme on Burnout among Caregivers of Children with Developmental Disabilities in Enugu State

*Blessing Onyebuchi Asogwa, Charles Chima Igbokwe, Samsom Olaoluwa Agbaje, Uchenna Cosmas Ugwu, Fedinand Uzochukwu Agu and Tochi Emmanuel Iwuagwu

Department of Human Kinetics and Health Education, Faculty of Education, University of Nigeria, Nsukka, Enugu State, Nigeria.

*Correspondence: E-mail: asogwablessing45@gmail.com; Tel: +2348038943770.

Abstract

Burnout is a serious health problem resulting from adverse reaction to prolonged stress in workplaces. The study investigated gender-based significant effects of rational-emotive health education programme on burnout among caregivers of children with developmental disabilities in Enugu State. The study adopted a quasi-experimental research design on a population of 602 caregivers of children with developmental disabilities in 31 registered special needs nursery and primary schools in Enugu State. A total of 120 participants were studied. The Maslach Burnout Inventory-Human Services Survey (MBI-HS) with reliability index of MBI-HSS=0.85 was used for data collection. Mean, standard deviation and ANCOVA were used for all the statistical analysis. The study found that caregivers exposed to REHEP had a reduced mean burnout score in post-intervention than those in the control group. Also, both male and female caregivers had reduced burnout level in the experimental group when compared with their counterparts in the control group. Statistically, significant difference existed on the mean burnout scores of male and female caregivers exposed to REHEP. Statistically, significant difference existed between the mean male and female burnout scores of caregivers who were exposed to REHEP and those not exposed. Since REHEP is significantly effective in reducing and managing burnout among caregivers particularly in the educational sector, other employers of labour should adopt the programme as a reliable psychosocial tool in reducing the burnout levels of their employees for improved productivity, job performance and quality of service delivery in the workplace.

Keywords: Burnout, Rational-emotive health education programme, Significant effect, Developmental disabilities, Caregivers, Quasi-experimental research design

Introduction

Burnout is a serious health problem resulting from adverse reaction to prolonged stress in workplaces and it represents the major health hazard experienced by workers in both developed and developing countries of the world (New York State Public Employees Federation, 2015). It is a complex symptom of primarily exhaustion, in response to prolonged emotional and interpersonal stress at work, leading to depersonalization (Maslach & Jackson, 2010). Numerous

cases of burnout in workplaces had been variously reported. For instance, in Great Britain, there is evidence of unprecedented increase in occupational-induced-burnout among workers ranging from 488,000 cases in 2017 to 595,000 cases in 2018 (World Health Organization [WHO], 2019). In African, an estimated 93.4 per cent cases of occupational-induced-burnout was recorded (National Health Service [NHS], 2018). Specifically in Nigeria, caregivers are considered the most vulnerable group to high level of burnout due to the reported increase in the number of children with developmental disabilities (Adeyokunnu, 2018). The scenario according to Adeyokunnu, becomes more critical in Enugu State, where statistics has indicated that 3 in every 1,000 live births are victims of developmental disability (such as: autism spectrum disorder, cerebral palsy, intellectual disability, hearing loss, vision impairment, learning disorder, and Down syndrome).

Developmental disability is condition that emerges during the key developmental periods in childhood which significantly impacts in a person's physical, cognitive, or behavioral health. The condition usually becomes apparent during infancy or childhood and is marked by delayed development or functional limitations especially in learning, language, communication, cognition, behavior, socialization, or mobility (Center for Disease Control and Prevention, 2019). According to the United Nations Children's Fund [UNICEF] (2018), children with developmental disabilities suffer a lot of physical, emotional and developmental burdens more than their counterparts of the same age. The victims also suffer setbacks while learning new skills in every social setting (Dimes, 2018). In order to cope effectively in school settings by the victims of developmental disabilities, the services of caregivers becomes indispensable. A caregiver is a person with the expertise and emotional support skills to provide the required extra help or attention for children with developmental disabilities in the schools (Centre for Disease Control and Prevention [CDC], 2019). These individuals usually experience high level of burnout due to the nature and quality of the services they render. According to Onuigbo et al. (2018), individuals affected by high level of burnout have irrational beliefs about specific, short-term, or more readily identifiable events and thus the need for a viable psychological-based intervention such as the rational emotive health education programme (REHEP).

The REHEP is a psychological-based educational programme specifically designed to alleviate burnout in caregivers of children with developmental disabilities. Several studies had affirmed the significant effects of similar interventions in helping individuals with psychological

distress, burnout, irrational beliefs, and symptoms of burnout syndrome (Ogbuanya et al., 2018; Onyechi et al., 2016; Ugwoke et al., 2017). The main purpose of the study was to investigate the gender-based significant effects of REHEP on burnout among caregivers of children with developmental disabilities in Enugu State. Specifically, the study provided answers to the following research questions: firstly, what is the difference in the mean burnout scores of caregivers of children with developmental disabilities (CWDDs) exposed to REHEP and those not exposed. Secondly, what is the difference in the mean burnout scores of male and female caregivers of children with developmental disabilities (CWDDs) exposed to REHEP and those not exposed. In addition, the study further tested the null hypothesis of no significant difference between the mean burnout scores of male and female caregivers exposed to REHEP and those not exposed.

Materials and Methods

Design and Area of the Study

The study adopted a quasi-experimental research design. The design was deemed appropriate based on the assertion of Cohen, Manion, and Morrison (2011) which stipulated that the design facilitates the investigation of interaction effect of added independent variables (factors, e.g., demographics) on the treatment variable. Also, it is impracticable to have complete randomization in natural settings and thus, the pre-existing groups of caregivers of children with developmental disabilities in the special needs schools in Enugu State were used as both the experimental and control groups. The study was conducted in Enugu State which is one of the 36 states that make up Nigeria. The state is located in the South-East zone of Nigeria with 17 Local Government Areas (LGAs) and six education zones (Enugu, Nsukka, Udi, Agbani, Awgu and Obollo-Afor). The residents of the state are mostly civil servants, traders, farmers and artisans.

Population and Sampling Technique

The population of 602 caregivers of children with developmental disabilities in 31 registered special needs nursery and primary schools in Enugu State were considered (Planning and Statistics Unit, Post Primary School Management Board, Enugu State Office, 2020). Specifically, the study centered on four schools via 1) Vocational Rehabilitation Centre, Emene, Enugu, 2) Special Education Centre, Ogbete Enugu, 3) Therapeutic School Abakpa Enugu, and Centre for Academic and 4) Vocational Training for Special Needs Children, Nsukka for both

the control and experimental groups. A total of 120 participants were sampled and studied. The sample size was derived based on the stipulation by previous researchers that the estimated proportion of caregivers (teachers) of CWDDs who experience work stress and burnout is 50% and the proposed programme may reduce the stress and burnout symptoms by 20 per cent points (Habib, Torpey, Maya, & Ankomach, 2020).

Research Instrument

A standardized instrument titled “Maslach Burnout Inventory-Human Services Survey (MBI-HS, 1996)” with reliability index of MBI-HSS=0.85 was used for data collection. The MBI-HSS is a comprehensive tool, consisting of 22 item statements that measure the three dimensions of burnout (emotional exhaustion, depersonalization and personal accomplishment). Each item was assigned a 7-point scale ranging from never (0 point), a few times a year or less (1 point), once a month or less (2 points), a few times a month (3 points), once a week [4 points], a few times a week (5 points), and every day (6 points). The MBI-HSS is a self administered questionnaire, very reliable, easy to administer, and takes 10 - 15 minutes to fill out.

Statistical Data Analysis

Properly completed copies of the instrument were coded using statistical software (Statistical Package for Social Sciences- SPSS, version 22). Mean scores and standard deviation were used to answer all the research questions while analysis of covariance was used to test the null hypothesis. The interpretation was guided by adopting the recommended scoring criteria as contained in the original manual for MBI-HSS (Maslach et al., 1996).

Results

Table 1: Mean Analysis of Difference in Burnout Scores of Caregivers of CWDDs Exposed to REHEP and those not Exposed (n=117)

Group	N	Dimensions of Burnout	Pre-test		Post-test		
			\bar{X}	SD	\bar{X}	SD	MD/MG
Experimental Group	60	Emotional Exhaustion (EE)	15.4	11.32	9.9	10.9	-5.5
		Depersonalization (DE)	5.20	5.96	4.6	6.61	-0.6
		Personal Accomplishment (PA)	29.0	13.7	36.1	12.1	7.1
Control Group	57	Emotional Exhaustion (EE)	21.9	7.14	23.6	8.54	1.7
		Depersonalization (DE)	12.1	3.91	11.6	4.13	-0.5
		Personal Accomplishment (PA)	21.6	5.60	21.3	7.29	-0.3

Note: SD = standard deviation; MD = mean difference; MG = mean gain; High level of burnout = high scores on EE and DE and Low scores on PA; Low level of burnout = High scores on PA and Low scores on EE and DE.

Source: Maslach et al. (1996)

Results in Table 1 show the mean scores and the corresponding SD values for the effect of REHEP on caregivers' burnout. Specifically, the mean gain/difference scores of -5.5, -0.6, 7.1, for EE, DE, and PA (cluster MD=0.9) respectively in the experimental group and 1.7, -0.5 and -0.3 for EE, DE and PA (cluster MD=1.0) respectively in the control group indicated that caregivers in the experimental group had reduced level of burnout than those in the control group.

Table 2: Mean Analysis of Difference in Burnout Scores of Male and Female Caregivers of CWDDs Exposed to REHEP and those not Exposed (n=117)

Group	Gender	N	Dimensions of Burnout	Pre-test		Post-test		MD/MG
				\bar{X}	SD	\bar{X}	SD	
Experimental Group	Male	9	Emotional Exhaustion (EE)	17.1	10.2	17.6	11.86	0.5
			Depersonalization (DE)	2.30	1.58	8.30	5.34	6.0
			Personal Accomplishment (PA)	21.9	18.01	25.2	12.78	3.3
	Female	51	Emotional Exhaustion (EE)	15.1	10.16	8.5	10.22	-6.6
			Depersonalization (DE)	5.6	4.07	4.0	2.12	-1.6
			Personal Accomplishment (PA)	30.2	12.57	38.0	11.04	7.8
Control Group	Male	30	Emotional Exhaustion (EE)	22.8	6.01	25.0	8.74	2.2
			Depersonalization (DE)	12.5	3.66	12.2	3.52	-0.3
			Personal Accomplishment (PA)	22.5	6.38	23.2	7.58	0.7
	Female	27	Emotional Exhaustion (EE)	21.0	8.25	22.1	8.22	1.1
			Depersonalization (DE)	11.6	4.18	11.0	4.70	-0.6
			Personal Accomplishment (PA)	20.7	4.54	19.1	6.42	-1.6

Note: SD = standard deviation; MD = mean difference; MG = mean gain; High level of burnout = high scores on EE and DE and Low scores on PA; Low level of burnout = High scores on PA and Low scores on EE and DE.

Results in Table 2 show the mean burnout scores of male and female caregivers of CWDDs exposed to REHEP and those not exposed and the corresponding SD values. Specifically, the mean gain/difference scores of 0.5, 6.0, -13.3, for EE, DE, and PA respectively for male caregivers and -6.6, -1.6, 7.8, for EE, DE, and PA respectively for female caregivers in the experimental group, and 2.2, -0.3 and 0.7 for EE, DE and PA respectively for male caregivers, and 1.1, -0.59, -1.6 for EE, DE, and PA respectively for female caregivers in the control group indicated that male and female caregivers in the experimental group had reduced level of burnout than those in the control group.

Table 3: Analysis of Covariance (ANCOVA) of Difference between the Mean Burnout Scores of Male and Female Caregivers Exposed to REHEP and those not Exposed

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial eta Square
Corrected Model	47379.065	4	11844.766	52.75	.000	.653
Intercept	34.152	1	34.152	.15	.698	.001
Pretscoreburnout	5356.618	1	5356.618	23.86	.000	.176
Group	5177.005	1	5177.005	23.06	.000	.171
Gender	2502.037	1	2502.037	11.14	.001	.090
Group Gender	2681.616	1	2681.616	11.94	.001	.096
Error	25149.721	112	224.551			
Total	74657.000	117				
Corrected Total	72528.786	116				

a. R Squared = .381 (Adjusted R Squared = .370)

b. Dependent variable: Posttest burnout Score

c. Pretest score CGS = Caregiver Burnout Scores (covariate).

Cohen's Guidelines for Interpretation of Partial Eta Squared (Effect size)

Small Effect size = .01 - .059

Medium Effect size = .06 - .099

Large Effect size = .14 - 1.00

Table 3 showed the result of the one-way between groups ANCOVA conducted to compare the effect of REHEP on male and female caregivers' burnout scores. The treatment comprised of REHEP and dependent variable consisted of the post-test scores of male and female caregivers' burnout administered after the treatment was completed. The mean burnout pretest scores of male and female caregivers were used as a covariate in the analysis. Preliminary checks were conducted to ensure that there was no violation of the assumptions of normality, linearity, homogeneity of variances, regression slopes, and reliable measurement of the covariate. After adjusting for the pre-test scores, there was a significant difference between the mean male and female burnout scores of caregivers who were exposed to REHEP and those not exposed, $F(1,112) = 11.942$, $p = .001$, partial eta squared (η_p^2) = .096. Since the p-value of .001 was less than .05 level of significance, the null hypothesis was rejected. This implies that REHEP was effective in reducing burnout of male and female caregivers. Beside, the partial eta squared (effect size) of .096 showed that REHEP had a small effect on the male and female caregivers' burnout.

Discussion

The main purpose of this study was to investigate the gender-based significant effects of rational-emotive health education programme on burnout among caregivers of children with

developmental disabilities in Enugu State. The findings in Table 1 showed that the caregivers in the experimental group (0.9) had reduced level of burnout than those in the control group. These findings portray the significant effect REHEP reducing burnout of caregivers in Enugu State. The finding is quite encouraging and very much expected. This is because REHEP structurally and constructively designed to eliminate or reduce the emotional and mental health problems including burnout of people with some measures of distress. This finding reflects the positive expectation and further clears assumptions regarding the significant positive effect of well-designed psychological and health education construct in combating occupational-induced burnout among employees. Onuigbo et al. (2018) stated that individuals affected by burnout are different from those with neurotic problems mainly because the stressed individuals have irrational beliefs about specific, short-term, or more readily identifiable events and thus will be properly controlled through the adoption of reliable intervention such as REHEP.

The findings is in accordance with Ogbuanya et al. (2018) who revealed the significant effect of rational-emotive behavior therapy program on the symptoms of burnout syndrome among undergraduate electronics work students in Nigeria. Also, Nnamani et al. (2019) revealed the significant effect of rational-emotive language education in improving communication and social skills of adolescents with autism spectrum disorders in Nigeria reported the significant effect of rational-emotive behavior education intervention (REBEI) on chronic stress and psychological burnout among undergraduate students of tertiary institutions. found that rational-emotive stress management program (RESMP) had significant effect on reducing distress, burnout and psychological disorders among college teachers. In addition, Mugbomanga et al. (2018) reported that rational emotive depressive management intervention program had significant effect on exogenous depression, stress, and burnout among undergraduate students of tertiary institutions with visual impairment.

The findings in Table 2 showed that the male and female caregivers in the experimental group had reduced level of burnout than those in the control group. Also, the findings in Table 3 showed that there was a significant difference between the mean male and female burnout scores of caregivers who were exposed to REHEP and those not exposed. This implies that REHEP was effective in reducing male and female caregivers' burnout level. The above findings demonstrate the significant effect REHEP reducing male and female caregivers' burnout in Enugu State. This is very much expected and quite encouraging as it showcases the significant effect intervention

or programme in reducing the male and female stress level of workers in occupational environment. Also, the finding depicts that REHEP was structurally and constructively designed to reduce burnout of male and female workers in workplaces. This finding could be attributed to the male and female participants' readiness and disposition to eliminate burnout in their occupation. Also, the reduced level of burnout as established in the experimental group may be linked to consistent exposure of the participants to the treatment intervention during the programme.

In line with other findings, Ogbuanya et al. (2018) reported significant effect of rational-emotive behaviour therapy program in reducing symptoms of burnout syndrome among male and female undergraduate electronics work students in Nigeria. Similarly, Gabriel et al. (2018) found that rational-emotive behaviour modification education program had significant effect in managing symptoms of burnout syndrome and distress among male and female university lecturers in Cape Town. The reviewed studies exhibit great similarities with the current study. Hence, they both focused on establishing the interactive effects of a programme or intervention on reducing male and female participants' burnout level. Similarities were also observed in the used of questionnaire for both pretest and posttest measures of the control and intervention groups. Also, the studies were based on the adoption of quasi-experimental research design in establishing significant effects of intervention/programme and gender. It is therefore plausible to attribute the similarities in the findings to the participants' composition and the research design adopted.

Conclusions

The REHEP was significant in reducing burnout level of caregivers in schools. Also, both male and female caregivers had reduced burnout level in the experimental group when compared with their counterparts in the control group. Significant difference existed on the mean burnout scores of male and female caregivers exposed to REHEP. Therefore, REHEP was effective in reducing male and female burnout levels of caregivers. Since REHEP is significantly effective in reducing and managing burnout among caregivers particularly in the educational sector, other employers of labour should adopt the programme as a reliable psychosocial tool in reducing the burnout levels of their employees. This, no doubt, would improve productivity, job performance and quality of service delivery in the workplace. Secondly, the Nigerian government in collaboration with non-governmental organization should mount programmes in schools and

other parastatal focusing on sensitizing the employees on the need to adopt and comply with the valid burnout management mechanisms.

References

- Adeyokunnu, A. A. (2018). The incidence of Down's syndrome in Nigeria. *Journal of Genetic Medicine, 19*(4), 277-279.
- Center for Disease Control and Prevention. (2019). *Developmental Disabilities*. Retrieved August 08, 2020.
- Cohen, L., Manion, L., & Morrison, K. (2011). *Research Method in Education (7th ed.)*. New York: Routhledge Taylor & Francis Group.
- Dimes, M.A. (2018). *Down Syndrome. Florida Department of Health*. University of South Florida.
- Finucane, B. (2019). *Introduction to Special Issue on Developmental Disabilities*. National Society of Genetic Counselors, Inc.
- Gabriel, Z., Jackson, P.E., Lessatte, C.M., & Olivia, B.V. (2018). Effect of rational-emotive behaviour modification education program on the managing symptoms of burnout syndrome and distress among university lecturers in Cape Town. *International Journal of Rational-Emotive Research, 23*(3), 121-130.
- Gbalagha, H.M., Readings, O.A., Ordreeji, L.D., Hanthema, V.S., & Bridget, W. (2017). Effect of rational-emotive behavior education intervention (REBEI) on chronic stress and psychological burnout among undergraduate students of tertiary institutions. *International Journal of Health Psychology, 123*(51), 728-738.
- Habib, H.H., Torpey, K., Maya, E.T., & Ankomah, A. (2020). Promoting respectful maternity care for adolescents in Ghana: a quasi-experimental study protocol. *Reproductive Health, 17*, 129.
- Maslach, C., & Jackson, S.E. (2010). The measurement of burn-out. *Journal of Occupational and Behavioural Science, 23*, 33-51.
- Maslach, C., Jackson, S.E., & Leiter, M.P. (1996). *Maslach Burnout Inventory: Health Services Survey*.
- Mugbomanga, I., Bearsapat, S., Osmond, F.K., Jaspeth, W.G., & Cresdokat, A. (2018). Effect of rational emotive depressive management intervention program on exogenous depression, stress, and burnout among undergraduate students of tertiary institutions with visual impairment. *International Journal of Rational-Emotive Research, 43*(11), 120-128.
- National Health Services (2018). *Moodzone. Tips for Coping with Depression*.
- New York State Public Employees Federation. (2015). *Occupational Stress Factsheet*. New York: PEF Health and Safety Department.
- Nnamani, A., Akabogu, J., Otu, M.S., Uloh-Bethel, A.C., Ukoha, E., Iyekekpolor, O.M. et al. (2019). Using rational-emotive language education to improve communication and social

- skills of adolescents with autism spectrum disorders in Nigeria. *Medicine*, 98(31), e16550.
- Ogbuanya, T.C., Eseadi, C. Orji, C.T., Omeje, J.C., Ihebuzoaju, A.J., Ugwoke, S.C. et al. (2018). Effect of rational-emotive behavior therapy program on the symptoms of burnout syndrome among undergraduate electronics work students in Nigeria. *Psychological Reports*, 122(3), 233-243.
- Onuigbo, L, Eseadi, C., Ebifa, S., Ugwu, C.U., Onyishi, C.N., & Oyeoku, E. (2018a). Effect of rational emotive behavior therapy program on depressive symptoms among university students with blindness in Nigeria. *Journal of Rational-Emotive and Cognitive-Behavior Therapy*, 101(7), 1084-1097.
- Onyechi, K.C., Onuigbo, L.N., Eseadi, C., Ikechukwu-Ilomuanya, A.B., Nwaubani, O.O., Umoke, P.C. et al. (2016). Effects of Rational-Emotive Hospice Care Therapy on Problematic Assumptions, Death Anxiety, and Psychological Distress in a Sample of Cancer Patients and Their Family Caregivers in Nigeria. *International Journal of Environmental Research in Public Health*, 13(9), 929-941.
- Phareess, S.B., Yakasp, O., Laphanthem, F., & Alex, C.M. (2017). A group randomize effects of a rational-emotive stress management program (RESMP) on distress, burnout and psychological disorders among college teachers. *Journal of Rational-Emotive Research and Education*, 2(17), 733-744.
- Planning and Statistics Unit, Post Primary School Management Board, Enugu State Office, (2020). *Recent Data on Primary and Secondary Schools in Enugu State*. PPSMB.
- Ugwoke, S.C., Eseadi, C., Igbokwe, C.C., Chiaha, G.T.U., Nwaubani, O.O., Orji, C.T. et al. (2017). Effects of a rational-emotive health education intervention on stress management and irrational beliefs among technical college teachers in Southeast Nigeria. *Medicine*, 96(31), 1765-1778.
- UNICEF. (2018). *Demographic statistics of developmental disabilities of life births*. Official Report of United Nations Children's Fund.
- Violante, S., Benso, P.G., Gerbaudo, L., & Violante, B. (2009). Correlation between job satisfaction and stress factors, burn-out and psychosocial well-being among nurses working in different healthcare settings. *Guirbake Italiano Di Medicina Del Lavoro Ed Ergonomia*, 31(1), 36-44.
- World Health Organization. (2019). *Occupational Stress, Burnout and Depression*. Media Centre.