

# The Efficacy of Rational Emotive Behaviour Therapy (REBT) in the Management of Stress in Military Personnel

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## **Abstract**

*This study examines the efficacy (effectiveness) of Rational Emotive Behaviour Therapy (REBT) in the management of stress in military personnel. Forty Five (45) out of Sixty (60) military personnel drawn from Army, Navy, and Air Force who obtained high scores on SCL-90 and MSI were randomly placed into experimental, placebo, and control groups consisting of 15 participants each. The pretreatment scores of the three groups were taken. The experimental group received 10 REBT sessions, the placebo group had 10 sessions but only discussed professionalization in the Nigerian military. The control group received no treatment. The results showed that post-treatment scores of the experimental group were lower than their pretreatment scores as that of the placebo and control groups. Using ANOVA to determine the significant difference in the three groups, it was found that the experimental group showed significant differences in all 11 measures. The results were discussed in terms of the efficacy of REBT in the management of stress in military personnel.*

**Keywords:** *Efficacy, Management, Military Stress, Rational Emotive Behaviour Therapy, Military Stress Inventory*

## **Introduction**

The nature of military operations and duties exposes military personnel to a lot of stress. Military stress arises because the military personnel faces multiple, interacting and prolonged traumatic events during wars, peace keeping and peace time. Data collected in a nationwide study of Vietnam veterans revealed that a significant proportion of soldiers who engaged in combat fail to recover from pre-stress levels of functioning and exhibited psychological distress –involving cognitive, affective and physiological disturbances within two decades, following combat participation (Kulka, Schlenger, Fairbanks, Hough,

Jordan and Weiss 1990). Chronic symptoms of Psychological discomfort has been reported among World War II (WWII) combat veterans (Elder & Clipp, 1989; Grinker & Spiegel, 1945) and Korean Conflict (Sulker, Winstead, Galina & Allain, 1991). Furthermore, research has documented anxiety, depression and post traumatic stress disorder (PTSD) in 16-19% of Persian Gulf War troops within the first year of return from war zone duty (Sulker, Uddo, Bailey & Allain 1993).

The American Psychiatric Association has defined military stress as characteristic of a traumatic event that provokes fears,

helplessness or horror in response to a threat or injury or death (APA, 2000).

It has been well established in studies over the years by psychologists that the interpretation and cognitive variables given to events or phenomena determines ones reactions to such events as exposure to prolonged stress (Ellis, 1993b, 1995a; Lazarus, 1966, 1991). Consequently, military personnel who are exposed to prolonged stress such as wars and peace keeping, who eventually develop stress, are more likely to interpret events differently from military personnel who do not develop stress. Therefore, the management of stress must incorporate the approach of handling the belief system which appears to distort the reality of the situation and the inability to cope with stressful events in life.

In combat situation, with the continued threat to injury or death and repeated narrow escapes, a person's ordinary coping methods are relatively useless. Most Soldiers works in small groups such as vehicle crew, platoons or headquarter staff for extended periods of time leading to combat fatigue and combat exhaustion. The longer a soldier is deployed in combat, the more vulnerable and anxious he/she is likely to feel. That this prolonged deployment in combat lowers stress tolerance is exemplified in World War II and beyond, in which men of established bravery exhibited anxiety, depression, tremulousness and impairment of self-confidence and judgment after prolonged combat experience (Wisdom, 1989, Laoye 1996).

From the knowledge available, there have not been many studies in the treatment of stress in the military in our society. Most soldiers on return from combat operations join their different units without any psychological assessment to determine their present psychological state and the effect the operation or any management schedule to

deal with the stress arising from the operation. Osa-Afiana, (2006) using 90 Nigerian Returnee ECOMOG soldiers from the Liberian war found that the Returnee ECOMOG soldiers had significantly higher stress levels than non ECOMOG soldiers.

The aim of this study is to assess the efficacy of Rational Emotive Behaviour Therapy (REBT) in the management of stress in the Nigerian military. It is hypothesized that REBT will be effective in the management of stress in military personnel.

## **METHOD**

### **Participants**

The participants for the study were selected from 450 military participants (age range, 23-66 years mean age, 42, 33 years) from the Army, Navy and Air force. Of this number, 60 were found to manifest high levels of stress based on their scores on MSI and SCL – 90. A total of 30 participants were randomly selected from the 60 and placed into two groups of experimental and control. Each group had 15 participants.

### **Instruments**

Two Instruments the MSI and SCL – 90 were used for assessing stress while four instruments, A-B-C .Sheets, Challenging Questions sheet, Faulty Thinking Pattern Sheet and Changing Beliefs Work Sheet were used for the management phase.

- (a) *Symptom Distress Checklist (SCL90R)* developed by Derogatis, Lipman and Covi (1977) and standardized for the Nigerian population by Erionoso (1996).
- (b) *Military Stress Inventory (MSI)* developed by Osa-Afiana (2015) to measure psychosocial factors associated with stress in the military.

- (c) *A.B.C. Sheet* is a self – help form developed by Austin & Resick (1998) to guide clients on how to sort out thoughts and feelings.
- (d) *Challenging Question sheet* is a list of questions adopted from Beck & Emery (1985) to help clients challenge their maladaptive beliefs.
- (e) *Faulty Thinking patterns sheet* also adopted from Beck & Emery (1985) to Help clients understand how habitual thoughts can cause self defeating behaviours.
- (f) *Challenging Beliefs Worksheet* adopted from Beck and Emery (1985) to help clients replace automatic thought

### **Procedure**

The study in which a two-group pretest-posttest design was employed (Robinson, 1976) consisted of three stages which are; Pre-treatment assessment, treatment and post treatment assessment. The treatment period was for 5 weeks at the rate 2 sessions per week.

### **Pre treatment Assessment Stage.**

The pretreatment phase was conducted on 450 military participants made up 150 Army, 150 Navy and 150 Air force using the MSI and SCL.90. The 60 participants found to have manifested high levels of stress were used as participants in the treatment phase. The study was conducted in Kaduna, Jaji and Minna military establishments. After securing permission to undertake this study within the military, the researcher was introduced by the officer in charge of the unit. They were told how to complete the instruments. Thereafter the test was administered to the participants. The researcher moved around to make sure that the tests were correctly completed.

### **Treatment Stage**

The meeting venue was the mini lecture theater in the Airforce wing in the Command and Staff College, Jaji. The venue was chosen because of its central location adequate lighting and ventilation. The seats were arranged in a semi-circular form to enable the participants have facial contact with one another as well as the researcher. The group agreed to meet two times a week. Each session lasted between 45-50 minutes. Altogether, a total of 10 sessions were conducted within five weeks. The Rational Emotive Behaviour Therapy (REBT) technique was used for the treatment stage. Out of the 60 participants with high scores in the MSI and SCL-90, 30 were randomly selected and placed in the experimental and control groups. The experimental group was treated with Ellis's Rational Emotive Behaviour Therapy (REBT) technique using the group therapy methods. The control group received no treatment but was told to reassemble in five weeks.

### **Post treatment Assessment Stage**

This was done immediately after the 10<sup>th</sup> treatment session. The control joined the experimental group for the post treatment assessment stage. The procedure was the same as that used in the pretreatment assessment phase. The manuals for the instruments were used in scoring the tests.

### **RESULT**

To determine the impact of Rational Emotive Behaviour Therapy (REBT) on stress, the mean and standard deviation of the scores in the pretreatment and post treatment of the two groups were computed. The results are presented in Table I.

**Table 1**

**Pre and Post Treatment Mean Scores and Standard Deviations for the two Groups**

Measures	Experimental n=15				Control n = 15			
	Pretreatment		Post treatment		Pretreatment		Post treatment	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
SCL -90								
A –Somatization	33.60	6.58	7.53	3.85	26.53	6.82	25.86	6.32
B-Obsessive– Compulsive	28.46	6.26	7.40	4.13	25.20	6.14	24.13	6.52
C-Interpersonal Sensitivity	19.40	7.65	4.26	2.73	17.13	2.94	17.26	3.10
D –Depression	31.86	9.14	3.60	2.22	24.00	7.81	23.13	7.06
E –Anxiety	25.60	6.83	2.26	1.98	21.73	6.58	20.86	5.78
F –Hostility	19.00	6.15	2.40	1.76	13.80	2.04	13.00	1.54
G-Phobic Anxiety	13.33	5.02	.73	.79	12.86	4.83	12.73	3.80
H-Paranoid ideation	15.13	5.75	.66	.61	9.06	3.80	9.20	2.85
I-Psychoticism	22.40	8.10	1.40	1.12	19.20	6.14	18.13	5.91
J-Neuroticism	15.40	4.13	1.66	1.18	14.73	3.14	13.93	2.77
MSI-Military Stress Inventory	120.20	15.40	73.40	11.10	107.80	17.47	106.30	16.69

The results show that in the pretreatment phase, the experimental group had the highest mean scores than the control group in all the 11 measures, while in the post treatment phase, the experimental group had the lowest mean score than the control group in all the measures.

To find out if the observed differences in the scores among the groups were significant, analysis of co-variance (ANCOVA) was used to compare the four set of scores for the two groups with the post treatment scores serving as the co-variate set of scores. The result is presented in Table 2.

**Table 2**

**Summary of ANCOVA Applied to the Two Groups**

Measures	Between subjects			
	Sum of Squares	Mean Squares	Error	F
SCL – 90				
A- Somatization	1286.98	643.49	1174.14	22.47*
B- Obsessive – Compulsive	789.52	394.75	927.87	17.44*
C- Interpersonal Sensitivity	72.59	36.30	1128.08	1.32
D- Depression	1376.23	688.12	1528.33	18.50*
E- Anxiety	1390.03	695.01	698.71	40.78*
F- Hostility	554.01	277.01	693.42	16.38*
G – Phobic Anxiety	629.73	314.86	400.21	32.26*
H – Paranoid Ideation	436.36	218.18	729.15	12.77*
I – Psychoticism	1169.50	584.75	1016.02	23.69*
J – Neuroticism	352.83	176.42	339.89	21.29*
MSI-Military Stress Inventory	14606.85	2303.43	4155.19	22.73*

Note \*Significant,  $P < .01$   $df = 1/29$ , Critical  $F = 3.22$ .

The results show that there are significant differences among the groups in 10 measures.

To determine the influence of treatment on the groups, the post treatment scores were subtracted from the pretreatment scores to obtain the gain means scores. A constant was then added to each of the scores in order to remove the negative values that some of the scores had. The result is presented in Table 3.

**Table 3**  
**Means of gain scores for the Two Groups**

Measures	Experiment Group	Control Group
SCL – 90		
A – Somatization	35.40	10.66
B–Obsessive–Compulsive	32.80	11.07
C–Interpersonal sensitivity	25.13	10.00
D – Depression	38.27	10.87
E – Anxiety	32.13	10.87
F – Hostility	26.87	10.47
G – Phobic Anxiety	22.60	10.13
H – Paranoid Ideation	24.47	10.13
I – Psychoticism	31.00	11.20
J – Neurotism	23.80	10.80
MSI–Military Stress Inventory	47.53	11.53

The results show that the experimental group had the highest mean gain scores in all the 11 measures that the control group. To find out if the observed differences in the mean gain scores of the two groups are significant, ANOVA was computed. The result is presented in Table 4.

**Table 4**  
**Summary of ANOVA as Applied to the mean Gain Scores of two groups:**

Measures	Sum of Squares	Mean Squares	F
SCL – 90			
A – Somatization	4745.38	2372.69	78.23
B–Obsessive –Compulsive	4070.58	2035.29	93.87*
C–Interpersonal Sensitivity	1970.98	985.49	33.83*
D – Depression	6044.58	3022.29	80.32*
E – Anxiety	4037.38	2018.69	93.25*
F – Hostility	2345.91	1172.96	78.15*
G – Phobic Anxiety	1281.71	641.36	63.09*
H– Paranoid Ideation	1865.73	932.87	68.61*
I – Psychoticism	3337.20	1668.60	67.21*
J – Neuroticism	1414.44	707.22	85.22*
MSI–Military Stress Inventory	12497.78	6248.89	61.79*

Note\* Significant  $P < .05$  df 2/28, Critical  $f = 3.22$ .

The results in Table 4 show that significant differences occurred in 10 measures.

## Discussion

The study shows that there is a significant effect of the Rational Emotive Behaviour Therapy (REBT) in the following measures “Obsessive Compulsive, Interpersonal Sensitivity, Depression, Anxiety, hostility, Phobic Anxiety, Paranoid Ideation, Psychoticism, Neuroticism and Military Stress Inventory. ANOVA showed that REBT had impact on these measures. At the pretreatment assessment phase, the experimental group was found to have highest mean score in 11 measures than the control group. After management (treatment) which was followed by posttreatment assessment phase, the experimental group was found to have the lowest mean scores in 10 measures indicating that REBT had great effect on the experimental group and therefore effective in reducing stress levels in Nigerian military personnel. It shows that there are significant differences in the adjusted gain scores of the treatment and control groups. This implies that the posttest scores is significantly lower than the pretest scores of the experimental group and control group, suggesting that REBT, which was administered to the treatment group alone, could have accounted for the major difference in the posttest scores of the treatment group. The findings of this study further add to the general literature base underscoring the efficacy of REBT in the management of a variety of psychological disorders. The findings are in consonance with the findings of (Lehrer, 1978; Omoluabi, 1986; Agbu, 2009) in terms of post treatment scores being lower than pretreatment scores.

Result of analysis on the gain scores shows that the experimental group had higher gain scores in 11 measures than the control group. This result validates the efficacy of the treatment given. It also

validates the law of Initial Values (Wilder, 1957) given the fact that the experimental had higher pretreatment scores than the control group in the 11 measures in Table I. The result conclusively confirms that the treatment programme had a great impact on the experimental group and therefore contrary to the view of Eysenck (1953) that improvement in psychotherapy is due to spontaneous remission. This also attests to the efficacy of REBT in the management of stress in the military in addition to other therapeutic method available (Behavioural techniques). It provides more option to psychologist working with military personnel.

Some of the reasons for the differences in addition to the treatment given are, first, the experimental group were committed to the treatment program and worked diligently to overcome their stress realizing that living with the problem could jeopardize their future in the military. They also saw the assessment and treatment helpful since many of them were not aware that they are living with the problem. The other reason for the difference was the involvement, commitment and dedication to therapy sessions which led to successful outcomes and marked improvement. Thirdly, the treatment sessions were compulsory because it was more of a parade and participants were expected to report the outcome of therapy to their commanders and therefore were committed.

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