

## **EFFECTS OF LOGOTHERAPY AND RATIONAL EMOTIVE BEHAVIOR THERAPY (REBT) ON TENDENCY TO RELAPSE AMONG SUBSTANCE ABUSERS**

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### **Abstract**

*The study examined the effects of Logotherapy (LT) and Rational Emotive Behavior Therapy (REBT) on tendency to relapse among substance abusers. Thirty three (33) substance abusers aged between 18 - 50 years, who were in-patients in Neuropsychiatric hospital (NPH), Aro, Ogun State were randomly placed into two experimental and one control group (n = 33). The experimental groups received Logotherapy for 7 treatment sessions and REBT for 10 treatment sessions, 50 min for each sessions per week respectively. All participants were assessed using the 10-Items Relapse Tendency Inventory (RTI) before and after the treatment and the results were analyzed by One-Way MANOVA, and Post Hoc. The results indicated that there were significant differences between the experimental groups (Logotherapy and REBT) and the control group,  $P < .0$ ; both Logotherapy and REBT reduced tendency to relapse. Analysis of the results of Post Hoc showed that Control group had the most tendency to relapse, while Logotherapy had the least tendency to relapse and REBT was also effective in reducing tendency to relapse  $P < .01$ . This study therefore recommends that Logotherapy and REBT can be effective non-pharmacological treatment options for reducing tendency to relapse among substance abusers.*

**Keywords:** *Logotherapy, REBT, Relapse, Substance Abusers*

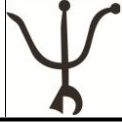
### **Introduction**

Substance abuse is believed to be an important public health challenge in the world today. It has gradually become a cause for concern due to the alarming increase in both number of persons, and kind of substances consumed over the years in Nigeria (Azuike, 2012). Nigeria is currently the highest consumer of cannabis and amphetamines in Africa (Nigerian Epidemiological Network on Drug Use [NENDU], 2011). In a large study

of a representative sample of Nigerian adults, proportions of drug use are found to be alcohol 58%, tobacco 17%, sedatives 14%. 2.4% and 3%, cannabis (Gureje, Degenhardt, Olley, Uwakwe, Udofia, Wakil, Adeyemi, Bohnert, & Anthony, 2007). Report from studies across the globe and Nigeria have revealed trend in psychoactive substances use/abuse to be high (Ebiti & Adamson, 2005).

As a result, so many research efforts have been, and are being made on its prevention and treatment. Although drug therapy as a treatment model for drug addiction has yielded admirable results, yet evidence has shown that this method of treatment alone cannot be relied upon for quick and complete recovery (Collins, Witkiewitz, Kirouac & Marlatt, 2016). It has been reported that a good number of people treated with antipsychotics alone experience relapse. CBT has been shown to be effective in reducing symptoms and relapse. Thus, indicating the need for testing other psychotherapeutic modalities so as to address the public health burden of relapse among substance abusers.

Addictive disease tends to have a high rate of relapse which is usually within the range of 50-90% (Wilfred & Amy, 2005). Because it is chronic, it is usually difficult to break, hence studies have shown that that half of patients treated require multiple episodes of treatment over several years to sustain recovery (Dennis, Foss, & Scott, 2007). Longitudinal studies have also indicated that people reach sustained abstinence only after 3 or 4 episodes of different kind of treatment over a number of years (Dennis, Scott, Funk, & Foss, 2005), and the progress of many patients is marked by cycles of recovery, relapse, and repeated treatments, often spanning many years before eventuating in stable recovery, permanent disability, and or death (Dennis, Scott & Funk, 2003).



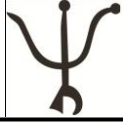
A relapse is a downward spiral into compulsive behavior and addiction. A relapse does not occur suddenly. Drug relapse is the recurrence of any drug habit that has gone into remission or recovery. During the recovery process one may become exposed to certain triggers and other risk factors that increase the risk of returning to substance abuse. Following steps of drug relapse prevention and taking action early can minimize the intensity of a relapse period and can reduce the risk for further hardship from substance abuse. Relapse prevention (RP) is a tertiary intervention strategy for reducing the likelihood and severity of relapse following the cessation or reduction of problematic behaviors (Hanendershot, Witkiewitz, & George, 2011). It therefore becomes imperative that scientific inquiry be instituted to see if this vicious cycle of relapse will be significantly reduced. There is obvious paucity of such research in Nigeria and as a result, there is need to explore these approaches (Logotherapy & REBT) and not depend on drugs alone.

The REBT was developed by Albert Ellis and stated that people engage in such unhealthy behaviors such as addictions because of their irrational beliefs (Ellis, 1993). The initial reason why the individual turns to substance abuse may be guilt, shame, or depression. Once the individual is able to eliminate the irrational beliefs that are driving the alcohol or drug abuse, by developing insight and learning more rational ways of appraising events, it becomes easier for them to give up their maladaptive responses so that they can build healthier and more fulfilling lives (Ellis, 1993). The aim of REBT then is not just to get the individual to stop the destructive behavior, but to eliminate the beliefs, thoughts or philosophy that led them to such behaviors in the first place.

Another treatment paradigm that holds high promise for the treatment of substance abuse is logotherapy. Logotherapy according to Frankl (1970) is based on the observation principle of human beings as a three dimensional entity. These dimensions are the biological/physiological, the psychological/mental, emotional and the noetic/spiritual areas. In the noetic/spiritual dimension, however, lie specifically on human capacities including those for self-discovery, self-detachment, realizing ones uniqueness, making choices, realizing ones responsibility, and capacity for self-transcendence (reaching beyond self toward others/a meaningful task) (Southwick, Gilmartin, Mcdonough & Morrissey, 2006).

Frankl (1970) believed that humankind can choose how to relate to its own situation. If one can find meaning in suffering one can cope better with it (Lukas, 1995). When the drive for meaning is blocked, an "existential void" results, which is liable to generate a "neogenic neurosis" (Frankl, 1967), that is, spiritual distress. This neurosis is not pathological but an existential despair, a desperate struggle to find meaning to life (Frankl, 1967). He argued that, even in the sickest person, there remains a healthy kernel, which is the human spirit, and that even in psychosis Logotherapy can be used to appeal to this healthy core (Guttman, 1999). The logotherapeutic technique enhances four treatment goals: self-distancing from the symptoms; modification of attitudes, reduction of symptoms and a orientation toward meaningful activities and experiences (Asagba & Marshall, 2016).

The effects of REBT on tendency to relapse among substance abusers have been reported by many authors. Ojaga and Funmilola (2015) reported that their study investigated the effects of cognitive behaviour therapy and rational emotive behaviour therapy on drug abuse of senior secondary school students in Ibadan, Nigeria. The study



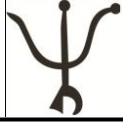
adopted a pretest-posttest, control group Quasi-experimental design. Multi-stage sampling technique was used to select 120 participants from three randomly selected secondary schools in Ibadan. The participants were randomly assigned to treatment and control groups. The two treatment groups were exposed to eight-week training in cognitive behaviour and rational emotive behaviour therapies, while participants in the control group received no training. One validated instrument: School Drug Abuse Rating Scale (DARS) was used and four hypotheses were tested at 0.05 level of significance. Data were analysed using Analysis of Covariance and MCA. The results of the study revealed that there was significant main effect of treatment on the ability of student's to overcome their drug abuse challenges ( $F(3,116) = 6.613, p < .05$ ). Also, the findings indicated that Cognitive Behaviour and Rational Emotive Behaviour Therapies were effective in effecting a behavioural change in students with challenges of drug abuse. Likewise, the result further revealed that there was no significant age difference (younger and older); as well as gender (male and female) on drug abuse among student participants. Also, the three way interaction effect of treatment with age and gender was not significant. The study recommended that school authorities should adopt the two interventions as to effectively manage the challenging issue of drug abuse among secondary school students' in school.

Martin, MacKinnon, Johnson and Rohsenow (2011) examined purpose in life as a predictor of response to a 30-day residential substance use treatment program among 154 participants with cocaine dependence. The result revealed that purpose in life was unrelated to cocaine or alcohol use during the 6 months pretreatment. After controlling for age and depressive symptoms, purpose in life significantly ( $p < .01$ ) predicted

relapse to the use of cocaine and alcohol. The study recommended that increase in life purpose may be an significant aspect of treatment among cocaine dependent patients and increasing of meaning in life for cessation smoking.

Kaminer, Burleson & Goldberger (2002) conducted a larger study comparing 88 adolescents (ages 13–18, with a mean age of 15.4 years) with AOD use disorders, most of whom also had been diagnosed with other psychiatric disorders. The participants received either REBT or psychoeducational therapy in 8 weekly 75 to 90 minute sessions. AOD use outcomes were determined by urine drug screens and scores on the Teen Addiction Severity Index, with follow-up assessments at 3 and 9 months. Again, the investigators had formulated an initial hypothesis that although both groups would show improvements in drug use throughout the follow-up period, adolescents receiving REBT would exhibit better treatment retention and better outcomes at follow-up. Specifically, the researchers reported that although the REBT group showed greater improvements at the 3month follow-up, both groups had similar relapse rates at the 9month follow-up that is, the REBT group exhibited increasing relapse rates over time. At the 3 month follow-up, drug use, as determined by positive urine screens, was significantly lower among older adolescents and males receiving REBT than in the corresponding subgroups in the psychoeducational therapy group. Alcohol use decreased significantly up to the 3 month follow-up, particularly in the psychoeducational therapy group; conversely, other drug use over those 3 months declined more in the REBT group. Improvements in self-reported AOD use were similar in both groups between the 3 month and 9 month follow ups.

Deas, Randall, Roberts and Anton (2000), reported a study in which 10 adolescents (mean age 16.8 years) with alcohol dependence and co-occurring depression were



randomly assigned to 12 weeks of treatment with the antidepressant sertraline or a placebo. In addition, all participants received REBT during those 12 weeks. To determine outcome, quantity and frequency of alcohol use and changes in depression scores were assessed and comparable reductions were found in both groups. The lack of difference between the two groups may result from the fact that both groups received REBT, which has been proven to be effective in the treatment of AOD use disorders. However, the number of participants was so small that differences between the groups may not have become apparent; a larger sample size might have been able to distinguish between the effects of the therapy and any additional medication effects.

### **Theoretical Framework**

This study is anchored on two theories: the Layer theory of Logotherapy and ABCD theory of REBT. The Layer theory which was developed by Frankl in 1946. It stipulates that higher phenomena can be explained on the basis of the laws which apply on lower levels. According to this theory, patients with substance use disorder are suffering from existential vacuum. In existential vacuum, the person feels emptiness; lacks goals, purpose or direction; he or she is prone to apathy and dissatisfied with life. These reported symptoms affect not only youths but also adults; the rich and the poor (Asagba & Ifeaka, 2007).

On the other hand, ABCD theory was developed by Albert Ellis in 1955 to view problems with psychoactive substances as being multi-determined, resulting from an interaction between genetic, familial, and cultural factors with the individual's social learning

history (Ellis, McNerney, DiGiuseppe, & Yeager, 1988). Ellis et al. (1988) postulated that the decision to change and to maintain follow-up action on this decision is a prerequisite to outcome. This decision involves changing self-defeating thinking about discomfort, drinking and to maintaining abstinence involving in the development of higher frustration tolerance.

Layer model (which entails freedom of will, will to meaning and meaning in life) and ABC approach (which involved activating event, beliefs, emotional and behavioral consequences), all play a significant role in human existence in the context of substance abuse. Indeed, rehabilitation is best understood in terms of a combination of Logotherapy and REBT rather than purely usage of psychotropic drugs. This is in contrast to the traditional model usage of chemotherapy and psychotropic drugs.

The study addressed these questions:

1. Will Logotherapy benefit substance abusers with tendency to relapse?
2. Will REBT benefit substance abusers with tendency to relapse?
3. Will Logotherapy and REBT differ in benefitting substance abusers with tendency to relapse?

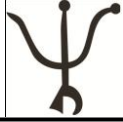
### **Purpose of the Study**

The general purpose of the study is to determine the effects of logotherapy and Rational Emotive Behavior Therapy on tendency to relapse among substance abusers in Neuropsychiatric hospital, Aro, Abeokuta, Ogun State, Nigeria.

### **Hypotheses**

1. There will be a significant difference among substance abusers treated with Logotherapy in tendency to relapse.





2. There will be a significant difference in tendency to relapse among substance abusers treated with REBT.
3. There will be a significant difference in tendency to relapse between substance abusers treated with Logotherapy and REBT.

## **Methods**

### **Participants**

The study was carried out at Neuropsychiatric hospital (NPH), Aro. The target population of this study consisted of substance dependent patients in Neuropsychiatric Hospital (NPH), Aro, Abeokuta. Thirty three (33) participants who were in-patients at Neuropsychiatry hospital, Aro, Abeokuta, Ogun State participated in the study. These participants were under the Drug Addiction Treatment Education and Research (DATER) phases 1 and 2 of the hospital. The age range of these participants were between 18 - 50 years ( $M = 34.50$  and  $S = 5.2$ ), and they have all been diagnosed with substance abuse. Simple Random Sampling (SRS) (Fish-bowl) was used to assign the participants to the various treatment conditions (Logotherapy; REBT and Control group). The participants were thirty one (31) males and two (2) females.

### **Instruments**

Relapse Tendency Inventory (RTI)

This questionnaire was developed by Adebayo & Osinowo (2015), and is a 10 items questionnaire with a statement on a 4-point likert scale with the following response choices: 1= "strongly disagree", 2= "disagree", 3= "agree", 4= "strongly disagree". The

choices indicated the degree to which each respondent tendency is likely to relapse. It is designed to measure relapse tendencies among substance abusers currently undergoing treatment.

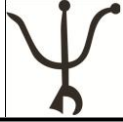
The inventory has three dimensions: Motivation to use, Perceived competency and Disposition to use. The psychometric properties according to Adebayo & Osinowo (2015) were Cronbach's alpha total of 0.83, for the subscales: Motivation to use (.76), Perceived competency (.71) and Disposition to use (.65) and Disposition to use (.65). The inventory has a convergent validity of .49,  $P < .01$  when correlated with Stimulant Risk Scale (SRS). The Cronbach's alpha for this study is .78.

## **Procedure**

The researchers obtained permission from Research Ethics Committee authorities of Neuropsychiatry Hospital (NPH), Aro, Abeokuta to conduct the research. Participants provided informed consent and received no monetary reward for participating in the study. The participants were individually administered the inventories by researchers while the research assistants who were qualified Logotherapist and REBT therapists delivered the therapies. The participants were instructed on how to complete the questionnaires and were encouraged to do so honestly.

The procedure for collecting data was divided and was carried out in three stages as follows:

- Pre-treatment phase.
- Treatment phase.
- Post-treatment phase



After the administration of the pretest, the participants were assigned to two groups through Fishbowl Random Sampling Technique (FRST). This was a simple random technique involving participants picking a folded paper of A, B, C from bowl. Those who pick A were labeled group A (experimental group), those who picked B were labeled group B (experimental group) and those who picked C were labeled group C (control group). In controlling extraneous variables that possibly would have affected the results of the study, the study involved several stages of randomization (fishbowl) of treatment to the experimental group; of Logotherapy, REBT and control group. Also, the Rosenthal effect was controlled by keeping the control group busy with their usual daily routine activities during the experimental sessions.

### **Design and Statistics**

The research was an experimental study. The experiment used a pretest posttest between subject design. Based on the design, One-Way MANCOVA (Multivariate Analysis of Covariance) was used for the analysis.

**Results**

**Table 1: Mean and Standard deviation for pretest and posttest groups on motivation to use drugs, perceived competency and disposition to use drugs**

<b>Psychotherapy</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>N</b>
<b>Motivation to use</b>			
<b>pretest</b>			
Controlgroup	<b>58.09</b>	<b>2.38</b>	<b>11</b>
Logotherapy	<b>56.90</b>	<b>.94</b>	<b>11</b>
REBT	<b>58.18</b>	<b>1.40</b>	<b>11</b>
Total	<b>57.72</b>	<b>1.73</b>	<b>33</b>
<b>Motivation to use posttest</b>			
Controlgroup	<b>29.27</b>	<b>11.42</b>	<b>11</b>
Logotherapy	<b>12.90</b>	<b>1.13</b>	<b>11</b>
REBT	<b>11.18</b>	<b>1.77</b>	<b>11</b>
Total	<b>17.78</b>	<b>10.52</b>	<b>33</b>
<b>Perceived competency</b>			
Controlgroup	<b>34.00</b>	<b>2.52</b>	<b>11</b>
<b>Pretest</b>	<b>34.27</b>	<b>1.79</b>	<b>11</b>
Logotherapy	<b>35.00</b>	<b>1.26</b>	<b>11</b>
REBT	<b>34.42</b>	<b>1.92</b>	<b>33</b>
Total			
<b>Perceived Competency</b>			
Controlgroup	<b>16.72</b>	<b>6.66</b>	<b>11</b>
<b>posttest</b>	<b>9.00</b>	<b>1.09</b>	<b>11</b>
Logotherapy	<b>7.45</b>	<b>1.86</b>	<b>11</b>
REBT	<b>11.06</b>	<b>5.68</b>	<b>33</b>
Total			
<b>Disposition to use</b>			
<b>pretest</b>	<b>23.27</b>	<b>1.00</b>	<b>11</b>
Controlgroup	<b>22.81</b>	<b>.40</b>	<b>11</b>
Logotherapy	<b>23.54</b>	<b>.52</b>	<b>11</b>
REBT	<b>23.21</b>	<b>.73</b>	<b>33</b>
Total			
<b>Disposition to use posttest</b>			
Controlgroup	<b>11.54</b>	<b>4.41</b>	<b>11</b>
Logotherapy	<b>4.45</b>	<b>.52</b>	<b>11</b>
REBT	<b>4.09</b>	<b>.30</b>	<b>11</b>
Total	<b>6.69</b>	<b>4.28</b>	<b>33</b>

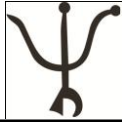


Table 1: Mean and Standard deviation of the dimensions of tendency to relapse (motivation to use, perceived competency, disposition to use) revealed that before administration of Logotherapy and REBT, means for motivation to use were high (56.09, 56.90 and 58.18) respectively while after Logotherapy and REBT, the means became (posttest: 29.27, 11.18 and 12.90 respectively indicating reduction in tendency to relapse.

Also the mean score for control group (Mean = 16.72,) for perceived competency was higher when compared with that of REBT (Mean = 7.45) and Logotherapy (Mean = 9.00).

Finally, disposition to use posttest revealed that Control group (Mean = 11.54) had tendency to relapse, while REBT (Mean = 4.09) reduced more tendency to relapse than Logotherapy (Mean = 4.45).

**Table 2:** MANOVA Summary for pretest and posttest of Logotherapy and REBT on motivation to use, perceived competency and disposition to use

Source	Dependent Variable	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Psychotherapy	Motivation to use pretest	11.09	2	5.54	1.94	.16	.115
	Motivation to use posttest	2192.78	2	1096.39	24.35**	.00	.61
	Perceived competency pretest	5.87	2	2.93	.786	.46	.05
	Perceived competency posttest	542.97	2	271.48	16.59**	.00	.52
	Disposition to use pretest	2.97	2	1.48	3.06	.06	.17
	Disposition to use posttest	388.60	2	194.30	29.38**	.00	.66

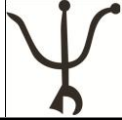
\*\* = P < .01, \* = P < .05

The One-Way MANOVA result on table 2 revealed significant difference between the experimental (logotherapy and REBT) and the Control group on the 3 dimensions (motivation to use posttest ( $F(2,30) = 24.35, P < .01, \text{partial } \eta^2 = .62$ ), perceived competency posttest ( $F(2,30) = 16.59, P < .01, \text{partial } \eta^2 = .525$ ) and disposition to use posttest ( $F(2,30) = 29.38, P < .01, \text{partial } \eta^2 = .662, p < .01$ ).

## **Discussion**

The present study examined the effects of logotherapy and rational emotive behavior therapy (REBT) on tendency to relapse among substance abusers. The first hypothesis which stated that there will be a significant difference between pretest and posttest among substance abusers treated with logotherapy was upheld at  $P < .01$  level of significance. It is notable that logotherapy had a significant difference in substance abusers, it can be deduced by 95% confidence that the group which received logotherapy showed a lesser relapse tendency rate in comparison with the control group. This finding is supported by the finding of (Crumbaugh & Carr, 1979) who reported that data collected from the Purpose (Meaning) in Life (PIL) Test indicated that 25 to 75 percent of people with alcohol problem manifest a major problem of meaninglessness and purposeless in their lives. Martin, Mackinnon, Johnson and Rohsenow (2011) suggested that increasing purpose (Meaning) in life may be an important aspect of treatment among cocaine-dependent patients and increasing of meaning in life for smoking cessation.

The second hypothesis which stated that there will be a significant difference between pretest and posttest among substance abusers treated with REBT was upheld at  $P < .01$  level of significance. This indicates that REBT had significant difference in tendency to



relapse among substance abusers post-treatment. The effectiveness of this therapy can be linked to its combination of both behavioural and cognitive components. The efficacy of REBT involves changing self-defeating thinking about discomfort, drinking and to maintaining abstinence involving in the development of higher frustration tolerance.

The third hypothesis which stated that there will be a significant difference between Logotherapy and REBT among substance abusers was not upheld at  $P < .01$  level of significance. This indicates that both therapies were equally effective in reducing relapse among substance abusers. This finding is supported by the first and second hypothesis and earlier findings. However, mutual comparison of the groups revealed that REBT had some degree of therapeutic advantage over logotherapy among substance abusers though the difference was not significant. This view is supported by the work of Hutchinson and Chapman (2005) in which Logotherapy and REBT were found to be effective in the treatment of alcohol abusers.

Indeed, the results obviously suggested that logotherapy and REBT could be very good non-pharmacological tools in the hands of clinicians in the management of substance abusers.

### **Implications of the Study**

The findings of this study have implications for the patients, clinicians and the society in general. For clinicians, they have evidence to support the use of Logotherapy: it is therefore an additional tool in their hands. For patients/clients, the results provide hope for complete healing and possible enhancement of overall well-being. It is also beneficial to the society since they can confidentially hand in their relations to psychologists for assistance. Finally, this study has added to the wealth of knowledge in

the field of substance abuse, but more importantly to the literature of remedies. Logotherapy has also been proven to be a therapeutic teaching that could be dependable.

### **Recommendations**

Based on the findings of the study, it is recommended mental health professionals, medical personnel's, Non-Governmental Organization and others should employ Logotherapy and REBT in managing substance abuse in Neuropsychiatry hospital, prisons and schools. . Workshops or Seminars should be organized to train and retrain clinicians to become experts on Logotherapy and REBT.

### **Limitations of the Study**

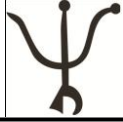
Despite the disclosures attained from the findings of this study, precaution in interpreting the result is justified since there are limitations in the study's findings.

Firstly, the factor that mostly limits the result obtained in this research work was the time that made generalization of result difficult. Furthermore, there is need to increase more Neuropsychiatry hospital in other parts of Nigeria for larger sample size and facilitate research across the country. Finally, the results were very positive; however, because the research involved only Nigerian patients from Yoruba tribe, these findings may not translate to patients of other ethnic group like Igbo, Hausa, Efik and many others in the country due to cultural differences..

### **Conclusion**

The study examined the effects of logotherapy and rational emotive behaviour therapy on tendency to relapse among substance abusers. Three hypotheses were tested. (I) There will be a significant difference between pretest and posttest among substance





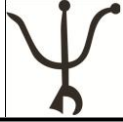
abusers treated with Logotherapy. (II) There will be a significant difference between pretest and posttest among substance abusers treated with REBT. (III) There will be a significant difference between Logotherapy and REBT among substance abusers.

The result revealed that both treatment modalities reduced tendency to relapse among substance abusers. Based on the outcome of the research, the researchers conclude that the study will be useful to those in medical and psychological settings even private persons. This may contribute in better understanding of the treatment of tendency to relapse among substance abusers in Nigeria and all over the world. And also, it will make people understand that Logotherapy and Rational Emotive Behaviour Therapy are not only beneficial to their responsibility and cognitive processes respectively but also to control the psychological state for holistic psychological condition.

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