

## **Effect of Cognitive Restructuring Counselling Therapy on University Undergraduate Students with Post Traumatic Stress Disorder in Bauchi, Nigeria**

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### **Abstract**

*Post-traumatic stress disorder is one of the conditions that affect students' psychological, sociological and overall functioning including of students at the tertiary level. Insecurity issues in Nigeria, particularly, in North East, is a major concern that resulted to different challenges that throw the undergraduate students in to different and ugly traumatic conditions that often leads students to depression, anxiety, low self-esteem, sleepless nights, isolation, confusion, unsecure, fear, unhealthy relationships, among others and even thinking of committing suicide. This scenario constitutes the main interest of this research. The aim of this research therefore, was to ascertain the effects of Cognitive Restructuring Therapy on University undergraduate students with Post-Traumatic Stress Disorder in ATBU Bauchi, Bauchi State, Nigeria. The objectives of the study were to determine the extent to which students suffer from PTSD, how PTSD interferes on students' psychological, sociological and overall functioning and the effect of PTSD based on gender. For the purpose of data collection, PTSD screening scale was used to collect data that was used before and after treatment with Cognitive Restructuring Therapy and its effects on PTSD was assessed. The research design employed in this study was a quasi-experimental design with pre-test post-test method in both the experimental and control groups. A pre-test was administered to both experimental and control groups before the commencement of the treatment. The experimental group received the treatment on Cognitive Restructuring Therapy while the control group was not exposed to treatment. Sixty male and female students of ATBU Bauchi made up the sample for the study that lasted for eight weeks. There were thirty one students in the experimental group and twenty nine students for the control group. The pre-test was administered to both groups and results proved that the participants were similar with high effects of Post-Traumatic Stress Disorder. After treatment, however, post-test was conducted and the effects of Post-Traumatic Stress Disorder of the experimental group showed a drastic reduce than the control group who were not exposed to treatment. Four research*

*questions were raised to guide the study and four hypotheses formulated and tested at  $p < 0.05$  level of significance. The data was collected with the PTSD Screening Scale (PTSDSS) and analysed using Analysis of Covariance (ANCOVA) and descriptive statistics of mean and standard deviation. The findings revealed statistically significant differences between the experimental and control groups, with experimental group showing noticeable reduce of the effects of PTSD than the control group. Based on the findings, it was concluded that Cognitive Restructuring Therapy can reduce effect of Post-Traumatic Stress Disorder and improve students' psychological, sociological and overall functioning among University undergraduate students. And therefore, call on all counsellors, teachers, parents, social workers and general public to utilize the therapy.*

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## **INTRODUCTION**

Post-Traumatic Stress Disorder (PTSD) is one of the conditions that affect students' psychological, sociological and overall development at the tertiary level. As a result of the Post-Traumatic Stress Disorder found among University undergraduate students occasioned by different encounter with issues of life, at different levels of different traumatic situations, ranging from war and conflict, torture, armed robbery, kidnapping, boko haram, Fulani herdsmen killings of innocent souls, serious fatal accidents, plane crash, physical or sexual assault and abuse. Other forms of traumatic experience include childhood or domestic abuse, chronic health challenges, weather related disaster like flood that happens in many parts of Nigeria, ethnicity conflict among others. These ugly trends throw the students into psychological disorders resulting to mental health problems and dysfunction that affects almost every aspect of the students' life and development. Post-Traumatic Stress Disorder (PTSD) also occurs when undergraduate students lose their loved ones, as a result of violence, and bomb explosions that occurred in many vicinities of Nigerian societies, particularly the North-Eastern part of the country. Furthermore, crisis in various places, killing of innocent students by cult members, religious crisis, chieftaincy tussle, insurgency, bullying and public coercion, among others are all sources of traumatic events confronting University undergraduate students which at the end interfere with the students' psychological, physiological and sociological adjustments resulting to some psychological and mental disorders.

Post-Traumatic Stress Disorder is a traumatic incident that continues to affect the students' ability to self-regulation, both physically and emotionally. Koenen and Ratanatharathorn (2017) postulated that, Post-Traumatic Stress Disorder is a common psychiatric condition with lifetime prevalence of 5.6% among individuals exposed to trauma and 3.9% in the general population, estimated to affect about one in every three people who have a traumatic experience. Students with PTSD in most cases have difficulty in life adjustment and are found to demonstrate the following characteristics/behaviour: negative attitude towards life in general, feeling insecure, isolation and withdrawal from social relationships, fear, sadness, disobedience, aggression, depression, irritable and sensitive, difficulty in concentration, lack of interest in school activities, dropping out of school or work, mistrust, helplessness, less communicative and preoccupation with traumatic memories among others. These make the undergraduate students face many challenges in terms of proper and successful development physically, socially and mentally thereby affecting the students' wellbeing. The students normally become unsuccessful in school and life in general if such

conditions affecting the students are not tackled in time using appropriate interventions or counselling therapies.

Some notable efforts have been put in place to address the early cases of PTSD by providing necessary relieve materials such as shelter, food, funds among others by the three tiers of government of Nigeria, in collaboration with donor agencies, Foreign aids organisations and even National and International Non-governmental agencies to the affected persons. However, no intervention has been provided to the students at the university despite the students' experiences at different traumatic events. Unfortunately, interaction with the officials that are responsible for the provision of the relieve materials in the state also revealed that, there was no any notable impact on the victims' cognitive distortions caused by the traumatic event and the provision was not to students but rather the intervention is in general, which happens irrespective of whether the students have develop PTSD or not. This scenario continued to persist because the University students continued to have some evidence of PTSD such as sleepless nights, fear, lack of concentration depression, stress and tension even after provision of the relieve materials.. It does appear that the strategies put in place are ineffective. Thus, the researcher therefore, targeted the university undergraduate students who have witness and were affected by conflict or any traumatic event and provide Cognitive Restructuring counselling Therapy to them, with the aim of ascertaining its effectiveness to ease the students' depression, stress, tension and restoration of normalcy in students especially those with Post-Traumatic Stress Disorder.

According to the National Center for PTSD (2020), Post-Traumatic Stress Disorder is characterized by four main types of symptoms which include (a) re-experiencing the event: (this may consist of upsetting memories, flashback, nightmares, and triggers feelings of distress or intense physical reactions when reminded of the events). The individual is always frightened and having flashbacks of the incident that happened; (b) avoidance: (social situations or situations that remind of the event). Emotional numbness and avoidance of places, people, time and activities that are reminders of the trauma; (c) negative cognitions and feelings about self, others, and/or the world feeling cut off from others and other negative alterations in cognitions (ways of thinking, understanding, learning, and remembering) and mood: which include irritability or outburst of anger, trouble sleeping, difficulty concentration, feeling jumpy and easily startled, and (d) hyper vigilance /arousal: to meet the DSM-5 criteria for PTSD, an individual's symptoms need to have been present for 1 month or longer; cause clinically significant distress or impairment in the person's ability to interact personally or professionally or what is considered their level of normal functioning, and are not due to substance abuse, medication, or other illness.

For students especially the University undergraduate students to act well, develop, be properly adjusted and be useful to themselves and the community which such students comes from, such individuals must be sound physically, socially and mentally. Individuals who have traumatic events and experiences may often have difficulty in concentration, have night terrors, edginess and irritability may find it difficult to respond to conversation and often appear absent minded, and withdrawn even when spoken to. Some characteristics of PTSD also includes fear of the dark or being in a room alone, frequent tardiness or unexcused absences, frequent complaints about attending lectures, excessive worrying about a parent when in school, trouble going to sleep and or having nightmares, constant thoughts concerning the safety of self or others, absences on significant days (tests, speeches, physical education class), frequent

stomachache and other physical complaints such as nausea, vomiting, diarrhea, exhaustion, or headaches that cannot be attributed to a physical ailment.

These PTSD symptoms usually occur within a few weeks of a traumatic event, but may appear for several months or even years in some cases if unattended to. When undergraduate students go through such traumatic situations, the students manifest some symptoms associated with PTSD which may affect the students' psychological, sociological and mental health. These symptoms may disappear within few weeks, but some can experience it for some years, and can interfere with students' overall life. PTSD prevents proper concentration in schools and can impede students from being effective in all levels of education. Students with Post-Traumatic Stress Disorder (PTSD) symptoms may experience significant cognitive impairment which negatively impacts the students' overall functions in life.

These changes in cognitive functioning and other symptoms associated with PTSD certainly contribute to students having unsuccessful development and thus igniting depression, suicide ideation, lack of good interpersonal relationship with others as a result of anger, withdrawn from associating with friends and family, anxiety, stress and school dropout. Traumatic experience can put the Nigerian University students in stressful conditions that can affect the students' behaviour and impede learning. Exposure of students to traumatic events such as killing of their mates, teachers or parents, setting schools ablaze, attacks, abduction, insurgency among others have detrimental consequences on mental and psychological wellbeing and adjustments of the students (Granville, 2020).

Conflict in Nigeria has resulted in the death, displacement, sexual violations, injuries, disabilities among others, of the population affected. The northern part of Nigeria is affected with different traumatic events such as bomb explosions, ethnicity, political and religious conflicts, kidnapping among others. Individuals affected by the traumatic events may present varying mental conditions such as Post-Traumatic Stress Disorder, anxiety disorder, substance misuse, depression, anti-social behaviours, weakness and fatigue among others (Adesina, Adesanya and Olufadewa 2020). In Bauchi metropolis, Bauchi state many students become more expose to traumatic events as they witness religious, political, ethnic clashes, kidnapping, gun shots, bomb blast, and killing of their loved ones among other atrocities. Students experienced emotional disturbance that results to fear, anxiety, shock, feeling insecurity/ unsafe and depression which are symptoms of Post-Traumatic Stress Disorder. Yusuf and Edemenang (2020) confirmed that schools in Bauchi especially Yelwa campus experienced bomb explosion few meters away from their school showed evidence of Post-Traumatic Stress Disorder. (National Center for PTSD 2019). Exposure to traumatic events is associated with Post-Traumatic Stress Disorder which can result in adjustment problems and have more difficulties in mental health, sociological and psychological adjustments.

It appears an undergraduate student with PTSD may feel hopeless, numb, guilty, and ashamed or may even be thinking about suicide. PTSD can happen to anyone regardless of age, ethnicity, culture, nationality or gender. PTSD consist of some stages which include, impact or emergency stage, denial/numbing stage, rescue stage, short-term recovery or intermediate stage, long-term reconstruction or recovery stage. University undergraduate students with Post-Traumatic Stress Disorder may not be able to develop well. Students' overall development is an important aspect of a student's life in the family, the community and the society at large. Every effort put in the school is mainly geared towards the learners' proper development and scholastic standing so that the student can come out better and be good patriotic. The overall development of the students may be altered by the traumatic experiences students encounter in life. Cognitive aspect of an individual is the most important part of the human well-being.

When one is sound cognitively, such an individual function effectively but if deficient then, the wellbeing of the individual is distorted and can affect almost everything that concerns the victim negatively.

Cognitive Restructuring Therapy was developed by psychologist Albert Ellis in the mid-1950s. The therapy has been used successfully to treat a wide variety of conditions, including depression, Post-Traumatic Stress Disorder (PTSD), addictions, anxiety, social phobias, relationship issues, and stress. Cognitive Restructuring Therapy is a structured, goal-directed, and collaborative intervention strategies that focus on the exploration, evaluation, and substitution of the maladaptive thoughts, appraisals, and beliefs that maintain psychological disturbance.

Cognitive Restructuring Therapy can help client consider any maladaptive patterns in thinking-feeling-behaviour cycles. There is significant influence of psychological trauma on students' development as a result of traumatic experience. The purpose of Cognitive Restructuring Therapy is to widen clients' conscious perspective and thus allow room for a change in perception. Part of the practice involves coming up with alternative explanations that are rational and positive to replace the distortions that have been adopted over time. The goal is to equip clients rethink these patterns and consider more adaptive alternatives that will work better for them. Ultimately, the goal is to have the University undergraduate students to recognize that sometimes personal thoughts lead to feelings and actions, which are antisocial and can adversely affect students overall development and other aspects of life. In other words, the essence of Cognitive Restructuring Therapy is to help clients think rationally and logically in spite of the reality of the traumatic event(s).

Some of the benefits of Cognitive Restructuring Therapy include; lowering stress level of victims and alleviating anxiety, replacing unhealthy coping mechanisms like substance use, rebuilding one's self-confidence and self-esteem, strengthening communication skills and build healthier relationships. In any life situation where negative thought patterns develop, psychological, sociological and physiological development is altered and the researcher wants to ascertain the effectiveness of Cognitive Restructuring Therapy whether it can help address and change unhelpful thoughts, to productive ones by coming up with alternative explanations that are rational and positive to replace the distortions that have been adopted over time. The goal is to equip clients rethink these patterns and consider more adaptive alternatives that will work better for them.

#### **STATEMENT OF THE PROBLEM**

Post-Traumatic Stress Disorder among University undergraduates may result to be one of the major obstacles of set-back in terms of students' overall functioning. Insecurity issues in Nigeria, particularly, in North East, where Bauchi State is located are faced with different challenges that throw the undergraduate students in to traumatic conditions that often leads students to depression, anxiety, low self-esteem, sleepless nights, isolation, confusion, unsecure, fear, unhealthy relationships, among others. These insecurity issues include; Boko Haram insurgence, kidnapping, cultism, killing of innocent souls, ethnic, political and religious clashes, flood, terminal illness among others, have made students in the University to face challenges related to post-traumatic stress disorder that might result to unachieved desired goal in academic pursuit and life in general. Evidence of social, emotional and psychological problems plague are seen and experienced among University undergraduate students, particularly those in the study area that are affected by different kinds of traumatic experiences, such as religious crises, political tussle and serious health challenges. Such students experience real aggression, peer cruelty, fighting, killing, threatening, rioting, raping among others. Bomb

explosion which erupted few metres away from the study area, threw many students to depression, fear, and feeling unsecured which in turn affected the undergraduate students negatively. Yusuf and Edemenang (2020) confirmed that schools in Bauchi especially Yelwa campus experienced bomb explosion few meters away from their school showed evidence of Post-Traumatic Stress Disorder. This really affects victims' physiological and psychological stability. This ugly experience threw the University undergraduate students into chaos resulting to mental disorders and obstruction in their set goals and academic pursuits. It is a known fact that fear, anxiety, feeling of insecurity, depression, night mire, and hopelessness are antidotes of overall wellbeing development among students.

Some reasons that have been advanced for the continued insecurity are poverty and injustice. These have the potentials to affect University students' social, economic and psychological functioning. In spite of efforts put in place to address the early treatment of PTSD by providing necessary relieve items/materials such as shelter, food, funds among other by the Federal, State, Local governments, Foreign aids organisations and even Non-governmental agencies, this scenario has continued to persist. It does appear that the strategies put in place are ineffective. The question is, would Cognitive Restructuring Therapy help undergraduate students who have been exposed to different traumatic situations reduce the students Post-Traumatic Stress Disorder and consequently achieve high in school grades and overall development? It is expected that all those admitted into Universities irrespective of mode of entry, gender and location will be able to cope with the University's academic and life challenges.

These affected students need to possess skills of rational and logical thinking in the face of life challenges. Most of the efforts that have been done centred on peace and conflict resolution, internally displaced persons, provision of food, funds and shelter with less emphasis on the cognitive aspect of the students that the trauma event has distorted. Psycho-social services to address Post-Traumatic Stress Disorder of University undergraduate students through Cognitive Restructuring Counselling Therapy appears to be the missing link to help such students cope with inevitable life challenge and excel in life and academic pursuits. The broad question for this study therefore is, what is the effect of Cognitive Restructuring Therapy on Post-Traumatic Stress Disorder among University undergraduate students in Bauchi state, Nigeria? Can this therapy likely give desirable result?

#### **AIM AND OBJECTIVES OF THE STUDY**

The aim of this study is to find out effects of cognitive restructuring counselling therapy on University undergraduate students with post-traumatic stress disorder in Abubakar Tafawa Balewa University (ATBU) Bauchi State, Nigeria. The specific Objective is to:

1. determine the PTSD mean scores of undergraduate students before and after exposure to Cognitive Restructuring Counselling therapy in the experimental group and control group.
2. determine the PTSD interference mean score of the experimental group and control group before and after exposure to Cognitive Restructuring Counselling therapy

#### **RESEARCH QUESTIONS**

The following research questions have been raised to guide the study:

1. What are the pre-test and post-test post-traumatic stress disorder mean scores of undergraduate students in the experimental and control groups?
2. What are the pre-test and post-test post-traumatic stress disorder interference mean scores of the undergraduate students between the experimental group and control group?

## **HYPOTHESES**

The following hypothesis was formulated and tested at 0.05 level of significance:

1. There is no significant difference between the post-test post-traumatic stress disorders mean score of undergraduate students in the experimental group and control group.
2. There is no significant difference between the post-test post-traumatic stress disorder interference mean scores of undergraduate students in the experimental group and control group.

## **METHOD**

This research adopts quasi-experimental research design, specifically the non-equivalent pre-test, post-test design. This design allows for a pre-test before treatment is implemented and the post-test after the treatment has been implemented for experimental group. The population of this study consisted of all the 200 level full-time undergraduate students in Abubakar Tafawa Balewa University Bauchi. Only two (2) Departments in ATBU and one Unit from each Department were used for this study. The two (2) Departments are Department of Vocational Technology and Department of Science Education. The two (2) Units were Business Education Unit of Department of Vocational Technology Education and Agricultural Science Education of the Department of Science Education. The sample for this study was made up of sixty 200 level undergraduate students. There were thirty one (31) students in Business Education Unit of Department of Vocational Technology Education Faculty of Technology Education and twenty nine (29) students from Agricultural Science Education of the Department of Science Education respectively. The total populations in the two (2) Units were sixty (60) students.

One instrument was used for data collection for this research which is Post-Traumatic Stress Disorder PTSD Screening Scale (PTSDSS). The instrument was used for pre-test and post-test to measure the level or stage of Post-Traumatic Stress Disorder of the sample before and after exposure to Cognitive Restructuring Therapy in the experimental and control groups. The Post-Traumatic Stress Disorder Screening Scale is divided into two sections, A and B. Section A consisted of the bio data of the students such as gender, course, and level while section B, consisted of seventeen (17) item with other questions attached that help guide the students in making decision with regards to the scale. The grading system is a 5 point Likert scale. The choice of 5 point Likert scale in this study is informed by the fact that it is used by researchers to measure attitudes, knowledge, perceptions, values, and behavioural changes. A Likert scale involves a series of statements that respondents may choose from in order to rate their responses to evaluative questions. The researcher employed the 5 Likert scale of 1-Never, 2- Rarely, 3-Sometimes, 4- Often, and 5- Always to ascertain the frequency level of the students' responses to traumatic experience. An agreement with item like Never attracts one (0) point, Rarely attracts two (2) points; Sometimes attracts three (3) points; Often attracts four (4) points and Always five (5) points. Respondents were carefully explained how to tick items from those options that best express their minds or feelings. The students without any difficulty were able to tick from options listed ones that best described their feelings. The instrument was administered to the respondents. Both descriptive and inferential statistics were deployed for the data analysis. Thus, mean and standard deviation was used to answer the research questions raised, and the researcher analysis of Covariance (ANCOVA) was used to test the hypotheses formulated at 0.05 level of significance

## RESULTS

### Research Question One

What are the pre-test and post-test post-traumatic stress disorder mean score of University undergraduate students in the experimental group and control group

**Table 1**  
**Results of the Pretest and Posttest Post-Traumatic Stress Disorder Mean Scores between the Experimental and Control Group**

Group	N	Pre-test		Post-test		Mean Gain /Loss	$\bar{x}$ - difference
		Mean	SD	Mean	SD		
Experimental	31	62.48	13.11	28.23	7.73	-34.25	-34.52
Control	29	60.83	13.30	61.10	12.93	0.27	

Table 1 reveals the pre-test and post-test post-traumatic stress disorder mean score of University undergraduate students in the experimental group and control group. In the experimental group the post-test post-traumatic stress disorder mean score was 28.23 and standard deviation of 7.73, lower than the pre-test mean score of 62.48 and standard deviation of 13.11 with a mean loss of -34.25, indicating that, there was reduction in the post-traumatic stress disorder of students after treatment. Also, for the control group the mean score was 60.38 and a standard deviation of 13.30 at the pretest. The post-test mean score of students was 61.10 and a standard deviation of 12.93. The findings show that students in the experimental group had a lower mean score (28.23) after treatment using cognitive restructuring counselling therapy than those in the control group (61.10) who were not given treatment with a mean difference of -34.52. This means that at the pre-test the students in both groups had a high post-traumatic stress disorder, but after the intervention there was a reduction in the post-traumatic stress disorder of the experimental group than the control group. It can be deduced that cognitive restructuring counselling therapy does reduce post-traumatic stress disorder of students.

### Hypothesis One

There is no significant difference between the post-test post-traumatic stress disorder means scores of undergraduate university students in the experimental group and control group.

**Table 2:**

### ANCOVA Results on the Post Test Post-Traumatic Stress Disorder of Undergraduate Students in the Experimental and Control Groups

Source	Type III sum of squares	df	Mean square	F	Sig.	Partial squared	Eta
Corrected model	18173.447 <sup>a</sup>	2	9086.724	115.233	.000	.802	
Intercept	770.726	1	770.726	9.774	.003	.146	
Covariate	1977.373	1	1977.373	25.076	.000	.306	
Treatment	16857.259	1	16857.259	213.775	.000	.789	
Error	4494.736	57	78.855				
Total	139445.000	60					
Corrected total	22668.183	59					



a. R Squared = .802(Adjusted R Squared = .795)

The results of the ANCOVA analysis from Table 2 reveals the post-test mean scores of the post-traumatic stress disorder mean scores of undergraduate students between the experimental and control groups. The results indicates that  $F(1, 57) = 213.78, p < 0.05$ , since the p-value of 0.000 is less than 0.05 level of significance, the null hypothesis is rejected. Hence there is a significant effect of cognitive restructuring counselling therapy on undergraduate students' post-traumatic stress disorder mean scores. The results further reveal an adjusted R squared value of .795 which means that 79.5% of the variation in the dependent variable which is post-traumatic stress disorder is explained by variation in the treatment of cognitive restructuring counselling therapy, while the remaining 20.5% is due to other factors not included in this study. This implies that cognitive restructuring counselling therapy can reduce undergraduate students post-traumatic stress disorder.

**Research Question Two:**

What are the pre-test and post-test post-traumatic stress disorder interference mean scores of undergraduate students between the experimental group and control group.

**Table 3**

**The results of the pre-test and post-test PTSD interference mean scores between the experimental group and control group**

Group	N	Pre-test		Post-test		Mean Gain /Loss	$\bar{x}$ - difference
		Mean	SD	Mean	SD		
Experimental	31	15.23	2.012	6.74	2.05	-8.49	-8.01
Control	29	15.14	1.747	14.66	1.587	-0.48	

Table 3 reveals the pre-test and post-test post-traumatic stress disorder interference means scores of undergraduate students between the experimental and control groups. In the experimental group the post-traumatic stress disorder interference mean score was 6.74 and standard deviation of 1.05, lower than the pre-test mean score of 15.23 and standard deviation of 2.01 with a mean loss of -8.49, indicating that there was reduction in the post-traumatic stress disorder interference of students after treatment. Also, for the control group the mean score was 15.14 and a standard deviation of 1.75 at the pretest. The post-test mean score of students was 14.66 and a standard deviation of 1.59. The findings show that students in the experimental group had a lower mean score (6.74) after treatment using cognitive restructuring counselling therapy than those in the control group (14.66) who were not given treatment with a mean difference of -8.01. This means that at the pre-test the students in both groups had high post-traumatic stress disorder interference, but after the intervention there was a reduction in the post-traumatic stress disorder interference of the experimental group than the control group. It can be deduced that cognitive restructuring counselling therapy does reduce post-traumatic stress disorder interference of students. This implies that cognitive restructuring counselling therapy help to reduce the undergraduate students' post-traumatic stress disorder interference in Abubakar Tafawa Balewa University Bauchi, Bauchi State.

**Hypothesis Two:**

There is no significant difference between the post-test post-traumatic stress disorder interference means scores of undergraduate students in the experimental and control groups.

**Table 4**  
**ANCOVA Results on the Post-test Post-traumatic Stress Disorder Interference of Undergraduate Students' in the Experimental and Control Groups**

Source	Type III sum of squares	df	Mean square	F	Sig.	Partial Eta square
Corrected model	974.991 <sup>a</sup>	2	487.496	173.951	.000	.859
Intercept	16.351	1	16.351	5.834	.019	.093
covariate	36.745	1	36.745	13.112	.001	.187
Group	946.520	1	946.520	337.742	.000	.856
Error	159.742	57	2.802			
Total	7834.000	60				
Corrected total	1134.733	59				

a. R Squared = .859 (Adjusted R Squared = .854)

Analysis of Covariance (ANCOVA) was conducted to determine if there is a significant difference between the post-test post-traumatic stress disorder interference means scores of undergraduate students in the experimental and control groups. Table 4 indicates that  $F(1,57) = 337.74$ ,  $p < 0.05$ , since the p-value of 0.000 is less than 0.05 level of significance, the null hypotheses was rejected. It was concluded that there is a significant effect of cognitive restructuring counselling therapy on undergraduate students' post-traumatic stress disorder interference mean scores between the experimental and control groups. The results further reveals an adjusted R squared value of .854 which means that, 85.4 percent of the variation in the dependent variable which is post-traumatic stress disorder interference is explain by the variation in the treatment, cognitive restructuring counselling therapy while the remaining 14.6% is due to other factors that are not included in this study. This implies that cognitive restructuring counselling therapy can reduce post-traumatic stress disorder interference mean scores of the undergraduate students.

## Discussion

### Cognitive Restructuring Counselling Therapy and Post-traumatic Stress Disorder

The study investigated the effects of Cognitive Restructuring Therapy on University undergraduate students with Post-Traumatic Stress Disorder in ATBU Bauchi, Nigeria. The findings on the pre-test and post-test post-traumatic stress disorder mean score of University undergraduate students in the experimental group and control group, revealed that both students in the experimental group and control group had high effects of Post-Traumatic Stress Disorder. After treatment, however, the effects of Post-Traumatic Stress Disorder of the experimental group showed a drastic reduce. This implies that students who had been exposed to Cognitive Restructuring Therapy had a lower mean score (28.23) after treatment using Cognitive Restructuring Therapy than those in the control group (61.10) who were not given treatment. This means that at the pre-test the students in both groups had a high Post-Traumatic Stress Disorder, but after the intervention there was a reduction in the Post-Traumatic Stress Disorder of the experimental group than the control group. This finding is in agreement with the findings of Nwosu, Enajedu, Itobore and Ncheke (2022), who reported that Cognitive Restructuring Therapy intervention had significant effect on emotional adjustment. Furthermore, Weish (2020) maintained that, Cognitive Restructuring Therapy intervention is very effective in handling Post-Traumatic Stress Disorder among individuals. The study further opined that, Cognitive Restructuring Therapy intervention was used because of its

effectiveness in handling trauma. In the same vein, Eze (2020) noted that Cognitive Restructuring Therapy intervention had a significant effect in reducing abnormal behavior caused by trauma and other related factors. Cognitive Restructuring Therapy intervention is a technique that has been successfully used to help people change the way they think (Eze, 2020).

The findings from the hypothesis one on the post-test Post-Traumatic Stress Disorder mean score of University undergraduate students in the experimental group and control group, indicated that  $F(1,57) = 213.78$ ,  $p < 0.05$ , since the p-value of 0.000 is less than 0.05 level of significance, the null hypothesis is rejected (see table 2). Hence there is a significant effect of Cognitive Restructuring Therapy on undergraduate students' Post-Traumatic Stress Disorder mean scores. The results further reveal Cognitive Restructuring Therapy to be a therapy that makes students became better in changing negative beliefs and thinking patterns on their well-being and reduce the impact of unhelpful thinking styles. It also enable the students be able to understand how they feel emotionally is not the result of what happens to them, but instead, it is the result of how they think about what happens to them. The findings also makes the students became aware that, by changing their automatic thoughts, they can influence their emotions and behaviours.

This finding is in consonance with the findings of Ncheke, Nwosu, Egenti, Enajedu, Ede, Umah, Omeje and Ugwu (2021) who confirmed in their study that, Cognitive Restructuring Therapy (CRT) in counseling is very effective in handling a lot of trauma and maladaptive behaviours. They further stressed that, Cognitive Restructuring Therapy is good at reframing negative and unrealistic thoughts to realistic and positive thinking. Also Stone as cited in Ncheke, Nwosu, Egenti, Enajedu, Ede, Umah, Omeje and Ugwu (2021) posited out that, Cognitive Restructuring is a therapy for altering negative or self-defeating thought patterns deliberately replacing them with positive constructive and effective ones. Also, Wild, Warnock-Parkes, Murray, Kerr, Thew, Grey, Clark and Ehlers (2020), in a study investigated Treating posttraumatic stress disorder remotely with cognitive therapy (CT) for PTSD the researchers explained that, CT-PTSD led to large improvements in PTSD symptoms, disability, depression, anxiety, and quality of life, and over 70% of patients (intent-to-treat) recovered from PTSD, i.e. did not meet diagnostic criteria any longer. CT-PTSD was shown to be superior to supportive therapy. This implies that students exposed to Cognitive Restructuring Therapy had lower effects of Post-Traumatic Stress Disorder than students who were not exposed to treatment.

### **Cognitive Restructuring Counselling Therapy and Post-traumatic Stress Disorder Interference**

The findings of this study from research question two further showed the pre-test and post-test Post-Traumatic Stress Disorder interference means scores of undergraduate students between the experimental and control groups. The PTSD Interference is referring to whether the PTSD interfere with either, school work, academic achievement, social relationship, family functions, and work-place among other. In the experimental group, the Post-Traumatic Stress Disorder interference mean score was 6.74, lower than the pre-test mean score of 15.23, indicating that there was reduction in the Post-Traumatic Stress Disorder interference of students after treatment. Also, for the control group the mean score was 15.14 at the pretest. The post-test mean score of students was 14.66.

The findings showed that students in the experimental group had a lower mean score after treatment using Cognitive Restructuring Therapy than those in the control group (6.74 versus 14.66) who were not given treatment. This means that at the pre-test the students in both groups had a high Post-Traumatic Stress Disorder interference, but after the intervention there was a reduction in the Post-Traumatic Stress Disorder interference of the experimental group than the control group. The findings confirmed that Cognitive Restructuring Therapy reduced Post-Traumatic Stress Disorder interference of students. This implies that Cognitive Restructuring Therapy help eliminate the undergraduate students' Post-Traumatic Stress Disorder interference. This is in conformity with the findings by Astuti and Wangid (2020) that Cognitive Restructuring Therapy improve students' learning, turns irrational thoughts into positive ones, helps students become more adaptive and function well. This is also in agreement with the findings by Wild, Warnock-Parkes, Murray, Kerr, Thew, Grey, Clark, and Ehlers (2020) who maintained that, Cognitive therapy for PTSD (CT-PTSD) is a trauma-focused Cognitive therapy that is acceptable to patients, leads to high rates of recovery and is recommended as a first-line treatment for the disorder by international clinical practice guidelines. In the same vein, the findings of Hoseinzadeh, Khojasteh, and Sheikhi (2021) discovered that Cognitive Restructuring Therapy can have significant effects on reducing the severity of PTSD on individuals.

Hypothesis two was to determine if there is a significant difference between the post-test Post-Traumatic Stress Disorder interference means scores of undergraduate students in the experimental and control groups. The results indicated that  $F(1, 57) = 337.74, p < 0.05$ , since the p-value of 0.000 is less than 0.05 level of significance, the null hypotheses was rejected. Therefore, it was concluded that there is a significant effect of Cognitive Restructuring Therapy on undergraduate students' Post-Traumatic Stress Disorder interference mean scores between the experimental and control groups. The results further revealed an adjusted R squared value of .854 which means that, 85.4 percent of the variation in the dependent variable which is post-traumatic stress disorder interference is explain by the variation in the treatment, Cognitive Restructuring Therapy. This implies that cognitive restructuring counselling therapy can reduce post-traumatic stress disorder interference mean scores of the undergraduate students.

The finding confirmed Clark's (as cited in Nwosu, Enajedu, Itobore and Ncheke (2022), who expressed that, Cognitive Restructuring therapy is a therapeutic process that helps the client discover, challenge and modify or replace their negative irrational thoughts (or cognitive distortions). The authors also stressed that this implies that Cognitive Restructuring therapy is all about restoring distorted thinking or behavior. Furthermore, Ncheke, Nwosu, Egenti, Enajedu, Ede, Umah, Omeje and Ugwu (2021) pointed out that social isolation is a developmental disorder or rather connected to maladaptive behaviours such as lack of self-control, nervousness, emotional instability, low self-esteem among others, the author concluded that the use of Cognitive Restructuring Therapy has been suggested as a remedy to all irrational and unhealthy thoughts.

Based on the findings of this study, it can be inferred that employing the Cognitive Restructuring Therapy to University undergraduate students with Post-Traumatic Stress Disorder would be beneficial to University undergraduate students in ATBU Bauchi in particular and to Nigerian students in general. The post-test results of the students in the experimental group showed that the effects of Post-Traumatic Stress Disorder reduced

significantly as they were exposed to treatment. The students became better in changing negative beliefs and thinking patterns on their well-being and reduce the impact of unhelpful thinking styles. The students were able to understand that how they feel emotionally is not the result of what happens to them, but instead, it is the result of how they think about what happens to them. The students further became aware that, by changing their automatic thoughts, they can influence their emotions and behaviours.

The students were equally able to re-establishes sense of normalcy, advances the spirit of identity, self-esteem, team-spirit, self-expression, self-respect, self-appreciation, self-development through social interaction, empowering and building confidence for better development. The findings of the research also made the students restores mutual trust, friendship and oneness, develops hope, improves resilience and social stability by focusing on future happiness and joy instead of sorrows and hardships. The students also were able to re-establishes a sense of normalcy by reflecting back to positive memories and encourage trustworthiness through sharing individual personal experiences. This significant improvement is as a result of the effects of the Cognitive Restructuring Therapy which the students were exposed to.

## **CONCLUSION**

Conclusively, Cognitive Restructuring Therapy is an effective counselling therapy in handling Post-Traumatic Stress Disorder in Nigerian Universities. If this therapy is adequately employed, University undergraduate students with post-traumatic stress disorder would improve remarkably and progressively. With the provision of the therapy intervention, the students were able to bounce back and restored normalcy. This also made the students better as compared to their initial stage before treatment.

## **IMPLICATION OF THE FINDINGS**

The result of the study indicated that Cognitive Restructuring Counselling Therapy (CRCT) is a unique approach and effective counselling therapy in handling Post-Traumatic Stress Disorder in Nigerian Universities. By implication, undergraduate students with PTSD should be provided with such counselling package to reduce effect of PTSD and emotional maladjustment.

## **RECOMMENDATIONS**

1. School guidance counsellors should employ CRCT to help Undergraduate students with PTSD adjust emotionally.
2. Guidance counsellors should organize workshops on CRCT to help undergraduate students with PTSD adjust emotionally.

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