



EFFECT OF TWO COGNITIVE BEHAVIOUR THERAPIES ON REDUCTION OF CRYSTAL METHAMPHETAMINE INTAKE AMONG UNDERGRADUATE YOUTHS IN ABIA STATE FOR SUSTAINABLE DEVELOPMENT

Rebecca Eyiuche **AGHADINAZU**¹; Lovelyn Akumjeli **IKEJIAKU**²

¹College of Education, Michael Okpara University of Agriculture Umudike, Abia State, Nigeria

²St. Augustine College of Education in Affiliation with the University of Ibadan, Nigeria

ARTICLE INFORMATION

Article history

Received: 14 October 2023

Revised: 12 December 2023

Accepted: 14 January 2024

Keywords:

Cognitive Behaviour Therapy,
Rational Emotive Behaviour Therapy,
Self-Self-control therapy,
Crystal Methamphetamine and
Sustainable Development

ABSTRACT

This study investigated the effect of two cognitive behaviour therapies on the reduction of Crystal Methamphetamine intake among undergraduate youths in Abia State. Quasi-experimental design of a pre-test, post-test and control group using a 3x2 factorial matrix was adopted for the study. The population consisted of all the undergraduate youths in Abia State. A purposive sampling technique was used to sample 30 undergraduate youths. The treatment consisted of Rational Emotive Behaviour Therapy and Self-Control combined therapies (REBT+ SC). A 15-item instrument titled the Crystal Methamphetamine Intake Questionnaire (CMIQ) was used for data collection. The instrument was validated by three experts. Cronbach alpha statistic was used to obtain a reliability coefficient value of 0.83. Mean and standard deviation were used to answer the research questions and analysis of covariance (ANCOVA) to test the null hypothesis at a 0.05 level of significance. The result revealed that Rational Emotive Behaviour and Self-Control Therapies were effective in the reduction of Crystal Methamphetamine intake among undergraduate youths. It was recommended that REBT and SCT should be employed by professional counsellors and psychologists in assisting undergraduates to stop the intake of crystal methamphetamine.

© 2024 by the authors. Licensee GEN-MJSD, East London, South Africa. This article is an open-access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license. (<http://creativecommons.org/licenses/by/4.0/>).

1. INTRODUCTION

Education forms the mainstay of every society (United Nations, 2022). The Sustainable Development Goal (SDG) 4 of the United Nations aims to ensure inclusive and equitable quality education and promote lifelong learning as well as the urge to acquire knowledge. It is a major goal towards the transformation of the world by 2030. Following the above, the researchers define quality Education as a type of Education which is designed to provide all-round development to the learners. It lays the foundation for a better society marked with social and economic growth as well as gives credence to sustainable development in any nation. Quality Education aims at ingraining the youths in tertiary institutions with the required knowledge, skills, values, capabilities, and attitudes necessary for living a more productive life and escape from poverty.

However, for quality Education and the resultant sustainable development in Nigeria to be effective, there is an urgent need for the undergraduate youths to be physically, mentally, and socially sound, free from crystal Methamphetamine, also referred to as “Crystal Meth” Ice or Mkpuru Mmiri.” According

to Olufumilayo, Sotonade, and Adeniji (2020), there is growing public concern about the involvement of youths in tertiary institutions in drug abuse especially using Crystal Methamphetamine. The intake of this substance by undergraduate youths has become one of the most disturbing health-related phenomena in Nigeria and other parts of the world (Barakat, Shuaib, & Sakirudeen, 2020). The substance poses a significant threat to the social, health, and economic life of Nigerian youth (Giade, 2012). Okoli et al. (2021), stated that the substance which is highly abused by many youths in higher institutions of learning has assumed a notorious dimension and is fast destroying some youths. Lee (2022) pointed out that crystal methamphetamine differs from other substances and is more dangerous than other stimulants because a larger percentage of the drug remains unchanged in the body after its intake. This is why the substance stays in the brain longer, extending the stimulant effects. The pleasurable effects of Crystal Methamphetamine happen when the body releases very high levels of the neurotransmitter dopamine. This is the brain chemical involved in motivation, pleasure, and motor function. Also, literature revealed that the substance generates an intense “rush” or feeling of bliss in the body once it is taken and the effect can last up to four days. This may be one of the reasons it is highly patronized by tertiary institution youths who are exposed to a high risk of becoming overly reliant on the drugs as well as developing a substance use disorder. Similarly, Villines (2022) opines that it can cause significant brain changes such as alterations in the brain’s dopamine system activity associated with reduced motor speed and impaired verbal learning. Furthermore, it may lead to structural and functional changes in the brain associated with emotion and memory, and some of these may be irreversible.

Despite the above facts, the abuse of this substance appears to be a preferred lifestyle of many undergraduate youths in higher institutions. They are easily noticed by their appearance, mode of dressing, and lack of commitment to their academic activities among others.

Nkem (2021) thinks that the substance is highly potent and affects the central nervous systems of the body as well as gingers the victims to deviant activities. Babafemi (2021), a Spokesperson for the National Drug Law Enforcement Agency (NDLEA), revealed that Crystal Methamphetamine is a very addictive stimulant that renders the user hyperactive and prone to destructive tendencies, which at the extreme do not exclude suicide or homicide at the slightest provocation and without a feeling of remorse (Ekpe, 2022). The researchers point out that many of the deviant activities often associated with the youths in tertiary institutions such as bullying, cultism, criminal activities, examination malpractices, sexual assaults, lateness, and absenteeism from lectures among others are due to the influence of Crystal Methamphetamine. Many of such youths usually have carryover courses due to lack of commitment making them stay extra years in the institution while some end up as dropouts. This poses a significant negative impact on the quality of Education and sustainable development,

which can only be attainable with youths who are mentally and morally sound, healthy, focused, committed, and goal-oriented among others.

Buttressing the above facts, in 2021, a 100-level student at the Michael Okpara University of Agriculture, Umudike, had to drop out of school and was taken to a rehabilitation home because his sanity was impaired courtesy of Crystal Methamphetamine intake. It was revealed that he was addicted to the substance right from his senior secondary school days. According to Nwokolo, Obiora, and David (2005), the trend of substance abuse among the youths in tertiary institutions in Nigeria, cannot be divorced from availability. This trend is increasingly being proven true as Crystal Methamphetamine is a common substance in Nigeria especially, in the eastern part of the country. Although the National Drug Law Enforcement Agency (NDLEA), Police Anti-Cult Unit, and other relevant law enforcement agencies often arrest drug dealers and consumers, undergraduate youths who are used to its intake still know how & where to patronize them.

Other push buttons responsible for these youths' intake of the substance may include availability and access to electronic and print media, the need for boldness in other to challenge people and authorities, ignorance of such substances, peer group influence, curiosity to find out about the substance, poor parental upbringing, teachers influence, the feeling of neglect from the family, advertisement from electronic and print media promoting drugs among others.

Oshikoya and Alli (2006), assert that most of these youths become addicted to such substances owing to various daily activities which negatively impact their mental balance. Oshodi, Aina, and Onajole (2010), in their study on the perception of substance abuse amongst Nigerian undergraduate youths, identified dependence and addiction as one of the major consequences of Crystal Methamphetamine characterized by compulsive substance crave-seeking behaviours even in the face of harmful consequences.

Most University students who are addicts to the substance or others developed such negative lifestyles in their secondary school days. Njoku, Oditia and Thomas- Odi (2021), revealed that some mentally deranged youths combined Crystal Methamphetamine with other hard substances, and the worst of it all is that they hardly eat good and enough food but, took the substances as if they were food to be high. Also, Okoli, Ujumadu, Agbo and Oko (2021), affirmed that "it is a common sight to see addicts on the streets of South- East communities, some of them incoherently walking the streets naked or half naked. You see them, mainly young men in their twenties, murmur to themselves while walking on the streets. Looking haggard and unkempt, they are victims of mkpuru mmiri. They entirely operate on a different level from normal human beings". The researchers affirm that some of the victims of Crystal Methamphetamine became addicts owing to curiosity, desire to feel high and good, relieve academic

stress, forget their worries, feel bold, build their self-esteem, overcome emotional, psychological, and physical problems, peer pressure and curiosity. A nationwide survey of high school students reported that 65 per cent wanted to see what it is like, and 20 per cent used it to alter their moods, feel good, relax, relieve tension, and overcome boredom, and socio-personal problems bordering them (Abudu, 2008).

Similarly, a study by Onohwosage, Egenegbe, and Blinkhom (2013), revealed that youths in tertiary institutions abuse substances to relieve pains, gain sexual gratification, become assertive, feel high, and other such reasons. World Health Organization (2016) stated that 22.1 per cent of school-aged children, between 12 to 18 years and above abuse substances, and the researchers maintain that Crystal Methamphetamine is among them because it is currently the most trending substance. Crystal Methamphetamine is said to severely affect the brain's structure and its functioning. Additionally, it affects areas of the brain that are linked to emotion and memory, as well as structures associated with judgment. Due to this, it may radically change behaviours and emotions.

This may explain why people who chronically use the drug usually develop emotional and cognitive difficulties. The alarming rate of Crystal Methamphetamine intake among the undergraduate youths in the southeastern part of Nigeria, the effects, and adverse consequences especially as it concerns quality Education and the achievement of sustainable development calls for concern and challenge to all helping professions. It is against this background that the researchers investigate the effect of two cognitive behaviour therapies (rational emotive behaviour therapy and self-control) on the reduction of Crystal Methamphetamine intake among youths in tertiary institutions in Abia State. A review of 106 meta-analyses conducted by Hofmann and colleagues, which assessed the efficacy of Cognitive Behaviour Therapy (CBT) in treating substance abuse; depression, anxiety, personality disorders; aggression, anger, and criminal behaviours revealed overwhelming support for cognitive behaviour therapy as an effective psychotherapeutic treatment option for the conditions (Aghadinazu and Obi, 2022).

1.1 Cognitive behavioural therapy

Cognitive behavioural therapy (CBT) which was first developed in the 1960s by a psychiatrist known as Aron T. Beck is a type of talking therapy focused on rationalizing an individual's negative thoughts and behaviours. According to Jaiyeola, Kolawole, Umar and Fajonyomi (2020), Cognitive behaviour therapy (CBT) is a set of interventions that share the simple principle that cognitive factors sustain mental disorders and psychological distress. The core premise of this treatment is that maladaptive cognitions contribute to the state of emotional distress and behavioural challenges. Also, Osita and Toyin (2022), assert that CBT is a therapy for managing maladaptive behaviours. In line with the above,

the researchers opine that some youth take Crystal Methamphetamine due to cognitive biases they form towards themselves and society. The happenings and economic situation to which individuals are subjected expose many youths to maladaptive coping like Crystal Methamphetamine abuse in a bid to release anxiety and stress, but unfortunately, it impacts negatively on them as well as hinders quality Education and sustainable development. Thus, the goal of the therapy is to restructure the thinking patterns of individuals such that they will learn new positive behaviours as well as manage problems by recognizing how their thoughts affect their feelings and behaviour. Following the above, CBT is seen as an appropriate therapy towards assisting undergraduate youths who are addicted to Crystal Methamphetamine consumption to restructure their thinking patterns on their reasons for such lifestyle and the negative impact it has on quality Education and sustainable development hence the use of two CBT theories Rational Emotive Behaviour Therapy and Self- control for this study.

1.2 Rational Emotive Behaviour Therapy (REBT)

Rational Emotive Behaviour Therapy (REBT), previously referred to as rational therapy, is an active-directive, philosophically and empirically based psychotherapy, whose aim is to resolve emotional and behavioural disturbances (Wikipedia, 2011). This cognitively oriented counselling therapy was propounded by Albert Ellis in 1957. REBT strives to assist individuals (youths) to feel better by making major philosophic reconstructions in their lifestyles and lead happier, and more fulfilling lives after therapy has ended, enabling them to use the REBT formulation (ABCDE) principle for the rest of their lives (Okeke in Aghadinazu, Uchendu and Ajoku, 2017). A study by Kurniawati (2019), on the implementation of REBT for drug addicts concludes that the REBT approach to drug addicts plays a role in increasing the ability to control emotions such as anxiety and aggression, the ability to eliminate negative thoughts and self-destructive behaviour, as well as changes in irrational thought support, with limited behaviour change which is an implication that REBT therapy, is effective for clients or counselees who experience drug addiction problems. Clinically, outcome studies have shown that REBT therapy is efficacious in substance abuse (Terjese, Raymond, & Gruner, 2000). Megan (2022) asserts that REBT holds the potential to enhance substance abuse treatment alongside other therapies and modalities.

Similarly, Osita and Toyin (2022), conducted a study on the effect of Rational Emotive Behaviour Therapy on the management of suicidal thoughts among students at Delta State University, Abraka. The findings of the study revealed that REBT is effective in managing suicidal thoughts which have a link with crystal meth intake. Also, the study by Austine and Aluede (2017), on the effectiveness of Rational Emotive Behaviour Therapy in the reduction of examination anxiety among the youths in Edo State, Nigeria, revealed that the REBT treatment approach was a success in reducing examination anxiety of the students. Putwain, Connors and Symes (2010) explained that one of the most effective

ways to reduce anxiety disorders may be through cognitive behavioural therapy. The use of this therapy (REBT), therefore, is vital for the youths who believe that crystal meth intake is the solution to their stressful life events and frustrations. Using the therapy, the counsellor redirects their irrational thoughts and behaviour to a more realistic and philosophic one which is taking a firm decision to do away with crystal meth intake geared toward sustainable development.

1.3 Self-Control Therapy

Self-control therapy is a cognitive and behavioural skill used by clients to maintain self-motivation and achieve personal goals. The individual is the principal agent in guiding, directing, and regulating those aspects of his behaviour that require modification. Self-control therapy involves self-monitoring, self-evaluation, goal setting, behaviour contract, self-reinforcement and relapse prevention, reinforcement. According to Duckworth & Steinberg (2015), it refers to an individual's ability to control his/ her current desire to achieve more valued long-term goals. To buttress the above assertions, a study on the status of self-control and its effect relation to drug abuse-related behaviours among Iranian male high school students was carried out by Allahverdipour, Hidarnia, Kazamnegad and Shafii (2006) with 183 male high and found a significant inverse relationship, between poor self-control, intentions, and attitudes towards drug abuse. Adolescents with poor self-control are vulnerable to substance abuse and social self-control training skills are essential in substance abuse prevention programs. Another study which was reported by Mensch (2011) on the impact of self-control on marijuana smoking and academic achievement revealed a significant relationship among the variables. Also, a study carried out by Ikechukwu, Siti, Mansor, Rohani, and Skineh (2013), on the role of self-control in the reduction of substance abuse among the youths in Nigeria showed that self-control played a significant role in the diminution of substance abuse among the adolescents. Another study which was conducted by Hoffmann (2022), on self-control, peers, and adolescent substance use showed that self-control affects substance use among adolescents and can attenuate the influence of peer influence of peer substance use. The researchers, therefore, opine that through self-control therapy the youths will learn the ability to resist and overcome the desire for immediate gratification. Hence, be able to stop damaging habits such as the intake of Crystal Methamphetamine and form new ones necessary for sustainable development.

2. STATEMENT OF THE PROBLEM

The abuse of Crystal Methamphetamine is seen in all parts of Nigeria. However, in Igbo communities, it assumed a notorious dimension. Undergraduate youths' involvement in crystal methamphetamine and the subsequent maladaptive behaviour they exhibit under its influence poses a challenge to all stakeholders in Education. The use of crystal methamphetamine by these youths has taken away some students focus on their studies as they are hyperactive, pay less attention to their academics, and sleep when they are supposed to be in the classrooms among others. All these impacts negatively on quality Education and sustainable development.

Many studies have been carried out on the effect of Cognitive Behaviour Therapy (CBT) on substance abuse among youths. However, none has addressed the effect of Rational Emotive Behaviour and Self - Control Therapies for the reduction of crystal methamphetamine intake among undergraduate youths in Abia State for Quality Education and Sustainable Development which is the gap this present study attempts to fill, by exploring the efficacy of the two therapies (REBT and SCT) on the reduction of crystal methamphetamine intake among undergraduate youths in Abia State, Nigeria. Thus, the problem of the study is to investigate the effect of Rational Emotive Behaviour and Self – Self-control therapies on the reduction of Crystal Methamphetamine intake among undergraduate youths in Abia State.

The following research questions guided the study.

- i) What is the difference between the post-test mean scores on Crystal Methamphetamine intake reduction among undergraduate youths exposed to Rational Emotive Behaviour Therapy (REBT) and the (C) Control?
- ii) What is the difference in the post-test mean scores rate on the Crystal Methamphetamine intake reduction of undergraduate youths exposed to both therapies Rational Emotive Behaviour Therapy and Self-Control (REBT + SCT) and the Control?

3. HYPOTHESIS

H01: There is no significant difference between the post-test mean scores on Crystal Methamphetamine intake reduction among undergraduate youths exposed to Rational Emotive Behaviour Therapy and self-control (REBT + SCT) and the Control.

3. METHODOLOGY

3.1 Research Design

The design for this study was the quasi-experimental design of a pre-test, post-test and control group using a 3 x 2 factorial matrix. This design is suited for this study because the researchers had no control over the outcome variable which could not be manipulated.

Table 1: Pre-test–post-test control design

S/N	GROUP	PRE-TEST	TREATMENT	POST-TEST
1.	REBT, SCT	01	X	02
	REBT +SCT combined	01	X	02
2.	Control	01	-	02

3.2 Population

The population consisted of all the undergraduate youths in Abia State.

3.3 Sample and Sampling Technique

A purposive sampling technique was used to sample the subjects who were identified by the Guidance Counsellors who work in the school counselling clinic (Michael Okpara University of Agriculture Umudike, Abia State). 30 sample size was drawn and the first 15 became the treatment group while the last 15 became the control group. Only two groups were involved (treatment and control). The responses of the control group were used as covariance to the responses of those in the treatment group.

3.4 Research Instrument

A 15-item researcher developed an instrument titled Crystal Methamphetamine Intake Questionnaire (CMIQ) was used to collect data during both the pre-test and post-test phases though, the items were reshuffled during the post-test. Section A contained demographic data of the subjects while section B contained 15 self-report items about crystal methamphetamine intake. The items were on a 4- 4-point rating scale of Strongly Agree=4, Agree=3, Disagree=2, Strongly Disagree=1. A criterion means of 2.5 was established to determine acceptance or rejection of Crystal Methamphetamine intake. Any mean from 2.5 and above shows acceptance while a mean score below 2.5 shows rejection.

The initial draft of the instrument was face-validated by two **research** experts in the fields of Guidance and Counselling and one from the Measurement and Evaluation Departments of Michael Okpara University of Agriculture, Umudike, Abia State. They criticized the instrument concerning the response formats, the pattern of questions and the number of items. Their criticisms were taken, and corrections were made to produce the final version of the instrument. The instrument was subjected

to reliability analysis using the test re-test method in which ten copies of the instrument were administered to undergraduate youths from Abia State University who were not part of the study on two occasions at the two-week interval, (after 2 weeks, a re-test was administered to the same set of undergraduate youths). Cronbach alpha statistic was used to test for the internal consistency reliability of the instrument. Thus, a reliability coefficient value of 0.83 was obtained showing that the instrument was reliable for the study. Data were collected in two phases of the experiment namely, pre-test and post-test phases. The data collected were analyzed using Mean and Standard Deviation to answer the research questions and analysis of covariance (ANCOVA) to test the null hypothesis at 0.05 level of significance.

4. TREATMENT PROCEDURE

Stage 1: Pre-test evaluation

The researchers administered the instrument to all the participants in both groups as a pre-test evaluation. This pre-test was the initial step in the pre-treatment evaluation. The aim was to determine the respondents' levels of involvement in Crystal Methamphetamine intake while obtaining their pre-test scores. The information obtained was used to create a baseline proforma for evaluating the post-test results. Thereafter, the treatment was administered, followed by the post-test evaluation.

Stage two: Treatment

This is the experimental stage. It began a week after the pre-test evaluation. The subjects were sensitized and motivated for the treatments. At this stage, the subjects were exposed to the two treatment packages (REBT and SCT) at different sessions. The first treatment REBT was a counselling presentation on ABCDE principles of Cognitive Emotive Behaviour Therapy (REBT) broken down into more meaningful discussions by the researchers. The focus was on the negative effects of Crystal Methamphetamine on the lives of the subjects. Redirecting their irrational thoughts and behaviour (Crystal Methamphetamine intake) to a more realistic one (decision to say no to Crystal Methamphetamine intake). Self-control therapy (SCT) they were exposed to include self-monitoring, self-evaluation, goal setting, behaviour contract, self-reinforcement, relapse prevention and reinforcement. These self-control techniques will help the subjects to resist and overcome the desire, behaviour, persons, or things likely to make them have an urge to Crystal Methamphetamine intake.

The control group was a waitlist group, was not subjected to any treatment package and received only pre-test and post-test. The treatment lasted for six (6) weeks, two classes each week, each lasting 60 minutes.

Stage three: Post-test Evaluation

At the end of the treatment, the treatment group with the control was post-tested. This was done by administering the same instrument: the Crystal Methamphetamine Intake Questionnaire (CMIQ) to the two groups (treatment and control) to determine if any changes can be connected to the treatment. The results obtained were compared at the end of the procedure.

Note: Crystal Methamphetamine Intake Questionnaire (CMIQ) was administered to the two groups (treatment and control) at both pre-test and post-test. The responses of the control group were used as covariance to the responses of the treatment group. The treatment group received REBT and SCT while the control group was not exposed to any treatment.

5. RESULTS

Research Question 1:

What is the difference between the post-test mean scores on Crystal Methamphetamine intake reduction among undergraduate youths exposed to cognitive behaviour therapy and the control?

Table 2. Mean and Standard Deviation between the post-test mean scores on Crystal Methamphetamine intake reduction among undergraduate youths exposed to rational emotive behaviour therapy and the control.

	est	test	n Reduction	n Reduction difference
ps				
T	3	1	2	3
rol	5	6		

Results in Table 2 above revealed the mean scores on crystal meth intake reduction among undergraduate youths exposed to cognitive behaviour therapy (treatment group) and the control. The treatment group had a mean crystal meth intake reduction score of 40.23 with a standard deviation of 3.75 at the pre-test and

28.11 with a standard deviation of 3.84 at post-test. The mean crystal meth intake reduction score of those exposed to REBT was 12.12 while those in control C had 40.45 with a standard deviation of 3.88 at the pre- test and 38.56 with a standard deviation of 3.91 at the post-test. The mean score on crystal meth intake reduction score of those exposed to the control group was 1.89. A mean reduction of 10.23 was recorded for the two groups. The standard deviation of each group ranged from 3.75 – 3.91; an indication that the respondents were not too far from the mean and from one another in their response. Thus, the results showed that the use of rational emotive behaviour therapy reduced crystal meth intake among undergraduate youths exposed to the therapy.

Research question 2:

What is the difference in the post-test mean scores on Crystal Methamphetamine intake reduction among undergraduate youths exposed to REBT + SCT and the control?

Table 3. Mean and Standard deviation of crystal meth intake reduction among undergraduate students exposed to rational emotive behaviour and self-control therapies REBT + SCT and the control.

		Pre-test		Post-test		Mean Reduction	Mean Reduction Difference
Groups	N	X	SD	X	SD		
REBT + SCT	10	41.31	3.24	28.08	3.33	13.23	11.34
Control	10	40.45	3.88	38.56	3.91	1.89	

Data in Table 3 shows that undergraduate youths with crystal meth reduction but exposed to rational emotive behaviour and self-control therapies (REBT + SCT) had a pre-test mean score of 41.31 with a standard deviation of 3.24 and a post-test mean score of 28.08 with a standard deviation of 3.33. Similarly, those exposed to the control group recorded a pre-test mean score of 40.45 with a standard deviation of 3.88 and a post-test of 38.56 with a standard deviation of 3.91. Furthermore, the table revealed that those exposed to REBT and SCT had a mean reduction difference of 13.23 while their counterparts in the control group had 1.89. The mean reduction difference, between the REBT + SCT and the control group is 11.34 which indicates that the undergraduate youths exposed to REBT and SCT had higher mean crystal meth reduction scores than their counterparts in the control group. The standard deviation of the two groups ranged between 3.24 -3.91 showing that respondents were not too far from the mean and responses of one another. Thus, this is an indication that the use of REBT and SCT reduced crystal meth intake among undergraduate youths.

Hypothesis 1: There is no significant difference between the posttest mean scores on Crystal Methamphetamine intake reduction among undergraduate youths exposed to REBT and SCT (REBT + SCT) and Control.

Table 4. Analysis of Covariance (ANCOVA) on Crystal Methamphetamine intake reduction of undergraduate youths exposed to REBT and SCT and the Control group.

Source	Type III	Df	Mean Squares	F	Sig.
Corrected Model	3889.211	2	1944.605	16.766	.000
Intercept	7778.422	1	7778.422	13.576	.001
Pretest group	5361.536	1	5361.536	19.235	.008
Error	4462.034	20	223.102		
Total	4175.453	19			
Corrected total	78934.000				

Results in Table 4 above showed that probability values (p-value) of .008 were obtained. Since the P-value obtained is less than the alpha value of 0.05, the hypothesis of no significant effect was rejected and the alternate accepted. Therefore, there is a significant difference between the posttest mean scores on Crystal Methamphetamine intake reduction among undergraduate youths exposed to REBT and SCT and the control. This implies that exposing undergraduate youths with Crystal Methamphetamine intake behaviour to Rational Emotive Behaviour Therapy and Self-control techniques significantly reduced Crystal Methamphetamine intake behaviour among undergraduate youths.

6. DISCUSSION OF RESULTS

The findings of the study in research question one and the corresponding hypothesis revealed that REBT was effective in the reduction of crystal meth intake undergraduate youths exposed to it. This is evident from the result which showed that the undergraduate youths exposed to REBT had higher mean reduction than those exposed to control. The result aligns with Kurniawati (2019) who examined the effect of REBT on drug addicts. The result concludes that the REBT approach to drug addicts plays a role in increasing the ability to control emotions such as anxiety and aggression, the ability to eliminate negative thoughts and self-destructive behaviour, as well as changes in irrational thought support, with limited behaviour change which is an implication that REBT therapy, is effective for clients or counselees who experience drug addiction problems of which crystal meth is among. Similarly, Terjese, Raymond and Gruner (2000), reported that clinically, outcome studies have shown that REBT therapy is efficacious to substance abuse. The findings are equally supported by the findings of Austine and Aluede (2017), on the effectiveness of rational emotive behaviour therapy in the reduction of examination anxiety among secondary school students in Edo State which revealed that REBT was a success in reducing examination anxiety of the students.

The result also showed that the use of REBT and SCT reduced crystal meth intake among undergraduate youths who were exposed to it. The results corroborated with Titilope (2012), on the efficacy of REBT and reality therapies (RT) in reducing suicidal thoughts and phobia among students in Ilorin, Delta state which revealed that both were efficacious in reducing suicidal thoughts and phobia among the respondents. The researchers affirm that the above findings correlate because crystal meth intake is substance abuse which is cognitively oriented in nature like suicidal thoughts and phobia. Also, the therapies used in the studies above are cognitive behavioural therapies (CBT). Similarly, a review of 106 meta-analyses conducted by Hofmann and colleagues which assessed the efficacy of CBT in treating substance abuse; depression, anxiety, personality disorders; aggression, anger and criminal behaviours revealed an overwhelming support for cognitive behaviour therapy as an effective psychotherapeutic treatment option for the conditions (Aghadinazu & Obi, 2022).

7. CONCLUSION

Rational Emotive Behaviour (REBT) and Self-Control (SCT) Therapies which are Cognitive Behaviour Therapies (CBT) are effective in the reduction of crystal methamphetamine intake among undergraduate youths in Abia state.

8. RECOMMENDATIONS

The study recommended that:

1. Rational emotive behaviour and self-control therapies should be employed by professional counsellors and psychologists in assisting undergraduate youths to stop the intake of crystal meth.
2. Functional counselling centres as a matter of urgency should be established at Michael Okpara University of Agriculture, Umudike and other tertiary institutions in Abia state.

9. REFERENCES

- Abudu, R. V. (2008). Young people and drug abuse. Biennial International conference on alcohol, drugs, and society in Africa. Abuja, Nigeria between 23rd-25th July 2008.
- Aghadinazu, R. E. & Obi, O. P. (2022). Efficacy of cognitive behaviour therapy in restructuring the mindset of in-school adolescents for self-development and improved psychological well-being. *Journal of Professional Counseling (JPC)*; 5(1), 83 – 97.
- Aghadinazu, R.E., Uchendu, I. A. & Ajoku, M. U. (2017). Counselling strategies for value re-orientation and youth empowerment through entrepreneurship skills for improved family living in global community. *Nigerian Journal of Home Economics (NIG.JHEC)*, 6(1), 297-306.
- Allahverdipour, H., Hidarnia, A., Kazamnegad, A., & Shafii, F. (2006). The Status of self-control and its relation to drug abuse related behaviours among Iranian male high school students. *Social Behaviour and Personality and International Journal* 34(4),413-424; doi:10.2224/sbp.2006.34.4.413.
- Austine, G. E., & Aluede, O. O. (2017), Effectiveness of rational emotive behaviour therapy in the reduction of examination Anxiety among secondary school students in Edo State, Nigeria. Pages 61-76 | Received 30 Jun 2017, Accepted 29 November 2017, Published online: 07 Dec2017<https://doi.org/10.1080/21507686.2017.1412329>.
- Babafemi, F. (2021). HOW Mexican Drug Cartel brought Mkpuru Mmiri to Nigeria. [https://guardian.ng/news/how November](https://guardian.ng/news/how-November)
- Barakat, I., Shuaib, M., & Sakirudeen (2020). Curbing the menace of drug: implications on mental health of youths in tertiary institution. *Journal of Professional Counseling (JPC)*; 3(1), 154-158.
- Brazier, Y. & Villines, Z. (2022). Everything you need to know about crystal meth.
- Duckworth, A. & Steinberg, I. (2015). Unpacking self-control. *Child Development Perspectives*. doi:10.1111/cdep.12107s.
- Ekpe, M. E. (2022). From mkpuru mmiri to akuskura. This Day, www.thisdaylive.com 8th Sept, 2022.
- Giade, A. (2012). How Nigeria's latest drug abuse defies legislation. Daily trust newspaper. Retrieved from <http://www.dailytrust.com.ng/daily/old>.
- Hoffmann, J. P. (2022). Self-control, peers, and adolescent substance use: an international analysis.

- Received 05 July 2022, accepted 13 November 2022, published online November 2022.
<https://doi.org/10.1080/14659891.2022.2148581>
- Ibrahim, M. & Buhari, (2020). Curbing the menace of drug abuse: implications on mental health of youths in tertiary institutions. *Journal of Professional Counseling (JPC)*; vol. 3 (1).
- Ikechukwu, U., Siti, N. Y., Mansor, A. T., Sakineh, M. & Rohani, A. (2013). Effect of self-esteem in the relationship between stress and substance abuse among adolescents: a mediation outcome. *International Journal of Social Science and Humanity*, 3(3), 214-217.
- Jaiyeola, B. O., Kolawole, Umar & Fajonyomi, M. G. (2020). Cognitive behavioural therapy as a strategy for coping with postpartum depression among nursing mothers in Nigeria. *Journal of Professional Counseling (JPC)*; vol. 3 (1), 107 -115.
- Kurniawati, D. A. (2019). Implementation of REBT for drug addicts: meta-analysis. Atlantis press. Advances in social science, Education and humanities research, volume 462. Proceedings of the 2nd International Seminar on guidance and counselling 2019 (ISGC 2019).
- Lee, W. (2022). Crystal Meth: What You Should Know. Medically Reviewed by Dany Paul Baby, MD on April 19, 2022.
- Megan, B. (2022). Rational emotive behaviour therapy (REBT) for substance abuse near me. American addiction centres. Updated Oct 21, 2022.
- Mensch, F. Y. (2011). Relationship b/w students' entry grade and academic achievement at Kwara State College of Education, Ilorin. *Journal of Education*, vol 8.
- National Drug Law Enforcement Agency (2014). Press release on world drug report. Retrieved May 2019 from <http://www.nglea.gov.ng>.
- NDLEA (2012). National law enforcement agency statistical report.
- Njoku, I., Odita, S. & Thomas-Odia (2021). How Mexican drug cartel brought mkpuru mmiri to Nigeria. The Guardian; November 20th 2021. [Guardian ng>news](https://www.guardianng.com/news)
- Nkem, E. (2021). What we need to know about 'Mkpuru Mmiri'/Methamphetamine. Punch, 9th Dec, 2021; punching.com.
- Nwokolo, A. E, Obiora, A.E. & David, A. A. (2005). Staying drug-free in our schools. A handbook on Abuse; Education sector, Nigeria.
- Okoli, Ujumadu, Agbo & Oko (2021). How mkpuru mmiri is destroying and killing Igbo youths. Vanguard, November 24, 2021. www.vanguardngr.com.
- Olufumilayo, A. T., Sotonade, A. & Adeniji, R. (2020). Influence of drug and emotional adjustment on academic engagement of tertiary institutions' students in Ogun state, Nigeria. *Journal of Professional Counseling (JPC)*; vol 3(1), 127 – 143.
- Onohwosage, P. S., Egenegbe, A. & Blinkhom, A. S. (2013). Drug use among secondary school children in central Delta State, Nigeria. *International Journal of Health Promotion and Education*, 46(1), 33-34.
- Oshikoya, A. A. & Alli, D. (2006). Perception of drug abuse among Nigerian undergraduates. *World Journal of Medical Science*, 7 (2), 180-185.
- Oshodi, O. Y., Aina, O. F. & Onajole, A. T. (2010). Substance use among secondary school students in an urban setting in Nigeria: prevalence and associated related factors. *African Journal of Psychiatry*, 13(1), 52-57.
- Osita, E. E. & Toyin, O. (2022). Effect of rational emotive behaviour therapy on the management of suicidal thoughts among students in Delta State University, Abraka, Nigeria. *Journal of Professional Counseling (JPC)*; vol. 5 (1), 60 – 69.
- Putwain, D., Connors, J. & Symes, W. (2010). Do cognitive distortions mediate the text anxiety-exam performance relationship? Jan 2010. *Educational psychology*, 30 (1), 11.
- Terjesen, M., Raymond, A., Diguseppe, T. & Grunner, P. (2000). A review of REBT research in alcohol abuse treatment. September 2000. *Journal of rational emotive and cognitive behaviour therapy*. 18(3):165-179. doi:10.1023/a:1007878921028.

- United Nations (2022). Global SDG Indicators Database. Retrieved from <https://www.un.org/sustainabledevelopment/education/> on 16 March 2023.
- Villines, Z. (2022). Drug-induced Schizophrenia: causes, symptoms, and treatment. Medical newstoday.com. <https://www.medicalnewstoday.com>. Updated on February 10, 2023.
- WHO (2016). Health topic substance abuse. <http://www.who.int/topics/substance>.
- Wikipedia (2011). Rational emotive behaviour therapy. Rational emotive behaviour therapy. July 2011
- World Health Organization (2016). Definition of Health. Retrieved from www.who.int/about/definition/print.html. 18th April 2019.