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EFFECT OF COGNITIVE RESTRUCTURING TECHNIQUE ON DRUG ADDICTION AMONG INMATES OF NATIONAL DRUG LAW ENFORCEMENT AGENCY IN SOUTH EAST

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ABSTRACT

The study determined the effect of cognitive restructuring technique on drug addiction among inmates of NDLEA. It was guided by two research questions and two null hypotheses tested at level of significant. The study adopted pretrest, posttest and control non-randomized quasi experimental group. The population of the study comprised all 340 male and female inmates from NDLEA correctional facilities in five states in South east Nigeria. The population of inmates was identified using Drug Addiction Detection Inventory (DADI), using the norm of 60 as a guide. The sample size for the study was 161 male and female NDLEA inmates drawn using purposive sampling technique to select two states with the high number of drug addicts in the commends. The instrument used for this study is a questionnaire titled Drug Addiction Detecting Instrument (DADI) and was developed by the researchers The DADI has an introductory part "section A" that solicits the bio-data of the respondents such as gender. The "section B" is designed to detect inmates who are addicted to drug. The instrument contains a total of 24 items with four point scale response options. Face validation of the instrument was conducted by three experts. One expert in Measurement and Evaluation unit of the Department of Educational Foundations and two experts in counselling psychology in the Department of Guidance and Counselling, all in the Faculty of Education, Nnamdi Azikiwe University, Awka. The reliability of the instrument was established through the method of measure of internal consistency. The Cronbach coefficient alpha obtained for the DADI is 0.91. Direct contact approach was employed for the data collection. The researchers acted as the resource persons to the commands. They administered both the treatments and instrument. A special request was made

to the NDLEA commander in each of the two participating states for the provision of enabling environment for the period of treatments. The post-test instrument items were reshuffled to avoid Hawthorne's effect. Since the pretest scores were gotten before treatment which lasted for eight weeks, the posttest was administered after the treatment period to both groups. The researchers are aware of the possible effects of extraneous variables which if not well controlled could pollute the study and mar the findings. Therefore, some efforts were made to ensure that such constraints are reduced or possibly eliminated. In the data analysis, completed Drug Addiction Detecting Instrument (DADI) for the pre-test was scored following the scoring instruction and the same measure was be taken for the post-test. Mean scores were used in answering the research questions and analysis of covariance (ANCOVA) was used in testing the null hypotheses at 0.05 levels of significance. The results showed that cognitive restructuring technique is significantly effective in reducing drug addiction among inmates of NDLEA. Also cognitive restructuring technique is more effective on male inmates than the females in reducing their drug addiction, though not significant. The study concludes that cognitive restructuring technique was significantly effective in reducing drug addictive behaviour of inmates in NDLEA irrespective of their gender. Based on the findings recommendations were made.

Keywords: Effect, Cognitive restructuring Technique, Drug Addiction, National Drug Law Enforcement Agency

Introduction

In the course of living, human beings are faced with various challenges and tasks that they must accomplish before they can be approved by the society in which they belong. In their quest to accomplish these tasks people learn different behaviours which could either be rational or irrational. Behaviours that are rational attract approval by the society and give sense of fulfilment in the individual while those that are irrational lead to disapproval by the society and unhappiness in the individual. One of such behaviours that attracts strong disapproval and is yet endemic in our present society is drug addiction.

A drug is any chemical substance that causes a change in an organism's physiological or psychological functioning when consumed. It is any chemical substance that affects the functioning of living things and the organisms that infect them (Cuthbert, Stringer and Thomas, 2023). Lynch (2022) defined drug as any substance intended for use in the diagnosis, cure, relief, treatment, or prevention of disease or intended to affect the structure or function of the body. Drug addiction is a chronic, relapsing brain disease that is characterized by compulsive drug seeking and use, despite harmful consequences (Sclar, 2021). It is a condition characterized by a self-destructive pattern of using a substance that leads to significant problems and distress, which may include tolerance to or withdrawal from the substance. According to Voris (2018), drug addiction is a complex neurobiological disease that requires integrated treatment of the mind, body and spirit. It is considered a brain disease because drugs change the brain, they

also change its structure and how it works. Without treatment, these brain changes can be long-lasting. For the purpose of this study, drug addiction is a condition that affects a person's brain and behaviour and leads to an inability to control the use of a legal or illegal drug or medication.

Drug addiction may start with experimental use of a recreational drug in social situations, and for some people, the drug use becomes more frequent. For others, drug addiction may begin with exposure to prescribed medications, or receiving medications from a friend or relative who has been prescribed the medication. Some people experiment with recreational drugs out of curiosity, to have a good time, because friends are doing it, or to ease problems such as stress, anxiety, or depression. When people are addicted to a drug, they cannot resist the urge to use the drug no matter how much harm it causes. As time passes, a person may need larger doses of the drug to get high. Soon, the individual may need the drug just to feel good. Griffin and Botvin (2019) maintained that the earlier people are exposed to drug, the greater the risk for heavy drug use and related problems later in life. According to National Drug Law Enforcement Agency (NDLEA, 2021), 40 per cent of Nigerian youth between 18 and 35 years are deeply involved in drugs. Reacting to this, Chairman/Chief Executive of NDLEA lamented that the increasing rate of drug addiction in Nigeria is worrisome and stressed that the problem has reached an epidemic level in the country. Babafemi (2021) added that the rate at which youths are becoming addicted to illicit drugs had reached an alarming state.

Ofentse (2021) posited that drug addiction is not about just heroin, cocaine, or other illegal drugs. People may also be addicted to alcohol, nicotine, sleep and anti-anxiety medications, and other legal substances. Therefore, individuals from all walks of life may become addicted to drugs, regardless of age, race, background, or the reason they started using drugs in the first place. The misuse of psychoactive substances such as alcohol, tobacco, amphetamines, cannabis, marijuana, hashish, heroin, cocaine, methamphetamine as well as prescription medications exert tremendous toll on the individual, families, communities and societies.

However, existing research investigating drug addiction shows that menace is a chronic and progressive global health problem which if left unchecked may lead to serious consequences both to the addicts and the society in general (Seque, 2020). The consequences of drug addiction pose a great concern because the chief culprits and victims are the youths who are the future leaders of the nation. Drug addiction may bring about brain damage, cirrhosis of the liver, depraves the central nervous system and impairs concentration and judgement. Thus, drug addiction may impact negatively on public health, national economy and security. This is because it could lead to injuries, loss of income and productivity, family and community dysfunction and even sudden death. Hence, successful treatment may require an array of therapeutic intervention approaches that will not only address the root causes of the

problem, but also help provide the foundational tools needed to prevent a relapse. In the light of the above, the current researchers used Cognitive restructuring technique (CRT) on inmates with drug addiction to see if the technique would help solve the problem in our society.

Cognitive restructuring technique (CRT) is a behaviour change technique that deals with the potential effect of clients' attribution on the change and maintenance of behaviour (Oguzie, Ani, Obi and Onyegirim, 2018). According to Abodike and Ebenebe (2016), cognitive restructuring is a cognitive behaviour therapy that aims at modifying distorted thinking patterns. Mujtaba (2016) defined cognitive restructuring as a counselling process of learning to identify and dispute irrational or maladaptive thoughts. It is a useful technique for understanding what lies behind negative moods. Eneasator and Umezulike (2013) viewed cognitive restructuring as a re-education of clients which involves changing the way clients think or adhere to certain maladaptive beliefs.

Cognitive restructuring is a useful tool for understanding and turning around negative thinking. It helps to put unhappy, negative thoughts under the microscope, challenging them and in many cases, re-scripting the negative thinking that lies behind them. The feelings of guilt, hopelessness and seeing oneself as the worst on earth could be changed using cognitive restructuring. The technique focuses on interaction of thoughts, feelings and emotions. During cognitive restructuring process, the primary objective of the therapist is to help clients to perceive environmental stimuli more accurately so that realistically dangerous situations are clearly differentiated from those where the source of harm is purely imaginary. By so doing, clients are placed in a better position to gain more understanding of themselves and their environment so as to turn around their maladaptive thinking pattern. For the purpose of this study, cognitive restructuring technique is defined as a therapeutic intervention process that helps people to discover, challenge and modify or replace their irrational thoughts. Previous researches have shown that cognitive restructuring technique is an effective treatment technique for modifying maladaptive behaviours (Deacon, Fawzy, Lickel and Wolitzky-Taylor, 2015).

Anyamene and Ngwakwe (2019) investigated the effect of cognitive restructuring technique in reducing aggressive behaviour among secondary school students in Gombe State. Two research questions were answered and two hypotheses were tested at 0.05 significant levels. The study was carried out using non-randomized pre-test, post-test and control group quasi-experimental design. The population of students with aggressive behaviour was 245 in Gombe Local Government of Gombe State. A sample of 81 students with very high aggressive behaviour was selected from three schools through purposive sampling technique. The instrument for data collection was Buss-Perry Aggression Questionnaire (BPAQ) which was developed and validated by Buss and Perry in 1992, but was revalidated in Nigeria. The reliability coefficient of 0.80 as

reported by Onukwufor (2013) was adopted for this study. Data was collected and subjected to analysis. Data relating to research questions were answered using statistical mean while data relating to hypotheses were tested using Analysis of Covariance (ANCOVA). Findings from the study revealed that cognitive restructuring Technique was significantly effective in reducing secondary school students' aggressive behaviour. The findings further revealed that cognitive restructuring technique was more effective in reducing aggressive behaviour of male secondary school students. It was recommended that cognitive restructuring technique is an effective therapeutic technique for modifying the aggressive behaviour of secondary school students. The practicing counsellors and therapist should adopt the use of the technique in counselling and in administering therapy on aggressive behaviour of secondary school students to treat and modify their aggressive behaviour.

Oguzie, Ani, Obi and Onyegirim (2018) in their study investigated the effect of cognitive restructuring technique on fear tendency among secondary school students in Owerri Municipal Council of Imo State. Two research questions and two null hypotheses tested at 0.05 guided this study. Quasi-experimental research design was adopted for this study. The population for this study was a total of 468 (SS2) students that have fear tendency from all public Secondary Schools in Owerri Municipal. Research sample consisted of 56 students with the highest pretest mean scores of fear tendency measuring instrument from the two co-educational schools selected through purposive sampling technique. The Fear Tendency Detecting Instrument (FTDI) was the instrument used for data collection. Data collected from the study were analysed using mean and ANCOVA. Results obtained from the study indicated that cognitive restructuring technique was significantly effective in reducing fear tendency among the students. The results equally showed that cognitive restructuring technique was more effective in reducing fear tendency among the female participants than their male counterpart. However, the difference in the reduction of students' fear tendency was not significant based on gender. It was recommended among others, that cognitive restructuring technique should be adopted by school counsellors as an effective means of controlling fear tendency among their students.

Obiukwu (2017) carried out a study on the effect of cognitive restructuring technique on drug abuse among adolescents in Imo State. The study adopted the non-randomised pretest-posttest control group quasi-experimental design with a sample of 97 adolescents randomly drawn from a total population of 652 drug abusers in Imo State. The instrument used for data collection was a structured questionnaire titled Drug Abuse Detection Questionnaire (DADQ) which was constructed by the researcher. Mean and Analysis of covariance (ANCOVA) were used for analysis data. The findings of the study indicated that cognitive restructuring technique was significantly effective on drug abuse among the adolescents. The findings of the study also showed that there is no significant difference in the effects of cognitive restructuring technique between

the male and female adolescents who participated in the study. It was recommended that counsellors, social workers and other professionals in behaviour modification should adopt cognitive restructuring technique as an effective method in treating drug abuse.

Murcia and Jimenez (2016) investigated the efficacy of cognitive restructuring technique on drug addiction among addicted individuals in Bellvitge, Spain. Three research questions guided the study and three null hypotheses were tested at 0.05 level of significance. The study adopted the experimental design with a population of 4852 addicted adolescents. The study sample was 285 drug addicts drawn from the entire population through simple random sampling. The Addiction Severity Index (ASI) was the instrument used for data collection. Data generated from the study was analysed using Analysis of covariance (ANOVA) and t-test statistics. The findings of the study showed that cognitive restructuring technique was significantly effective in reducing addiction among the participants. The findings also indicated that the technique was significantly more effective in reducing drug addiction among the female participants than the male participants. It was also found that there was no significant difference in the effect of cognitive restructuring technique based on the age of the participants. The study recommended that cognitive restructuring technique should be used by psychologists in handling cases of drug addiction since it has been proved effective in the experiment.

Mujtaba (2016) examined the effect of cognitive restructuring and social skills training techniques on avoidant personality disorder (APD) among secondary school students in Kano Metropolis. Seven research questions and seven null hypotheses were formulated and the hypotheses were tested at 0.05 alpha levels of significance. The study adopted the quasi- experimental design involving pre-test-post-test-control group design. The population of the study consist of Senior Secondary School two Students in Kano Metropolis who exhibited APD. Three male and three female senior secondary schools, making six schools, were selected in Kano Metropolis. A sample of 72 respondents from the six schools, twelve from each school, were sampled and put into 3 experimental groups (CR, SST and control group). Each group consists of 12 male and 12 female students. APD test (DSM-5) was used for data collection in the study. Standard Deviation and t-test for independent sample were used to analyze the data collected. Also ANOVA was used on the pre-test results to confirm that there is no difference in the level of APD among the groups. The results indicated that cognitive restructuring and social skill training techniques were effective in the reduction of APD. There is no significant difference in the effects cognitive restructuring and social skill training techniques in treating avoidant personality disorder. There is a differential effect base on gender in the cognitive restructuring treatment in favour of male while there is no differential effects base on gender in the social skills training. The study recommended among others that a structured treatment package of the two techniques (CR and SST) used in this study

should be used by the school counsellors in conjunction or isolation for the treatment of APD among students.

Asikhia (2014) carried out a study titled effect of cognitive restructuring technique on mathematics anxiety among senior secondary school students in Ogun State. Two null hypotheses tested at 0.05 significant level guided the study. The study adopted the pre-test, post-test control group quasi-experimental design. The sample was 300 students drawn through stratified random sampling from a population of 3691 senior secondary school students. The instrument used for data collection is Mathematics Anxiety Rating Scale-Revised (MARS-R) by Plake and Parker (1982). Analysis of Covariance was used for data analysis. Results of this study revealed that cognitive restructuring technique was significantly effective on mathematics anxiety among subjects. The study also revealed that cognitive restructuring technique was more effective on female students' mathematics anxiety than the male students. The study recommended that counsellors could use cognitive restructuring technique as a strategy to reduce mathematics anxiety among secondary school students since it has been identified as effective.

Moreso, gender difference in the effects of cognitive restructuring technique has been indicated. For instance, Oguzie, Ani, Obi and Onyegirim (2018) found that female participants benefited more from cognitive restructuring technique than the males, while in the contrary, Mujtaba (2016) reported that cognitive restructuring technique treatment is significantly effective on males than females. Since cognitive restructuring technique have been found effective in treating some other maladaptive behaviours, it is important to determine its effects on drug addiction.

The researchers observed in various rehabilitation centres that some youths are addicted to psychoactive substances such as alcohol, tramadol, glue, thiners, tobacco, marijuana, cannabis, heroin, cocaine, methamphetamine, among others. Infact, the increasing rate of drug addiction has become a major source of worry to schools, voluntary organisations, religious bodies, counsellors, researchers, drug regulation agencies, government and the general society. Different measures are put in place by drug regulation agencies and the government to curb the problem of drugs in Nigeria. Such measures include the 1992 National drug law enforcement act (as amended), which stipulated stringent punishments for any individual without lawful authority manufactures, produces, processes, imports, exports or transports of drugs such as heroin, cocaine and marijuana, among others. The punishments included forfeiture of properties or wealth acquired through drug trafficking and imprisonment ranging from a term of ten years to life imprisonment. Unfortunately, these efforts of drug regulation agencies and the government seem to have met with limited success when compared with the rate of drug addiction related cases witnessed in Nigerian. Currently, there has been a heavy wind of suicidal behaviour, social violence and terrorism activities in Nigeria. Some of these crimes may have being perpetuated under the influence of drugs. Cases of drug addiction still abound in south east Nigeria

and the negative effects are felt in all facets of the society. Ideally, as a well known religious country, the citizens of Nigeria are expected to jettison drug addiction but it is unfortunate that many youths are addicted to drugs. The problem of this study is that despite efforts in place to curb drug addiction in Nigeria generally, the menace is getting more sophisticated year after year. Hence, the big question here is; how effective is cognitive restructuring technique on drug addiction among inmates of NDLEA.

Purpose of the Study

The purpose of this study will be to determine the effect of cognitive restructuring technique on drug addiction among inmates of NDLEA. Specifically the study seeks to determine the:

1. Effect of cognitive restructuring technique on drug addiction among inmates of NDLEA when compared to those who received conventional counselling using their pretest and posttest mean scores.
2. Difference in the effects of cognitive restructuring technique on drug addiction among male and female inmates of NDLEA using their pretest and posttest mean scores.

Research Questions

The study was guided by the following research questions:

1. What is the effect of cognitive restructuring technique on drug addiction among inmates of NDLEA when compared to those who received conventional counselling using their pretest and posttest mean scores?
2. What is the difference in the effects of cognitive restructuring technique on drug addiction among male and female inmates of NDLEA using their pretest and posttest mean scores?

Hypotheses

The following null hypotheses were tested at 0.05 levels of significance:

1. The effect of cognitive restructuring technique on drug addiction among inmates of NDLEA is not significant when compared to those who received conventional counselling using their posttest scores.
2. There is no significant difference in the effects of cognitive restructuring technique on drug addiction among male and female inmates of NDLEA using their posttest scores.

Research Method

This study adopted a non-randomized pretest-posttest control group quasi-experimental research design. The design is called quasi experimental because it does not employ randomisation in the placement of participants into experimental and control groups. According to Nworgu (2015), a quasi-experimental study is a type of experimental study that determines the effect of a treatment paradigm on a non-randomised sample. In the quasi experiment, the samples are divided into two groups (experimental group and control group) without randomisation. The present study

therefore adopted a non-randomised pretest-posttest control group quasi experimental design. For the purpose of the present study, the group known as the experimental group (E1) will be given cognitive restructuring while the other group known as the control group(CG) was given conventional counselling.

Population of the Study: The population of the study comprised all 340 male and female inmates from NDLEA correctional facilities in five states in South east Nigeria. The population of inmates was identified using Drug Addiction Detection Inventory (DADI), using the norm of 60 as a guide. The instrument was administered to the inmates to confirm those who are still battling with the problem of drug addiction. Thus, their scores were regarded as the pre-test scores. A total of 460 copies of DADI were administered with the help of five research assistants. Accordingly, from the drug addiction inventory administered, inmates found with high in drug addiction (that is, inmates with high scores above the norm of 60) made up the population of 340.

Sample and Sampling Technique: The sample size for the study was 161 male and female NDLEA inmates drawn using purposive sampling technique to select two states with the high number of drug addicts.

Instrument for Data Collection: The instrument used for this study is a questionnaire titled Drug Addiction Detecting Instrument (DADI) and was developed by the researchers The DADI has an introductory part "section A" that solicits the bio-data of the respondents such as gender. The "section B" is designed to detect inmates who are addicted to drug. The instrument contains a total of 24 items. The respondents were requested to read the items of the instrument carefully and indicate the extent it suits their thoughts and feeling by ticking (1-4). The instrument for data collection has both direct and reverse scoring pattern (for instance items 3, 10, 15, 16 and 23 are reversed). For direct scoring, strongly agree = 4, agree = 3, disagree = 2, strongly disagree = 1, while for reverse scoring strongly agree = 1, agree = 2, disagree =3 and strongly disagree = 4.

Validation of the Instrument: Face validation of the instrument was conducted by three experts. One expert in Measurement and Evaluation unit of the Department of Educational Foundations and two experts in counselling psychology in the Department of Guidance and Counselling, all in the Faculty of Education, Nnamdi Azikiwe University, Awka. Copies of the Drug Addiction Detecting Instrument together with the research topic, purpose of study, research questions and hypotheses were given to the experts. The experts were requested to critique the instrument for appropriateness of the language used, suitability and content coverage. The experts made some observations and gave some suggestions and corrections which were considered in developing the final copy of the instrument.

Reliability of the Instrument: The reliability of the instrument was established through the method of measure of internal consistency whereby the researchers conducted a pilot fest using 20 inmates in NDLEA rehabilitation centre, Rivers State, who are not be part of research population.

The Cronbach coefficient alpha obtained for the DADI instrument is 0.84.

Method of Data Collection: Direct contact approach was employed for the data collection. The researchers acted as the resource persons to the commands. They administered both the treatments and instrument. Inmates with high scores in the DADI were considered to be drug addicts and were selected to form both the experimental and control groups. A special request was made to the NDLEA commander in each of the two participating states for the provision of enabling environment for the period of treatments. The post-test instrument items were reshuffled to avoid Hawthorne's effect. Since the pretest scores were gotten before treatment which lasted for eight weeks, the posttest was administered after the treatment period to both groups.

Control of Extraneous Variables: The researchers are aware of the possible effects of extraneous variables which if not well controlled could pollute the study and mar the findings. Therefore, some efforts were made to ensure that such constraints are reduced or possibly eliminated. Such measures were taken so as to control the extraneous variables included:

1. The use of separate commands in this experiment for the therapeutic treatments. That is, experimental and control groups will be located at different state commands to avoid participants' interaction and contamination.
2. Administration of treatment is another dimension in which control of extraneous variable in each command will be achieved. The researchers who are experts did the treatment by themselves.
3. The researchers are also aware of the Hawthorne effect. The Hawthorne effect according to Nworgu (2015), is an experimenter effect whereby participants in the study may exhibit high level of performance simply because they are aware that they are being studied, and thus changes in participants' behaviour during the course of a study may be related only to the special social situation, and social treatment they received. Therefore, the first week was used to create adequate rapport with the inmates and the instrument for the post-test was reshuffled.
4. Use of analysis of co-variance (ANCOVA): the reason for the use of ANCOVA was to take care of initial differences that may have occurred between the experimental and control groups.

Method of Data Analysis: The completed Drug Addiction Detecting Instrument (DADI) for the pre-test was scored following the scoring instruction and the same measure was be taken for the post-test. Mean scores were used in answering the research questions and analysis of covariance (ANCOVA) was used in testing the null hypotheses at 0.05 levels of significance.

Results and Discussion

Research Question 1: What is the effect of cognitive restructuring technique on drug addiction among inmates of NDLEA when compared to those who received conventional counselling using their pretest and posttest mean scores?

Table 1: Pretest and Posttest drug addiction mean scores of inmates of NDLEA treated with cognitive restructuring technique when compared with those who received conventional counselling (Norm = 60)

Source of Variation	N	Pretest Mean	Posttest Mean	Lost Mean	Remark
CRT	104	72.43	46.10	26.33	Effective
Control	57	76.09	67.95	8.14	

In table 1, it was observed that the inmates of NDLEA treated with cognitive restructuring technique have pretest drug addiction mean scores of 72.43 and posttest mean score of 46.10 with lost mean score of 26.33 while those who received conventional counselling had pretest mean score of 76.09 and posttest mean score of 67.95 with lost mean 8.14. With posttest mean scores of 46.10 for CRT which is below the norm of 60, cognitive restructuring technique is effective in reducing drug addiction among inmates of NDLEA.

Null hypothesis 1: The effect of cognitive restructuring technique on drug addiction among inmates of NDLEA is not significant when compared to those who received conventional counselling using their posttest scores.

Table 2: ANCOVA on the effect of cognitive restructuring technique on drug addiction among inmates of NDLEA when compared with those who received conventional counselling

Source of variation	SS	df	MS	Cal. F	Pvalue	P ≤ 0.05
Corrected Model	18927.857	2	9463.929			
Intercept	2399.074	1	2399.074			
Pretest Scores	1347.266	1	1347.266			
Treatment Methods	15115.403	1	15115.403	193.088	.000	
Error	12368.615	158	78.282			
Total	497861.000	161				
Corrected Total	31296.472	160				

Table 2 indicates that at 0.05 level of significance, 1df numerator and 160df denominator, the calculated F is 193.09 with Pvalue of 0.000 which is less than 0.05. Therefore, the first null hypothesis is not accepted. So, the effect of cognitive

restructuring technique on drug addiction among inmates of NDLEA is significant when compared with those who received conventional counselling.

The present findings are in agreement with that of Murcia and Jimenez (2016) who investigated the efficacy of cognitive restructuring technique on drug addiction among addicted individuals in Bellvitge, Spain and found that cognitive restructuring technique was significantly effective in reducing addiction among the participants. A year after Obiukwu (2017) carried out a study on the effect of cognitive restructuring technique on drug abuse among adolescents in Imo State and observed that that cognitive restructuring technique was significantly effective on drug abuse among the adolescents. This has been corroborated by the present findings. One could simply argue that this has been possible due to the fact that cognitive restructuring technique is a therapeutic intervention process that helps people to discover, challenge and modify or replace their irrational thoughts.

Again Cognitive restructuring as a psychotherapeutic process of learning to identify and dispute irrational or maladaptive thoughts known as cognitive distortions, such as all-or-nothing thinking (splitting), magical thinking, over-generalization, magnification, and emotional reasoning, which are commonly associated with many mental health disorders (Gladding, 2019) could be effective in modifying other maladaptive behaviours. Hence, Anyamene and Ngwakwe (2019) investigated the effect of cognitive restructuring technique in reducing aggressive behaviour among secondary school students in Gombe State and found that cognitive restructuring Technique was significantly effective in reducing secondary school students' aggressive behaviour. Also Oguzie, Ani, Obi and Onyegirim (2018) in their study found that cognitive restructuring technique was significantly effective in reducing fear tendency among the students.

Research Question 2: What is the difference in the effects of cognitive restructuring technique on drug addiction among male and female inmates of NDLEA using their pretest and posttest mean scores?

Table 3: Pretest and Posttest drug addiction mean scores of male and female inmates of NDLEA treated with cognitive restructuring technique (Norm = 60)

Source of Variation	N	Pretest Mean	Posttest Mean	Lost Mean	Remark
Male	84	72.98	46.14	26.84	More effective
Female	20	70.15	45.90	24.25	

In table 3 it was observed that the male inmates of NDLEA treated with cognitive restructuring technique had pretest mean score of 72.98 and posttest mean score of 46.14 with lost mean 26.84 in their drug addiction while the female counterparts had

pretest mean score of 70.15 and posttest mean score of 45.90 with lost mean 24.25. With lost mean scores of 26.84 for male inmates as against 24.25 for female inmates, CRT is more effective in reducing drug addiction scores of male inmates of NDLEA.

Null hypothesis 2: There is no significant difference in the effects of cognitive restructuring technique on drug addiction among male and female inmates of NDLEA using their posttest scores.

Table 4: ANCOVA on the effects of cognitive restructuring technique on drug addiction among male and female inmates of NDLEA

Source of variation	SS	df	MS	Cal. F	Pvalue	P ≤ 0.05
Corrected Model	364.511	2	182.256			
Intercept	1671.411	1	1671.411			
Pretest Scores	363.559	1	363.559			
Gender	1.734	1	1.734	0.019	0.890	NS
Error	9122.527	101	90.322			
Total	230472.000	104				
Corrected Total	9487.038	103				

Table 4 indicates that at 0.05 level of significance, 1df numerator and 103df denominator, the calculated F is 0.019 with Pvalue of 0.890 which is grater than 0.05. Therefore, the fourth null hypothesis is accepted. So, there is no significant difference in the effects of cognitive restructuring technique on drug addiction among male and female inmates of NDLEA using their posttest scores.

The findings of the present study agree with the finding of Anyamene and Ngwakwe (2019) which revealed that cognitive restructuring technique was more effective in reducing aggressive behaviour of male secondary school students. But it disagrees with Murcia and Jimenez (2016) findings which stated that the technique was significantly more effective in reducing drug addiction among the female participants than the male participants. Furthermore, the finding of the present study disagrees with that of Oguzie, Ani, Obi and Onyegirim (2018) which showed that cognitive restructuring technique was more effective in reducing fear tendency among the female participants than their male counterpart. However, the difference in the reduction of students' fear tendency was not significant based on gender.

Conclusion

The study hereby concludes that cognitive restructuring technique was significantly effective in reducing drug addictive behaviour of inmates in NDLEA irrespective of their gender.

Recommendations

The researchers made the following recommendations:

1. Professional Guidance Counsellors should start visiting the various remind homes or

the NDLEA centres in the country to assist the inmates regain their good mental health by applying cognitive restructuring technique in their rehabilitation services.

2. The NDLEA as an organization should establish a good counselling office in all the centres and employ professional counsellors to work in them.

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