

Effect of Cognitive Restructuring Techniques on Attitude towards Substance Abuse among Secondary School Students

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Abstract

The study examined the effect of cognitive restructuring techniques on attitudes towards substance abuse among secondary school students in Adamawa state, Nigeria. It determined the effect of cognitive restructuring on changing physical, cognitive, and emotional attitudes of drug abusers according to gender. Quasi-experimental design of pre/post-test was used in the study. The population of the study was 210 senior secondary school students in Yola metropolis. A purposive sampling technique was used in selecting 50 participants for the experimental and control groups. The instrument yielded a reliability coefficient of 0.89. The experimental group was subjected to cognitive restructuring sessions, while the control group received a placebo treatment. Analysis of covariance (ANCOVA) was employed in testing the six null hypotheses in the study. The results revealed, among others, that cognitive restructuring techniques were effective in changing students' behavioural, cognitive, and emotional attitudes toward substance abuse in Jimeta-Yola, Adamawa State. It was recommended that psychologists should use cognitive restructuring techniques in changing attitudes toward drug abuse among secondary school students. Encourage those who have undergone Cognitive Restructuring to mentor and support their peers who may be struggling with substance abuse attitudes.

Keywords: - cognitive, restructuring, substance, abuse, students

Introduction

The young students are the most important social segment of any society. Their youthful exuberance, agility, brain and brawn made some of them to abuse substances. It has become a thing of joy nowadays among young adults to abuse substances. Counsellors are of the view that restructuring the minds of these students may really be a good step towards the right direction. A technique called cognitive restructuring which also refers as to a group of therapeutic techniques, and evidence-based treatment that predicts, identifies, explains, diagnoses, and treats negative thought patterns ravaging individuals' addictive behaviours

(Turnbridge, 2021). Researchers are of the view that addiction is one of the most rapidly growing epidemics that currently plague nations around the world. In the United States, it has cost the government more than US \$700 billion a year in terms of health care and other associated costs, and it is also associated with serious social, physical, and mental consequences (Pradhan et al., 2019). Nigeria is currently witnessing an alarming increase in the rate of substance use and abuse among youths and emerging adults (Agberotimi, 2018). Substance abuse among youths is fast becoming a global public health concern (Idowu et al., 2018). It is the harmful or hazardous use of psychoactive substances including alcohol and illicit drugs (Gurung & Kaphle, 2020). Substance use disorders (SUDs) are heterogeneous conditions characterized by recurrent maladaptive use of a psychoactive substance associated with significant distress and disability (Rohsenow, 2016). Substance abuse is an intricate behaviour seen to be most prevalent among young people across the world (Umukoro et al., 2021).

Commonly cited drugs are cigarettes, cannabis, alcohol, inhalants, tranquillizers, opiates, and hallucinogens and the most common reasons for substance abuse were: social/ peer pressure, rebellion, overwork/learning, shyness, fear, parental influence, fun, and lack of role models (Sarkingobir & Dikko, 2020). The use of volatile organic solvents is reported to be becoming popular, especially among street children, in-school youth and women. Thus, a concern for the control of drug abuse and addiction is not only necessary but germane to ensuring peaceful social co-existence and national development (Makanjuola et al., 2007). Researchers have observed that substance abuse in Jimeta-Yola has become a thing of pride among students in secondary school. They also observed the resultant effects of substance abuse in the study area, which make some school principals fear students who abuse substances because they fight, rob, rape, and kill students and people in the neighbouring schools. It has made some of the abusers not to attend classes and sometimes leave schools at will, which in turn affects their performance at the end of the term or semester. It has continued to create a threat to the effective survival of the societies, communities, and nations, especially Nigeria. This menace is detrimental to the student's education and health. It posits a serious concern among researchers (Bakari & Sani, 2019).

Substance abuse and emotion are two related concepts. Researchers opined that anxiety can lead to challenging and dangerous behaviours; for example, throwing objects, destroying property, self-injury, assault, and suicide. Unresolved anxiety, as well as ineffective coping with anxiety, can lead to depression. Regularly occurring anxiety in an adolescent patient may be a sign of depression or another underlying mental health issue. Anxiety is characterized by physical complaints like chest tightness, dizziness, nausea, headache among youth; behavioural issues including avoidance, impulsiveness, isolation, arguing, refusal to cooperate, attempts to control others; and emotional symptoms like worry, irritability, sense of dread, a feeling of being overwhelmed, and frustration. An anxiety disorder often occurs concomitantly with physical, emotional, or mental illnesses or substance abuse (Fleming, 2020).

Also, researchers are of the view that emotion dysregulation is one factor that has been shown to underlie the association between substance abuse and emotion. Difficulties regulating positive emotions, alcohol use, and problems from drug use demonstrated significant positive zero-order correlations. Furthermore, difficulties regulating positive emotions were found to account for the associations between post-traumatic stress disorder

(PTSD) symptom's severity and both alcohol use and problems from drug use. The results suggest the potential utility of addressing difficulties in regulating positive emotions in interventions aimed at reducing substance use and abuse among individuals with PTSD (Weiss et al., 2019).

In addition, it was discovered that there were behavioural problems of substance abuse among youth in Jalingo which is geographically close to the study area. Coping skills counselling programme was developed, to discourage this behaviour of substance abuse; the programme was reported to have significant effects on behavioural attitudes towards substance abuse among secondary school students in Jalingo (Bakari et al., 2018).

Another aspect is the cognitive characteristics of substance abusers. Empirical evidence indicates that cognitive therapy has the potential to be an efficacious treatment for alcohol and other substance use disorders, especially with adult patients who present with comorbid mood disorders, and with adolescents (Grossman, 2021). Cognitive-behavioural therapy generally consists of a collection of strategies intended to enhance self-control. Specific techniques include exploring the positive and negative consequences of continued use, self-monitoring to recognize drug cravings early so as to identify high-risk situations for use, and develop strategies for coping with and avoiding high-risk situations and the desire to use. A central element of this treatment is anticipating likely problems and helping patients develop effective coping strategies. Research indicates that the skills individuals learn through cognitive-behavioural approaches remain after the completion of treatment. In several studies, most people receiving a cognitive-behavioural approach maintained the gains they made in treatment throughout the following year (Carroll et al., 2014). Cognitive behavioural therapy (CBT) for substance use disorders has demonstrated efficacy as both a monotherapy and as part of combination treatment strategies (Rohsenow, 2016). Cue exposure therapy with urge-specific coping skills practice produces lasting effects on alcohol use (Rohsenow, 2016).

Based on the available literature, substance abuse can lead to cognitive impairment, which is one of the consequences of substance abuse. A study was conducted to estimate the prevalence and correlates of cognitive impairment among tramadol-abuse patients and control subjects in Egypt. The result revealed that cognitive impairment was significantly associated with polysubstance abuse. There was no association between cognitive impairment and sociodemographic or clinical factors (Bassiony et al., 2017). Cognitive symptoms, like impaired judgment, confusion, inability to make decisions, are some of the problems that precipitated the researchers to embark on this research.

In addition, substance use is generally more prevalent in men than women, although for alcohol, the gender gap is narrowing. However, information is lacking on whether time trends in marijuana use differ by gender (Substance Abuse and Mental Health Services Administration, 2019). Men who experience high levels of MGRS often turn to substance abuse as a means of managing insecurities regarding male role expectations, which may increase their risk of engaging in verbally and physically abusive behaviour (Copenhaver et al., 2000). Meanwhile, Kirmani and Suman (2010) found that boys had a significantly higher level of psychological distress ($t=3.18$, $p=.1$) than girls. Also, the researchers found that those who have already initiated alcohol use had a higher level of psychological distress ($t=4.66$, $P<.01$) than those who have not initiated. Furthermore, there was no significant

gender difference towards alcohol and drinking. The researchers concluded that analyses of trends revealed that boys have a more favourable attitude to alcohol when compared to girls.

Ojaga and Ph (2015) conducted research on the effects of cognitive and rational emotive behaviour therapies on drug abuse of senior secondary school students in Ibadan. Their results showed that there is a significant main effect of treatment in the pre-post practice of drug abuse in the experimental and control groups $\{(F(3,116) = 6.613, p < .05)\}$. This means that there is a significant main effect of treatment in the mean posttest practice of drug abuse scores of participants exposed to treatment and the control group.

Hypotheses

Ho1: Cognitive restructuring has no significant effect in changing behaviour attitudes towards substance abuse among participants exposed to treatment and those not exposed to treatment.

Ho2: Cognitive restructuring technique has no significant effect on changing behaviour attitudes towards substance abuse among students exposed to treatment and those not exposed to treatment according to gender.

Ho3: Cognitive restructuring has no significant effect in changing cognitive attitudes towards substance abuse among students exposed to treatment and those not exposed to treatment.

Ho4: Cognitive Restructuring technique has no significant effect in changing cognitive attitudes towards substance abuse among students exposed to treatment and those not exposed to treatment according to gender.

Ho5: Cognitive restructuring technique has no significant effect in changing emotional attitudes towards substance abuse among students exposed to treatment and those not exposed to treatment.

Ho6: Cognitive restructuring technique has no significant effect in changing emotional attitudes towards substance abuse among students exposed to treatment and those not exposed to treatment according to gender.

Methodology

This study used a quasi-experimental research design. It is a valid design which can be used to identify the cause of a given effect (Oche, 2011). In this study, there was a pre-test and post-test for both the control and experimental group. The treatment offered to the experimental group is the cognitive restructuring of substance abuse; while the control group was offered study skills counselling.

The target population for this study comprised 210 SS3 students from Yola metropolis in Adamawa State, Nigeria. The sample size of the study was fifty (50) students with negative attitudes towards substance abuse. A benchmark of 40% was used to select those with negative attitudes towards substance, while those with positive attitudes were not sampled in the study. A purposive sampling technique was used to get the sample of 25 participants for control and 25 participants for experimental groups from different schools as intact classes.

The research instrument used for this study was developed by the researchers. It has four sections. Section "A" collected biodata while section "B" was on students' behaviour

attitudes towards substance abuse. Section “C” was on students’ cognitive attitudes towards substance abuse while Section “D” was on students’ emotional attitudes towards substance abuse. The response scales were strongly agreed, agree, disagreed, and strongly disagreed carrying points of 4, 3, 2 and 1 respectively. Twenty five copies of the instrument were thus distributed to students of each group (experimental and control group). These copies were distributed and personally retrieved by the researchers. The instrument was validated by two experts from the Faculty of Education, where items were corrected, and the researchers effected the correction as directed. The data collected from a pilot study were statistically analyzed for purpose of reliability co-efficient. The Cronbach Alpha reliability coefficient yielded 0.89.

The procedure for data collection was carried out in three phases: Phase I: The pre-test phase, Phase II: The treatment phase, and Phase III: the post treatment phase. In pre-test phase, the researchers assembled the participants in their different groups, the experimental group and then the control group in their schools; the researchers addressed them on the purpose, importance and benefit they would derive from the counselling sessions. The researchers informed participants that seven sessions would be conducted for the groups. However, the researchers and subjects (students) planned for the meeting time, venue and days for the counselling session in such a way that it would not interfere with the normal classes of the participants. After the interaction, the researchers distributed the questionnaire to the students, and a pass mark of 40% was set. Based on the distribution of the questionnaire, fifty students with a negative attitude towards substances were sampled. The researchers required 25 subjects for each group; that is the control and experimental groups.

The treatment phase was focused on cognitive restructuring counselling sessions for the experimental group. The treatment was conducted in sessions, once a week for seven (7) consecutive sessions. The control group had similar sessions but focusing on study skills.

Table 1: Cognitive restructuring techniques’ sessions

Sessions	CRT Techniques	Explanation	Topic	Teaching Aids(ICE)
First Session	1) Self-Monitoring	To change an unproductive thought pattern of substance abuse of the participants.	Pretest questionnaire	Pictures/ videos
	2) Questioning assumptions (Socratic questioning method)			
Second-Session	3) Gathering assumptions and Disputing	Teaching participants how to question their thoughts and assumptions, especially those that seem to get in the way of living a productive life.	The meaning of substance abuse	Pictures/ videos
	4) Performing a cost-benefit analysis			
	5) Generating alternatives			
Third-Session	6) Benefit and Decatastrophizing	Teaching participants how to decide to keep track of the events that trigger a	Causes and Symptoms of substance abuse	Pictures/ videos
	7) Thought recording			

	response, including who they were with and what they were doing.		
Fouth-Session	Teaching participants how to consider the advantages and disadvantages of maintaining a certain cognitive distortion.	Disadvantages /Negative effects of substance abuse (cognitive, physical, mental and emotional).	Pictures/ videos
Fifth-Session	Teaching participants how to find new ways of looking at the things that happen to them.	How to avoid substance abuse, using detoxification, relapse management, aversive therapy	Pictures/ videos
Sixth-Session	Teaching participants how to identify and change their negative thought patterns which have many benefits.	Revision/ Recap of activities	Pictures/ videos
Seventh-Session	Teaching participants how to help their patients capture, evaluate, and restructure their negative automatic thoughts.	Posttest/ Conclusion	Pictures/ videos

In phase III, the data collected from the pre-test and post-test were analyzed using analysis of covariance (ANCOVA) for all the hypotheses raised at 0.05 level of significance.

Presentation of results

Ho1: Cognitive restructuring has no significant effect in changing behaviour attitudes towards substance abuse among participants exposed to treatment and those not exposed to treatment.

Table 2: Covariance test on the effect of cognitive restructuring on changing negative behaviour attitudes towards substance abuse among experimental and control groups

SOURCE	TYPE III SUM OF SQUARES	DF	MEAN SQUARE	F	SIG.	PARTIAL ESTIMATION
CORRECTED MODEL	724.080 ^a	4	181.020	6.479	.000	.365
INTERCEPT	603.376	1	603.376	21.595	.000	.324
PRE-EXPERIMENT GROUP	99.719	1	99.719	3.569	.065	.073
GENDER GROUP	462.783	1	462.783	16.563	.000	.269
*GENDER	51.696	1	51.696	1.850	.181	.039
ERROR	.017	1	.017	.001	.981	.000
TOTAL	1257.300	45	27.940			
CORRECTED TOTAL	40679.000	50				
	1981.380	49				

R SQUARED = .365; ADJUSTED R SQUARED = .309

Table 2 presents analyses of covariance which uses covariates as pre-test scores of both treatment and control groups. After the analysis, the finding shows that there is a significant effect of cognitive restructuring technique on changing negative behaviour towards substance abuse among the experimental against the control group, with treatment scores ($F=16.56$, $P=.000$). This indicates that the cognitive restructuring technique is effective in changing negative behaviour attitudes towards substance abuse among secondary school students in Jimeta-Yola, Adamawa State. Therefore, the null hypothesis which states that cognitive restructuring technique has no significant effect in changing behaviour attitudes towards substance abuse is rejected.

Ho2: Cognitive restructuring technique has no significant effect on changing behaviour attitudes towards substance abuse among students exposed to treatment and those not exposed to treatment according to gender.

Table 2 presents an analysis of covariance to test the effect of cognitive restructuring technique in changing negative behaviour attitudes towards substance abuse among experimental and control groups according to gender. The covariate was used as pre-test scores for both treatment and control groups. After the analysis, the finding shows that there is no significant effect of cognitive restructuring technique in changing negative behaviour attitudes towards substance abuse among experimental and control groups according to gender ($F=.001$, $P=0.98$). This indicates that cognitive restructuring technique has no effect in changing negative behaviour attitudes towards substance abuse among experimental and control groups according to gender. Therefore, the null hypothesis is accepted

Ho3: Cognitive restructuring has no significant effect in changing cognitive attitudes towards substance abuse among students exposed to treatment and those not exposed to treatment.

Table 3: Analysis of Covariance test on the effect of Cognitive restructuring on changing negative cognitive attitudes towards substance abuse among experimental and control groups

SOURCE	TYPE III SUM OF SQUARES	DF	MEAN SQUARE	F	SIG.	PARTIAL ETA SQUARED
CORRECTED MODEL	1993.030 ^a	4	498.258	88.153	.000	.887
INTERCEPT	1260.044	1	1260.044	222.929	.000	.832
PRE-EXP. GROUP	2.462	1	2.462	.436	.513	.010
GENDER GROUP	451.536	1	451.536	79.886	.000	.640
*GENDER ERROR	3.877	1	3.877	.686	.412	.015
TOTAL	.943	1	.943	.167	.685	.004
	254.350	45	5.652			
	41953.000	50				
CORRECTED TOTAL	2247.380	49				

Table 3 presents analysis of the covariance test on the effect of the cognitive restructuring technique on changing negative cognitive attitudes towards substance abuse among experimental and control groups. The covariate was used as pre-test scores of both treatment and control groups. After the analysis, the finding shows that there is a significant effect of cognitive restructuring technique on changing negative cognitive attitudes towards substance abuse among the experimental against the control group on post-test treatment scores ($F=79.89$, $P=.000$). This indicates that the cognitive restructuring technique is effective in changing negative cognitive attitudes towards substance abuse among secondary school students in Jimeta-Yola, Adamawa State. Therefore, the null hypothesis which states that cognitive restructuring techniques (CRT) have no significant effect in changing cognitive attitudes towards substance abuse among students exposed to treatment and those not exposed to treatment is rejected.

Ho4: Cognitive restructuring technique has no significant effect in changing cognitive attitudes towards substance abuse among students exposed to treatment and those not exposed to treatment according to gender.

Table 3 presents an analysis of covariance conducted to test the effect of cognitive restructuring techniques (CRT) on changing negative cognitive attitudes towards substance abuse among experimental and control groups according to gender. The covariate was used as pre-test scores of both treatment and control groups. After the analysis, the finding shows that there is no significant effect of cognitive restructuring techniques (CRT) on changing negative cognitive attitudes towards substance abuse among experimental and control groups according to gender (0.412). This indicates that the cognitive restructuring technique has no effect in changing negative cognitive attitudes towards substance abuse among experimental and control groups according to gender. Therefore, the null hypothesis which states that there is no significant effect of cognitive restructuring technique in

changing negative cognitive attitudes towards substance abuse among students exposed to treatment and those not exposed to treatment according to gender is accepted.

Ho5: Cognitive restructuring technique has no significant effect in changing emotional attitudes towards substance abuse among students exposed to treatment and those not exposed to treatment.

Table 4: Analysis of Covariance test on the effect of Cognitive restructuring on changing negative emotional attitudes towards substance abuse among experimental and control groups

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	2520.595 ^a	4	630.149	154.008	.000	.932
Intercept	1541.849	1	1541.849	376.827	.000	.893
Pre-Exp Group	.112	1	.112	.027	.870	.001
Gender	2333.560	1	2333.560	570.320	.000	.927
Group* Gender	.849	1	.849	.207	.651	.005
Error	13.583	1	13.583	3.320	.075	.069
Total	184.125	45	4.092			
Corrected Total	45220.000	50				
	2704.720	49				

R Squared = .932; Adjusted R Squared = .926

Table 4 presents an analysis of covariance test on the effect of cognitive restructuring technique on changing negative emotional attitudes towards substance abuse among experimental and control groups. The covariate was used as pre-test scores of both treatment and control groups. After the analysis, the finding shows that there is a significant effect of cognitive restructuring technique on changing negative emotional attitudes towards substance abuse among the experimental against the control group on post-test treatment scores ($F=570.32$, $P=.000$). This indicates that cognitive restructuring technique is effective in changing negative emotional attitudes towards substance abuse among secondary school students in Jimeta-Yola, Adamawa State. Therefore, the null hypothesis which states that cognitive restructuring technique has no significant effect in changing emotional attitudes towards substance abuse among students exposed to treatment and those not exposed to treatment is rejected.

Ho6: Cognitive restructuring technique has no significant effect in changing emotional attitudes towards substance abuse among students exposed to treatment and those not exposed to treatment according to gender.

Table 4 presents an analysis of covariance conducted to test the effect of cognitive restructuring techniques (CRT) on changing negative emotional attitudes towards substance abuse among experimental and control groups according to gender. The covariate was used as pre-test scores of both treatment and control groups. After the analysis, the

finding shows that there is no significant effect of cognitive restructuring technique on changing negative emotional attitudes towards substance abuse among experimental and control groups according to gender ($F=3.32$, $P=.075$). This indicates that cognitive restructuring techniques (CRT) have no effect in changing negative emotional attitudes towards substance abuse among experimental and control groups according to gender. Therefore, the null hypothesis which states that there is no significant effect of cognitive restructuring techniques (CRT) in changing negative emotional attitudes towards substance abuse between students exposed to treatment and those not exposed to treatment according to gender is accepted.

Discussion of the findings

Findings provide valuable insights into the effectiveness of cognitive restructuring techniques in changing attitudes towards substance abuse among students in Jimeta-Yola, Adamawa State. These findings underscore the importance of tailoring interventions to specific needs and considering the broader social context when addressing substance abuse issues. The first hypothesis which stated that cognitive restructuring technique has no significant effect in changing behaviour attitudes towards substance abuse among students exposed to treatment and those not exposed to treatment is rejected. Empirical evidence indicates that cognitive therapy has the potential to be an efficacious treatment for alcohol and other substance use disorders, especially with adult patients who present with comorbid mood disorders, and with adolescents (Grossman, 2021).

Also, many of the randomized controlled trials RCTs used interventions based on different behavioural theories such as family interactions, social cognitive theories, and harm-minimization framework (Pradhan et al., 2019). Cognitive-behavioural strategies are based on the theory that learning processes play a critical role in the development of maladaptive behavioural patterns. Individuals learn to identify and correct problematic behaviour by applying a range of different skills that can be used to stop drug abuse and to address a range of other problems that often co-occur with it. After the analysis, the finding shows that there is a significant effect of cognitive restructuring technique on changing negative behaviour towards substance abuse among the experimental against the control group on post-test treatment scores. Therefore, the null hypothesis which states that cognitive restructuring techniques (CRT) have no significant effect in changing behaviour attitudes towards substance abuse between students exposed to treatment and those not exposed to treatment is rejected. This shows that counselling, most especially cognitive therapy, is of significance to substance abusers.

The finding from the second hypothesis showed that cognitive restructuring technique has no significant effect in changing behaviour attitudes towards substance abuse among students exposed to treatment and those not exposed to treatment according to gender. This implies that the issue of gender identity did not influence the response to change positively to the act of drug abuse among participants. The reason for this could be that in the case of Nigeria, substance abuse and addiction are becoming increasingly widespread and various reports of rapid situation assessments of drug abuse and addiction in the country show a picture of widespread consumption of cannabis (10.8%), followed by psychotropic substances (mainly the benzodiazepines and amphetamine-type stimulants) 10.6% and to a lesser extent heroin (1.6%) and cocaine (1.4%) in both the urban and rural areas. The use of volatile organic solvents (.053%) is reported to be becoming popular, especially among

street children, in-school youth and women. Thus, a concern for the control of drug abuse and addiction is not only necessary but germane to ensuring peaceful social co-existence and national development (Makanjuola et al., 2007). Substance use is generally more prevalent in men than women, although for alcohol, the gender gap is narrowing. However, information is lacking on whether time trends in marijuana use differ by gender (Substance Abuse and Mental Health Services Administration, 2019). Men who experience high levels of MGRS often turn to substance abuse as a means of managing insecurities regarding male role expectations, which may increase their risk of engaging in verbally and physically abusive behaviour (Copenhaver et al., 2000). Substance use is generally more prevalent in men than women, although for alcohol, the gender gap is narrowing. However, information is lacking on whether time trends in marijuana use differ by gender.

The third hypothesis revealed that cognitive restructuring techniques (CRT) have significant effect in changing cognitive attitudes towards substance abuse among students exposed to treatment and those not exposed to treatment. Ojaga and Ph (2015) conducted research on the effects of cognitive and rational emotive behaviour therapies on drug abuse of senior secondary school students in Ibadan. Their results showed that there is a significant main effect of treatment in the pre-post practice of drug abuse in the experimental and control groups $\{(F(3,116) = 6.613, p < .05)\}$. This means that there is a significant main effect of treatment in the mean posttest practice of drug abuse scores of participants exposed to treatment and the control group. This also implies that students in the experimental groups benefited from the treatment package as it develops in them the ability to discontinue the practice of the abuse of drugs better than students in the control groups who were not exposed to any treatment package. After the analysis, the finding shows that there is a significant effect of cognitive behaviour modification therapy on changing negative cognitive attitudes towards substance abuse among the experimental against the control group on post-test treatment scores.

The fourth hypothesis which states that the cognitive restructuring techniques (CRT) have no significant effect in changing cognitive attitudes towards substance abuse among students exposed to treatment and those not exposed to treatment according to gender is accepted. This suggests that the interaction of treatment on gender did not influence the post-test drug abuse scores of senior secondary school student participants. Therefore, the null hypothesis is accepted. The reason for this could be that the majority of Nigerian youths ignorantly depend on one form of drug or the other for their various daily activities – social, educational, political, moral and others. Such drugs include tobacco, indian hemp, cocaine, morphine, heroin, alcohol, ephedrine, madras, caffeine, glue, barbiturates, amphetamines, among others. Oshikoya and Alli (2006) in their studies on the perception of drug abuse amongst Nigerian undergraduates identified dependence and addiction as one of the major consequences of drug abuse, characterized by compulsive drug craving-seeking behaviours that persist even in the face of negative consequences. These changes are maladaptive and inappropriate to the social or environmental setting and could place the individual at risk of harm. After the analysis, the finding shows that there is no significant effect of cognitive restructuring techniques (CRT) on changing negative cognitive attitudes towards substance abuse among experimental and control groups according to gender. Therefore, the null hypothesis which states that there is no significant effect of cognitive restructuring techniques (CRT) in changing negative cognitive attitudes towards substance abuse among

students exposed to treatment and those not exposed to treatment according to gender is accepted.

Hypothesis five indicates that cognitive restructuring technique is effective in changing negative emotional attitudes towards substance abuse among secondary school students in Jimeta-Yola, Adamawa State. This agrees with the findings of Bakari et al., (2018) who said that there was a significant difference in the reduction of positive attitudes of emotion towards substance abuse in the experimental group using coping strategies.

Hypothesis six, which states that there is no significant effect of cognitive restructuring technique on changing negative emotional attitudes towards substance abuse among experimental and control groups according to gender, is accepted. This finding is in line with Kirmani and Suman (2010) who found that boys had a significantly higher level of psychological distress ($t=3.18, p=.1$) than girls. Also, the researchers found that those who have already initiated alcohol use had a higher level of psychological distress ($t=466, P<.01$) than those who have not initiated. Furthermore, there was no significant gender difference towards alcohol and drinking. The researchers concluded that analyses of trends revealed that boys have a more favourable attitude to alcohol when compared to girls. In addition, Weiss et al. (2019) revealed that post-traumatic stress disorder (PTSD) symptom's severity, difficulties regulating positive emotions, alcohol use, and problems from drug use demonstrated significant positive zero-order correlations. Furthermore, difficulties regulating positive emotions were found to account for the associations between PTSD symptom severity and both alcohol use and problems from drug use.

In summary, the findings agree with prior research by Grossman (2021) and Pradhan et al. (2019), who also highlighted the efficacy of cognitive therapy and various behavioural theories in addressing substance abuse. Also, gender did not significantly influence the response to change positively in attitudes towards substance abuse. This aligns with national trends in Nigeria where substance abuse is widespread among both genders. However, it contradicts findings that men may be more prone to substance abuse due to factors like societal expectations and coping mechanisms (Copenhaver et al., Substance Abuse and Mental Health Services Administration).

Conclusion

Cognitive restructuring techniques have effectively changed negative behavioural, cognitive and emotional attitudes towards substance abuse among secondary school students in Jimeta-Yola, Adamawa State. However, there is no significant effect of the cognitive restructuring technique on changing negative behavioural, cognitive, and emotional attitudes towards substance abuse among secondary school students in Jimeta-Yola Adamawa State according to gender. The study found evidence supporting the effectiveness of cognitive restructuring techniques in changing attitudes towards substance abuse among students.

Recommendations

Based on the findings of this study the following recommendations are made:

1. Parents and caregivers should be involved in the process of changing negative behaviour of students by providing them with information about the cognitive restructuring programme and its benefits.

2. Psychologists should use cognitive restructuring techniques in changing attitudes toward drug abuse among secondary school students. They should encourage those who have undergone cognitive restructuring to mentor and support their peers who may be struggling with substance abuse attitudes.

3. Government should promote community awareness about the positive impact of cognitive restructuring on substance abuse attitudes. Local community leaders and organizations should be engaged in supporting and endorsing these programmes.

4. While this study found no significant gender differences, it is still important to consider gender-specific factors when designing interventions. Further research should be conducted to identify whether there are subtler gender-related nuances in attitudes towards substance abuse that were not captured in this study. Interventions should be tailored to address these potential differences.

5. Secondary school principals should allocate adequate resources, including funding, training, and materials, to sustain and expand cognitive restructuring programmes. They should ensure that these programmes have the necessary support for their continued success.

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