The effect of cognitive restructuring on hostility behaviour among adolescents in borstal training institute, Barnawa, Kaduna State, Nigeria.

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Abstract
This study investigated the effect of cognitive restructuring on HostilityBehaviour among adolescents in Borstal Training Institute, Barnawa, Kaduna State, Nigeria. The study employed a quasi – experimental, non-equivalent control group, pre-test-post-test design. The population of the study was 364 adolescents out of which 40 inmates were purposively sampled and used for the study. The instruments used for data collection was Conduct Disorder Scale (CDS) and Inmates Therapeutic Technique Questionnaire (ITTQ). Hypotheses were tested using t-test. The findings revealed that significant difference exist in the effect of cognitive restructuring on hostility behaviour among adolescent exposed to the treatment and those in the control group and also between pre-test and post-test scores in hostilitybehaviorafter and before exposure to cognitive restructuring treatment technique respectively. It was recommended among others that functional guidance and counseling centres be established in institutions to serve as corrective measures for delinquent adolescents. The study serves as a reference point for parents, teachers, owners of delinquent homes and the government.

Keywords: Cognitive Restructuring, Hostilitybehaviour, Adolescents and Borstal Training Institute.

Hostility behaviour is a serious problem that occurs in adolescence. Adolescents with this behaviour may display a pattern of disruptive and violent behaviour and have problems following rules (Hinshaw and Lee, 2003). It is not uncommon for adolescents to have delinquent-related problems at some time during their development. However, the delinquent is considered to be a delinquent when it is long-lasting and when it violates the rights of others, when it goes against accepted norms of behaviour and disrupts the child's or family's everyday life (Hinshaw and Lee, 2003; Goldberg, 2012).

It is also noted that an adolescent progresses through stages of biological development as well as changes in psychological and social functioning. Developing proper emotions and controlling them is very essential during adolescence. Meeting social demands as well as eliminating the damaging effects of the emotions on attitudes, habits, behaviour and physical well-being, as well as control of emotions, is essential. Control does not mean repression but learning to approach a social situation with a rational attitude and repression of those emotions which are socially unacceptable.

When an individual reaches adolescence, he/she knows what type of behaviour is expected of him or her and which behaviour are unacceptable. Adolescents however misbehave from time to time for a variety of reasons. Perhaps, they feel that they need to assert their own independence or they wish to test the limits imposed on them. Sometimes, adolescents misbehave because they are experiencing internal distress, anger, frustration, disappointment, anxiety, or hopelessness. There are also those whose behaviour is consistently of concern to others. In such cases, the adolescents' behaviour is clearly outside the range of what is considered normal or acceptable. Perhaps, most alarming is that many of them show little remorse, guilt, or understanding of the damage and pain inflicted on people by their behaviour (Pruitt, 2000).

The future of any nation is largely determined by the well-being of adolescents. Dealing with adolescents has always been a challenge for both parents and helping professionals. Hostility behaviours typically develop in childhood and adolescence. While some delinquent issues may be normal, those who have hostility behaviours develop chronic patterns of aggression, defiance, open refusal to laws or regulations and disruption. Adolescents 'hostility can cause problems at home or school and can interfere with relationships. Adolescents with behaviour problem may develop personality behaviours, depression, or bipolar behaviour as adults (Richard-Harrington, 2008).

Adolescents hostility behaviour may

include: lying, smoking, use of alcohol and drugs, involvement in early sexual activity, skipping school and having higher than average risk of suicide. Adolescents may also have other mental, emotional or delinquent behaviours like attention-deficit hyperactivity behaviour (ADHD), oppositional defiant behaviour (ODD) among others (Hinshaw and Lee, 2003; American Academy of Child and Adolescent Psychiatry, 2010).

Hostility is a problem characterised by a consistent pattern of harming others or their property, or breaking major accepted rules or standards of behaviour. Individuals must be developmentally able to understand and follow the standards of behaviour in order to be considered as having delinquent behaviour (Evans, 2012). According to APA (2000), hostilitybehaviour is defined as a repetitive and persistent pattern of behaviour that violates the rights of others or in which major age-appropriate societal norms or rules are violated. The symptoms of the behaviour fall into four main subscales or dimensions: aggression to people and animals, destruction of property, deceitfulness, and serious violation of rules (Frick andNigg, 2012). Frick, Stickle, Dandreaux, Farrell and Kimonis (2005) are of the opinion that delinquentis an important psychiatric behaviour for a number of reasons which are closely related to criminal and violent behaviour that is associated with problems in adjustment across the lifespan.

Adolescents with hostile behaviouroften view the world as a hostile and threatening place (Evans, 2012). Friends and family members become upset with their behaviour and become more irritated when they do not show remorse or guilt over their actions (Evans, 2012). Based on the mentioned causes of hostility behaviour, it is obvious that adolescents with hostility behaviours will not just hurt themselves but also hurt others. Parents, caregivers and society at large. Report cases of adolescent delinquent or hostility behaviour to juvenile courts, remand or correctional homes or centres but these measures are not sufficient in correcting hostility behaviour. Different psychological interventions like cognitive restructuring, thought-stopping, self management, reinforcement, punishment, modelling and family therapy are some of the measures put in place by professional counsellors and psychologists to treat or correct delinquent (Obalowo, 2004; Edelson, 2004; Aderanti and Hassan, 2011).

Cognitive Restructuring.

Cognitive restructuring is the process of learning to refute cognitive distortions, or fundamental "faulty thinking" with the goal of replacing one's irrational, counter-factual beliefs with more accurate and beneficial ones, The cognitive restructuring theory holds that people are directly responsible for generating dysfunctional emotions, and their resultant behaviour, like stress, depression, anxiety, and social withdrawal, and that we humans can get rid of such

emotions and their effects by dismantling the beliefs that give them life. Because one sets unachievable goals - 'Everyone must love me; I have to be thoroughly competent; I have to be the best in everything" — a fear of failure results. Cognitive restructuring then advises individuals to change such irrational beliefs and substitute them with more rational ones: "1 can fail. Although it would be nice if I excel, I don't have to be the best in everything." (Ellis in Wikipedia, 2011).

Cognitive restructuring and the disputing of dysfunctional or irrational beliefs of people who have emotional and behaviour disorder date back to the ancient times, particularly early Asian Greek and Roman Philosophers who took to constructivist view of humans. A contemporary of the period called Epictetus concluded that people are disturbed not by the events that happen to them, but by their views of these events. (Jane and Steven 2003).

Beck, (1979), explains how a cognitive therapist can help a client to think and act more realistically and adaptively about his problems and thus reduce the symptoms of the behaviour that deserves to be changed. Beck emphasized that cognitive techniques aim at delineating and testing the client's specific misconceptions and maladaptive assumptions. This approach consists of specific learning experiences designed to change the clients' unwanted behaviour.

This technique was adopted in this work for the cognitive restructuring of behaviour in the experimental group. These learning experiences are:

i. Monitoring his negative, automatic thoughts;
ii. Recognizing the connections between cognition, effect and delinquent;
iii. Examining the evidence for and against his distorted automatic thoughts (thereby challenging the distorted cognition);
iv. Substituting more reality-oriented interpretations for these biased cognitions;
v. Learning to identify and alter the dysfunctional beliefs which predispose him to distort his experience.

Wikipedia (2012) outlined the following as the model of the basic steps in cognitive restructuring therapy:

i. Identification of problematic cognitions which is otherwise known as "automatic thoughts" (ATs)., which are dysfunctional or negative views of the self world or future;
ii. Identification of the cognitive distortion in the Ats;
iii. Rational disputations of the Ats;
iv. Development of rational rebuttal to the Ats.

Beck (cited in Szentagotai, 2005) describes cognitive restructuring process when he

says it involves:

a. Identifying maladaptive cognitions which is otherwise known as automatic thoughts (ATs), which are dysfunctional or negative views of the self world or future.
b. Modifying maladaptive cognitions- showing clients how to think, feel and act against their rigid behavior with a number of cognitive, emotive and behavior techniques.
c. Assimilating adaptive cognitions – showing clients that they can actively and persistently dispute their maladaptive behavior and create an effective new philosophy that includes strong rational coping statement that can help them to feel better and stay better

The basic idea of cognitive restructuring is that peoples' emotions and behaviour can be greatly affected by what they think. If people can consciously change their habits of what they say about themselves, they can make themselves happier or more productive or can accomplish any of several changes. Sometimes people do blame worthy things, and it is quite normal to get angry with these things. Sometimes, when something very bad is in danger of happening, some fear is appropriate. If we do things that hurt other people, it is quite appropriate to feel guilty. All these stimuli are normal in life. But if we perceive them wrongly and record them wrongly in our cognition, then such cognition is bound to make us behave equally wrongly. Therefore in changing the behaviour, we would need to change the cognition first: The good thing is that there are some ways of changing the unwanted behaviour as human beings have the capacity for rewriting their cognition.

Cognitive restructuring may therefore be seen as giving a disturbed individual more control over his own thought, feeling and behaviour but certainly not an attempt to eliminate all bad feelings which is not a good idea, not even a healthy option. Strayhorn,(2003).

In cognitive restructuring, the therapists guide the clients through the process of becoming more aware of what they are telling themselves and help them to evaluate themselves, and when appropriate, to modify their own thinking. In essence, the therapist teaches the client a process that will help him distinguish distorted thinking from more accurate and useful thinking. CBT emphasizes that this is best done as a collaborative process in which the client is assisted in taking the lead as much as possible. The therapist refrains from assuming that the client's thoughts are distorted and instead attempts to guide the client with questions that encourage the client to make their own discoveries. Bingelli (2003) asserts that clients are also encouraged to engage in this process on their own during their time between sessions by using a written format. Cognitive restructuring, in combination

with other techniques has helped patients struggling with post traumatic stress behavior, body dimorphic behavior (BDD), substance abuse habits (SAH) and non-generalized social phobia (NGSP).In this study, cognitive restructuring is the treatment intervention to be used.

Many rapid and turbulent changes in contemporary living have brought adolescents face to face with problems and decisions, and conditions over which adolescents and their parents have little or no control and which have made growing up today vastly different from that of ancient times. Oniyama and Oniyama (2001) reported that social, emotional and psychological problems plague the Nigerian adolescents due to neglect from parents or caregivers, coupled with the desire for independence by the adolescents which they hardly have access to. Inability of parents or caregivers to fit into the world of the adolescent's gets the latter frustrated, unhappy and they eventually develop inappropriate behaviour which causes problems to themselves and the larger society. During childhood, children are dependent on their parents because of their lack of experience and submissive nature while parents protect and direct them, but when adolescence is reached, these roles change. Adolescents seek individuality, try to assert their independence while parents on the other hand resist the latter's autonomy. The struggle between parents and adolescents for these changes often leads to disobedience, arguments, conflicts and rebellion on the part of the adolescents especially when they are forcefully brought under adult control.

Nigerian students with hostilitybehaviour engage in deviant behaviour such as aggression, peer cruelty, fighting, bullying or threatening others, rioting, stealing, truancy, substance abuse, raping, smoking, lateness, violation of rules and regulations, vandalization of school properties, among other things. It was also reported that the prevalence of hostilitybehaviour among Nigerian adolescents has increased in the last three years in terms of frequency of recorded delinquent crimes and the number of adolescents involved.

Adolescents with hostilitybehaviour not only affect themselves, their families and schools negatively but also the society at large. Increase in adolescents' hostilitybehaviour has led to a leap in chaos, behaviourliness, destruction of lives and property, armed robbery, terrorist activities, kidnapping, oil bunkering, and many more evils. The Nigerian government established Remand Homes (now Special Correctional Centres), Approved Schools and Juvenile Courts to address these delinquentbehaviours in adolescents but mere admission of the latter is not sufficient to reduce or eradicate the behaviour. For adolescents with hostilitybehaviour to be helped, there is, therefore, the need to expose them to counselling interventions in

order for them to become responsible individuals to themselves and their parents, good students at school and worthy ambassadors of the nation as a whole. Various behaviour modification techniques like cognitive restructuring, self management and token economy among others have been used to treat rebelliousness, behaviourliness, depression, anxiety, gambling, attention deficit hyperactivity behaviour and other disruptive behaviours (Gilliam,2002).

Cognitive restructuring, says the American Psychological Association, means "changing the way you think" (Bingelli, 2003). Studies revealed that cognitive restructuring has been found to be very effective in the treatment of all forms of antisocial delinquents. Aderanti and Hassan (2011) report that cognitive restructuring is effective in the treatment of rebelliousness and hostility while Gladding,S. (1988) established its effectiveness in treating stealing. Findings from Aderanti and Hassan (2011) show that cognitive restructuring is more effective on females than on males 'rebelliousness and also effective on the hostility behaviour of inmates from medium socio-economic backgrounds than the inmates from both low and high socio-economic backgrounds. According to Aderanti and Hassan (2011), the effectiveness of cognitive restructuring in treating rebelliousness is not a surprise, because cognitive factors play an important and well documented role in delinquent since the way people think has a controlling effect on their actions. Also, cognitive restructuring has shown great beneficence in the pre-release preparations of criminals, reducing recidivism and depressed persons.

It is the light of this persistence wrong doing of our adolescents that this study therefore will investigate the effect of cognitive restructuring on hostility behaviour among adolescents in Borstal Training Institute, Barnawa, Kaduna. Hence the following research hypotheses were raised:

i. There will be no significant difference in the effect of cognitive restructuring on hostility behaviour among adolescents exposed to the treatment and those in the control group.
ii. There will be no significant difference between pre-test and post-test scores in hostility behaviour among adolescents exposed to the treatment.

METHOD

Design

The research was carried out using quasi-experimental design; Pre-test-Post-test control group. The quasi-experimental design involves the manipulation of one or more independent variables, but there was no random assignment of subjects to conditions (Kolo, 2003). This is because the study would cover fewer participants under control condition. The study took account

of pre-post-test design with both treatment group and a control group. This was considered appropriate because the research involved treatment and control groups respectively. The experimental groups were exposed to cognitive restructuring, while the control group was exposed to the school traditional method of treatment. The design is symbolically presented follows:

Figure 1.0: Pre-test-Post-test Control Group design

O_1 X_1 O_2
O_3 O_4

Key:

O_1 and O_3 refer to the observation before commencement of experiment (pre-test).

O_2 and O_4 refer to the observation after commencement of experiment or treatment (post-test).

X_1 refer to the treatment variable.

Population

All the inmates of Borstal Training Institute, Barnawa Kaduna form the population of the study.. According to Borstal records ,the total population of inmates in custody as at 2013 is three hundred and sixty four (364). The population comprises of students of different age category, ethnic and religious background.

Sample and sampling techniques

As earlier stated, the population of the study is made up of all the inmates in custody at the Borstal Training Institute, Barnawa, Kaduna. However, it was not be feasible to cover all the population of the inmates due to the large number of adolescent in custody. Against the background, the researcher drew the sample purposely from Educational and vocational departments. The total number of inmates in the two departments is three hundred and sixty four (364). 40 of the inmates meet the research diagnostic criteria for delinquent behavior. 40 inmates were randomly assigned. 20 were randomly assigned into the experimental group (Cognitive Restructuring) and the control group.

Treatment Procedures

The researcher cautiously apply treatments in the experimental groups of the departments sampled. Since we had one technique for the treatment, each department had a group for treatment and a control group.

Treatment Sessions

The treatments lasted for eight sessions and each session was between 25 to 30 minutes. Two groups were treated and in each department there was a control group, which did not receive any treatment. Monday to Wednesdays were scheduled for treatment of cognitive restructuring group, while Thursdays were scheduled for discussions with the control group. The

sessions commenced before their normal classes and rounded off after eight weeks.

The control groups: no treatment

The topics were discussed at the peripheral level and caution was taken not to discuss details that may influence changing in behavior becausethe topic was supposed to keep the control group busy and not to effect any change of the unwanted behaviour.

Instruments

Two instruments were utilized in the research, this were:

Conduct Disorder Scale (CDS) and
Inmate Therapeutic Technique Questionnaire (ITTQ)

Conduct Disorder Scale (CDS) was designed by James E. Gilliam in 2002. The CDS is preferred in this study because it is an efficient and effective instrument for evaluating students that are exhibiting severe behaviourproblems and may have Delinquent Behaviour. Furthermore, it provides standard scores for use in identifying students with Delinquent Behavior. The CDS is applicable to individuals 'that are between the ages of 5 through 22, exhibiting unique behaviour problems. Items on the subscales have strong face validity because they are based on the diagnostic criteria for Delinquent Behavior that were published in the Diagnostic and Statistical Manual of Mental Behaviors, Fourth Edition-Text Revision (DSM-IV-TR) (Gilliam, 2002).

The Inmate Therapeutic Technique Questionnaire (ITTQ) is user designed questionnaire. It has three sections. The first section contains seven bio-data variables of age, mode of entry, educational level, programme of study, years spent in the institute, parental socio-economic background and place slept before brought into the institute. The section contains eighteen questions in delinquent offences factor questionnaire each with option of strongly agree, agree, disagreed and strongly disagreed representing points of 4,3,2 and 1 respectively. The last section contains twenty-two questions on inmate treatment evaluation form (IEF) each with options of agreed or disagreed. Ten copies each of the two set of instruments were thus distributed to inmates who where not among the selected for the final study but show similar characteristics in almost all respects.

Data collected from the pilot study were statistically analyzed for purpose of reliability co-efficient. The Cronbachs reliability coefficient was used. Consequently, reliability co-efficient of alpha level of 0 .904 was obtained for the conduct disorder Scale.

In the same vein reliability co-efficient of alpha level of 0. 705 was obtained for the Inmate Therapeutic Technique Questionnaire (ITTQ).

Both reliability co-efficient were

considered adequate for the internal consistencies of the instruments. This was a confirmation of test of reliability by Spiegel M (1992). And Stevens, J (1996). According to them an instrument is considered reliable if it lies between 0 and 1, and that the closer the calculated reliability coefficient is to zero, the less reliable is the instrument, and the closer the calculated reliability coefficient is to 1, the more reliable is the instrument. This therefore confirms the reliability of the data collection instrument used as fit for the main work.

Procedure for data collection

The questionnaire was distributed to the participants i.e. inmates in educational and vocational department. The data collection exercise lasted for Eight weeks. The distribution of the questionnaire was done by the researcher with the aid of some research assistants and collected immediately to minimize the rate of questionnaire loss and damage after which the data was sorted out for computation.

Data analysis

The research hypotheses were tested using inferential statistics of independent t-test while Analysis Of Variance (ANOVA) was used in testing hypotheses one. The basis for rejection or acceptance of the hypotheses was 0.05 level of significance.

RESULT

Table 1: Distribution of inmates by their treatment groups

Treatment Group	Frequency	Percent
EXP	20	50.0
CONT	20	50.0
Total	**40**	**100.0**

The inmates were classified into two groups. A total of 2 0 or 50.0% were grouped in the experimental group that were exposed to the treatment while the remaining 20 or 50.0% were classified into control group.

Table 2: Distribution of inmates by age

Age	Frequency	Percent
Between 16 and 17	3	7.5
Between l8 and 2O	17	42.5
From 21 and above	20	50.0
Total	**40**	**100.0**

The result in table 2 above showed that only 3 or 7.5% were between 16 and 17 years old as against 17 or 42.5% that fall within the age range of 18 and 20 years and the remaining 20 or 50.0% were within age range of 21 and above.

Table 3: Mode of entry/admission into the institute

Mode of Entry	Frequency	Percent
Through the court of law	6	15.0
By parents	34	85.0
Total	**40**	**100.0**

According to table 3 above, 6 or 15.0% of the inmates gained entry/admission into the institute through the court of law and the remaining 34 or 85.0% was through their parents. This implies that an over whelming majority of the inmates mode of entry/admission into the institute was through their parents.

Table 4: Highest level of education before being brought into the institute

Level of education	**Frequency**	**Percent**
Junior secondary 1-3	3	7.5
senior secondary 1-3	34	85.0
did not attend formal such at all	3	7.5
Total	**40**	**100.0**

Results in table 4 above showed that, 3 or 7.5% of adolescents had Junior secondary school 1 - 3 qualification while 34 representing 85.0% had senior secondary 1-3 qualification and the rest 3 or 7.5% did not attend any formal school at all before being brought into institute. This shows that most of the inmates had senior secondary 1-3 qualification prior to their being brought to the institute.

Table 5: Reformationprogramme of study

Programme of study	**Frequency**	**Percent**
Educational	27	67.5
Vocational	13	32.5
Total	**40**	**100.0**

The students according to their reformation programme of study shows that 27 representing 67.5% were in Educational reformative programme while the rest 13 or 32.5% are in the vocational reformative programme.

Table 6: How many years have you spent so far in this institute?

Years spent	Frequency	Percent
0-lyrs	11	27.5
1-2yrs	10	25.0
2-3yrs	19	47.5
Total	**40**	**100.0**

On the number of years spent by the inmates at the institute, 11 of them representing 27.5% have spent less than or one year while 10 or 25.0% have spent between 1 - 2 years and the rest 19 or 47.5% have spent between 2 - 3 years in the institute.

Table 7: Before you were brought into this institute, where do you use to sleep at night?

	Frequency	Percent
At home	24	60.0
Neighborhood	2	5.0
Street	2	5.0
rented apartment	2	5.0
Guest house	1	2.5
with my friends	9	22.5
Total	**40**	**100.0**

On where they sleep before they came to the institute, 24 or 60.0% said they sleep at home with their parents while 2 (5.0%) sleep in neighborhood, another 2 (5.0%) slept in the street while another 2 (5.0%) slept in rented apartment as against 1 or 2.5% that slept in guest house and the rest 9 or 22% slept with their friends.

The study tested a hypotheses that there will be no significant difference in the effect of cognitive restructuring on hostility behaviour among adolescents exposed to the treatment (experimental) and those in the control group.

To test this hypothesis the Hostility behavior pretest and post test scores of student in experimental and control group were compared using the Analysis of variance and Post Hoc multiple comparison (LSD).

Table 8: Analysis o f variance (ANOVA) s howingdifference in the effect of cognitive restructuring on Hostilitybehaviour among adolescents exposed to the treatment (experimental) and those in the control group.

Hostility	Sum of Squares	df	Mean Square	F	F critical	Sig.
Between Groups	1198.638	3	399.546	10.012	2.60	.001
Within Groups	3032.850	76	39.906			
Total	4231.488	79				

The Analysis of variance statistics presented in table 8 above showed that there is a significant difference in the effect of cognitive restructuring on hostility behaviouramong adolescents exposed to the treatment (experimental) and those in the control group. Reason being that the p value of 0.001 was found to be lower than the 0.05 alpha levels while the F calculated ratio value of 10.012 was found to be higher than the F critical value of 2.60. This shows that students Hostility behaviour have significantly reduced after being exposed to the treatment of cognitive restructuring.

Table 9: Homogeneous Subsets

Hostility

	Groupings	N	Subset for alpha = 0.05	
			1	2
	Post test Experimental	20	7.9500	
	Pretest Experimental	20	10.2000	
Scheffe[a]	Pretest Control	20		16.5500
	Post test Control	20		16.7500
	Sig.		.737	1.000

Means for groups in homogeneous subsets are displayed.

a. Uses Harmonic Mean Sample Size = 20.000.

The post-test analysis using the Scheffe and LSD statistics showed that significant differences exist in the hostility behaviour of post-test experimental compared with post-test control and pretest control. Therefore the null hypothesis which state that there will be no significant difference in the effect of cognitive restructuring on hostility behaviour among adolescents exposed to the treatment (experimental) and those in the control group, is hereby rejected.

The second hypotheses stated that there will be no significant difference between Pretest and post test scores on Hostility behaviour among adolescents exposed to the treatment of cognitive restructuring.

To test this hypothesis, the pretest and the post test hostility behaviour scores of students exposed to the treatment were compared using the paired sample t test analysis.

Table 10: showing paired sample t test on the difference between Pretest and post test scores on Hostility behaviour among adolescents exposed to the treatment of cognitive restructuring.

Hostility behaviour disorder	**N**	**MeanScores**	**STD.DEV**	**df**	**t- calculated**	**t- critical**	**P (sig)**
Posttest Hostility	20	12.3500	7.71130	19			
Pretest Hostility	20	13.6750	6.74209		2.259	1.96	0.030

P calculated < 0.05 t calculated > 1.96 at df 19

According to the paired sample statistics presented in table 10 above, significant difference exist between the pretest and post test scores in Hostility behaviour among students exposed to the treatment of cognitive restructuring. This is because the p value of 0.030 is less than the 0.05 alpha level of significance and the calculated t value of 2.259 was found to be higher than 1.96 t critical at df 19. Their mean Hostility behaviourwas 12.3500 and 13.6750 after and before exposure to cognitive restructuring respectively with a mean difference between the two to be 1.3250. This implies that their hostility behaviour after exposure to the treatment has significantly reduced compared to before the treatment. Therefore the null hypothesis which state that there will be no significant difference between the pretest and post test scores in hostility behaviour among students exposed to the treatment of cognitive restructuring, **is hereby** rejected.

Discussion of findings:

Analysis of variance showed that

significant differences exist in the effect of cognitive restructuring on hostilitybehaviour among adolescents exposed to the treatment (experimental) than those in the control group. The findings indicated that cognitive restructuring is effective in the treatment of hostilitybehaviour among adolescents. The reason for this result is as a result of the eight weeks exposure of the participant to the treatment package. This study is in agreement with the findings of Shobola (2007) and Aderanti and Hassan (2011) that cognitive restructuring is an effective intervention in the treatment of all antisocial behaviour such as smoking, stealing, rebelliousness, and socially undesirable behaviours among others. It is therefore worthy of note that these interventions can be used in order to treat suchbehavioural problems as earlier stated.

Findings from the study indicated that significant differences exist between the pre-test and post-test scores in hostilitybehaviour among students exposed to the treatment of cognitive restructuring. The result implies that the intervention is effective and the result of the hypotheses is an affirmation of the theory and previous studies that are carried out in cognitive restructuring (Bandura, 1986; Baker and Scarth, 2002; Aderanti and Hassan, 2011). With the aid of cognitive restructuring, clients are assisted to reconsider any maladaptive pattern in their thinking – feeling behaviour cycles. Previous research also suggested that a lack of involvement, as well as poor monitoring and supervision of children's activities, strongly predicted hostility behavior (Loeber andStouthamer – Loeber, 1986; Murray andFarringon, 2010). Parents of children with hostility are likely to be les positive, more permissive and inconsistent, and use more violent and critical disciplines (Reid, Webster – Stcotton andBoyder, 2004). In an influential review Rutter, Giller andHagell (1998) concluded that hostilitybehaviour are associated with hostile, critical, punitive and coercive parenting. In addition, Bornovalova, Hicks, Iaconoand McGwe (2010) affirmed that hostilitybehaviour development in adolescent is as a result of parents who model violence and hostilebehaviours.

Conclusions

This study investigated the effect of cognitive restructuring on hostilitybehaviour among adolescents in Borstal Training Institute Barnawa, Kaduna State, Nigeria. It has been observed that cognitive restructuring is very effective in the treatment of hostilitybehaviour. It is therefore, the responsibility of the parents, schools and government at all levels(local, state and federal) to play their expected roles to promote good conduct in adolescents.

From the findings of this study, it can be concluded that the participants that were exposed to cognitive restructuring therapy

performed better in their hostility, delinquent behaviour after and before exposure to treatment than those in the control group.

Recommendations

From the study, the following recommendations were made

i. The findings of the study indicate that significant difference exist between experimental and control inmates in their hostilitybehaviour. The researcher therefore, recommends that psychologists and those in the helping profession should be encouraged to use the technique (Cognitive restructuring) in reducing hostility behaviour not only among inmates in custody but among secondary school students.

ii. Since cognitive restructuring was tested and found to be effective with a commendable decrease in the participants hostilitybehaviour when the pre-test and post-test results were compared, it is recommended that the use of these treatment technique be encouraged to combat hostilitybehaviour in both children and adolescents.

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