



Efficacy of corrective information technique in the management of antisocial personality disorder among adolescents in Owerri municipal, Imo state Nigeria

Hope Ejiochi Mgboduru¹, Dr. Chikwe Agbakwuru²

¹ Emmanuel College Owerri, Imo State, Nigeria

² Department of Educational Psychology, Guidance and, Counselling, University of Port Harcourt, Rivers State Nigeria

Abstract

This study investigated the efficacy of corrective information technique in the management of ASPD among adolescents in Owerri municipal, Imo State, Nigeria. It adopted a quasi-experimental design of pre-test post-test control group. Three research questions and three hypotheses tested at 0.05 level of significance guided the study. Thirty adolescents who were eighteen years formed the sample. Mean, standard derivation, t-test and 2 ways ANOVA were used to analyses the data obtained. The results obtained showed that corrective information technique is efficacious in the management of antisocial personality disorder at post and follow up tests. The results also indicate that male and female adolescents have ASPD and are amenable to change using cognitive restructuring technique of corrective information technique. Based on the findings, it was recommended that counselling psychologist should be posted to schools and made teaching subject free to enable them identify and work on adolescents with ASPD and its antecedents of Attention Deficit Hyperactivity Disorder, Oppositional Defiant Disorder and Conduct Disorders.

Keywords: antisocial, personality disorder, corrective information, technique

Introduction

Instances abound in the manifestation of antisocial personality disorder as a pervasive and persistent disregard for morals, social norms, the rights and feelings of others. Every person's personality is unique. However in some cases, a person's way of thinking and behaving can be destructive both to others and to the person himself or herself. Antisocial personality disorder is a mental health condition in which a person has a long term pattern of manipulating, exploiting or violating the rights of others.

According to Bressert (2016) [6], antisocial personality disorder is characterized by a long standing pattern of disregard for other people's rights, often crossing the line and violating those rights. A person with ASPD often feels little or no empathy toward other people and does not see the problem in bending or breaking the law for their own needs or wants. They tend to be callous, cynical and contemptuous of the feelings, rights and sufferings of others. They may have an inflated and arrogant self-appraisal, for example, feel that ordinary work is beneath them or lack a realistic concern about their current problems or their future and may be excessively opinionated, self-assured or cocky. Antisocial personality disorder according to American Psychiatric Association (2013) [2] is diagnosed when a person's pattern of antisocial behaviour has occurred since fifteen years although only adults of eighteen years and above can be diagnosed with this disorder. It consists of the majority of these symptoms: exploiting, manipulating or violating the right of others, lack of concern, regret or remorse about other peoples' distress; behaving irresponsibly and showing disregard for normal social behaviours; having difficulty in sustaining long term

relationship; being unable to control one's anger; lack of quit or not learning from their mistakes; blaming others for problems in their lives; and repeatedly breaking the law.

Hagan (2010) [9] citing Farrington found out that individuals with antisocial personality disorder often are divorced, abuse alcohol/ drugs, are, anxious, depressed, unemployed, homelessness and criminal behaviours. However, some individuals with this disorder rise to high positions of power in society by becoming masters of manipulation and deceit.

In Mayo Clinic (2016) [10], Antisocial Personality Disorder is put in the cluster B of personality disorder and described as disregard for other's needs or feelings, persistent lying, stealing, using aliases, conning others, recurring problems with the law, repeated violation of the rights of others, aggressive, often violent behaviours; disregard for the safety of self and others, impulsive behaviour, consistent irresponsible lack of remorse for behaviour.

The American Psychiatric Association (2000) [1] defines antisocial personality disorder cluster B as: a pervasive pattern of disregard for and violation of the rights of others occurring since age fifteen years as indicated by three or more of the following: Failure to conform to social norms with respect to lawful behaviours as indicated by repeatedly performing acts that are grounds for arrest; deception as indicated by repeatedly lying, use of aliases or concerning others for personal profit or pleasure, impulsivity or failure to plan ahead; irritability and aggressiveness as indicated by repeated physical fights or assaults; reckless disregard for safety of self or others; consistent irresponsibility as indicated by repeated failure to sustain consistent work behaviour or honour financial obligations; lack of remorse as indicated by being

indifferent to or rationalizing having hurt, mistreated or stolen from another.

According to the National Institute for Health and Care Excellence (NICE, 2015) ^[13] antisocial personality disorder is characterized by a diminished capacity for remorse and poor behavioural controls. They are dauntless, venture some, intrepid, bold, audacious, daring, reckless, fools, hardy, impulsive, heedless, unbalanced by hazard, and pursues perilous ventures. These individuals are easily bored and seek activities that will excite them. They could be brutal assaults, murderers, sky diving pranks, doing dares and putting one's life at risk. The violent activities such as murder and assault are not necessarily sadistic in nature but more of a rash or thrill for the perpetrator. They are reckless and bold individuals who have no regard for their own safety or the safety of others. People with antisocial personality disorder exhibit traits of impulsivity, high negative emotionality, low conscientiousness and associated behaviours including irresponsible and exploitative behaviour, recklessness and deceitfulness. Continuing, NICE indicates that people with ASPD present unstable interpersonal relationships, disregard for the consequences of their behaviours, a failure to learn from experience, egocentricity, a disregard for the feelings of others, a wide range of interpersonal and social disturbances, counorbid depression, anxiety, alcohol and drug misuse. The key features of antisocial personality disorder are impairment in the ability to form positive relationship with others and a tendency to engage in behaviours that violate basic social norms and values. People with this disorder are cold and callous, gaining pleasures by compelling with and initiating everyone and any one. They can be cruel and malicious, commit violent criminal offenses against others including assault, murder and rape much more frequently than do people without the disorder. Millon (2000) ^[11] observes that ASPD often insists on being seen as falters and are dogmatic in their opinions. However, when they need to, people with ASPD can act gracious and cheerful until they get what they want. They then may revert to being brash and arrogant. A prominent characteristic of ASPD is poor control of impulses. People with this disorder have a low tolerance for frustration and often act impetuously with no apparent concern for the consequences of their behaviours. They often take chances and seek thrills with no concern for change. They are easily bored and restless, unable to endure the tedium of routine or to persist at the day – to day responsibilities of marriage or a job. Continuing Millon said that ASPD is characterized by a pervasive pattern of disregard for or violation of the rights of others, an impoverished moral sense or conscience is often apparent as well as a history of crime, legal problems and or impulsive and aggressive behaviour. They tend to drift from one relationship to another or often are in lower status jobs and low level of education. The individuals must be at least eighteen years. In childhood, these individuals usually have oppositional defiant disorder towards parents and teachers which develop into conduct disorder (Delinquency) in adolescence.

In adulthood, individuals with ASPD become more antagonistic. They show an exaggerated sense of self – importance, insensitivity towards the feelings and needs of others and callous exploitation of others. Their increase

manipulation, callousness, deceitfulness and hostility repeatedly put them at odds with other people.

Antisocial personality Disorder tends to 'act out' tensions and problems rather than worry them out. Their apparent lack of anxiety and guilt combined with the appearances of sincerity and candor may enable them to avoid suspicion and detection for stealing and illegal activities. They often show contempt for those they are able to take advantage of the 'marks'.

Antisocial personalities are irresponsible and impulsive in behaviour, as well as low frustration tolerance. They generally have a callous disregard for the rights, needs and wellbeing of others. They are typically chronic liars and have learned to take rather than earn what they want. They are prone to thrill-seeking and deviant and unconventional behaviours, they often break the law impulsively and without regard for the consequences. They seldom forgo immediate pleasure for future gains and long range goals. They live in the present without realistically considering either past or future. External reality is used for immediate personal gratification. They are unable to endure routine or to shoulder responsibility, they frequently change jobs. Antisocial personalities have the ability to put up "a good front" to impress and exploit others, projecting blame onto others for their own socially disapproved behaviour. According to Black (2016) ^[5] antisocial personality disorder is exhibited through rejection of authority and inability to profit from experience. Antisocial individuals behave as if social regulations do not apply to them. Frequently they have a history of difficulties with educational and law enforcement authorities. Yet, although they often drift into criminal activities, they are not typically calculating professional criminals. Despite the difficulties they get into and the punishment they may receive, they go on behaving as if they will be immune from the consequences of their actions. Black (2016) ^[5] indicates that antisocial personalities are unable to maintain good interpersonal relationships. Although initially they are able to win the liking and friendship of other people, they are seldom able to keep close friends. Irresponsible and egocentric, they are usually cynical, unsympathetic, ungrateful and remorseless in their dealings. They seemingly cannot understand love in others or give it in return. Continuing Black (2016) ^[5] said that the antisocial personality disordered individuals are unconscientiously careless, irresponsible and disorderly people, frivolous and undependable. They lack clear life goals and the motivation to pursue them. They are antagonistic, unfriendly that are manifested in irritability and aggressiveness (frequent verbal abuse and inappropriate expressions of anger, carelessness and irresponsibilities that are manifest in callous/lack of empathy (a lack of feelings towards others, cold, contemptuous and inconsiderate, pathological lying, conning/manipulative (uses deceit or cheat others for personal gains, lack of remorse or guilt and suffering of others, failure to accept responsibility for own actions, parasitic lifestyle (exploitative, financial dependence on others), promiscuity (numerous brief, superficial sexual affairs; lack of realistic, long-term goals; impulsivity; irresponsibility (repeated failure to fulfill or honour commitments and obligations), early behaviour problems before age thirteen years, are juvenile delinquency (criminal behavioural problems between the ages of (13-18), many short-term martial relationships (lack of commitment to

a long-term relationship), criminal versatility (diversity of criminal offences, whether or not the individual has been arrested or convicted), high risk of divorce, child abuse or neglect, unstable or erratic parenting, squandering money needed for child care. There are certain social skills that are essential for healthy social functioning. Individuals with antisocial personality disorder lack the essential social skill of respect, responsibility and honesty. They lack co-operation/generosity and kindness and they lack chastity and caution, they lack control of anger.

On the other hand, the American Psychiatric Association (2013) ^[2] in their own diagnosis identified the following as characteristics of Antisocial Personality Disorder: failure to conform to social norms, deceitfulness impulsivity, irritability and aggressiveness lack of remorse, consistent irresponsibility, reckless disregard for safety of self and others.

Four of these symptoms fall in the interpersonal realm (failure to conform to social norms, irresponsibility, deceitfulness and indifference to the welfare of others), one in behavioural realm (recklessness), one in the cognitive domain or realm (failure to plan ahead); and finally one in the mood domain (irritability and aggressiveness. (Millon & Davis 1996) ^[11]. Moffitt and Caspi (2001) ^[12] Compared childhood risk factors of male and female adolescents portraying childhood onset and adolescent onset antisocial personality behaviour which influences deviant behaviour in individuals. This study showed a male-to-female ratio of 10:1 for those experiencing childhood onset delinquency and 15:1 for adolescent onset delinquency. Moffitt and Caspi (2001) ^[12] hypothesized that life-course-persistent antisocial behaviour originates early in life, when the difficult behaviour of a high-risk young child is exacerbated by a high risk-social environment.

Nowadays, many adolescents engage in behaviours and activities that are criminal and reasons for arrest. There are reports in the facebook, daily newspapers, magazines and daily occurrences within the neighbourhood of adolescents who are manifesting increased violence, disorderliness, drunkenness, disrespect for constituted authorities, abuse of other people's rights, sheer recklessness, arm robbery, harassment, intimidation, truancy, school dropout, kidnapping, raping, killings and many more. It is painful that our young ones, some as young as thirteen years old are involved in the vices. History has it that these individuals at adult age are often divorced, abuse alcohol/drugs abuse, anxious, depressed, unemployed, homeless, and irresponsible parents and citizens. It is believed they could be helped using the cognitive restructuring techniques of corrective information technique to treat their antisocial personality disorder at the post-follow up stages of treatment.

Nwankwo (1995) ^[15] states that corrective information as cognitive restructuring technique is a procedure whereby the therapist provides correct quantum of information to the client concerning his problem area arising from lack of or misinformation. Sometimes, lack of or inadequate or incorrect information about what an individual cherishes or likes to have full knowledge on may cause him high level of anxiety that may affect his behaviour in an undesirable manner. Had the individual possessed the correct information, he would have realized that his fears are unjustified or that his freedom

should be checked. People need corrective information to reduce wrong actions, identify and implement corrective actions and many more. The therapist can provide useful, relevant, up to date information to the client which should include providing specific resources for specific problems or information that generalize or universalize the client's experience correctively.

Foa and Kozak (1986) ^[8] opines that corrective information involves gauging the correct amount and type of information to be given for each case; providing explanation that the client can remember and understand; providing explanations that relate to clients condition framework; using an interactive approach to ensure shared understanding of the problem with the client; involving the client and planning collaboratively to increase the client's commitment and adherence to plans made; continuing to build a relationship and provide a supportive environment.

In the opinion of the researchers, corrective information technique is supplying enough relevant information, using all definitions, analyses and explanations to convey to the subjects the meaning of what they are doing and their implications. Information is power especially when it is correct. Corrective information technique is a cognitive restructuring technique (CRT). Asikhia (2014) investigated the effect of CRT on mathematics anxiety among secondary school students in Ogun State. The study adopted a 2x2x3, pre-test, post-test treatment matrix (treatment, gender and study habit). Results of this study revealed a significant effect of the treatment (CRT) on subjects level of anxiety in mathematics. CRT was found to be more effective on the treatment groups than the control group. The study also revealed that gender affect students anxiety in mathematics significantly $p < 0.05$ with male students having more reduction in mathematics anxiety than female students.

Awoke (2011) ^[4] also carried out a study on the effectiveness of CRT and social decision making on truancy reduction (SDMT) among secondary school adolescents in Afikpo North, Ebonyi State, Nigeria. The findings showed reduction behaviour of treatment groups and the control group with the treatment groups of CRT and SDMT performing better than the control group on truancy reduction.

In view of the prevailing circumstances surrounding the ASPD, the researchers decided to employ one of the cognitive restructuring techniques of corrective information technique in attempting to reduce, manage or curb this menace among adolescents.

The following research questions guided the study

1. How efficacious is cognitive restructuring technique of corrective information technique in the management of antisocial personality disorder of adolescents?
2. What difference exists in the ASPD mean scores of the adolescents in corrective information technique and control group based on gender at post test?
3. To what extent do the mean scores on ASPD of adolescents in the corrective information technique and control group differ at follow up test based on gender?

Similarly, the following hypotheses were formulated to guard the study:

Ho1: The efficacy of cognitive restructuring technique of corrective information technique in the management of antisocial personality disorder of adolescents at post – test is not significant.

Ho2: There is no significant ASPD mean score difference among the adolescents in corrective information technique and control group based on gender at posttest.

Ho3: The follow up mean scores on ASPD of the adolescents in the corrective information technique and control group do not differ significantly based on gender.

Methodology

The study used the quasi – experimental pre - test – post - test – control group design comprising of one group – the experimental group of corrective information technique while the control group received a placebo on marriage. This type of design required that the subjects be tested with the same instrument before and after treatment. The researchers determined the effects of treatment by comparing the results of the subjects in the treatment group with the control group.

The participants in this study consisted of adolescents who were eighteen years in the Senior Secondary three (SS3). They were given Adolescents Interaction Admission Form in which they indicated their ages, classes and sex. They were further given the adolescent antisocial personality inventory to respond to. Those who scored fifty percent and above were taken as having antisocial personality disorder. They comprised of seventeen adolescents in the treatment group and control group thirteen making a total of thirty participants of fourteen males and sixteen females.

A researchers developed instrument – Adolescent Antisocial Personality Disorder inventory was used to collect relevant data at pre – post and follow up stages. It was a 49 – item Inventory developed from the seven categories of antisocial personality disorder traits. It was scored on a three point format of always, sometimes and rarely. The instrument was validated at the face and content levels by experts in measurement and evaluation and tested with cronbach Alpha at the level of 0.77 for its reliability.

The study was carried out over a period of five weeks. Treatment sessions were held for the experimental group for one hour twice a week for ten sessions. The seven categories of antisocial personality disorder of non-conformity to social norms, deception, aggressiveness and irritability, lack of remorse, impulsivity, consistent irresponsibility and lack of regard for the safety of self and others were treated using corrective information technique. This technique involves giving the subjects a point of view different from their own so that they can see themselves and their behaviours as others view them. It is a way the therapist honestly and without fear or favour points out to the client the disruptive way he is behaving, the way other people see such behaviours and the client himself and the need to behave in desirable manners. So the training sessions focused on series of expository lectures, group discussions and take home assignments. There was deep

interaction between the researchers and the participants throughout the treatment period. The follow-up stage of the experiment was carried out four weeks after treatment using Adolescent Antisocial personality Disorder Inventory reshuffled to find out the degree of permanence of the treatment gains on the adolescents.

The data obtained in this study were statistically analyzed to determine the effectiveness of the experimental treatment of corrective information technique to manage antisocial personality disorder. Mean statistic and standard deviation were used to answer the research questions while paired t-test was used to test hypothesis 1 and 2 – way ANOVA was used to test hypotheses 2 and 3 at the significant level of 0.05 (P<0.05).

Results

Results of statistical analysis of data are presented in the following tables:

Table 1: Mean, standard deviation and paired t-test on the management of ASPD using corrective information technique

Test	N	Means	SD	Reduced Mean	DF	t-value	P-value
Pre test	17	63.71	3.33	20.94	16	19.59	0.0005
Post test		42.76	2.93				

Information on table 4.2 revealed that the adolescents in corrective information technique group had the mean scores of 63.71 (SD=3.33) and 42.76 (SD =2.93) respectively in their pretest and posttest. That means from the pretest to the posttest stage a mean of 20.94 was lost by the adolescents. This indicated that cognitive restructuring technique of corrective information technique is efficacious in the management of ASPD among adolescents.

For further information, the observed mean difference was subjected to paired t-test statistics to determine the significance of the observed mean difference from the pretest to post test. This yielded a calculated t-value of 19.59 at df of 16 and 0.0005 level of significance (p<0.05). So the null hypothesis is rejected because the obtained p-value is less than the chosen alpha level of 0.05. Therefore corrective information technique is significant in its efficacy in the management of ASPD among adolescents.

Table 2: Mean, standard deviation and 2- way ANOVA on the mean score differences of adolescents in corrective information technique and control group in the management of ASPD among adolescents at posttest.

Groups	Gender	N	Means	Standard deviation
Confrontation	Female	8	42.63	4.06
	Male	9	42.89	1.61
	Total	17	42.76	2.93
Control	Female	8	64.00	3.46
	Male	5	62.00	2.35
	Total	13	63.62	3.02
Total	Female	16	53.31	11.62
	Male	14	50.07	10.16
	Total	30	51.80	10.91

Table 3: Test of between subject effects (2- way ANOVA)

Source	Type III sum of square	df	Mean sq	F	Sig	Result
--------	------------------------	----	---------	---	-----	--------

Corrected model	3206.036	3	1068.679	114.455	0.000	Significant
Intercept	80487.005	1	80487.005	8620.154	0.000	Significant
Groups	3067.302	1	3067.302	328.508	0.000	Significant
Gender	0.966	1	0.966	0.103	0.750	Insignificant
Groups & Gender	2.847	1	2.847	0.305	0.586	Insignificant
Error	242.764	26	9.337			
Total	83946.00	30				
Corrected Total	3448.800	29				

In table 2, mean for Female and Male subjects in the corrective information technique are 42.63 and 42.89 respectively. The standard deviation values are 4.06 and 1.61. For Female and Male in the control group, there mean values are 64.00 and 63.00 respectively. While the standard deviation was 3.46 and 2.35. Their total mean values both for the control group and experimental group is 63.62 and 42.76. Therefore, from their mean values the mean difference is 20.86. Furthermore, the test between subjects effect show intercept 80487.0005 and interaction 3067.302. Calculated F value is 8620.154 for intercept and 328.508 for interaction. Significant values are 0.000 for intercept and 0.000 for interaction. Since significance ($P=0.000<0.05$), the null hypothesis is rejected meaning that there is a significant difference in the mean score difference among adolescents in corrective information technique group and those in control

group based on gender at post- test.

Table 4: Mean, standard deviation and 2- way ANOVA on the mean scores difference of adolescents in corrective information technique and control group in the management of ASPD among adolescents at follow up test.

Groups	Gender	N	Mean	SD
Confrontation	Female	8	37.75	3.88
	Male	9	37.56	3.75
	Total	17	37.63	3.69
Control	Female	8	62.50	1.77
	Male	5	62.80	3.30
	Total	13	62.62	2.22
Total	Female	16	50.12	13.11
	Male	14	46.57	13.00
	Total	30	48.47	12.96

Table 5: Tests of between subjects effects (2- way ANOVA)

Source	Type III Sum of Squares	DF	Mean Square	F	Sig.	Result
Corrected Model	4592.944	3	1530.981	143.951	.000	Significant
Intercept	71719.465	1	71719.465	6743.422	.000	Significant
Groups	4454.456	1	4454.456	418.830	.000	Significant
Gender	.020	1	.020	.002	.966	Insignificant
Groups & Gender	.436	1	.436	.041	.841	Insignificant
Error	276.522	26	10.635			
Total	75340.000	30				
Corrected Total	4869.467	29				

Table 4 show that the mean value for the Female and male participats in corrective information technique group at follow up is 37.75 and 37.56 respectively. The sd values are 3.88 and 3.75 respectively. For females and males in the control group their mean score values are 62.50 and 62.80 while the sd values are 1.77 and 3.03 respectively. The total mean values for both the experimental group and the control group are 62.62 and 37.65. Hence, from their mean values the mean difference is 24.97. Furthermore, the test of between subject's effects shows intercept 71719.465 and interaction 4454.456. Calculated F values are 6743.422 for intercept and 448.830 for interaction. Significant values are .000 for intercept and .000 for interaction. Since significant level ($P=.000<0.05$) the null hypothesis is rejected meaning that there is a significant difference in the mean scores among adolescents in corrective information technique group and those in control group based on gender at follow up test.

Discussion

The findings of the study show that corrective information technique is efficacious in the management of ASPD among adolescents. This is indicated in the reduction in the mean scores of the subjects in the treatment group and the control

group as 24.97. To confirm the significance of the efficacy of corrective information technique in the management of ASPD, the 2-way ANOVA yielded a p-value less than t-value in which the null hypothesis is rejected to accept that there is a significant difference between the experimental group and the control group. Let us note that corrective information technique has not been used as a singular treatment technique like this but as cognitive restructuring technique. According to Nwamuo (2005) [14], cognitive restructuring is also known as cognitive relabeling. This procedure is based on the assumption that certain maladaptive emotions and behaviours are moderated by unrealistic expectations. It is believed that individuals may learn to rationally restructure their irrational beliefs thereby breaking what may be construed as well learned but maladaptive sets. When Epoye (2003) [7] investigated the single effect of assertive training and cognitive restructuring technique in the achievement of adolescents self – esteem from divorced homes in Ibadan, the study showed that cognitive restructuring technique (CRT) was superior to assertive training technique (ATT). Awoke (2011) [4] also carried out a study on the effectiveness of cognitive restructuring technique and social decision making on truancy reduction among Secondary School adolescents in

Afikpo North, Ebonyi State. The findings showed reduction behaviour of the treatment groups with the females in CRT having higher truancy reduction than the males at both post-test and follow up test. On the other hand, tables 2 and 3 showed that gender has been found to affect behaviour generally and antisocial personality disorder in particular (Moffitt & Casp 2001) ^[12]. Males and females are open to ASPD and both are receptive to treatment and change, males seem to have more reduction than females though the differences might be insignificant. This might be as a result of the consciousness in the males that they are more prone to ASPD and other behaviour problems and so may have been more open to treatment.

For this study, the effectiveness of corrective information technique was achieved as the researchers supplied all the relevant information relating to antisocial personality disorder in its seven categories for example definition of terms, advantages and disadvantages, dangers and many more. Adolescents are immature, have incomplete socialization and easily form shabby opinions about life, choices and styles. They need enough information to enable them make right choice and to act appropriately.

Conclusion

The findings of this study have proved that adolescents with ASPD can be managed or treated. Hence there is need to build in the traits of ASPD and the management skills in school curriculum to encourage detailed information and knowledge which are correct and fact. This will help to curb early onset of ASPD which starts early in children from attention deficit hyperactivity disorder to oppositional defiant disorder to conduct disorder and to antisocial personality disorder.

Recommendations

In the light of the results of this study, the following recommendations are hereby made:

- Parents should observe their children closely to detect early onset of antisocial personality disorder as they manifest attention deficit hyperactivity disorder, oppositional defiant disorder and conduct disorder.
- There should be counselling psychologists in the schools from primary to higher levels.
- These counselling psychologists should be subject teaching free to enable them devote more time to dictating and counselling students with behavioral and personality disorders.
- The curricular should be challenging and providing varieties so that adolescents thrilling tendencies can be captured and redirected.
- Parents should provide enabling environment in which children can develop positive personality.
- This research work should be carried out at intervals to see the permanency of result of treatment and should be extended to other locations for adolescents there.

References

1. American Psychiatric Association Diagnostic manual mental disorder (4th edition, 2000).
2. American Psychiatric Association. Diagnostic manual of mental disorder (5th edition), 2013.

3. Ashikhia OA. Effect of cognitive restructuring on the reduction of mathematics anxiety among senior secondary school students in Ogun State; Nigeria. *International journal of education and research*, 2014, 2(2).
4. Awoke NN. Effects of cognitive restructuring techniques and social decision making technique in the reduction of truancy among secondary students. Unpublished M.Ed Thesis. Abia State University, 2011.
5. Black DW. Antisocial personality disorder: Epidemiology clinical manifestations, course and diagnosis, 2016, <http://www.update.com/hane>. Accessed.
6. Bressert S. Antisocial personality disorder. Psychcentral. Retrieved on 2016-2017 from <https://psychcentral.com/disorders/antisocial-personality-disorders-symptoms/>
7. Epoye EA. A singles effect of assertive therapy and cognitive restructuring techniques in the enhancement of self-esteem of female adolescents. University of Ibadan: Unpublished M.Ed. Thesis, 2003.
8. Foa EB, Kozak MJ. Emotional processing of fear: exposure to corrective information. *Psychological Bulletin*. 1986; 99(1):20-35.
9. Hagan FE. Z. Introduction to criminology: theories, methods and criminal books. [Goggle.com.ng](https://books.Goggle.com.ng/books), <https://books.Goggle.com.ng/books>, 1986.
10. Mayo Clinic. Mayo Foundation for Medical Education and Research, 2016.
11. Millon T. Personality disorder in modern life (2nd edition). Hoboken, New Jersey, John Wiley & Sons Inc, 2000.
12. Moffitt T, Caspi A. Childhood predictors differentiate life-course persistent and adolescence limited antisocial pathways among males and females. *Development and Psychopathology*, 2001, 355-375.
13. National Institute for Health and Care Excellence (NICE), 2015.
14. Nwamuo AP. Overview of behavioural principles of learning. In A. P. Nwamuo and A. O>Ekwe (Eds). *Application of therapeutic principles of behaviour modification*. Owerri: Career Publishers, 2005.
15. Nwankwo OC. Principles and applications of behaviour modification. CAPIIC publishers, Port Harcourt, 1995.