Effects of Cognitive Behaviour and Social Learning Therapies on Aggressive Behaviour of In-School Adolescents in Ondo State, Nigeria

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Abstract
The study examined the effects of cognitive behahaviour and social learning therapies on aggressive behaviour of in-school adolescents in Ondo State, Nigeria. A 3x2x3x3 factorial design with two experimental groups and one control group was used in this study. The sample consisted of 90 adolescents randomly selected from the secondary schools using purposive sampling technique by assigning 30 subjects to each of the two experimental groups and one control group. Five hypotheses were formulated. The hypotheses were tested at 0.05 level of significance and were collected by using descriptive and inferential statistics. The results revealed that aggressive behaviour level is medium (moderate or average). There was a significant difference between the aggressive behaviour of participants in the experimental groups and their counterparts in the control group ($F_{(1, 88)}$ = 5.393). However, there was no significant difference in the aggressive bahaviour of participant exposed to Cognitive Behaviour Therapy (CBT) and Social Learning Therapy (SLT) ($F_{(1, 28)}$ = .052). In conclusion the finding indicated that aggressive behaviour could be found among in-school adolescents.It was recommended that cognitive behaviour and social learning therapies should be used to reduce aggressive behaviour among in secondary school students.

Keywords: Aggressivebehaviour, adolescent, parenting style, cognitive behaviour therapy social learning therapy.

Introduction
Aggression is perceived a serious behavioural and emotional disorder that can occur in adolescents. The term aggression comes from the Latin word *aggressio*, meaning attack. In psychology, the term aggression refers to a range of behaviours that can result in both physical and psychological harm to oneself, others or objects in the environment (Kendra, 2013). According to Wikipedia (2013), aggression, in its broadest sense, is behaviour, or a disposition, that is forceful, hostile or attacking. Aggression can also be defined as the physical or verbal behaviour intended to harm. Aggression may occur either in retaliation or without provocation that is either directed outwardly towards

another person or directed inwardly by self-mutilation. Social science and behavioural science define aggression as an intention to cause harm or an act intended to increase relative social dominance (Kendra, 2013). Aggression is an unruly and behaviour disorder that is common with adolescence stage of human development. In the opinion of Roland & Idsoe (2001), "Aggression can be defined as an emotion tends to hurt, harm, or destroy something or someone. Nelson (2006) states that there is a conflict of interest between individuals. There is a chance of aggressive behaviour to be observed. The terms aggression and aggressive behaviours are used to refer negative emotions and behaviours respectively. Therefore, for adolescents with aggression to be helped there is the need to expose them to counseliing interventions in order for them to become responsible for themselves and their parents, good students at school and worthy ambassadors of the nation as a whole.

The word adolescence comes from a Latin word *adolescere* which means to grow or to grow up to maturity. Psychologists have given different definitions of adolescence. Some define it as the transitional period of life between childhood and adulthood; while at other times it is called the period of teenage which is marked by changes in the body, mind and social relationships. This period of development corresponds with the period between the ages of 10 and 19, which is consistent with the World Health Organization's definition of adolescence. Martins, Carlson & Bulsbist, 2007). It represents the period of time during which a juvenile matures into adulthood (Merriam -Webster Learners Dictionary, 2012). The period of adolescence is undoubtedly one of the most challenging periods in one's life, many adolescents face emotional disorder that make it necessary for counselling interventions. The study focuses mainly on effects of cognitive behaviour and social learning therapies on aggressive behaviour of senior secondary school students.

Cognitive Behaviour Therapy (CBT) was pioneered by psychologists Aaron Beck and Albert Ellis in the 1960s (Gale Encyclopedia of Medicine, 2008, Mc Leod, 2015). Cognitive Behavioural Therapy is one of the major orientations of psychotherapy (Roth & Fonagy, 2005) and represents a unique category of psychological intervention because it derives from cognitive and behavioural psychological models of human behaviour that include for instance, theories of normal and abnormal development, and theories of emotion and psychopathology. Cognitive Behavioural Therapy (CBT) combines cognitive and behavioural therapies, and it involves changing the way you think (cognitive) and how you respond to thoughts (behaviour).

Social learning theory is of the perspective that people learn within a social context. Such learning's are facilitated through concepts which include modelling and observational learning. According to Social Learning theory, models are an important source for learning new behaviours and for achieving behavioural change in institutionalized settings Anderson, (2004), Robert, Nyla & Donn (2009) and Mae Sincero (2012), reported that social learning theory is derived from the work of Albert Bandura which proposed that observational learning can occur in relation to three models: live model, verbal instruction

and symbolic model. (Shuttleworth, 2012).

The main focus in this study is to ascertain the most effective therapeutic intervention that could be chosen in controlling aggressive behaviour from the two interventions (Cognitive Beaviour and Social Learning Therapies) used. This is to improve good behaviour and eradicate or reduce negativity that aggressive behaviour exhibits in adolescents.

Statement of the Problem

Adolescents with aggression not only affect themselves, their families and schools negatively but also the society at large. Increase in adolescents aggressive behaviour has led to a leap in chaos, disorderliness, destruction of lives and properties, armed robbery, terrorist activities, kidnapping, oil bunkering, and many more evils. (Aderanti and Hasan, 2011). There is the need to control this antisocial behaviour in order to reduce or eradicate problems that aggressive behaviour exhibits.

Research Question: What is the level of aggressive behaviour among secondary school students in Ondo State?

Hypotheses

The following hypotheses were formulated:

1. There is no significant difference in the level of aggressive behaviour among subjects in secondary schools.
2. There is no significant difference in the degree of aggressive behaviour of subjects before and after treatment of subjects.
3. There is no significant difference of subjects exposed to cognitive behaviour and social learning therapies.
4. There is no significant difference in the aggressive behaviour of the subjects with respect to experimental groups when compared with subjects in the control group.

Methodology

A 3 x 2 x 3 x 3 factorial design was adopted for the study. The variable in the study include the independent variables, comprising cognitive behaviour and social learning therapies and control. The intervening variables are gender at two levels: male and female, socio-economic status at three levels: high, medium and low and parenting styles which also exist at three levels: authoritarian, authoritative and permissive. The dependent variable is aggressive behaviour.

The population of the study consisted of all adolescents in public secondary schools in Ondo State. The sample size employed for this study was 90 adolescents randomly selected from three secondary schools in Akoko South West local government area of Ondo State using purposive sampling technique. The research instruments that were used in this study were four types: Aggression Scale by Dada (2004) and Parenting Style Scale aligned with Mckay (2006). The instruments were validated using construct validity and

the reliabilities of the instruments were tested through Test-retest method.

This study was carried out in three phases. The first phase involved selection of the subjects through Aggression Scale (AGS). In the second phase, the subjects were randomly assigned to the treatment groups (cognitive behaviour therapy and social learning therapy) and control group respectively.

At phase three the experimental procedure lasted for period of eight weeks. Each session of the treatment programme also lasted for One hour. The techniques were Descriptive statistics; Frequency counts, percentage, mean, and standard deviation and Inferential statistics; Analysis of variance (ANOVA) and t-test were used for the analyses of data.

Results

Research Question One: What is the level of aggressive behaviour among secondary school students in Ondo State?

In order to identify the level of aggressive behaviour among secondary school students' descriptive statistics was employed by using frequency counts and percentage.

Table 1

Level of Aggressive Behaviour among Subjects in Secondary Schools.

Level	Frequency	Percentage (%)
Low (1.00-2.49)	38	42%
Medium(2.50-3.49)	45	50%
High(3.50-5.00)	7	7.8%
Total	**90**	**100%**

The table above indicates the subjects' level of aggressive behaviour which showed that there were 38 (42%) low, medium or moderate level aggressive behaviour among the subjects were 45 (50%), and high were 7 (7.8%).

Hypothesis one: There is no significant difference in the level of aggressive behaviour among subjects in secondary schools.

Testing the hypothesis, scores relating to level of aggressive behaviour before treatment were computed and subjected to statistical analysis involving analysis of variance (ANOVA) at 0.05 level of significance. This is shown in Table 2.

Table 2
Analysis of Variance of Subjects' level of Aggressive Behaviour before treatment.

Source of Variance	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	17.103	1	17.103	0.154	0.696
Within Groups	9760.696	88	110.917		
Total	9777.789	89			

Table 2 above presents the significant level of aggressive behaviour of the subjects in both school chosen for the experimental and control groups. The results revealed that there was no significant difference in the level of aggressive behaviour of the subjects before treatment which means the null hypothesis was upheld. That is, ($F_{(1, 88)}$ =0.154, p > 0.05, p = 0.696. p value was greater than critical value and at the same time greater than 0.05.

Hypothesis Two: There is no significance difference in the degree of aggressive behaviour of subjects before and after treatment of subjects.

Table 3
Means, Standard Deviations and t-values of Degree of Aggressive Behaviour Before and After Treatment

Groups	No. of Cases	Mean	Std Dev.	Df	t - value	Sig.
Degree of Severity of ABS (Before)	90	39.5889	10.4816	89	5.346	0.000
Degree of Severity of ABS (After)	90	31.6556	10.2532			

Table 3 presents the resulting difference between the degrees of aggressive behaviour before and after treatment among the subjects. It was revealed that the difference was highly significant (t = 5.346, df = 89, p < 0.05, two tailed). Therefore, the hypothesis was rejected.

Hypothesis Three: There is no significant difference of subjects exposed to cognitive behaviour and social learning therapies. This involved computing the aggressive behaviour scores of subjects exposed to cognitive behaviour therapy (CBT) and social learning therapy (SLT), therefore, subjected to statistical analysis involving t-test at 0.05 level of significance. The result is presented in Table 4.

Table 4
Means, standard Deviation and t-values of subjects in Experimental Groups

Groups	No of Cases	Mean	Std Dev.	Df	t-value	Sig.
Cognitive Behaviour Therapy	30	1.9137	0.47921	58	-.916	0.367
Social Learning Therapy	30	2.0397	0.52679			

Table 4 above presents the difference in the aggressive behaviour of subjects that were exposed to the cognitive behaviour and social learning therapies. The results revealed that there was no significant difference in the aggressive behaviour of the subjects that were exposed to the cognitive behaviour and social learning groups (t=-.916, df =58, p=0.367 two tailed). More importantly, the mean indicated that the subjects in the cognitive behaviour therapy displayed a reduced aggressive behaviour compared with the subjects in the social learning group, the p value was greater than 0.05 level of significance (0.367), and therefore, the hypothesis was rejected.

Hypothesis Four: There is no significant difference in the aggressive behaviour of subjects with respect to experimental groups when compared with subjects in the control group.
In order to test the hypothesis, aggressive behaviour scores relating to subjects that were exposed to cognitive behaviour and social learning therapies with control group were computed and subjected to statistical tool Analysis of Variance (ANOVA) at 0.05 level of significance. It is shown in Table 5.

Table 5
Analysis of variance (ANOVA) of Subjects when compared Cognitive Behaviour and Social Learning Therapies with Control Group

Source of Variance	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	540.256	1	540.256	5.393	0.023
Within Groups	8816.066	88	100.183		
Total	9356.322	89			

Table 5 indicates aggressive behaviour of subjects in experimental groups compared with subjects in the control group that there was a significant difference, it revealed that ($F_{(1, 88)}$ = 5.393, while $p < 0.05$; p=0.023), p value was less than level of significance, therefore, the hypothesis was rejected. This implied that there was a significant difference between

subjects' aggressive behaviour, when exposed to cognitive behaviour and social learning therapies, compared with the subjects in the control group. Therefore, the treatments worked for the experimental groups.

Discussion

The main concern of this study was to find the level of aggressive behaviour and examine effectiveness of cognitive behaviour and social learning therapies in controlling aggressive behaviour in adolescents. The findings revealed that the level of aggressive behaviour before treatment showed that aggressive behaviour were prominent at medium or moderate level in Ondo State Secondary Schools. According to Hinshaw and Lee, (2000) aggressive behaviour is a common behaviour disorder that can occur in adolescents. Also, generally aggressive behaviour occur at a higher rate for adolescents (approximately 7% for 12 to 16 years old) than for children (4% for 4 to 11 year olds). The hypothesis which stated that there is no significant difference in the level of aggressive behaviour among subjects in the secondary schools. The hypothesis testing of the level of aggressive behaviour among subjects in the experimental and control groups revealed that there was no significant difference in the level of aggressive behaviour of the subjects. Besides, aggressive behaviour is an antisocial behaviour that is common among adolescents in secondary schools; it is a behaviour disorder that needed to be checked in our adolescents before it is beyond control. As viewed by Armelus Adreassen T.H, (2007), cognitive behaviour therapy appears to be effective in the treatment of anti-social behaviour in youth in residential treatment.

The second hypothesis which stated that there is no significant difference in the degrees of aggressive behaviour before and after treatment among subjects was rejected. Aggressive behaviour was grouped into three degrees of severity which are: mild, moderate and severe (APA 2000). Prior to the administration of the treatment or intervention plans, subjects exhibited aggressive behaviour in the above degrees of severity. Naturally, after the administration of an effective treatment, the degree of severity must change from what it was or postulated before the treatment.

Mild aggressive behaviour exhibits few signs and or symptoms and results in little harm to others, while moderate are between mild and severe. But persons with severe aggressive behaviour exhibit many signs and or symptoms (Baker & Scarth, 2002; Meyer, 2004 and Nurcombe, 2008). The post test result revealed that there was a significant difference in the degree of severity of aggressive behaviour because there was a great change observed in the mean score of the pre-test and posttest behaviour before and after treatment among subjects.

The third hypothesis which stated that there is no significant difference of subjects that were exposed to cognitive behaviour and social learning therapies was sustained by the result of the findings which indicated that there was no significance difference. The findings revealed that both interventions were effective and again the result of the

hypothesis is an affirmation of the theory and previous studies that are carried out on cognitive behaviour therapy by using cognitive restructuring skills and social learning therapy by using behaviour rehearsal technique. (Baker & Scarth, 2002; Aderanti & Hassan, 2011). With the aid of cognitive restructuring clients are assisted to reconsider any maladaptive pattern in their thinking-feeling-behaviour cycles. The goal of a client is to rethink these patterns and reconsider more adaptive alternatives that would work better for them. These skills that are involved in the above process are what the adolescents in the experimental I (Cognitive behaviour therapy) have been exposed to. The adolescents in the experimental II (Social learning therapy) group were also exposed to the nitty-gritty of social learning therapy, which is aimed at providing a method for structuring and orchestrating modelling opportunities. The privilege of role playing and reversing roles is to help the adolescents to have a better understanding of their present behaviours and consequently enhance the desire for a positive change.

The fourth hypothesis stated that there is no significant difference of subjects exposed to cognitive behaviour and social learning therapies when compared with subjects in the control group. This hypothesis was rejected by the result of the findings as there was significant difference. This study is in agreement with the findings of Shobola (2007) and Aderanti & Hassan (2011) that found cognitive restructuring an effective intervention in the treatment of all forms of antisocial behaviours such as cigarette smoking, stealing, rebelliousness, and socially undesirable behaviours among others. It is therefore worthy of note that these interventions can be used in other studies to treat behavioural problems.

Conclusion

Based on the findings of this study, it was concluded that cognitive behaviour is more effective than social learning therapy. Medium level of aggressive behaviour was found among secondary school students and there was no significant difference in the level of aggressive behaviour among subjects. However, the difference was highly significant for the degree of aggressive behaviour of subjects before and after treatment. More so, there was no significant difference in the subjects that were exposed to cognitive behaviour and social learning therapies. Besides, there was significant difference of the subjects when compared treatment groups to control group. Also, there was no significant difference of subjects on basis of gender, socio-economic status and parenting styles except paternal/ maternal parenting style authoritative which indicated that there was significant difference.

Recommendations

From the study, the following recommendations were proffered based on the findings:

1. Counselling curriculum should be introduced, encouraged and promoted in the educational settings, correctional and rehabilitation centres.
2. Since cognitive behaviour and social learning therapies were tested and found effective in controlling aggressive behaviour tendency in adolescents, these two interventions should be used to combat aggressive behaviour and any other antisocial behaviour.

3. It is recommended that parents should undergo counselling to enable them understand the challenges that are faced by the adolescents.
4. The study revealed that subjects from the low and medium parental socio-economic status exhibited more aggressive behaviour compared to subjects from the high SES. There is the need for the government to assist the general public to alleviate poverty, reduce the cost of living and make the masses comfortable.

References

Aderanti, R. A. & Hassan, T. (2011). Differential effectiveness of Cognitive behavioural therapy and self management in the treatment of adolescents. *The Romanian Journal of Psychology, Psychotherapy and Neuroscience. 1(1),* 193-217.

American Psychological Association (2013). *Socioeconomic status*. Retrieved from http://www.apa.org/topics/ socioeconomic-status/

Anderson, C. A. (2004). *The influence of media violence on youth*. Paper presented at the annual convention of the Association for Psychological Science, Los Angelis, CA.

Baker, L. L. & Scarth, K. (2002). *Cognitive behavioural approach to treating children and adolescents with aggression.* Children's Mental Health Ontario.

Boskey, E. (2009). *Socio-economic status,* std.about.com/od/glossary/g/sesgloss.htm*Personality, 35*(1), 41-50.

Carter, P. (2009). *Emotional Inteligence Quotent: Test Your EQ.* Kogan page Limited, United Kingdom.

Davies, M .(2000). *The Blackwell encyclopedia of social work*. Wiley-Blackwell.

Evans, G. D. (2012). Aggression. Retrieved 19 July, 2012 from http://edis.ifas.ufl.edu/he136. Gale Encyclopedia of Medicine (2008). The Gale Group, Inc.

Gesinde, A. M. (2001). *Psychology of child development.* Ibadan, Nigeria.

Hinshaw, S. P., & Lee, S. S. (2003). Conduct and oppositional defiant disorders. In E. J. Mash & R. A. Barkley (Eds.), *Child psychopathology* (pp. 144-198). New York: Guilford Press.

Kendra Cherry (2013). *What is Aggression?* Shttp:// psychology. about.com/od/aindex/g/aggression.htm

Maccoby, E.E. & Martin, J.A. (1983). Socialization in the context of the family: Parent–child interaction. In P Mussen and EM Hetherington, (Eds.), *Handbook of Child Psychology, volume IV: Socialization, personality, and social development* (pp. 1–101). New York: Wiley.

Martins, G.N., Carlson, N.R., &Buskist, W. (2007). *Psychology*. (3rd Ed.) England: Pearson.

McKay, M. (2006). *Parenting practices in emerging adulthood: Development of a new measure.* Thesis, Brigham Young University.

McLeod, S. (2015). *Carl Rogers. Retrieved from* http://www.simplypsychology.org/carl-rogers.html

Merriam-Webster Learners Dictionary (2012). *Adolescence*. *Retrieved from* http://www.learnersdictionary.com/search /adolescence.

Merriam-Webster Dictionary (2013). *Theft. Retrieved from* http://www.merriam-webster.com/dictionary/theft

Merriam-Webster Dictionary (2013). *Deceitful*. http://www.merriam-webster.com/dictionary/deceitful.

Moffitt, T. E. & Caspi, A. (2001). Childhood predictors differentiate life-course life course persistent and adolescence-limited antisocial pathways among males and females. *Development and Psychopathology, 8*, 355-375.

Nwagwu, O. H. &Awoyemi, A. E. (2004). Nature of parenting and parenting styles. In I. A. Nwazuoke, Y. Bamgbose& O. A. Moronkola (Eds.), *Contemporary issues and researches on adolescents* (pp. 300-307). Nigeria: Royal People Nigeria Ltd.

Orpinas, P., and Frankowski, R. (2001). The Aggression Scale: *A self –Report Measure of Aggressive Behaviour for young AdolescentsJournal of Early Adolescence,* 21, 50-67.

Robert, A. B. Nyla, R. B. & Donn B. (2009). *Social Psychology* (12th ed.). USA: Pearson Education Inc.

Roisman, G. I., Monahan, K. C., Campbell, S. B., Steinberg, L., Cauffman, E., & the Early Child Care Research Network (2010). Is adolescence-onset antisocial behavior developmentally normative? *Development and Psychopathology, 22*, 295-311.

Roth, A. & Fonagy P. (2005). *What works for whom: A critical review of psychotherapy research*. (2nd ed.). London: The Guildford Press.

Santrock, J.W. (2007). *A topical approach to life-span development,* (3rd ed.) New York: McGraw-Hill.

World Health Organization (2013). *Adolescent development. Retrieved from* http://www.who.int/maternal_child_adolescent/topics/ adolescence/dev/en.