

# Effect of Cognitive Behavioral Group Therapy on Adolescents' Aggressive Behavior

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## Abstract

**Introduction:** This study investigated the efficacy of cognitive behavioral group therapy on aggression among adolescents in secondary schools, Ibadan metropolis, Oyo State, Nigeria.

**Method:** The study employed a pretest-post-test quasi-experimental research design. Participants included 160 secondary school adolescents from four randomly selected public secondary schools who were randomly allocated to treatment and control groups for this study. Aggressive Behavior Questionnaire by Buss and Perry was used to collect data for the participants. All the formulated hypotheses were tested using the Analysis of Covariant (ANCOVA).

**Results:** Results revealed that the treatment was effective in treating adolescents' aggressive behavior. Furthermore, findings revealed that the moderating variables (gender and socio-economic background) did not individually have significant effects on the aggressive behavior of adolescents. The two-way interaction of gender and socio-economic background had no significant effect on the criterion variable; and the three-way interaction of gender, socio-economic background and treatment were not significant.

**Conclusion:** It is therefore recommended that cognitive behavioral group therapy can be adopted as an effective intervention strategy for addressing aggression among adolescents in secondary schools

**Keywords:** Aggression, Cognitive Behavioral Group Therapy, Gender, Socio-economic Background

## Introduction

Adolescence is a period characterized by anxieties, uncertainties, expectations and experimentations. Issues like sexual risk-taking behavior, substance use/abuse, homicide, and aggression are rife in this period. Violence, quite often, is a major means of expression by the adolescents – either among peers, siblings or often against adults' dominance. This is noticed in the form of protest against normative benchmarks; for group-acceptance, personal failings and frustrations. Like in other countries, violent behaviors among adolescents in Nigeria's secondary schools are no longer strange. However, these behaviors have become serious concerns for all stakeholders in the education sector, and also the society.

Most acts of violence and deviant behaviors among adolescents can be traced to aggressive behaviors which are learnt possibly from childhood and lingered on till the adolescence stage. Although, the term aggression is difficult to define in concrete term, there is a general consensus among researchers that it is an action intended and aimed at deliberately harming others. It exists in various forms which brings about its classification into physical and verbal aggression, anger and hostility.

Researchers [1, 2] consider aggression as an antisocial and undesirable behavior which is a part of human life and manifests in different forms by individuals. This phenomenon is a

serious problem among human beings and could be influenced by many factors ranging from social, cultural, personal to situational factors. Social factors that influence aggression in human beings include frustration, provocation and heightened arousal which could be as a result of exposure to media violence. Aggression may also result when important goals are frustrated by others [1]. It is ubiquitous – found and displayed in all strata of the society – starting from home (between spouses, among siblings) and extending to the community (among peers and between the adult-figures and the young ones) [3].

Aggressive behaviors are common in institutions of learning [4]. It has been averred that violence had become more prominent in schools in recent years such that they make headline news [5]. The sustained increase in aggression among adolescents is worrisome to stakeholders in the education industry based on the strategic roles the schools play in the processes of socialization and modification of the citizenry. Without any doubt, teaching and learning will be most meaningful and successful in a conducive environment devoid of fear, intimidation, harassment, and insecurity. Aggression is an inappropriate behavior and has the most serious consequence for both the student and those in his or her environment [6]. At events such as inter-class and inter-school sports competitions, dangerous weapons (for instance, bats, club, dagger, axes, knives and even guns) had been used by students to cause different types of harm. Many students sustain injuries, get maimed or die during such clashes. Children and adolescents in schools have regularly encountered frequent occurrences of bullying (a subcategory of aggressive behavior) and physical fight among one another [5].

Numerous factors could influence aggression among adolescents. Such include domestic violence which has been found to engender increased aggression, anxiety and ineffective social capacity among friends, family and authorities [7]. Investigations have revealed a nexus between exposure to domestic violence and children's dysfunctional lifestyles and maladjustment issues [8]. Lack of conducive emotional environment in homes due to spousal conflicts has negative implications on the children [9]. Research on emotional and behavioral disorders confirmed that family factors which include structure, interaction and influences affect students' academic success or failure and also has a great influence in shaping adolescents' behaviors in all ramifications [10]. Literature has established that young adults who witnessed domestic violence are most likely to be labeled as delinquents and thus require mental health diagnosis [11], and may exhibit a number of social and emotional problems including aggression, depression, anxiety, and diminished academic performance [12].

Family socio-economic background of adolescents is one other variable of interest in this study. It could play a significant role in their overt behaviors and is measured in this study as the nature of job of the parents (family's income and their social status) within a given community. Literature has revealed that socio-economic status of parents has a lot to do with adolescents' behavior [13].

The study revealed that children from low socio-economic class displayed higher morality than those from high parental socio-economic status. Also, due to economic and financial quests, most elite-parents lack moral behavior and are regarded as bad models to their children [14]. These parents are practically never present in the lives of their adolescents to give needed parental supports. This could have a significant negative influence on the adolescents' behaviors.

Researchers have also considered gender to be one factor that could influence adolescents' aggressive behavior. For instance, studies have shown that boys have higher tendencies for physical and verbal bullying while girls show more manipulative psychological behaviors such as character deformation, alienation, and ostracism [15]. Considering various factors contributing to high levels of aggression among adolescents and because of the general views of scholars that antisocial behavior like aggression does not only occur as a result of environmental factors but also through the way children and adolescents perceives and process events; there is need for researchers, counsellors and other stakeholders to develop intervention strategies that would help adolescents overcome this behavioral challenge.

There are numerous intervention packages ranging from bio-medical to behavioral, however, the Cognitive Behavioral Group Therapy (CBGT) was used as an intervention strategy with the aim of reducing and managing the aggressive behavior among adolescents in public senior secondary schools in Ibadan metropolis. The CBGT is one of the most recently researched areas of interest among scholars especially psychologists, counsellors and medical practitioners as an important psychotherapy that can be used for different categories of people. The Centre for Applied Research in Mental Health and Addiction [16], defines Cognitive Behavioral Therapy as a process of teaching, coaching and reinforcing positive human behaviors. The CBT also has to do with identification of cognitive patterns/thoughts, emotions and behaviors. It can be administered in different forms like individual approach or group format.

For the purpose of this research, the group format was adopted for adolescents to have an opportunity to share their problems together. Meanwhile, some researchers have confirmed that cognitive behavioral therapy is effective in treating adolescents with various problems such as anxiety disorder and depression [17]. This led to advocating the need to use cognitive behavioral therapy in educational settings in order to treat adolescents with various mal-adjusted behaviors [18].

Different aggressive behaviors (such as noticed deviant behaviors) among adolescents, especially those who grew up in abused environment may be threats to the society. There is an urgent need, therefore, for stakeholders to develop an effective intervention strategy that will improve the lives of adolescents to cope with their various emotional and social problems. One of the third generation psychotherapies that have drawn the attention of researchers over the years is Cognitive Behavioral Therapy (CBT). The therapy is the combination of Rational

Emotive Behavior Therapy (REBT) by Albert Ellis [19] and the traditional cognitive therapy by Aaron Beck [20] which is mainly based on cognitive theory.

The CBT is now being used in treating various psychological dysfunctions like depression, substance addictions and various anxiety disorders. The therapy is used to help clients understand negative thoughts and emotions that could influence their behaviors. Although, CBT has been found to be effective in treating several psychological problems with empirical evidence across the globe, there is, however, dearth of literature on its efficacy in treating aggression - in a group form - among secondary school adolescents in Nigeria.

Addressing this gap, this study was carried out in order to determine (i) the efficacy of cognitive behavioral group therapy as an intervention strategy to assist adolescents to overcome their aggressive behaviors and (ii) to find out whether there is significant interaction effects of gender and social economic status of students in the treatment of adolescents' aggressive behavior.

**Method**

This study adopted pretest, posttest, and control group quasi experimental design. The variables of the study were treatment which exists in two levels (cognitive behavioral group therapy and control); gender, which exists in two levels (male and female); and socio-economic background which exists at three level (low, medium and high). One hundred and sixty (160) adolescents in senior secondary school 1 and 2 in Ibadan Metropolis, Oyo State, Nigeria were selected for this study using stratified random sampling technique. Forty participants were randomly assigned to each of the four groups.

**The Aggression Questionnaire (AQ):** Aggression was measured using the Aggression Questionnaire [21]. It consists of 29 items, divided into four factors: Items 1-9 measure physical aggression, 10-14 is on verbal aggression, 15-21 for anger while 22-29 for hostility. It is important to note that the instrument had been widely used and tested. For instance, in Nigeria, the scale has been used to test physical and verbal aggression among adolescent secondary schools in the River state of Nigeria [3]. Again, the instrument has been used to evaluate the effects of some psychological variables on aggressive behavior of teachers in Nigeria Primary Schools [1]. Reliability indices were between 0.67 and 0.71.

The study was carried out in three stages, that is, (1) the pre-treatment, (2) treatment and (3) post-treatment sessions. The pre-treatment stage involved a general introduction, establishment of rapport as well as administration of Adolescents' Aggressive Behavior Questionnaire (AABQ) to the sampled participants who were randomly assigned to treatment and control groups. The selection of student based on gender and socio-economic background was captured in the demographic data inventory.

The treatment session involved the exposure of the participants in the experimental group to six (6) weeks of Cognitive Behavioral Group therapy program (which took 45 minutes each session); while the control groups were given a placebo seminar on the eating habit (which took 10 minutes each session). The treatment included identification, interpretation and evaluation of negative thoughts that could lead to being aggressive towards other people; how to overcome negative emotions and replace them with pro-social skills and positive self-concept. Other contents of the package were the act of re-conceptualization that could lead to self-control, emotion regulation and other coping skills.

Post-treatment session was the evaluation stage. At the end of the six weeks training, both the experimental and control groups were exposed to post-test using the same AABQ to determine the efficacy of the treatment.

Analysis of Covariance (ANCOVA) was used to test the entire hypotheses at 0.05 level of significance.

**Results**

Table 1 below shows the cross tabulation of treatment by gender and by socio-economic background. The mean and standard deviation of each category is presented with the number of respondents in the different categories. The mean represents the mean aggressive behavior score for each group with their corresponding standard deviations. The control group had higher aggressive behavior compared to the treatment group (Cognitive Behavioral Group Therapy) such that the least aggressive behavior was seen in the control group and CBGT group. The highest mean for both groups were 103.42 and 75.00 respectively. It was also observed that the females were more aggressive than their males in both the control and CBGT groups.

**Table 1. Descriptive statistics**

Treatment	Gender	Socio Economic Background	Mean	Std. Deviation	N
Cognitive Behavior Group Therapy (CBGT)	Male	Low	68.38	16.53	21
		Medium	70.00	15.05	4
		High	68.00	.	1
	Female	Low	70.25	15.63	20
		Medium	67.00	15.40	9
		High	75.00	7.07	2
Control	Male	Low	94.45	12.56	22
		Medium	96.25	12.85	8
		High	76.00	.	1
	Female	Low	103.42	17.58	12
		Medium	103.00	13.00	6
		High	103.28	15.80	18

The significance of the difference by treatment, gender and socio-economic background (SEB), their two-way interactions and three-way interaction were tested (Table 2). According to Table 2, the ANCOVA result shows that the main effects of treatment on aggression was significant at 5%, while other hypotheses

of main effects of gender and social economic background; their two-way and three-way interactions treatment and gender were not significant. This shows that cognitive behavioral group therapy was found to be effective in treating aggression among secondary school adolescents.

**Table 2. Analysis of covariance**

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	Hypothesis	12579.95	1	12579.95	57.94	.0001
	Error	16520.92	76.10	217.08 <sup>a</sup>		
Pretest	Hypothesis	563.02	1	563.02	2.53	.11
	Error	20895.54	94	222.29 <sup>b</sup>		
Treatment	Hypothesis	4052.31	1	4052.31	13.85	.02
	Error	1180.38	4.03	292.41 <sup>c</sup>		
Gender	Hypothesis	147.82	1	147.82	.50	.53
	Error	803.12	2.72	294.93 <sup>d</sup>		
Socio-economic background (SEB)	Hypothesis	139.50	2	69.75	2.37	.74
	Error	5.23	.17	29.40 <sup>e</sup>		
Treatment * Gender	Hypothesis	417.44	1	417.44	27.47	.06
	Error	21.38	1.40	15.19 <sup>f</sup>		
Treatment * Socio-economic background (SEB)	Hypothesis	161.60	2	80.80	.80	.45
	Error	6744.52	67.47	99.95 <sup>g</sup>		
Gender * SEB	Hypothesis	94.94	2	47.47	.49	.60
	Error	6024.95	63.33	95.12 <sup>h</sup>		
Treatment * Gender * SEB	Hypothesis	12.94	1	12.94	.05	.81
	Error	20895.54	94	222.29 <sup>b</sup>		

## Discussion

From the results presented earlier, the effect of cognitive behavioral group therapy on the adolescents' aggressive behavior when compared with the pretest mean was significant. This implies that the therapy is efficacious in treating aggression in adolescents irrespective of gender or socio-economic background of the adolescents just as it is being reported that it is also effective in treating other mal-adjusted behaviors such as depression and anxiety of different types in adolescents. Research has confirmed that cognitive based therapy is effective in controlling bullying among secondary school students [15].

This affirmation is important and relevant because bullying is also a form of physical aggression which needs intervention strategy. This finding therefore supports other literature which endorses cognitive behavioral therapy as one of the therapies that can be administered using group format. An empirical meta-analysis also established that patients treated with cognitive behavioral based therapy did better than 76% of untreated subjects on the reduction of anger which is also a serious component of aggression construct [17]. This form of therapy is an appropriate intervention for adolescents [22]. It was also suggested that cognitive programming be integrated as part of classroom curriculum due to its effectiveness in treating adolescents [18].

This study also showed that gender had no significant effect on the aggressive behavior of adolescents in Ibadan metropolis. This is because both boys and girls are aggressive. This is in line with the findings of other researchers that both boys and girls are aggressive but in different forms. For instance, it has been affirmed that boys are more physically aggressive than girls whereas,

girls are often more aggressive than their boys counterparts when it comes to relational aggression [23]. In other words, both boys and girls express aggression in different forms. In the same vein, socio-economic background has no significant effect on the adolescent's aggressive behavior. This could be due to the fact that there are other factors apart from this variable that could be responsible for adolescents' aggressive behavior such as media [24]; brain functioning [25]; and other factors like pleasant activities [26].

## Conclusion

This study has provided literature for researchers and is considered as a guide for counsellors in the education setting on the usage and efficacy of cognitive behavioral group therapy on adolescents' aggressive behavior. This is while there is limited literature on intervention strategy on anger and aggression in Nigeria. Finally, the fact that the result did not discriminate between the gender and the levels of socio-economic background of adolescents is evidence that cognitive behavioral group therapy can be generally used for adolescents. Therefore, the findings of this study have shown that cognitive behavioral group therapy is efficacious in treating aggression in adolescents. It can now be used as one of the intervention strategies to assist adolescents in senior secondary schools and to also enhance their social behavior among their peers along with the society.

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