

## EFFECTIVENESS OF DIALECTICAL BEHAVIOUR THERAPY AND SOCIAL SKILLS TRAINING IN MANAGING PHYSICAL AGGRESSION AMONG ADOLESCENT STUDENTS IN OGUN STATE

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### **Abstract**

*Aggression, which could be verbal or physical is a harsh behaviour committed purposely, often caused by extreme anger. Adolescents with physical aggression often perpetrate physical harm towards others, withdrawal from school activities and may lead to future antisocial behaviour. Therefore, this study sought to examine the effectiveness of Dialectical Behaviour Therapy (DBT) and Social Skills Training (SST) in managing physical aggression among adolescent students in Ogun State, Nigeria. The research design adopted for the study was the quasi-experimental pre-test, post-test control group design. A sample of 94 delinquent adolescents consisting of 47 males and 47 females were randomly selected for the study using the multi-stage sampling procedure. The instruments used to obtain relevant data for the study were the Subtypes of Antisocial Behaviour (STAB) and Buss- Perry Aggression Questionnaire (BPAQ). Data collected were analyzed using Analysis of Covariance (ANCOVA) at 0.05 level of significance. The study revealed that DBT and SST significantly reduced physical aggression among delinquent adolescent students. Also, the study found out that the experimental conditions have no significant effect on the post-test mean scores of physical aggression due to gender. One of the recommendations was that DBT and SST should be used in the management of physical aggression among adolescents.*

**Keywords:** Adolescent, Dialectical Behaviour Therapy, Gender, Physical Aggression, Social Skills Training.

### **Introduction**

Aggression, which could be verbal or physical is a harsh behaviour committed purposely, often caused by extreme anger. Adolescents with physical aggression often perpetrate physical harm towards others, withdrawal from school activities and may lead to future antisocial behaviour. The daily challenges from all types of school violence- such as physical aggression, bullying, peer victimization, and general threats- have the potential to affect, longitudinally, students' mental health, school performance, and involvement in criminal or delinquent acts (Polanin, Espelage, Grotper,

Spinney, Ingram, Valido, El Sheikh, Torgal & Robinso, 2021). Adolescents who display aggressive or behaviours have a poor therapeutic prognosis (Elmasry, Faud, Khalil & Sherra., 2016).

Conventionally, aggression has been defined as an overt behaviour that has the target of inflicting physical damage on another individual, and further stated that the propensity for aggressive behaviours exists every time the interests of two or more individuals conflict (Nelson & Trainor, 2007). There is emergent concern with adolescent student conflict, aggression, and violence in the schools, and anger is an important contributing factor for the damage caused among adolescents in the school climate.

The description of aggression could be based on its style or response tone such as verbal aggression, sexual aggression and physical aggression; it could also include its proximity with direct versus indirect aggression; its duration of consequences as transient or long term; its instigation as unprovoked versus retaliate aggression; its response quality as action versus failure to act aggressive and the target of the aggression, self-directed or other directed; its visibility as overt and covert aggression and its type of harm as physical against psychological (Tonnaer, Cima & Amtz , 2016). The study of physical aggression among human includes a very large spectrum of events, from the study of wars between nations to the fights of toddlers in homes and childcare centre. It has been studied by a wide range of professionals or specialists like psychologists, criminologists, historians, neurologists, psychiatrists, to mention but a few. The philosopher, Aristotle in his book “Politics” stated that humans grow from irrational to rational behaviour because anger, will, and desire are rooted in a child from birth, but reason and understanding develop as they grow older (Aristotle, 1943). Variety of studies in physical aggression during adolescence and early adulthood showed that the frequency of situations of physical aggression continue to decline with age for majority. Nonetheless, among the most physically aggressive individuals, there is often a slight increase during mid-adolescence (Tremblay Vitaro & Cote, 2018).

Not surprisingly, most studies of aggression have included adolescents population since adolescents have an eminent likelihood of aggression in their behaviours. This is a period of transition for developmental and social domain which may also be accompanied by behavioural problems. It is a time to develop knowledge and skills, to manage emotions and acquire abilities and attributes that will be basic for enjoying the adolescent years and assuming adult roles (Bhilwar, & Kapoor, 2016). There has been an increase in the rates of violence or aggression among adolescents/ youths. It is more prominent among boys when compared with the girls.

Physical aggression is a hostile form of aggression which is aimed to cause kicking, molesting, harassing, biting, pushing, torturing, fighting, and bullying. (Aklile, 2020). Aggressive conducts or acts (either physical or verbal) may be a mental health concern for youths and it is a behavioural and emotional trait that may be distressing for all concerned (Heizomi, 2021). Early physical aggression is related to later overt antisocial behaviour for boys and girls (McEachern & Synder, 2012).

According to social learning theory by Albert Bandura (1977), people can learn aggression by observing and imitating violence on the mass media. Observational learning contributes to both the short- and the long-term effects of mass media on aggressive behaviours in the children. Children make inferences by repeatedly observing a violent behaviours, and they can develop schemas about a hostile world and normative beliefs that more approving of aggression (Sengonul, 2017). An experimental study indicated that the children who watched the violent film exhibited physical, verbal and indirect aggression. While positive behaviours are imitated, problematic and aggressive behaviours are modeled as well (Olusakin, Nwolisa & Fashina, 2013).

In the last several decades, researchers have begun to observe dysregulated physical aggression among various adolescent population as a common and debilitating psychological problem among adolescent students, and the treatment of the problem has received increasing attention in the literature. The persistence of prominent subtypes of aggression beginning in childhood has been associated with long-term maladaptive outcomes and boys are at greater risk for belonging to groups displaying elevated aggression (Girard, Tremblay, Nagin & Cote, 2019). Girls have significantly lower involvement in both aggressive and non-aggressive delinquency than boys. However, girls are inappropriately involved in non-aggressive behaviours, and there is a gendered pattern in adolescent delinquency and that gender moderates the effect of some protective factors (Liu, & Miller, 2020). The role of gender is a potential factor in physically aggressive adolescents (Lakhdir, Rozi, Peerwani & Nathwan, 2020)

The choice of Dialectical Behaviour Therapy and Social Skills Training were based on the premise that they can effectively be used to manage physical aggression among adolescent students. Dialectical Behaviour Therapy is a cognitive behaviour approach that emphasizes the psychosocial aspects of treatment. The main goal is to teach the participants skills to cope with stress, regulate emotions, improve relationships with others and eventually reduce aggression. Dialectical Behaviour Therapy (DBT) is empirically supported as effective in the reduction of maladaptive behaviour and

increasing adaptive behaviour among delinquent adolescents. Tomlinson (2015) studied the impact of DBT on aggression, anger and hostility; and it reported that there is significant influence on the reduction of aggression, anger and hostility of psychiatric patients. (Zapolski and Gregory, 2017; Frazier and Vela, 2014 and Oluwole, 2016). Also, Dialectical Behaviour Therapy addresses behaviour by teaching emotion regulation, distress tolerance, interpersonal effectiveness, core mindedness, and self-management skills (Zapolski, 2021).

Social Skills Training (SST) is a therapeutic approach used to improve interpersonal relations. This therapy focuses on verbal and nonverbal behaviours common in social relationships. For juvenile delinquents, SST aims to improve social skills as a means of reducing the risk for reoffending. The purpose of Social Skills Training (SST) include: improvement of social skills, increased self-esteem, improves problem solving ability, regulation of emotions, increased tolerance to stress and frustration, increase self-esteem among others. Lack of social skills has been associated with various behavioural and developmental problems in children and adolescents, including delinquency such as physical aggression (Alavi, Savoji& Amin, 2013). Specifically, social skill deficits have been related to a higher risk for both offending and criminal offense recidivism (Van Der Put, Stams, Hoeve, Dekovic, Spanjaard, van der Laan& Barnoski, 2012; Littin & Haspel 2021; Naseris & Babakhami, 2014). Although a change does not come easily, dialectical behaviour therapy and social skills training can be an effective way of changing delinquent behaviours among adolescents. Therefore, this study was conducted to ascertain the effectiveness of dialectical behaviour therapy and social skills training in managing physical aggression among adolescent students in Ogun State, Nigeria.

### **Research Hypotheses**

The following null hypotheses were formulated and tested in the study:

1. There is no significant difference in the post-test mean scores in physical aggression among participants exposed to the experimental conditions.
2. There is no significant difference in the post test mean scores on physical aggression among participants in the two experimental conditions and control group due to gender.

## **Methodology**

### **Research Design**

The research design for this study was quasi-experimental, pre-test, post-test control group design. Quasi-experimental design was employed for the study because it involves human behaviour where proper randomization of subjects may not be permitted. Three experimental groups were used for the study. There were two treatment groups and one control group. One group was exposed to Dialectical Behaviour Therapy while the second group was exposed to Social Skills Training. The control group was not exposed to any treatment. The population comprised all adolescent students in the public Senior Secondary Schools two (SS2) students in Ogun State, Nigeria. The SS2 students were more suitable for this study because they had adjusted to senior secondary school unlike SS1 who were new and SS3 students that are busy with extension classes in preparation for external exams.

### **Sample and Sampling Technique**

Multi-stage sampling procedure was used for the study. The first stage was the random selection of three Local Government Areas in Ogun State out of 20 Local Government Areas through hat and draw method. The second stage involved selection of one Senior Secondary School from each of the three Local Government Areas using random sampling technique. The third stage involved the identification of delinquent students among the Senior Secondary School Two (SS2) students from the schools selected from each of the three Local Government Areas using Subtypes of Antisocial Behaviour Questionnaire (STAB). A total number of 94 students scored above average which indicated those that are prone to delinquency. The three selected senior secondary schools were randomly assigned to the experimental conditions. Twenty-eight participants which comprised eight males and twenty females in Group A were given Dialectical Behaviour Therapy; 34 participants, 20 males and 14 females were in Social Skills Training Group B while 32 participants, nineteen males and thirteen females were in Group C, the control group.

### **Research Instruments**

The Buss-Perry Aggression Questionnaire (BPAQ) was adapted from original version developed by Arnold Buss and Mark Perry in 1992. According to the authors, the instrument has the internal consistency of 0.89. It is a 29 – item questionnaire used to measure four components of aggression

(physical aggression, verbal aggression, anger and hostility). Scale scores are calculated as the sum of respective items. Items 7 and 8 are reverse scored.

### **Study Phases**

The research was carried out over a period of eight weeks. One week was used for pre-and post-test respectively while six weeks were spent on the treatments. The study was carried out in three phases explained below.

**Phase 1: Pre-treatment Assessment:** The researcher with the help of the research assistants administered the BPAQ to the participants as pre-test a week before the treatment session.

**Phase 2: Treatment Phase:** The sampled groups for the study were randomly assigned to treatment and control groups. The treatment groups met once a week for six weeks for a minimum of one hour for a session per week. The control group was on a treatment the waiting list.

**Phase 3: Post test Assessment:** At the end of the treatment which lasted for six weeks, the BPAQ was administered again as post-test to the same treatment and control groups.

### **Treatment Procedure**

#### **Treatment One: Dialectical Behaviour Therapy (DBT)**

The goal of Dialectical Behaviour Therapy was to teach adolescents with delinquent behaviours some techniques to help them understand their emotions without judgment and to equip them with skills and techniques to manage those emotions and change their behaviour in ways that will make them behave adaptively.

#### **Session 1: Building a relationship with the participants**

The researcher established rapport with the participants and created an atmosphere of warmth and confidentiality. The objectives of the therapy were explained to the participants and subsequently sought their cooperation. The researcher encouraged the participants to share their thoughts, feelings and concerns as regards physical aggression.

#### **Session 2: Assessment and Introduction of the Basic DBT Skills**

The four core modules in Dialectical Behaviour Therapy which include: mindfulness, emotion regulation, distress tolerance and interpersonal effectiveness were presented to the participants, so

that concerns about the future or rumination about the past do not interfere with their ability to enjoy life. They were counseled on how the acceptance of who they are is necessary for a change. They were given assignments to sit and think for two minutes before acting when angered.

### **Session 3: Emotion Regulation Skills**

The previous session was reviewed in this session and they gave feedback on how they managed their emotions and responses when angered during the previous week. Participants were taught to observe, understand and express their emotions, in order to manage the emotions more effectively. They were encouraged to describe how they feel about their experiences. They were taught how to identify and express their emotions in a positive way. For example, they were taught to walk away rather than abuse someone, talk about something that they feel ashamed of, among others.

### **Session 4: Distress Tolerance Skill**

The researcher reviewed emotion regulation skill with the participants. The participants were exposed to accepting life in the moment skill as a distress tolerance skill. Accepting life as it is, rather than resisting or trying to change reality, helps individual to suffer less. Distress tolerance implies surviving and doing well in terrible situations without resorting to behaviour that makes the situation worse. The participants were exposed to distraction and self-soothing skills. Self-soothing means comforting, being kind to and gentle. Questions, comments and observations were made at the beginning, during and end of this session.

### **Session 5: Interpersonal Effectiveness Skill**

The previous session was reviewed with the participants. The participants were then exposed to assertiveness, interpersonal skills and conflict resolution. New ways of interacting with others were encouraged through role plays. Homework on how to relate with people from the DBT handouts was given to the participants.

### **Session 6: Assessment of goal completion and summary of all activities**

There was a review of all previous sessions. The participants were encouraged to reflect on the changes they made and the understanding they gained from the intervention. Ultimately, taking a step back, becoming aware of intense emotions, utilizing self-soothing and emotion regulation

techniques, maintaining consistency, and believing the process can work will benefit one's life and relationships.

The researcher expressed appreciation to the participants for their cooperation at the beginning, during and at the end of the sessions. Administration of post-test measures: Buss-Perry Aggression Questionnaire (BPAQ) was done immediately after the treatment.

### **Treatment Two: Social Skills Training (SST)**

Social Skills Training is a type of psychotherapy that helps people to improve their social skills so that they can become socially competent. Social skills are the behaviours- verbal and non-verbal, that we use in order to communicate effectively with other people. Social Skills Training is predominantly a behaviour therapy.

**Session 1:** General orientation and administration of instrument to obtain Pre-test scores.

The researcher established rapport with the participants to gain their confidence. The objectives of the intervention were made known to the participants to secure their attention and full cooperation.

**Session 2:** Identifying the problem.

The therapist helped the participants to identify the problems they have in socializing which could cause delinquent behaviours. The specific areas in which the participants struggle with is aggression. The participants were given opportunity to share their thoughts, feelings and concern about their inability to control themselves when angry. They were assured of what they stand to gain from the training.

**Session 3:** Setting the goals.

The participants were helped to develop specific goals during the treatment. The ability to socialize comfortably with peers and to relate well with the significant others were among the goal setting. Feedback was provided at the end of this session.

**Session 4:** Modeling.

The previous session was reviewed. The therapist encouraged attitudes and behaviours that enhance positive social interactions. An audio was played to demonstrated the skills that the participants will be focusing on. The participants were encouraged to practice the skills they have learnt.

**Session 5:** Role playing.

The participants were asked to role play some communication skills like polite request for assistance instead of yelling or abusing, verbal communication skill- saying “no” politely to what you do not want, sharing with colleagues, empathy, matching mood to speech, etc. They were encouraged to rehearse and practice the skills over and over again. Feedback was provided in this session to identify the strengths and weaknesses of each participant, and reinforcement applied. The participants were encouraged to work on their weaknesses, and to continue the practice of the social skills learnt.

**Session 6:** Summary and termination of the treatment.

The previous sessions were reviewed. Questions, comments and observations were entertained by the researcher. The researcher appreciated the participants for their cooperation during the course of the sessions and terminated the sessions. The post test administration of the research instruments was done.

**Method of Data Analysis**

Data collected were analyzed using descriptive and inferential statistics. All the hypotheses were analyzed using Analysis of Covariance (ANCOVA) statistics at 0.05 level of significance.

**Results**

Hypothesis 1: There is no significant difference in the post-test mean scores in physical aggression among participants exposed to the experimental conditions.

The results for this hypothesis are presented in Tables 1, 2 and 3.

**Table 1**

Descriptive Analysis of Physical Aggression and Experimental Conditions

Experimental Group	N	Pre-test		Post-test		Mean Difference
		Mean	SD	Mean	SD	
Dialectical Behaviour Therapy	28	31.43	5.42	23.36	4.34	-8.07
Social Skills Training	34	30.44	4.59	22.24	6.14	-8.21
Control Group	32	25.81	6.74	26.53	6.87	0.72
<b>Total</b>	<b>94</b>	<b>29.16</b>	<b>6.10</b>	<b>24.03</b>	<b>6.17</b>	<b>-5.13</b>

Table 1 shows a pre-test mean score on physical aggression for DBT as 31.43, SST as 30.44 and CG as 25.81. At post-test physical aggression scores fell to 23.36 for DBT and 22.24 for SST. However, there was a marginal rise to 26.53 for CG. The SST had a higher reduction with a mean difference of -8.21 followed by DBT with -8.07. An inferential analysis was done to determine the significance of the mean difference. Table 2 has the result of the analysis.

**Table 2:**

ANOVA for Physical Aggression and Experimental Conditions

Source	Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	505.45	3	168.48	5.00	.003
Intercept	912.52	1	912.52	27.07	.000
Covariate	183.06	1	183.06	5.43	.022
Group	472.10	2	236.05	7.00	.001
Error	3033.46	90	33.71		
<b>Total</b>	<b>57827.00</b>	<b>94</b>			
<b>Corrected Total</b>	<b>3538.90</b>	<b>93</b>			

ANCOVA result with  $F$  value of 7 ( $p < 0.05$ ) was computed as the effect of the experimental conditions on physical aggression. This was greater than the critical value of 3.1, given degrees of freedom 2 and 90 at 0.05 level of significance. As a result, the null hypothesis was rejected and it was concluded that there is significant difference in the post-test mean scores on physical aggression among participants in DBT, SST and CG. Table 3 shows the multiple comparison done to determine the pair of groups that were significance.

**Table 3:**

Multiple Comparison on Physical Aggression based on Experimental Groups

(I) Experimental Group	(J) Experimental Group	Mean Difference (I-J)	Sig. <sup>b</sup>
Dialectical Behaviour Therapy	Social Skills Training	.874	.558
	Control Group	-4.586*	.006
Social Skills Training	Dialectical Behaviour Therapy	-.874	.558
	Control Group	-5.459*	.001
Control Group	Dialectical Behaviour Therapy	4.586*	.006
	Social Skills Training	5.459*	.001

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Based on estimated marginal means

\*. The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Least Significant Difference (equivalent to no adjustments).

The outcome of the analysis in Table 10 shows a significant different between the CG and each of DBT ( $t = 4.59$ ;  $p < 0.05$ ); and SST ( $t = 5.46$ ;  $p < 0.05$ ).

Hypothesis 2: There is no significant difference in the post test mean scores on physical aggression among participants in the experimental conditions due to gender.

The results of this hypothesis are presented in Tables 4 and 5.

**Table 4:**

Descriptive Analysis of Physical Aggression and Experimental Conditions based on Gender

Experimental Group	Gender	N	Pre-test		Post-test		Mean Difference
			Mean	Std. Deviation	Mean	Std. Deviation	
Dialectical Behaviour Therapy	Male	8	31.25	6.84	24.00	2.27	-7.25
	Female	20	31.50	4.95	23.10	4.96	-8.40
	Total	28	31.43	5.42	23.36	4.34	-8.07
Social Skills Training	Male	20	30.95	4.85	22.75	5.72	-8.20
	Female	14	29.71	4.27	21.50	6.85	-8.21
	Total	34	30.44	4.59	22.24	6.14	-8.21
Control Group	Male	19	25.63	5.38	26.58	6.34	0.95
	Female	13	26.08	8.60	26.46	7.86	0.38
	Total	32	25.81	6.74	26.53	6.87	0.72
<b>Total</b>	<b>Male</b>	<b>47</b>	<b>28.85</b>	<b>5.95</b>	<b>24.51</b>	<b>5.76</b>	<b>-4.34</b>
	Female	47	29.47	6.29	23.55	6.58	-5.91
	Total	94	29.16	6.10	24.03	6.17	-5.13

Analysis from Table 4 shows that male participants in SST group had the highest mean reduction in physical aggression while their female counterparts in DBT had the highest reduction. Further computation was done to determine whether there exists significant mean difference. The outcome of the analysis is presented in Table 5.

**Table 5:**

ANOVA for Physical Aggression and Experimental Conditions based on Gender

Source	Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	518.439 <sup>a</sup>	6	86.406	2.489	.029
Intercept	919.078	1	919.078	26.473	.000
Covariate	178.447	1	178.447	5.140	.026
Group	454.982	2	227.491	6.553	.002
Gender	10.678	1	10.678	.308	.581
Group * Gender	2.590	2	1.295	.037	.963
Error	3020.466	87	34.718		
<b>Total</b>	<b>57827.000</b>	<b>94</b>			
<b>Corrected Total</b>	<b>3538.904</b>	<b>93</b>			

The outcome of the analysis shows that the F-value (0.963;  $p > 0.05$ ) was not significant. Consequently, the null hypothesis was not rejected. It was concluded there is no significant difference in the post test mean scores on physical aggression among participants in the two experimental conditions and control group due to gender.

### Discussion of Findings

This first hypothesis which states that, “Physical aggression does not significantly differ as a result of exposing the participants to Dialectical Behaviour Therapy and Social Skills Training and control group” was rejected because the F-calculated value of 7 ( $p < 0.05$ ) was observed to be greater than the critical value of 3.1 given 2 and 90 degrees of freedom at 0.05 level of significance. This result reveals that there exists a significant difference in the mean as a result of the experimental condition.

The result was in line with the assertion of Hancock-Johnson et al., (2020) who proclaimed that there was statistically significant decrease in the frequencies of engagement in total aggressive and deliberate self-harm behaviours after the DBT training skills for participants. Besides, Frazier and Vela (2014) also observed that the intervention of DBT significantly reduced anger and aggression. Other studies by Olusakin, Nwolisa & Fashina (2013) who investigated the effects of Cognitive Behavioural Therapy and Social learning on adolescents’ aggression showed that there was significant difference in post-test aggression scores of participants. In another finding by Alavi, Savoji and

Amin (2012), found out that there was positive effect of SST on decreasing aggression of the children after the treatments.

The second hypothesis which states that, there is no significant difference in the post test mean scores on physical aggression among participants in the two Dialectical Behaviour Therapy and Social Skills Training and control group due to gender because the F-calculated value of 0.963 ( $p > 0.05$ ) was not significant. The result is consistent with a study by Oni (2018) that concluded with the findings that family types, gender and self-esteem have no significant correlation with delinquent behaviours but age was found to slightly influence the development and manifestation of delinquent behaviours. On the other hand, the findings of the study is inconsistent with a previous findings by Lin and Susan, (2020) who suggested that girls have significantly lower involvement in both aggressive and non- aggressive delinquency than boys. Girard et al., (2019) also reported that boys were at greater risk of belonging to groups displaying elevated aggression, and concluded that there is gendered pattern in adolescent delinquency and that gender moderates the effect of some protective factors. . The findings is also inconsistent with a study made by Lakhtir, et al., (2020) which reported that gender is a potential factor in physically aggressive adolescents.

### **Conclusion**

The study provides evidence for the effectiveness of Dialectical Behaviour Therapy and Social Skills Training for adolescents with physical aggression. In addition, this study demonstrated that DBT and SST may be beneficial for behavioural outcomes in adolescent students with physical aggression. But, it established that gender should not be viewed as a predicting factor of adolescent involvement in physical aggression.

### **Recommendations**

In view of the findings, the following recommendations were made for consideration:

1. School counsellors and therapists should employ Dialectical Behaviour Therapy and Social Skills Training to reduce aggressive behaviours and impart a change and build a healthy relationship among adolescents.
2. Both DBT and SST should be used by school counselors and therapists in identifying and managing physical aggression among adolescent students.
3. Classroom management, life skills training and counseling techniques are recommended for channelizing the aggressive conducts of adolescent students.

4. School counsellors and social workers should look into the risk factors of delinquency in early childhood as a measure to curb its extension into adolescence, and harm it could cause to both the victim and the society at large.

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