

# Relationship between School Environment and Students' Aggressive Behaviour in Bungoma County, Kenya

Carolyne Otieno Wakoli

*Alupe University College, School of Education and Social Sciences, P.O Box 845-50400, Busia, Kenya.*

**Abstract:-Adolescents spend much of their lives in activities associated with their school and the school's social, psychological and learning climate all have a strong impact on the emotional and social development of young people. School climate refers to the atmosphere or ethos of a school, and the nature and quality of the interpersonal relationships and communication patterns within the school. It follows that the culture of a school clearly plays a role in shaping students' experience, and research has emphasized the importance of developing a positive school climate in order to reduce school violence. This study was carried out to determine the relationship between the school environment and the students' aggressive behaviour in Bungoma County in Kenya.**

**Key words: Environment, Aggressive behavior**

## I. INTRODUCTION

Students attending schools with a more positive climate and those feeling connected to their schools' climate will predict higher engagement with the school and consequently less aggression (Walters, Cross & Shaw, 2010). In their research, these authors found that students reporting a more positive and fair school life were less likely to report carrying a weapon on a school property. Solberg and Olweus (2003) conducted a survey in Norway among 75,000 school aged children to determine the extent of bullying in secondary schools. The authors reported that the problem was serious and widespread. Unfortunately, teachers and parents were relatively unaware and did not intervene. The study revealed that out of all the students under study, 11% were bullied, 5% were victims once a week or more, and 7% admitted that they themselves deliberately hurt the children verbally or physically. The findings were based on all students in Norway. The present study specifically focused on students in secondary schools in Kenya. It will therefore be interesting to compare the findings given that the studies were done in different locations. It was also important to note that the influence of the school on bullying was not investigated and reported whereas fighting and destruction of property could have been among other aggressive behaviours practised in schools. It is worthwhile to note that fighting and destruction of property were not investigated and these were major variables of the current study.

The Survey in Norway reported that there were more boys than girls who bully other students. A large percentage of girls reported that they were mainly bullied by boys which then meant that there were a high percentage of boys who were victims of bullying. Landau (2012) reported that although bullying is a major problem among boys, a good deal of bullying occurs among girls. While physical bullying is common among boys, girls typically use indirect ways of harassing such as spreading rumours, slandering, intentional exclusion from the group and manipulation of friendship relations. These forms of bullying may be different to detect among the girls.

The weaker and younger students are more exposed to bullying. Sailor (2010) observed that school characteristics might exacerbate development of bullying or protect the students from it. Serious bullying appears to develop from a constellation of problem behaviour such as inattentiveness, hyperactivity, oppositional behaviour, and poor peers' relations among others. He also reported that children who are at risk of developing serious and persistent bullying tend to demonstrate that problem behaviour at an early stage. They also display the behaviour with greater frequency than other children. The studies by Landau (2012) and Sailor (2010) supported this study by revealing that bullying is practised in schools. It is important to note that the influences of teachers and disciplinary measures on bullying were not investigated and they were major variables in this study. It is apparent, from the studies by Landau (2012), Sailor (2010), that bullying can be a serious problem in schools. The findings of Landau (2012) addressed bullying without identifying the school factors contributing to the vice. Therefore, it was important to conduct a similar study to find out the contribution of the teachers and their disciplinary actions on bullying among adolescents in secondary schools.

### 1.1 Head Teachers and Aggressive Behaviour of Students

Kiprop (2012) contents that the head teachers have a very important role in maintaining discipline in schools. They achieve this by setting the tone and morale of the school and through their remarkable influence over the teachers and students the schools remain stable. The role of the head teacher remains critical in the successful implementation of various educational reforms (Kamunde, 2010). Depending on

how the head teachers carry out their duties, students will live in harmony or resort to violence. Nak and Pocha (2010) state that 'where order is lacking the school system crumbles and the upright will be squeezed into the mould of the wicked, the school environment will be unsafe.' For example, in Arkansas, USA a thirteen-year-old fired at their classmates at the playground and killed four girls as a result of rejection from female classmates (Dunne et al., 2010). This incident was blamed on the laxity of the head teacher. In another incident in a bus at Montgomery County, Maryland, USA an 11-year-old was attacked by a group of boys who assaulted her sexually. The head teacher did not report this incident.

According to Burton (2010) head teachers who use bureaucratic rules end up with rebellion from students. For example, a secondary school in Natal, South Africa went on rampage destroying property because the head teacher inflicted violence on learners. On school rules and regulations, Sugut and Mugasia (2014) clearly explain that educational administrators must learn how to anticipate and avoid the negative consequences of bureaucratic rules and regulations. The authors argue that rules having punishment centred pattern are most likely to evoke negative consequences. When the rules are not obeyed by students they are punished introducing tension and conflicts. According to Kiumi (2012) school administration plays a critical role in discipline. Whenever a head teacher fails to give teachers the help they deserve in disciplining students, control problems multiply and school morale deteriorates rapidly. He notes that policies and regulations that govern achievement and behaviour of students are also a source of disciplinary problems arising from the school. In this case, regulations as well as their enforcement, which are either too severe or too relaxed may also lead to control problems.

Administrators, who frequently resort to physical punishment, especially for the older children, soon reap a harvest of rebellion, riots and other forms of aggressive behaviour. For example, in September, 2010, the Nation Team in the article "property destroyed" reported that students of one of the boys' schools turned violent and started a fire that destroyed property worth 3 million because of the head teacher. In another article in The Standard Newspaper, 'poor leadership to blame for school fires' one of the boys' schools in Kisii County burnt seven dormitories destroying a lot of property (Manoa, The Standard, 2016, August 2<sup>nd</sup>, p.21) The Nation team in the article 'students riot' which appeared in the Daily Nation (Wamukota, Daily Nation, 2011, July 21<sup>st</sup>, p.17) noted that students in a Secondary School in Butere rioted and beat up their Board of Governors (BOG) Chariman who they claimed was working with their autocratic head teacher who they wanted transferred from the school. Indiscipline in Kenyan secondary schools is therefore as a result of poor management skills by heads of institutions of learning (Sugut & Mugasia, 2014). Ideally head teachers are expected to set an orderly and safe school environment that is conducive for learning. In such a setting, students and teachers feel secure

and the overall culture will exude the idea that learning is the school's business.

### *1.2 Teachers' Discipline and Students' Aggression*

Another manifestation of school-based violence is by teachers on learners. The reports by secondary school principals highlight incidents in which educators inflict violence on learners (Kirui, 2011). Although it is common knowledge that the role of teachers in secondary schools is to teach, it is worth noting that the kind of teaching and behaviours that they demonstrate in school can either generate or hinder violence in the same schools (Mabeya, 2010). Sometimes the most important goal of education that is, improved behaviour of boys and girls have been neglected. Kirui (2011) observes that the teacher and the teaching methods, that are monotonous with definite routines and inappropriate instructional procedures lead to behaviour problems. Promotional policies, particularly in exams are also a source of discipline problems. Sugut and Mugasia (2014) note that excessive stress on examinations or competition for school marks creates a climate conducive for behaviour problems.

According to Brendgen (2010) the teacher-child relationship exerts a major influence on children's academic, social, behavioural and emotional problems. Children who have a negative relationship with their teachers especially those who experience verbal abuse by the teacher are likely to miss out on important learning opportunities and are at risk for an increase in behaviour problems. Teachers are often times the sources of students' aggressive behaviour in school. For example, a teacher's defamatory behaviours on students such as using inappropriate language affect students negatively. Kean, Beylen and Ektem (2013) investigated the effects of teachers' negative behaviour on learning in 50 public schools in Turkey and they concluded that increasing the negativity of teachers' behaviour decreases the success of students. Students want to be valued by teachers in the school and they expect directed interest, curiosity on them from their teachers beyond academic support. An interested teacher as perceived by learners motivates them to learn. A research based on Australian schools (Walters, Cross & Shaw, 2010) with a sample of 39 schools, found that higher levels of school connectedness reflected closer relationships with family and teachers. Students who have positive perceptions of their relationships with their teachers are more likely to show better motivation and engagement with the school and greater adaptation to school in terms of academic coping, self-regulation perceived control and lower levels of aggression. A student whose relationships with their teachers is characterized by greater closeness, support and less conflict also exhibit lower levels of aggression and other conduct problems (Ochoa, Lopez & Emler, 2010). The personality, character, attitude and observable actions of a teacher are factors that determine the effectiveness of a teacher's relationship both with students and colleagues. A teacher who practices qualities of kindness and warmth will motivate students (Ochoa, Lopez & Emler, 2010).

It is notable that a teacher's attitude is vital. How a teacher feels about his job, his colleagues, and his students has a direct bearing on student behaviour. His attitude towards his students also ultimately determines his success or failure in improving their behaviour. The reason is that students will often try to live up to a teacher's expectations. Coupled with attitude is a teacher's character which is equally important in influencing student behaviour. A teacher could provide a happy school environment with security in a sea of trouble. Alternatively, a teacher can create a violent environment for students (Sugut & Mugasia, 2014). The authors contend that teachers ought to be constantly aware of their interactions within the school environment because children constantly observe and evaluate them. From the point of view of students, effective teachers are those who avoid using ridicule and prevent situations in which they lose respect in front of their peers. They offer opportunities to students to participate and to succeed. According to Kean, Beylen and Ektem (2013) a teacher is a person that has the most intimate and long term interaction with students, and should undertake functions such as being a role model and making guidance to students in addition to his main function of learning facilitation. Bauma, Rigby and Hoppea (2008) concurs with these authors by emphasizing the role of teachers as counsellors to the students. Though these studies were conducted in different locations, the current study built on their findings in order to compare the findings. The studies also overemphasized the influence of the teacher on aggressive behaviour of students in school leaving out other factors like peers, family, and community factors which could cause aggression. The current study investigated the relationship between these variables and aggression of students and by doing this filled the knowledge gap.

Recent research has linked the school environment to student aggression. Many educators come from a background in which violence was often used as a means of conflict resolution. Excessive discipline that is practiced in some schools has a very harmful influence on children. Corporal punishment was a legitimate form of punishment until 2001 in most African countries. Even though corporal punishment has been outlawed, evidence from the study of Burton (2010) in South Africa is that teachers battle to utilize other forms of discipline that tend to lean more towards violence. For example, the relational youth victimization study of 2008 showed that 51.4% of the participants reported having been caned, slapped, hit with objects and had their hair pulled. What this finding highlights is that most children who are at school are constantly at risk of being the victims of violence even from teachers and school principals (Burton, 2010). This kind of punishment is problematic in that it reinforces and models violent behaviours in and to children respectively (Burton, 2010). Empirical evidence shows that offenders who are disciplined harshly are actually slightly more likely to commit further crimes (Rowntree, 2011). According to Robbins (2010) the more serious the punishment, the more violent the bi-product. The author says that the frustration that

harsh and excessive discipline causes leads to hostility which encourages the students to become violent in adulthood.

Jawes et al., (2010) when revealing their investigation about adolescent hostility, confirmed the effect of excessive punishment. Children were interviewed about assaultive behaviours such as being in gang fights, striking parents and using strong arm methods to get money from other people. It was reported that the more severe the physical discipline at pre- school age, the higher the average level of physical assault in late adolescence. The effect of early mistreatment of children can extend across a span of many years, influencing adolescent assaultive behaviour. Baron and Richardson (2010) contend that the obvious effect of corporal punishment could result in physical as well as emotional injury.

Despite many parents arguing against the use of corporal punishment, it appears that this form conflict management and discipline is quite thoroughly entrenched in South African society. The National Schools Violence Study found a strong correlation to corporal punishment at home and at school. In Nigeria, Okorodudu (2010) sampled 30 secondary schools investigating factors associated with school violence. In his findings, he reported that students usually react against their teachers' who humiliate them through harsh punishments. In Kenya, for many years, teachers have relied and still rely on corporal punishment to discipline errant students despite being outlawed (Ruto, 2009). According to a research carried out by African Network for the Prevention and Protection against Child Abuse and Neglect (ANPPCAN) cited by Oyaró (2010), corporal punishment could actually trigger students' unrest. Teachers smack, pull ears, force children to kneel on hard surfaces, standing in the sun etc. Some of these methods according to Oyaró (2010) have proven counteractive as they traumatize children.

All these researchers concur that the culture of the school can dampen or exacerbate the aggressive tendencies in the students. It has been highlighted that teachers' harsh discipline can contribute to aggressive behaviour of students. Ruto (2009) supports this, stating that if emotions are charged through severe punishment, some people resort to aggression. The child who is excessively punished and also given little affection is more likely to turn their aggression to others. The school environment needs to be configured in a manner that will reduce outburst of rage and aggression. The administrators should find a means of ensuring that students have a channel of airing their grievances in a democratic and fair manner. The head teacher should gauge perception of fairness in school disciplinary actions (Oyaró, 2010). Generally, studies of student violence/engagement have focused on primary school children. The present study examined the context of aggression in a sample of high school students in Bungoma County, Kenya.

## II. METHODOLOGY

The study adopted correlational research design with mixed approaches. According to Mugenda (2008) a correlation

research design is a study that describes the degree to which the variables are related. This type of research assesses the relationships among variables with the researcher being interested in using information obtained from one variable to estimate the variation in a related variable. This study adopted this method because it was interested in establishing whether there was a relationship between school environment and aggressive behaviour of students in secondary schools. In the study data was collected on psycho social factors and aggressive behaviour among students in order to test the nature and extent of the relationship between the two variables.

The study was conducted in Bungoma County. This is one of the 47 counties in Kenya. The County was purposively selected because it has many public secondary schools which are a mixture of girls' only schools, and boys' only schools, as well as mixed schools. This was essential for comparison purposes. Furthermore, this County has had a number of incidents of students' aggressive behaviour and regular disturbances witnessed. These incidents have been reported in the print and electronic media and have caused concern among parents, teachers, counsellors and Ministry of education officials and other education stake-holders in the recent past (Makabila, 2010). The target population of this study was 110,000 students in all public secondary schools in Bungoma County. The population consists of 60,000 male students and 50,000 female students (source: Bungoma County Director of Education's Office, 2014).

Both probability and non-probability sampling was used to select the study sample.

The sample size of students in form two who were selected for the current study was determined using a formula that was developed by Krejcie and Morgan (1970). Using this formula, 379 students in form two were selected. The study employed questionnaire and interview schedule in data collection. To enhance the trust worthiness of the study, the research data collection tools were validated and reliability determined.

### III. RESULTS

The study sought to determine the relationship between school environment and students' aggressive behaviour in Bungoma County. First, levels of aggression were compared based on various aspects in the school environment such as who is in charge of discipline; rating of Disciplinary Measures; availability of teachers for consultation; common disciplinary measures and how head teachers address students grievances. Second, the conduciveness of the school climate was established through a summated Likert-Scale and finally the relationship between the school climate and aggressive behaviour was determined.

#### 3.1 The In-Charge of Discipline in Secondary Schools

Respondents were requested to indicate who was in charge of discipline in their schools. The results as shown in Table 49

established that 75 representing 24.4% indicated that Principals were in charge of discipline, 183 representing 59.4% indicated that Deputy Principals were in charge and 50 representing 16.2% indicated that disciplinary committees were in charge of discipline.

Table 1: The In-Charge of Discipline in Schools

	Frequency	Percent	Valid Percent	Cumulative Percent
Principal	75	24.4	24.4	24.4
Deputy Principal	183	59.4	59.4	83.8
disciplinary committee	50	16.2	16.2	100.0
Total	308	100.0	100.0	

Levels of aggression for learners were compared based on who was in charge of discipline. The results as shown in Table 50 showed that levels of aggression were higher where the Principal is in charge of discipline with a mean index of 97.9600. This was followed by when the deputy principal is in charge with a mean index of 93.1200. Least levels of aggression were recorded amongst learners who indicated that disciplinary committees were in charge of discipline. This implies if other teachers other than the Principal and the Deputy participate in checking the discipline of learners, the level of aggression will be lower. The finding that levels of aggression were in schools where Principals were in charge can be attributed to Burton (2010) assertion that head teachers who use bureaucratic rules end up with rebellion from students. Also, laxity of the head teacher could result to lack of order and as Nak Pocha (2010) states 'where order is lacking the school system crumbles and the upright are squeezed into the mould of the wicked making the school environment unsafe and a breeding ground for aggressive behaviour.

Table 2: Mean Aggression for learners based on who is charge of discipline

Incharge	Mean Aggression Behaviour	Statistic	Std. Error
Principal	Mean	97.9600	2.32886
	Std. Deviation	20.16851	
Deputy Principal	Mean	93.1200	1.50357
	Std. Deviation	20.33989	
Teachers	Mean	93.0929	3.16094
	Std. Deviation	22.35122	

One-Way ANOVA test for the significance of the difference in mean aggression amongst the learners based on who is in charge of discipline show that the difference was not statistically significant ( $F_{2,305} = 1.574$ ,  $p = 0.209$ ) as shown in Table 3.



Table 3: One-Way-ANOVA for Aggression Behaviour based on who is in Charge of Discipline

	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	1340.845	2	670.422	1.574	.209
Within Groups	129875.581	305	425.822		
Total	131216.425	307			

### 3.2 Rating of Disciplinary Measures in Secondary Schools

With regard to the rating of disciplinary measures in schools, the results of the analysis show that 121 respondents indicated that disciplinary measures were very harsh, 107 representing 34.7% indicated that disciplinary measures were harsh, 55 representing 17.9% indicated that they were neutral and the remaining 25 representing 8.1% indicated that they were not harsh. The results show that in most schools' disciplinary measures were either harsh or very harsh as shown in Table 4.

Table 4: Rating of disciplinary measures in schools

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Very Harsh	121	39.3	39.3
	Harsh	107	34.7	74.0
	Neutral	55	17.9	91.9
	Not Harsh	25	8.1	100.0
Total	308	100.0	100.0	

Mean aggression amongst students compared based on the rating of disciplinary measures in their schools revealed that the level of aggression was highest amongst learners who rated the disciplinary measures as either very harsh or harsh with mean indices of 96.4050 and 95.2243 respectively. Levels of aggression were lowest amongst learners who rated disciplinary measures as being neutral. This indicates that the way disciplinary measures are implemented or meted has a bearing on the level of aggression of the learners. The harsher it is done the more aggressive learners become as shown in Table 5.

Table 5: Mean Aggression for learners based Rating of disciplinary Measures

In charge	Mean Aggression	Std. Error
<b>Very Harsh</b>	96.4050	1.91495
<b>Harsh</b>	95.2243	1.97388
<b>Neutral</b>	94.0000	2.66717
<b>Not Harsh</b>	94.5600	4.59060

### 3.3 Availability of Teachers for Consultation and Levels of Aggression.

Respondents were requested to indicate whether teachers were available for consultations or not. Ninety-one (91) representing 29.5% indicated 'Yes' while the remaining 217

representing 70.5% indicated 'No'. This implies that in most schools, teachers are not available for consultations. Comparison of the levels of aggression amongst learners whose teachers were available for consultation and those whose teachers were not available for consultation revealed that aggression was higher amongst learners whose teachers were not available for consultation. This implies that availability of teachers for consultation can help reduce levels of aggression amongst learners as shown in Table 6.

Table 6: Availability of Teachers for Consultation and Levels of Aggression

	N	Percent	Mean Aggression index	Standard Deviation
Yes	91	29.5%	93.3410	20.99383
No	217	70.5%	98.5275	20.51408

### 3.4 Common Disciplinary Measure in Secondary Schools

Respondents were requested to indicate what was the common disciplinary measure practiced in their schools. Sixty four (64) representing 20.8% indicated suspension; 62 representing 20.1% identified expulsion as the common discipline measure. One hundred and sixty representing 51.9% identified caning as the most prevalent disciplinary measure while the remaining 22 representing 7.2% indicated counselling as a disciplinary measure. This implies that in most schools caning was still the preferred mode of administering discipline amongst students despite it being outlawed. Comparison of the levels of aggression revealed that aggression was higher amongst learners whose schools were using caning as a way of meting discipline. On the other side, aggression was lower amongst learners who indicated that counselling was used to address discipline issues as shown in Table 7.

Table 7: Common Disciplinary Measures and Levels of Aggression

	N	Percent	Mean Aggression index
Suspension	64	20.8%	95.3236
Expulsion	62	20.1%	93.6438
Caning	160	51.9%	99.3065
Counselling	22	7.2%	87.8906

### 3.5 How Head Teachers Address Students Grievances in Schools

Respondents were requested to indicate what was the common disciplinary measure practiced in their schools. Seventy-seven representing 25% indicated that principals addressed their grievances promptly; 136 representing 44.2% indicated that Principals addressed their grievances after a long time the remaining 95 representing 30.8% indicated Principals ignored their grievances. Comparison of the levels of aggression revealed that aggression was highest amongst learners whose Principals ignored their grievances with a mean index of 98.6809 followed by learners whose principals addressed grievances after a long time with a mean index of 96.1053. Aggressive behaviour was least amongst learners who

reported that their Principals addressed their grievances promptly as shown in Table 8.

Table 1: Principals' Address of Grievances and Levels of Aggression

	N	Percent	Mean Aggression index
Promptly	77	25.0%	95.3236
After a long time	136	44.2%	88.6438
Ignores	95	30.8%	99.3065

### 3.6 Relationship between School Climate and Aggressive Behaviour

To determine the nature of the school climate, respondents were requested to rate on a five-point Likert scale their level of agreement to various items measuring how favourable the school environment is. The ratings ranged from 1 (lowest) to 5 (highest). Their responses for each school climate element are illustrated in Table 9.

Table 9: Level of Agreement with the School Climate Indicators

	SD	D	N	A	SA	$\Sigma f_i$	$\frac{\Sigma f_i w_i}{\Sigma f_i}$
	1	2	3	4	5		
I work well at school	20	36	82	98	72	308	3.54
Teachers allow me to give my point of view	86	103	58	40	21	308	2.37
School offers stimulating activities	74	82	71	70	1	308	2.55
I feel great to be at school	34	44	48	96	86	308	3.51
We learn many useful facts at school	32	42	49	87	98	308	3.57
School does help us to improve our living conditions	61	105	82	65	0	313	2.48
I am actively involved in school activities	91	60	53	100	4	308	2.56

Fifty-six (18.2%) respondents disagreed that they work well in school (score 1 and 2 on the scale) as compared to 170 representing 55.2% who agreed that they work well in school (scores 4 and 5 on the scale). The results suggest that on the average, students work well when at school as indicated by weighted averages of 3.54.

With regard to teachers allowing students to give their points of view, 199 respondents representing 64.6% disagreed (score 1 and 2 on the Likert scale) as compared to 61 representing 19.8% who agreed (scores 4 and 5 on the Likert scale). The results suggest that on the average, teachers do not allow students to give their points of view as indicated by weighted averages of 2.37. This implies that school administrations and teachers provided little room for students to freely give their views.

As concerns schools offering stimulating activities, the results suggest that on the average, students were indifferent as indicated by weighted averages of 2.55. However, 156 respondents representing 50.6% disagreed (score 1 and 2 on the Likert scale) whereas 91 representing 29.5% who agreed (scores 4 and 5 on the Likert scale). This is a pointer that most schools do not offer a variety of activities to engage students other than the usual curricular activities.

On whether students feel great at school, the results suggest that on the average, students agreed that they feel great to be at school as indicated by weighted averages of 3.51. Overall, 78 respondents representing 25.3% disagreed (score 1 and 2 on the Likert scale) whereas 182 representing 59.1% agreed (scores 4 and 5 on the Likert scale).

In relation to whether students think they learn many useful facts at school, 74 respondents representing 24.0% disagreed (score 1 and 2 on the Likert scale) while 185 representing 60.1% agreed (scores 4 and 5 on the Likert scale). The results suggest that on the average, students attach importance to the facts they learn in school as indicated by weighted averages of 3.57.

With regard to whether school does help the learners to improve their living conditions, 166 respondents representing 53.9% disagreed (score 1 and 2 on the Likert scale) while 65 representing 21.1% agreed (scores 4 and 5 on the Likert scale). The results suggest that on the average, students disagreed that school helps them to improve their living conditions as indicated by weighted averages of 2.48. This is despite their agreement that they learn facts at school, an implication that they do not apply the useful facts they learn in school to real life.

As far as students' involvement in school activities are concerned, 151 respondents representing 49.0% disagreed (score 1 and 2 on the Likert scale) while 104 representing 33.8% agreed (scores 4 and 5 on the Likert scale). The results suggest that on the average, students were indifferent on this matter as indicated by weighted averages of 2.56. However, there were more students who indicated that they do not actively involve themselves in school activities compared to those who indicated that they do. This is in line with the earlier finding that schools do not offer stimulating activities.

Responses to various indicators of school climate were collapsed and a composite index computed to represent how

conducive the school environment was. The indices ranged from 7 (lowest) to 35 (highest). The higher the index, the more conducive the school environment was and vice versa. The mean and standard deviation were computed and the results are presented in Tables 10.

Table 10: Means and Standard Deviations for Indexed School Climate

Variable	N	$\sum x_i$	$\frac{\sum x_i}{N}$	Std Deviation
Conduciveness of School Climate	308	6702	21.7597	7.8189
Valid N (listwise)	308			

The results show that conduciveness in school climate had a mean index of 18.4364 with responses deviating from this mean by a standard margin of 4.3590. Since the mean was above slightly above 21, it can be concluded that school environments are fairly conducive for learners hence the expectation of lower aggressive behaviours.

To determine the relationship between conduciveness of the school environment and aggression, a simple linear regression analysis was used. The result of the model summary shown in Table 59 show a correlation coefficient of 0.498 which indicates a moderately strong relationship between school climate and aggressive behaviours. A coefficient of determination  $R^2 = 0.248$  indicates that 24.8% of the variation in aggressive behaviour for the sample of 308 students can be explained by the variations in school climate while 75.2% is explained by other factors.

Table 11: Model Summary for the relationship between School Climate and Aggression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.498 <sup>a</sup>	.248	.246	17.95501

a. Predictors: (Constant), School climate

In assessing whether school climate can significantly predict the level of aggressive behaviour of learners, the F-statistic from the ANOVA table was used and the results are presented in Table 12.

Table 12: ANOVA for the relationship between School Climate and Aggression

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	32567.368	1	32567.368	101.021	.000 <sup>b</sup>
Residual	98649.058	306	322.383		
Total	131216.425	307			

a. Dependent Variable: aggression

b. Predictors: (Constant), School climate

The results of the analysis report the summary ANOVA table and F statistic, which reveals that the independent variable

(school climate) can significantly predict the aggression behaviour of learners ( $F_{(1,306)} = 101.021, p < 0.05$ ). This indicates that school climate contributes to the variance in aggression behaviour among learners. The F value also shows that the simple regression model is statistically significant.

In assessing the significance of the regression coefficients in the model, the t-test for regression coefficients was used. The unstandardized regression coefficients and t-test values are presented in Table 13.

Table 13: Coefficients for the relationship between School Climate and Aggression

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1					
	(Constant)	122.946	3.030	40.579	.000
	School climate	-1.317	.131	-4.98	.000

a. Dependent Variable: Aggression

The regression model is therefore:

$$Aggression = 122.946 - 1.317 * School Climate$$

The model indicates that there is a negative relationship between aggressive behaviours and school climate. The more conducive the school climate the lower the aggressive behaviour amongst learners.

To test whether there is a significant relationship between school climate and aggressive behaviour amongst secondary school students, the t-test was used and the following hypothesis was tested.

$H_0$  there is no significant relationship between school climate and aggressive behaviour among secondary school students.

The results show that the t-test values for the school climate coefficient is significant at 0.05 level of significance ( $t_{(1,306)} = -10.051, p < 0.05$ ) hence we reject the null hypothesis and conclude that the predictor variable school climate was making a significant contribution to the aggressive behaviour of students in secondary schools. Likewise, the constant of the regression model is significant at 0.05 level of significance ( $t_{(1,306)} = 40.579, p < 0.05$ ). The results are similar to findings by Sailor (2010) who observed that school characteristics do exacerbate development of aggressive behaviour amongst learners.

IV. CONCLUSION

The study established a moderately strong relationship between school climate and aggressive behaviours. A coefficient of determination  $R^2 = 0.248$  indicate that 24.8% of the aggressive behaviour amongst the surveyed learners could be attributed to school climate.

## V. RECOMMENDATION

Prevention of aggression in school should be intensified by the implementation of precautionary programs like talks, discussions on violence and aggression, its causes, effects as well as ways to solve problem situations. It is also important to take full advantage of extracurricular activities such as school trips of interest to shape appropriate attitudes and behaviours of young people by offering exciting activities and ways of spending free time.

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