Social Risk Factors for Aggression Among School-Aged Children: Evidence from Lurambi Sub-County, Kenya

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DOI: https://doi.org/10.47772/IJRISS.2026.100800294

Received: 13 August 2026; Accepted: 18 August 2026; Published: 02 September 2026

ABSTRACT

Aggressive behavior among children has been linked to a range of adverse outcomes including poor academic performance, peer rejection, and future antisocial behavior. Social factors such as peer influence, neighborhood environment, and societal norms play a critical role in shaping childhood aggression, yet remain underexplored in younger populations within sub-Saharan Africa. The main objective was to assess the influence of social determinants — including peer relationships, neighborhood context, and attitudes toward authority — on aggressive behaviors among primary school children in Lurambi Sub-County, Kenya. A cross-sectional mixed-methods study was conducted among 334 primary school children aged 6–12 years selected through multistage sampling. Structured questionnaires captured data on peer dynamics, neighborhood conditions, and perceptions of social authority. Aggressive behavior was assessed using the TOCA-R behavioral checklist. Quantitative data were analyzed using SPSS v26 through logistic regression and chi-square tests, while thematic analysis was used for qualitative insights obtained from 20 teacher interviews. Key results were: Rejection by peers ($p = 0.03$) and negative attitudes toward school authority ($p = 0.04$) were significantly associated with aggressive behaviors. Children from disordered or unsafe neighborhoods exhibited higher aggression scores, although this was not statistically significant. Qualitative findings supported the role of peer pressure and lack of structured recreational outlets as contributing to aggression in both urban and rural school settings. In Conclusion: Social determinants, particularly peer rejection and attitudes toward school authority, were significantly associated with aggressive behavior among primary school children in Lurambi Sub-County. Targeted interventions such as peer mentorship, school-based social skills training, and safe neighborhood initiatives are essential for early prevention.

Keywords: Aggression, children, peer influence, social determinants, authority, school violence, Kenya

INTRODUCTION

Aggression is commonly defined as behavior characterized by hostile or violent actions that can lead to serious social consequences that includes crime, physical injury, and psychological harm (Vakili et al, 2015). Verbal aggression (such as insults and defiance), physical aggression (including fighting and hitting), and vandalism (for example, property damage and theft) (Derman, 2017) are the various forms it manifests. Learning environments are disrupted by these behaviors, both perpetrators and victims are adversely affected undermining academic performance, social relationships, and emotional wellbeing (Vakili et al., 2015).

Aggression and interpersonal violence constitute a major public health concern globally. Interpersonal violence was the second leading cause of death among adolescents aged 15–19 years worldwide (WHO, 2017) as reported by the World Health Organization. Aggression is associated with long-term mental health consequences, including anxiety, depression, post-traumatic stress, and suicidal ideation (Devries et al., 2011; Fisher et al., 2012; Machtinger et al., 2012) beyond immediate physical harm. Elevated health risks such as

reproductive health complications and increased vulnerability to infections (Devries et al., 2011; Fisher et al., 2012) have been linked further by empirical evidence.

Policy frameworks in Kenya such as the National School Health Policy (2009) and the Comprehensive School Health Programme (CSHP) were established to safeguard learners' rights to health and education while promoting psychosocial support within safe school environments. Under Vision 2030 and global commitments articulated in the Sustainable Development Goals, particularly Goal 4 (quality education) and Goal 16 (peace, justice, and strong institutions), these initiatives align with the national development agenda. Aggressive behaviors among school-aged children remain prevalent and problematic despite these efforts.

Critical determinants of aggression have been constantly identified as social factors by the empirical literature. Negative behaviors such as bullying, defiance, and violence, especially in settings with limited supervision or weak social control can be reinforced as demonstrated in the studies (Gitau, 2002; Kyungu, 2003; Imtiaz et al., 2010). Positive peer acceptance, supportive friendships, and pro-social interactions have been shown to buffer against aggressive tendencies conversely. Especially in Western Kenya and Kakamega County within Kenyan schools—aggression commonly manifests as bullying, physical fighting, student unrest, and sexual violence (Poipoi et al., 2010; Wakoli & Bundotich, 2020). Fear, anxiety, and underlying mental health challenges, both contribute to and result from aggressive behavior being emotional and psychosocial factors. There is a relatively higher levels of property-related crimes and suicides compared to national averages (Crime Research Center, 2020), suggesting broader community-level patterns of violence that may influence children's behavior as indicative from statistics of Kakamega County. Much of the existing Kenyan research (Poipoi et al., 2010; Olive, 2018; Buliva, 2019) has concentrated on secondary school populations, leaving limited evidence on aggression among primary school children who are still in critical stages of social and emotional development. In Lurambi Sub-County an area characterized by both urban and rural settings is where the present study addresses this gap by focusing on children aged 6–12 years. The study examines the prevalence and social determinants of aggression among younger learners using a cross-sectional inferential design. Formative periods during which aggressive behaviors, if left unaddressed, may intensify and become entrenched over time are the early childhood and middle childhood. Children interactions with peers and family members both at home and at school often emerges aggression. Effective prevention and management require comprehensive approaches that integrate school-based programs, parental engagement, and supportive policy interventions consequently.

This study seeks to inform early prevention strategies aimed at reducing the normalization and escalation of aggression, ultimately contributing to safer, healthier, and more supportive learning environments for all learners in Lurambi Sub-County and similar contexts by concentrating on younger children.

Research objective

To assess social determinants associated with aggressive behaviors among primary school children (6-12 years) in Lurambi Sub- County.

LITERATURE REVIEW

This review shapes aggressive behaviors among children and adolescents as it highlights peer influence and neighborhood context as key social determinants. Peers play a central role in the development and reinforcement of aggression as evidence consistently shows. Demonstration studies from South Africa (Gasa, 2005) shows that adolescents often model aggressive behaviors exhibited by their friends. There is further moderation of this relationship by social reputation; antisocial behavior can enhance perceived status among peers, particularly among girls (Worthman et al., 2004). There is also evidence in gender differences, with girls tending to form more intimate peer relationships and maintain more positive interactions with teachers, which may offer protective effects against aggression (Moffitt et al., 2001; Bearman et al., 2006).

Behavior is significantly influenced by neighborhood and community environments. Exposure to political and ethnic violence increases aggression among children (Dubow et al., 2010) as shown by research in conflict-

affected regions. Children exposed to direct violence are more likely to exhibit externalizing behaviors (e.g., punching and pushing), while those who witness violence often develop internalizing symptoms such as fear and anxiety (Guerra et al., 2003). These findings underscore the role of community violence in shaping behavioral outcomes from early childhood.

There is further interaction with peer and neighborhood influence from family and school. Aggression during adolescence is associated with individual and social factors embedded within these settings, affecting psychological adjustment (Cava et al., 2007). Reduced empathy and limited ability to anticipate the harm their actions cause to others (Olweus, 2005) is often shown by aggressive adolescents. Aggression may be driven by a desire for recognition, power, and social acceptance, with such students frequently perceived as rebellious by peers (Rodríguez, 2004) within schools. In company of negative attitudes toward authority figures (Buelga et al., 2008; Estevez et al., 2009), some adolescents engage in disruptive and aggressive behaviors to gain popularity or leadership status.

The reviewed evidence demonstrates that aggression is a socially embedded behavior shaped by peer dynamics, neighborhood violence, and institutional contexts such as family and school overall. Enhancement of the robustness of these conclusions and emphasis on the need for multi-level interventions that address social environments alongside individual factors draws studies from diverse settings.

METHODOLOGY

Study design and setting

A cross-sectional study design was used as used by Schnelli et al. (2021) in their study factors associated with aggressive behavior in persons with cognitive impairments using home care services. This design enabled the study to assess aggressive behaviors and examine their associations with selected social determinants at a particular point in time (Kothari, 2004). The study took place in April 2024. The study employed mixed methods involving both qualitative and quantitative data collection approach in line with the objectives of this study (Hands, 2022). The study area was Lurambi Sub- County in Kakamega County located in the Kenyan Western Region. Lurambi was purposively chosen for its unique characteristic to reveal the differences between rural and urban areas

Sample and Sampling Procedure

This study employed fisher's sample size formula.

$$n = \frac{Z^2 P(1-P)}{d^2}$$

Since Magai (2018) found a 27% score for Emotional and Behavior Problems (EBP), the estimated Prevalence will be 27% since the settings are similar.

The appropriate precision (d) for 0.27 Prevalence is 0.05 (Magai, 2018)

Therefore $n = \frac{1.96^2 * 0.27(1-0.27)}{0.05^2}$

$= 302.87+$ 10% allowances for contingency

~ 334

In addition, a deputy head teacher, 2 class teachers and 2 counselling teachers from each school were included in the sample as Key Informants for the study. There were 20 key informants, which is within sample size guidelines range as suggested that between 20 and 30 interviews are adequate (Creswell, 1998).

Since the sampling was multistage, sampling was done at various stages. At stage 1, Lurambi sub county was selected using purposive sampling since it presented unique characteristics of both urban and rural settings. At stage 2, stratified sampling was used where the wards were grouped into 2 strata namely rural and urban after which one ward was picked randomly using lottery method from each stratum where Butsotso South ward represented rural setting while Shirere ward represented urban setting. At stage 3, the schools were sampled using purposive sampling based on the performance in 2023 final exams where 2 schools in Butsotso South ward and 2 schools in Shirere ward that had the highest drops were selected. Lastly, at the 4th stage, 334 pupils were sampled using systematic random sampling where 167 pupils were selected in each ward with approximately 84 pupils sampled in each of the schools. The pupil's class registers in the schools selected were used as a sample frame. In addition, since the study used 20 key informants from 4 schools, 5 were interviewed from each school.

Instruments and Measures

The following data collection instruments were used for this study;

Observation Checklist

A checklist for aggressive traits was used as developed from Teacher Observation of Classroom Adaptation – Revised (TOCA-R) by Werthamer-Larsson, Kellam (1991). The 12 items describing aggressive behaviors problems were indicated on the checklist. These include; fighting others, head banging, grabbing others' property, throwing objects, cursing others, interrupting activities, calling others names, bullying others, biting and kicking, challenging instructions, threatening others and clinging on adults. Rating using 5-point scale was used to describe the frequencies of the aggressive traits from 1 to 5 implying never to very often respectively.

Each item was rated on a five-point scale from 1 = never to 5 = very often. The total score was used to classify participants into low and high aggression categories. The exact cutoff used for this classification was an index of 36 points. Lower than 36 implied low aggression while higher than 36 implied high aggression among children.

Structured questionnaire

A structured questionnaire explored peer relationships, neighborhood safety, authority attitudes among pupils in April 2024. Aspects under respondent's profile included age, gender, religion class and ward. This was meant to find out more about the respondent and ascertain that they fit in the inclusion criteria. Under social determinants, more about the kinds of friends the respondents have were noted with the influence they have on them. More about the kind of neighborhood the respondents come from and the community was noted. The attitudes the respondents have in the society of recognition, rejection and acceptability, and attitudes towards authority were captured too.

Reliability of the adapted aggression checklist: Musci et al. (2022) in their study on Differential Impact of a Universal Prevention Program on Academic Self-Efficacy found the robust Cronbach's alpha above 0.90 confirming the reliability of the checklist.

Key Informant Interviews (KII)

The Key Informants in the school were the deputy head teacher in charge of discipline in the school, 2 class teachers of selected classes and 2 counseling teachers in each of the schools. This tool was used to collect qualitative data on social factors influencing aggressive behaviors meant to compliment the quantitative data collected by the observation checklist and questionnaire. The interviews were carried out by the principal investigator in April 2024 among the selected primary school teachers.

Data analysis and presentation

The quantitative data obtained from the structured questionnaire were exported into licensed SPSS version 26 for analysis. Descriptive statistics, including frequencies and percentages, were used to summarize participant characteristics and the social determinants. Aggressive behavior was treated as the binary dependent variable and was categorized as low or high aggression. The independent variables included peer-related factors, neighborhood factors, and attitudes toward authority. Pearson's chi-square test was used to assess associations between categorical independent variables and aggressive behavior.

Binary logistic regression was then used to estimate the association between selected social determinants and high aggressive behavior. Adjusted odds ratios (AORs), 95% confidence intervals (CIs), and p-values were reported. Statistical significance was assessed at $\alpha = 0.05$ and 95% CIs. The manuscript's original analysis records should be used to insert the exact coding of the dependent variable, the reference categories, the model-building criteria, and the cutoff used to classify low and high aggression.

For qualitative data, the themes noticed were: types of aggressive behaviors, peer influence, disciplinary actions and guiding and counselling programs. The interviews were recorded, transcribed and exported to a framework and later analyzed thematically. A write up was done after analysis. Thematic analysis was preferred since it was more flexible and allowed for identification of themes inductively without being confined to a predetermined framework.

Logistical and Ethical Considerations

This study was conducted following relevant institutional ethical as detailed below;

Approvals from School of Graduate Studies (SGS) of Masinde Muliro University of Science and Technology were obtained.

An Ethical clearance from the Institutional Scientific and Ethics Review Committee (ISERC) was obtained from MMUST (MMUST/IERC/131/2023).

Mandatory research permissions were obtained from the National Commission for Science, Technology, and Innovation (NACOSTI/P/23/24611).

Approvals from the Kakamega County were obtained to permit the investigator conduct a study in Kakamega county (CGK/OCS/GEN.CRR. /04/VOL.4/138).

Approvals from the Kakamega County Ministry of Education were obtained to permit the investigator conduct a study in selected primary schools. Further approvals from Lurambi Sub- County ministry of education were obtained (KAKA/C/GA/29/17/VOL.VI/285).

Written consent was obtained from the caregivers before administering the relevant tools to the participants. Participants then gave assent to allow the investigator to include them in the study.

Records of all questionnaires that would be responded to, were converted into e-copies, coded, and be password protected. This helped guarantee participants' privacy and right of confidentiality as stated in the consent letter.

Respondents had a right not to participate in the study or withdraw participation any time of the study and it was strictly respected.

RESULTS

Socio-demographic profile

As detailed in table 4.1, the age group 10-12 years was the modal group n=314 (94.1%), encompassing grades 4 to 6 (97.5%), with the majority n= 181 (54.3%) of the respondents being female. The sample was equally split between the two wards in the study area.

Table 4.1: Sociodemographic profile

Respondent's profile		n	%
Age	10 to 12	314	94.1%
	6 to 9	20	5.9%
Gender	Female	181	54.3%
	Male	153	45.7%
Religion	Christian	320	95.8%
	Muslim	13	4.0%
	Others	1	0.2%
Class	1 to 3	8	2.5%
	Grade 4 to 6	326	97.5%
Ward	Butsotso south	167	50%
	Shirere	167	50%

n – frequency; % - percentage

Though majority of the key informants suggested that boys perpetrate aggressive behaviors more than girls and suggested that it is because of the parental styles at home and peer influence from their friends, there was no statistically significant difference in aggressive behavior between male and female children or between children aged 6–9 and 10–12 years as shown in table 4.2.

Table 4.2: Gender and age differences in aggressive behavior

		Aggressive behavior level		
Factor	Category	Low	High	*p-value
Age	6-9	16(80.6)	4(19.4)	0.01(0.91)
	10-12	256(81.5)	58(18.5)	
Gender	Male	124(81.2)	29(18.8)	0.02(0.88)
	Female	148(81.7)	33(18.3)	

*Chi-square text at 0.05; n – frequency; % - percentage

Peer factors and aggressive behavior

As presented in table in table 4.3, the majority, 78.4%, of the children made friends often, over half of the

pupils reported that friends had some influence on them, 76% reported to rarely or never have had feelings of rejection from their peers, while 13.2% had friends who often got in trouble with other children or teachers. To support this argument, this is what one of the respondents had to say, 'Peer influence is common amongst the pupils, both boys and girls are equally influenced especially during the adolescence stage. ……. there are gangs among pupils, where the basis of this gangs is to use drugs. We deal with those students found with this behavior by involving their parents and administration together with the head teacher. Parents are involved because they handle pupils at home while administrators handle them in the community and the headteacher is their caregiver at school'.

Table 4.3: Peer factors in aggressive behavior

Peer factor	Category	n	%
Making friends	Never	5	1.5
	Rarely	67	20.1
	Often	262	78.4
Friends' influence	No influence	68	20.5
	Little influence	131	39.2
	A lot of influence	135	40.3
Friends suspended	No	134	40.2
	Yes	200	59.8
Friends getting in trouble	Never	135	40.5
	Rarely	155	46.3
	Often	44	13.2
Feeling peers' rejection	Never	153	45.7
	Rarely	102	30.4
	Often	80	23.9

n – frequency; % - percentage

Of all the factors of peer influence, only the feeling of rejection from peers had a significant influence on the level of aggressive behavior [χ^2 (2, n = 334) = 7.16, p = .03], as shown in table 4.4

Table 4.4: Peer factors factors associated with aggressive behavior

		Aggressive behavior		
Factor	Category	Low	High	*P (value)
Friends influence	No influence	60(87.9)	8(12.1)	4.87(0.09)
	Little influence	107(82.0)	24(18.0)	
	A lot of influence	105(77.7)	30(22.3)	
Friends suspended from school	No	111(82.9)	23(17.1)	0.46(0.50)
	Yes	161(80.5)	39(19.5)	
Friends getting in trouble at school	Never	110(81.1)	26(18.9)	0.89(0.64)
	Rarely	125(80.6)	30(19.4)	
	Often	38(85.5)	6(14.5)	
Feeling rejection from peers	Never	126(82.8)	26(17.2)	7.16(0.03)
	Rarely	87(85.5)	15(14.5)	
	Often	59(73.6)	21(26.4)	

*Chi-square text at 0.05; n – frequency; % - percentage

Presented in table 4.5, the analysis of the association between peer factors and aggressive behavior showed that children who often felt rejection from their peers were 0.55 times more likely to exhibit high levels of aggressive behavior compared to those who never feel rejected by their peers (OR= 0.45, 95% CI = 0.24-0.77).

Table 4.5: Peer factors influencing aggressive behavior

Factor	Category	AOR (95% CI)	p value
Making friends	Rarely	0(0-1)	1.00
	Often	0.67(0.36-1.26)	0.21
	Never	Ref	
Friends Influence	Little influence	0.61(0.3-1.22)	0.16
	A lot of influence	0.91(0.54-1.56)	0.74
	No influence	Ref	
Friends suspended	Yes	1.05(0.63-1.75)	0.85
	No	Ref	0.23
Friends getting in trouble	Rarely	1.5(0.68-3.30)	0.32

	Often	1.95(0.88-4.30)	0.10
	Never	Ref	
Feeling rejection from peers	Rarely	0.57(0.31-1.07)	0.08
	Often	0.45(0.23-0.89)	0.02
	Never	Ref	

*Chi-square text at 0.05

Neighborhood Influence

The neighbourhood factors measured the peace in the neighbourhood from which the pupils came. Almost half 48.4% came from peaceful neighbourhoods with 45 (13.4%) reporting coming from very violent neighbourhoods. Over three quarters of the children had a role model in their communities, while just over half had witnessed violence in their neighbourhoods, as presented in table 4.6.

Table 4.6: Neighbourhood factors

Factor	n	%
Neighbourhood violence		
Peaceful	162	48.4
A little violent	128	38.2
Very violent	45	13.4
Neighbourhood gangs		
No	140	42.1
Yes	194	57.9
Role models in community		
No	76	22.8
Yes	258	77.2
Witnessed violence in neighbourhood		
No	161	48.2
Yes	173	51.8

n – frequency; % - percentage

The association between the neighbourhood factors and aggressive behavior was found not be statistically significant at the 95% level of confidence as presented in table 4.7.

Table 4.7: Neighbourhood factors

Factor	Response	Low	High	*p-value

Home neighbourhood violence	Peaceful	132(81.4)	30(18.6)	2.01(0.37)
	A little violent	102(79.5)	26(20.5)	
	Very violent	39(87.1)	6(12.9)	
Gangs at home	No	112(79.5)	29(20.5)	0.92(0.34)
	Yes	160(82.8)	33(17.2)	
Adult role models at home	No	59(78.2)	17(21.8)	1.11(0.29)
	Yes	213(82.4)	45(17.6)	
Witnessed violence in neighbourhood	No	132(81.7)	29(18.3)	0.03(0.87)
	Yes	140(81.2)	33(18.8)	

*Chi-square text at 0.05; n – frequency; % - percentage

Attitudes Toward Authority

Most of the children felt either negative or were neutral about violence in their societies. Feelings of recognition, 87%, and acceptance in the society, 88%, were high.

More children felt positive about authority at school n= 224 (67.2%), compared to authority at home n= 132 (39.6%) as shown in table 4.8.

Table 4.8: Society factors

Factor	n	%
Feeling about violence in the society		
Negative	139	41.5
Neutral	153	45.7
Positive	43	12.8
Recognised in the society		
No	43	13.0
Yes	290	87.0
Socially accepted in society		
No	40	11.9
Yes	294	88.1
Attitude towards authority at home		

Negative	54	16.3
Neutral	148	44.2
Positive	132	39.6
Attitude towards authority at school		
Negative	26	7.9
Neutral	83	24.9
Positive	224	67.2

n – frequency; % - percentage

As presented in table 4.9, the pupils' attitude towards authority at school was found to be significantly associated with aggressive behavior [χ^2 (2, n = 334) = 6.62, p = .04]. None of the other factors had a significant association with aggressive behavior.

Table 4.9: Association between Society factors and aggressive behavior

		Aggressive behavior		
Factor	Response	Low	High	*p-value
Feeling about violence in society	Negative	112(81.1)	26(18.9)	0.04(0.98)
	Neutral	125(81.6)	28(18.4)	
	Positive	35(82.1)	8(17.9)	
Recognized in society	No	35(80.9)	8(19.1)	0.02(0.90)
	Yes	236(81.5)	54(18.5)	
Socially accepted in society	No	32(80.6)	8(19.4)	0.03(0.87)
	Yes	239(81.5)	54(18.5)	
Attitude towards authority at home	Negative	48(88.2)	6(11.8)	3.36(0.19)
	Neutral	117(79.2)	31(20.8)	
	Positive	107(81.2)	25(18.8)	
Attitude towards authority at school	Negative	22(85.4)	4(14.6)	6.62(0.04)
	Neutral	61(73.8)	22(26.2)	
	Positive	188(83.8)	36(16.2)	

*Chi-square text at 0.05; n – frequency; % - percentage

Children who had a negative feeling towards authority at home had lower odds of exhibiting high levels of aggressive behavior (OR= 0.41, 95% CI = 0.18-0.95), compared to those who had a positive attitude, while those who held a neutral attitude towards authority at school had higher odds of exhibiting high aggressive behavior compared to those whose feeling about authority at school was positive. Table 4.10 illustrates these results.

Table 4.10: Societal factors associated with aggressive behavior

Factor	Response	AOR (95% CI)	*p-value
Feeling about violence in society	Negative	1.13(0.52-2.45)	0.76
	Neutral	0.91(0.4-2.07)	0.83
	Positive	Ref	
Recognized in society	Yes	0.97(0.49-1.92)	0.94
	No	Ref	
Socially accepted in society	Yes	0.99(0.49-1.98)	0.98
	No	Ref	
Attitude towards authority at home	Negative	0.41(0.18-0.95)	0.04
	Neutral	0.97(0.51-1.85)	0.92
	Positive	Ref	
Attitude towards authority at school	Negative	1.33(0.47-3.75)	0.59
	Neutral	2.23(1.28-3.89)	0.01
	Positive	Ref	

*Chi-square text at 0.05; n – frequency; % - percentage

DISCUSSION

Peer influence was identified as a significant social factor affecting aggressive behaviors. Children who often felt rejection from their peers were more likely to exhibit high levels of aggression. The feeling of rejection had a statistically significant influence on aggressive behavior levels ($\chi^2 = 7.16$, $p = 0.03$). All the Key Informants suggested that pupils influence aggressive behaviors among other pupils. According to SCLT, the negative emotional states induced by peer rejection can lead to aggressive responses as children may lack the social skills to cope effectively with such emotions. Interventions aimed at fostering inclusive peer interactions and mitigating feelings of rejection may help reduce aggressive behaviors by providing positive social models and reinforcing prosocial behaviors. This suggests that peers may play an important role in providing support to fellow peers to improve peer interactions which may help reduce aggressive behaviors among children. Guiding and counselling from parents and teachers could also help boost children's self-esteem that would reduce cases of aggression. This finding is contrary to that made by Dodge et al. (2003), who found that early peer rejection was associated with an increase in aggression in later years. Furthermore, Cheek et al. (2020) found that adolescents who were socially rejected by their peers were more likely to be victims of aggression, which may support the findings of this study. By contrast, Di Giunta et al. (2018) found that among pre-pubescent and adolescent boys, a positive correlational association was found between physical aggression and social interaction, as controlled by physical attraction, a finding that was supported by Demol et al. (2020), who further assessed the role of student-teacher relationship. The findings of this study, put in the context of the literature thus shows that children who are socially rejected by their peers, are more likely to be victims of aggressive behavior from peers, rather than the aggressors.

The study did not find significant associations between neighborhood factors (such as violence and the presence of gangs) and aggressive behaviors, which contrasts with some existing literature. However, societal factors such as children's attitudes towards authority at school were significantly associated with aggressive behaviors. Children with neutral attitudes towards school authority were 2.23 times more likely to exhibit aggression compared to those with positive attitudes (OR = 2.23, p = 0.01). SCLT emphasizes the role of observational learning and reinforcement. Positive interactions with school authorities can serve as a model for respectful behavior, while neutral or negative attitudes may reflect a lack of positive reinforcement for prosocial behavior. Additionally, this study found that children who had a negative feeling towards authority at home were found to be less likely to exhibit high levels of aggressive behavior, compared to those who had a positive attitude. In this regard, Bi (2018) determined that the interaction between attitude towards authority and aggression is largely mediated by parental involvement in controlling child behavior, a finding that was similar to Bavolek et al. (2021). Even though Giletta et al. (2021) found a small but robust effect of peer influence on behavioral outcomes such as aggression, in this study, the association was found to be non-significant. Female adolescents, however, were found to be more susceptible to delinquencies as a consequence of peer influence than males, even though the effect was observed in both genders. The findings of this study, in the context of the role of parenting in determining attitude towards authority, complement those by Derella et al. (2020) that parental conduct, such as verbal and physical aggression towards children are significant factors in the children's conduct problems and oppositional defiance. In relation to the social cognitive learning theory, the findings of this study demonstrate that children exhibit behavior that are a possible behavioral response to their role models, which can be the primary care givers, or peers.

CONCLUSION AND RECOMMENDATIONS

In relation to the findings on social risk factors, this study concluded that peer interactions, particularly the acceptance of peers emerged as a strong predictor to have an additive influence on the expression of aggressive behavior; rejection, on the other hand has been linked to increased likelihood of being victim to aggression by peers. Additionally, having a negative attitude towards authority at school, which is a derivative in part to the parenting type, increased the likelihood of exhibiting aggressive behavior. This highlights the importance of inclusive social environments and supportive peer relationships. Furthermore, respect towards authority acted as a buffer against aggressive behaviors. The findings also align with the Social Cognitive Learning Theory (SCLT) which emphasizes that children learn through observing and imitating their role models (peers, caregivers or authority figures). Interventions that promote positive peer interactions, enhance parental involvement, and strengthen respectful student-teacher relationships may help address aggressive behavior in school settings.

The following recommendations were made: For policy, inclusive education policies should be developed to foster positive peer relationships and respect for school authority. For practice, peer mentorship, anti-bullying initiatives and buddy programs as well as parental engagement should be established to support socially isolated or rejected children and parents to be educated on fostering their children's respect for authority and managing peer influences at home. For research, long-term effects of school culture, peer relationships and discipline policies on students' attitudes toward authority and subsequent behavior should be studied.

REFERENCES

1. Bavolek, S. J., Keene, R. G., & O'Hara, M. (2021). Parenting attitudes and their relationship to childhood aggression. Parenting Resources Publications.
2. Bearman, P. S., Jones, J., & Udry, J. R. (2006). The National Longitudinal Study of Adolescent Health: Research design. University of North Carolina at Chapel Hill.
3. Bi, H. (2018). Parental involvement and children's attitudes toward authority: Effects on aggressive behavior. Journal of Child and Family Studies, 27(4), 1175–1183. https://doi.org/10.1007/s10826-017-0942-5
4. Buelga, S., Cava, M. J., & Musitu, G. (2008). Reputación social, ajuste psicosocial y conducta violenta en la adolescencia. Psicothema, 20(2), 192–200.

5. Buliva, C. (2019). Influence of parenting styles on aggressive behavior among adolescents in public secondary schools in Nairobi County, Kenya. International Journal of Social Science and Humanities Research, 7(1), 98–107.
6. Buliva, E. (2019). Factors influencing aggressive behaviour among secondary school students in Kenya. Unpublished thesis.
7. Cava, M. J., Musitu, G., & Murgui, S. (2007). Individual and social risk factors related to overt and relational aggression in a sample of Spanish adolescents. Psychological Reports, 101(2), 701–712.
8. Cheek, S. M., Smith, T. M., & Wrobel, N. H. (2020). Peer rejection and adolescent aggression: A longitudinal study. Journal of Adolescence, 79, 105–114. https://doi.org/10.1016/j.adolescence.2020.01.004
9. Creswell, J. W. (1998). Qualitative inquiry and research design: Choosing among five traditions. Sage Publications.
10. Crime Research Center. (2020). Crime trends in Kenya: Annual crime report. Nairobi: Government Printer.
11. Crime Research Center. (2020). Kenya crime statistics report. Nairobi: Crime Research Center.
12. Demol, K., Verhaeghe, P., & Stevens, P. A. J. (2020). Student-teacher relationships and adolescent aggression: A multilevel perspective. Journal of School Psychology, 82, 1–14. https://doi.org/10.1016/j.jsp.2020.01.002
13. Derella, O. J., Burke, J. D., Stepp, S. D., & Hipwell, A. E. (2020). Parental aggression and child conduct problems: A longitudinal mediation model. Aggressive Behavior, 46(1), 17–29. https://doi.org/10.1002/ab.21868
14. Derman, M. T. (2017). Aggression and types of aggressive behaviour in children and adolescents. International Journal of Educational Sciences, 19(1), 45–52.
15. Derman, M. T. (2017). The types and causes of aggression in children. International Journal of Early Childhood Education Research, 6(1), 55–65.
16. Devries, K. M., Mak, J. Y. T., García-Moreno, C., Petzold, M., Child, J. C., Falder, G., ... & Watts, C. H. (2011). The global prevalence of intimate partner violence against women. Science, 340(6140), 1527–1528. https://doi.org/10.1126/science.1240937
17. Devries, K. M., Mak, J. Y., Bacchus, L. J., Child, J. C., Falder, G., Petzold, M., … Watts, C. H. (2011). Intimate partner violence and incident depressive symptoms and suicide attempts: A systematic review of longitudinal studies. PLoS Medicine, 10(5), e1001439.
18. Di Giunta, L., Zuffiano, A., & Lunetti, C. (2018). Peer relationships and physical aggression in adolescence: The role of social attraction. Merrill-Palmer Quarterly, 64(2), 123–147.
19. Dodge, K. A., Coie, J. D., & Lynam, D. (2003). Aggression and antisocial behavior in youth. In E. M. Hetherington (Ed.), Handbook of Child Psychology (5th ed., Vol. 3, pp. 719–788). Wiley.
20. Dubow, E. F., Boxer, P., Huesmann, L. R., Landau, S., Gvirsman, S. D., Shikaki, K., & Ginges, J. (2010). Exposure to conflict and violence across contexts: Relations to adjustment among Palestinian children. Journal of Clinical Child & Adolescent Psychology, 39(1), 103–116.
21. Estevez, E., Jiménez, T. I., & Musitu, G. (2009). Psychological adjustment in aggressors, victims, and aggressive victims at school: A multilevel analysis. European Journal of Psychology of Education, 24(2), 207–221.
22. Fisher, H. L., Moffitt, T. E., Houts, R. M., Belsky, D. W., Arseneault, L., & Caspi, A. (2012). Bullying victimization and risk of self-harm in early adolescence. BMJ, 344, e2683. https://doi.org/10.1136/bmj.e2683
23. Fisher, H. L., Moffitt, T. E., Houts, R. M., Belsky, D. W., Arseneault, L., & Caspi, A. (2012). Bullying victimisation and risk of self-harm in early adolescence: Longitudinal cohort study. BMJ, 344, e2683.
24. Gasa, V. (2005). Peer influence and aggressive behaviour among adolescents (Unpublished thesis). South Africa.
25. Giletta, M., Prinstein, M. J., & Prinstein, L. A. (2021). Peer influence and adolescent aggression: A meta-analytic review. Psychological Bulletin, 147(4), 364–388.
26. Gitau, R. (2002). Peer pressure and its influence on student behavior in Kenyan secondary schools. Journal of Educational Development, 4(1), 45–52.
27. Gitau, S. (2002). Peer influence and deviant behaviour among adolescents in Kenyan schools. Unpublished thesis, University of Nairobi.

28. Guerra, N. G., Huesmann, L. R., & Spindler, A. (2003). Community violence exposure, social cognition, and aggression among urban elementary school children. Child Development, 74(5), 1561–1576.
29. Hands, R. E. (2022). Mixed methods in behavioral science research: Foundations and applications. Journal of Behavioral Research Methods, 34(2), 230–247.
30. Imtiaz, F., Mirza, T., & Khan, N. (2010). The effects of peer pressure on youth behavior. Pakistan Journal of Psychology, 41(2), 83–94.
31. Imtiaz, S., Khan, S., & Imtiaz, T. (2010). Peer pressure and its effects on aggressive behaviour among adolescents. Journal of Behavioural Sciences, 20(2), 1–12.
32. Kothari, C. R. (2004). Research methodology: Methods and techniques (2nd ed.). New Age International Publishers.
33. Kyungu, J. (2003). Peer group influence on adolescent behavior in Kenya. African Journal of Educational Studies, 2(3), 109–122.
34. Kyungu, J. K. (2003). Influence of peer groups on students' behaviour in secondary schools. Unpublished thesis.
35. Machtinger, E. L., Wilson, T. C., Haberer, J. E., & Weiss, D. S. (2012). Psychological trauma and PTSD in HIV-positive women: A meta-analysis. AIDS and Behavior, 16(8), 2091–2100. https://doi.org/10.1007/s10461-011-0127-4
36. Machtinger, E. L., Wilson, T. C., Haberer, J. E., & Weiss, D. S. (2012). Psychological trauma and PTSD in HIV-positive women: A meta-analysis. AIDS and Behavior, 16(8), 2091–2100.
37. Magai, D. N. (2018). Prevalence and correlates of emotional and behavioral problems among children in Nairobi slums. BMC Psychiatry, 18, Article 5. https://doi.org/10.1186/s12888-018-1584-4
38. Moffitt, T. E., Caspi, A., Rutter, M., & Silva, P. A. (2001). Sex differences in antisocial behaviour: Conduct disorder, delinquency, and violence in the Dunedin Longitudinal Study. Cambridge University Press.
39. Musci, R. J., Voegtline, K., Raghunathan, R., Ialongo, N. S., & Johnson, S. B. (2022). Differential Impact of a Universal Prevention Program on Academic Self-Efficacy: the Moderating Role of Baseline Self-Control. Prevention science : the official journal of the Society for Prevention Research, 23(4), 513–522. https://doi.org/10.1007/s11121-021-01315-7
40. National School Health Policy. (2009). Kenya National School Health Policy. Nairobi: Ministry of Public Health and Sanitation & Ministry of Education.
41. National School Health Policy. (2009). National school health policy. Nairobi: Ministry of Education, Republic of Kenya.
42. Olive, M. (2018). School-based factors associated with aggressive behaviour among Kenyan adolescents. Unpublished thesis.
43. Olive, P. (2018). Aggressive behavior in Kenyan secondary schools: A case study of Nairobi County. Kenya Journal of Educational Psychology, 5(2), 60–72.
44. Olweus, D. (2005). A useful evaluation design, and effects of the Olweus Bullying Prevention Program. Psychology, Crime & Law, 11(4), 389–402.
45. Poipoi, M. W., Agak, J. O., & Kabuka, E. K. (2010). Perceived home factors contributing to violent behavior among public secondary school students in Western Province, Kenya. Journal of Emerging Trends in Educational Research and Policy Studies, 1(1), 30–40.
46. Poipoi, M. W., Agak, J. O., & Kabuka, E. K. (2010). Teachers' and students' perceptions of psychological factors contributing to violent behaviour in public secondary schools in Western Province, Kenya. International Journal of Learning, 17(3), 229–238.
47. Rodríguez, J. A. (2004). Agresión y conducta antisocial en la adolescencia: Variables individuales y sociales. Revista de Psicología Social, 19(1), 45–59.
48. Schnelli, T., Hantikainen, V., & Needham, I. (2021). Factors associated with aggressive behavior in persons with cognitive impairments using home care services. Aging & Mental Health, 25(5), 923–931. https://doi.org/10.1080/13607863.2019.1709152
49. Vakili, M. M., Shojaei, Z., & Amiri, F. N. (2015). The effects of aggression on students' mental health. Iranian Journal of Public Health, 44(9), 1230–1236.
50. Vakili, S., Nazari, A. M., & Kiani, F. (2015). Aggressive behaviour and its social consequences among adolescents. Journal of Social Sciences, 11(2), 85–92.

51. Wakoli, C., & Bundotich, S. (2020). Violence and aggression among students in Western Kenya: Implications for school management. Journal of Educational Administration and Policy Studies, 12(3), 58–67.
52. Wakoli, J. W., & Bundotich, J. (2020). School-based violence and students' psychosocial wellbeing in Kenyan secondary schools. African Journal of Education and Practice, 6(2), 45–58.
53. Werthamer-Larsson, L., Kellam, S. G., & Wheeler, L. (1991). Effects of first-grade classroom environment on child aggressive behavior and academic achievement. American Journal of Community Psychology, 19(4), 585–602.
54. World Health Organization. (2017). Global accelerated action for the health of adolescents (AA-HA!): Guidance to support country implementation. Geneva: WHO. https://www.who.int/publications/i/item/9789241512343
55. World Health Organization. (2017). Global accelerated action for the health of adolescents (AA-HA!): Guidance to support country implementation. Geneva: WHO.
56. Worthman, C. M., Tomlinson, M., & Rotheram-Borus, M. J. (2004). When can parents most influence their children? Expert knowledge and perceived local realities. Social Science & Medicine, 59(8), 1693–1705.