



The Relationship Between Exposure to Violent Media Content and Aggressive Behavior Among Adolescent Learners in Kakamega, Kisii, and Siaya Counties, Kenya

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ABSTRACT

This study explores the relationship between exposure to violent media content and aggressive behavior among adolescent secondary school students in Kakamega, Kisii, and Siaya Counties, Kenya. These counties have relatively high media technology access, particularly mobile phones and radio, which exceed national averages. They also report notable incidences of student aggression, with Siaya and Kisii counties showing high rates of student unrest. Grounded in Bandura's Social Learning Theory, the study used a pragmatic paradigm with a convergent parallel design, incorporating both descriptive survey and correlational research methods. A sample of 417 students was drawn from a population of 190,555, selected using stratified random sampling method. Data collection involved questionnaires, content analysis, and the Adolescent Peer Relations Instrument (APRI). A pilot study conducted in Vihiga County confirmed the reliability of the instruments, with a Cronbach's Alpha coefficient of 0.87. The study revealed a significant correlation between aggression and exposure to violent content on television ($r = 0.211$, $p = 0.000$), with television identified as the most substantial contributor to aggression ($B = 0.218$, $p = 0.001$). Notably, 46% of adolescents in Kakamega, Kisii, and Siaya reported constant exposure to violent media, while 11% frequently imitated the violence observed, primarily on mobile phones. Additionally, 9% of respondents justified the violence they encountered, and 56.5% exhibited mild violent tendencies. The study concludes that exposure to violent media content is linked to increased aggressive behavior among adolescents in Kakamega, Kisii, and Siaya counties. The study recommends stricter enforcement of media violence regulations, including enhanced penalties and parental guidance ratings, alongside the introduction of media literacy programs in schools. Additionally, it calls for limiting unsupervised internet access for minors, particularly in public cybercafes, to mitigate the negative influence of violent media content.

Key words: Adolescents, Aggression, Media exposure, Social Learning

I. INTRODUCTION

The rapid dissemination and widespread accessibility of media technology have become a significant global concern, particularly regarding youth and their interaction with the media. The proliferation of these technologies offers young individuals numerous opportunities to engage with, investigate, and learn from digital media. This exposure occurs during a critical period of their development, characterized by heightened neural plasticity and environmental sensitivity. For adolescents, this interaction coincides with a developmental phase marked by numerous exploratory behaviors influenced by their surroundings, including the media consumption (Gerwin et al., 2018).

Research efforts aimed at defining a specific numerical threshold for excessive media usage have so far been inconclusive (Parry et al., 2021). While the World Health Organization (WHO) provides screen time guidelines for various age groups, it does not specify exact limits for adolescents. Instead, the WHO emphasizes the importance of a balanced approach, highlighting the need to prioritize offline activities such as sleep, physical activity, social interactions, and academic engagement.

Going by the works of psychologist Albert Bandura in the 1970's on social learning and the tendency of children to imitate their social environment, there has been a lot of concern about the portrayal of violence in the media, especially given that the media is a powerful agent of socialization. Numerous studies examining the effects of media violence, especially on children, have emphasized its desensitizing impact and possible link to aggressive behavior (Al-Ali et al., 2018; Huesmann, 2018; Zhang et al., 2021). Unrestricted and prolonged exposure to depictions of violence in media

narratives can lead to a reduced sensitivity to the suffering of others, while simultaneously instilling fear of the surrounding world. As a result, individuals may develop a more aggressive attitude as a way to protect themselves from the perceived dangers in their surroundings. However, although violent media and aggression are causally linked, not everyone who consumes violent media will exhibit aggressive behavior. Several factors influence this relationship, including the type of content, age, gender (Wiedeman, et al. 2015), and social context (Eneizat et al., 2023) among others.

In Kenya, violence has become a common theme in media coverage, frequently reported across various platforms. Television news broadcasts regularly spotlight incidents of different forms of violence, with such coverage appearing nearly every week. A glance at the headlines in one of the local news websites reveals headlines such as “Five horrific cases of domestic violence against women in Kenya in the past three months” (Oluoch, 2017), ‘Six students from Njia Boys School under probe over dorm fire’ (Muchui, 2024), ‘Naivasha girl dies by suicide after alleged school suspension’ (Murage, 2024), ‘Several secondary schools in Machakos to close indefinitely over students unrest’ (Owiti, 2024). In addition to these, numerous children's television programs depict violence. Examples include ‘Power Rangers’ and ‘Teenage Mutant Ninja Turtles’, which frequently portray physical combat, as well as more comedic shows like ‘Tom and Jerry’, where violence is consistently present. Furthermore, televised sporting events such as wrestling also display varying levels of aggression.

In Kakamega, Kisii, and Siaya Counties, recent census reports indicate a notably high level of household access to media technologies. Such prevalence of media access among may reasonably extend to adolescents within these households. Although census reports provide general information on media access in households, there is a significant absence of detailed data concerning media access specifically among adolescents. Additionally, there is a lack of information about the type of media content consumed, particularly with regard to violent programming. This deficiency in targeted data highlights the importance of conducting this study.

In 2018, a marked rise in student strikes was observed in Kenyan secondary schools, with the Nyanza Region, particularly Siaya and Kisii Counties, experiencing a considerable proportion of these disturbances. These strikes resulted in widespread school closures and considerable unrest across many institutions. For example, during the second term of 2018, of the 26 secondary schools in the Nyanza Region that were closed indefinitely due to student unrest, 12 were located in Siaya County (Nyabundi, 2018). Kisii County followed with 4 schools experiencing student unrest. In addition, 2021 saw occurrences of students exhibiting physical aggression toward both peers and teachers. The Siaya County Education Office documented 7 instances of student aggression towards teachers and 9 cases of bullying among students. A similar pattern emerged in Kisii County, where students attacked teachers in separate incidents involving machetes and knives (Abuga, 2021).

1.1 Statement of the Problem

In Kakamega, Kisii, and Siaya Counties, access to media, particularly mobile phones and radios, surpasses national averages, as highlighted by the Kenya National Bureau of Statistics (2019). This high level of access likely includes adolescents in these regions. In 2018, the Western Region, especially Siaya and Kisii, experienced a marked increase in student strikes, resulting in widespread school closures. Siaya reported the most incidents, followed by Kisii and Kakamega. In 2021, further incidents of student aggression, including violent acts against teachers and peers, were particularly reported in Kisii and Siaya Counties.

Research acknowledges the significant role of social media in spreading information that can incite school unrest (Gallacher et al, 2021; Näsi et. al., 2021). Platforms such as WhatsApp, Facebook, Twitter, and TikTok have played a key role in disseminating unrest-related ideas among neighboring schools, driven by the aspiration to be featured on the 'Wall of Fame,' a term used at the time. Sobkin and Fedotova (2021) also identify cyberbullying as a key contributor to aggression, affecting both victims and perpetrators.

Given these circumstances, a pertinent question arises: is there a correlation between the reported incidents of student aggression in Siaya, Kisii, and Kakamega Counties and the media content consumed by adolescents in these regions? This study seeks to investigate the potential relationship between exposure to violent content on the media and aggressive behavior among adolescent learners in Kakamega, Kisii, and Siaya Counties by examining the possible interplay between their media consumption of violent media content and their tendency toward aggression.

1.2 Research Objectives

The objective of the study was to investigate the relationship between exposure to violent media content and aggression among adolescent learners in the Western Region of Kenya.

II. LITERATURE REVIEW

2.1 Levels of Violent Content Depiction in the Media

Numerous studies have highlighted the prevalence of violent content in various forms of media, including television, video games, and social media platforms. Wilson and McGill (2018) report that nearly 80% of all video games contain some form of aggression, and intentional violence was found in 64% of games rated “Everyone,” 98% of games rated “Teens,” and 100% of games rated “Mature.” Television programs, especially cartoons, crime dramas, and reality shows, are also rife with violence. For example, Zheng et al (2021) analyzed selected Chinese animated franchises and found excessive violence and inappropriate language, prompting regulatory action and content changes to create more child-friendly and socially responsible media.

In the Kenyan context, local news programs frequently report incidents of domestic violence, as well as crimes of passion and murder, which can influence the emotional and psychological states of adolescent viewers (Mohamed, 2024). Similarly, global media, including action movies and shows, often portray graphic violence. The continuous exposure to such content may influence the cognitive and emotional development of adolescents, raising concerns about how violence in media is normalized.

2.2 Imitation Violent Behaviors Depicted in the Media

The imitation of violent behaviors from media consumption is closely related to Albert Bandura's social learning theory, which suggests that children and adolescents are likely to mimic behaviors they observe in their environment, including the media (Bandura, 1977). Several studies have supported this theory, noting that consistent exposure to violent media leads to the adoption of aggressive behaviors in real life (Addo et al., 2021). For instance, research by Khurana et al. (2019) found that participants who watched verbally aggressive television shows demonstrated an increase in verbal aggression weeks later. This suggests that adolescents may internalize the aggressive behavior they view and begin to exhibit such tendencies themselves.

In Kenya, media content like cartoons, such as "Tom and Jerry," or international wrestling matches, often depict physical aggression that adolescents may imitate (Okuley, 2023). These media portrayals present aggression as a means of problem-solving or self-defense, contributing to an increase in mimicked aggressive behaviors among younger audiences.

2.3 Adolescents' Perception of Media Violence

Adolescents' perception of violence, whether they view it as justified or not, can shape how they process violent content. Studies indicate that the context in which violence is depicted influences whether viewers perceive it as acceptable. For instance, Blackwell et al. (2018) concluded that adolescents are more likely to justify media violence if it aligns with their personal experiences or societal norms that they have internalized. This is particularly true when media characters use violence for self-defense or when they are portrayed as heroes.

Mooijman et al. (2018) concluded in their study that the moralization of violence on social media serves as a predictor of violent protests among users. Livazović (2014), in a study among Spanish teenagers, found that those who regularly consume violent media may come to perceive violence as a necessary response to conflicts. The overlap between the violent depictions in media and real-life violence can reinforce the belief that aggressive actions are justified. In the Kenyan context, news reports and dramas that show individuals resorting to violence as a form of conflict resolution may further reinforce this notion, particularly in regions with heightened levels of violence or social unrest (Kamaku et al., 2016).

2.4 Exposure to Media Violence and Aggression

The relationship between media violence and adolescent aggression has been extensively documented. Numerous studies show a positive correlation between the amount of violent content consumed and the development of aggressive tendencies. For instance, Khurana et al. (2019) found that habitual exposure to violent media content has a long-lasting desensitizing effect, making adolescents less sensitive to the pain and suffering of others while increasing their aggressive behaviors.

Similarly, Grizzard et al. (2020) found that competitive video game play with violent content was positively associated with increased aggression among players. The study suggested that heightened competition and violence within the games contributed to aggressive affect, which in turn predicted aggressive behavior. In Africa, Adedayo and Aborisade (2018) highlighted that media violence has a significant impact on young minds, often leading to more narcissistic, antisocial, and aggressive behaviors in adolescents.

In the Kenyan context, the mass media has been a key player in transmitting aggressive attitudes, especially given the high levels of domestic violence coverage and crime news on television and social media. Adolescents who consume these media forms may become desensitized to violence, increasing their likelihood of exhibiting aggression in their own social interactions (Kamaku, 2021).

2.1 Theoretical Review

2.1.1 Social Learning Theory by Albert Bandura

Drawing from Albert Bandura's social learning theory in the 1970s, concerns have arisen about media portrayals of violence, as children tend to imitate behaviors from their social environment (Rumjaun & Narod, 2020). Alongside parents, peers, and teachers, the media is a powerful socialization agent, influencing children's behaviors and attitudes.

The social learning theory, developed by Albert Bandura, integrates cognitive and behavioral concepts, emphasizing the significance of cognitive processes and external influences in learning. Bandura posits that individuals learn behaviors by observing and imitating role models in their environment. As noted by Mwangi (2020), children can adopt both pro-social and antisocial behaviors demonstrated by figures such as parents, teachers, friends, and media characters, regardless of their appropriateness. Bandura's theory is widely applied in media violence research (Guo, 2022), with his Bobo doll experiments showing that exposure to violent media can have immediate and lasting effects on children's behavior, leading them to view aggression as a viable problem-solving strategy.

Bandura also addresses the idea of vicarious reinforcement (Lee, 2020), where people alter their behavior based on the outcomes they observe in others. The media often represents aggression as a pathway to rewards such as recognition or influence, prompting individuals to consider aggressive actions as a viable approach to achieving their aspirations.

In this study, the researcher explored the connection between exposure to violent media and the development of aggressive behaviors, assessing how media portrayals and violent narratives influence children's views of the world. Bandura's social learning theory provides a strong theoretical foundation for this analysis, as it explains how children learn and internalize behaviors through observation and imitation of models in their environment, including those portrayed in the media. By understanding the mechanisms of observational learning and vicarious reinforcement, this theory effectively frames how repeated exposure to violent media can shape children's behavior and perceptions, making it highly relevant for examining the media-aggression relationship.

2.2 Empirical Review

Studies indicate that violent content is prevalent across various media forms. Wilson and McGill (2018) found that nearly 80% of video games feature aggression, while Zheng et al. (2021) noted excessive violence in Chinese animations, prompting regulatory actions for more child-friendly content. In Kenya, local news frequently portrays incidents of violence, suggesting a normalization that may adversely affect adolescent viewers (Mohamed, 2024).

An emerging trend reveals a strong connection between violent media exposure and the imitation of aggressive behaviors. Bandura's social learning theory (1977) supports this, as Addo et al. (2021) confirm that exposure to violent media leads to real-life aggression. Khurana et al. (2019) also found that adolescents watching aggressive shows demonstrated increased aggression later. In Kenya, media portrayals, such as cartoons and wrestling, likely encourage imitation of aggressive behaviors (Okuley, 2023).

The literature shows that adolescents' perceptions of media violence shape their attitudes toward aggression. Blackwell et al. (2018) found that adolescents justify violence when it aligns with their experiences. Mooijman et al. (2018) noted that moralization of violence on social media predicts real-world aggression, which is evident in Kenya, where media often frames violence as a conflict resolution (Kamaku et al., 2016).

Numerous studies demonstrate a correlation between media violence exposure and increased aggression in adolescents. Khurana et al. (2019) revealed that habitual exposure leads to desensitization and heightened aggression. Grizzard et al. (2020) found competitive gaming linked to increased aggression due to violent content. Adedayo and Aborisade (2018) highlighted that violent media fosters antisocial behaviors in African youth, a significant concern in Kenya's violent media landscape.

Despite extensive research linking media violence to aggression, gaps remain in the literature, particularly in the African context. Most studies have focused on Western countries, with few addressing the unique media landscape in Kenya. Additionally, much of the research in Kenya centers on older populations or urban regions, neglecting younger audiences in Western Kenya. There is a need to explore the impact of violent media exposure on adolescents in counties like Kakamega, Kisii, and Siaya, where access to media and exposure to violence are prevalent but under-researched. This study seeks to fill this gap by examining how exposure to violent media content influences aggression levels among adolescents in these regions, providing localized insights that could inform interventions and policies.

III. METHODOLOGY

3.1 Research Design

The study used a pragmatic paradigm, adopting its inclusive approach to combine both quantitative and qualitative methods (Brierley, 2017). To this end, a convergent parallel research design, as described by Creswell and Creswell (2018), was applied. Thus, quantitative data was collected from students using a questionnaire that addressed

the presence of a violent script in the media they consumed, the extent of imitation of violent behavior observed in the media, their perceptions of violent behavior observed in the media, and their tendency to exhibit violent behavior. Simultaneously, qualitative data was gathered from content analysis of the most popular TV show identified by participants. Thereafter, separate analyses of the quantitative and qualitative data was done and the results were integrated and jointly interpreted, comparing findings for consistency, divergence, complementarity, or expansion.

Quantitative data was analyzed using descriptive statistics to summarize and interpret the data effectively. This analysis included percentages, frequency counts, and means. The analysis covered levels of exposure to violent media content, the extent of imitation of violent behaviors, perceptions of violent media, and tendencies to exhibit aggressive behavior. The first three variables were measured using a 3-point Likert scale, while aggressive behavior was assessed using the Adolescent Peer Relations Instrument (APRI) developed by Parada (2000), which evaluates aggression as both perpetrators and victims on a 6-point Likert scale.

Further analysis employed inferential statistics to examine the relationship between the independent variables, thus, levels of exposure to violent content from radio, television, mobile phones, and social media, and the dependent variable, thus, levels of aggression. Due to the ordinal nature of the data, Spearman's rho was used to evaluate the association between exposure to violent content on the media and aggressive behavior. The null hypothesis was tested using Spearman's rank correlation coefficient and its associated p-value, determining the significance of the relationships and validating or rejecting the initial hypothesis. A multiple regression analysis was then conducted to assess the relative contribution of each independent variable to the overall outcome variable. This analysis identified which independent variable had the most significant impact on the dependent variable and provided the overall strength of the combined influence of all independent variables on the dependent variable.

Qualitative data were transcribed and categorized into themes and sub-themes. This process involved transcribing video clips, then analyzing the data to identify recurring patterns and themes. Broad categories, such as violence, were further refined into specific sub-themes like physical, verbal, and relational violence. The themes and sub-themes were documented and reported through written summaries and relevant excerpts, allowing for a comprehensive analysis and meaningful insights.

3.2 Study Area

The research was carried out in Kakamega, Kisii, and Siaya Counties, which are among the 10 counties that make up Western Kenya, previously categorized under Nyanza and Western Provinces. The study specifically targeted adolescent learners enrolled in secondary school.

3.3 Study Population

The study population comprised learners from both public and private secondary schools, specifically targeting those aged 14 to 17, with a focus on the median ages of 15 and 16, representing a total of 190,555 learners.

3.4 Study Sample Size and Sampling Techniques

Stratified random sampling was used to select 417 learners, as determined by Krejcie and Morgan's formula (Krejcie & Morgan, 1970)

3.5 Instruments for Data Collection

The study used a survey method with a Likert scale-based questionnaire as the primary data collection tool. Participants reported the frequency of exposure to violent content on the media, their perceptions of it, and the extent to which they imitated violent behavior observed on the media. The Adolescent Peer Relations Instrument (APRI) was then used to measure aggression (Balan et al., 2022). Content analysis was also conducted on a 10-minute episode from the participants' top three TV shows to assess the presence and frequency of violent acts, rated on a four-point Likert scale from none to extreme.

3.6 Variables of the Study

The independent variable in this study was exposure to violent media content. Vorasiha (2018) defined media exposure as the extent to which individuals encountered specific media messages. In this context, "media" was confined to radio, television, mobile phones, and social media platforms. The study explored trends in exposure to violent media content, measured through self-reported frequency and duration of media usage, with a specific emphasis on access to violent content. This variable was assessed using an ordinal scale. The dependent variable was aggression, measured using the Adolescents Peer Relations Instrument (APRI), which evaluated both victimization and bullying, also employing an ordinal scale.

3.7 Ethical Considerations

All data was handled in accordance with the Kenya Data Protection Act, 2019 (Data Protection Act, 2019). Personal information was kept confidential, with participants' names replaced by pseudonyms during transcription. Hard copy data was securely stored, and electronic data was encrypted, with access limited to the lead researcher. Research assistants were trained on ethical standards, data accuracy, and confidentiality. Participation was voluntary, and consent was obtained from principals for learners under the age of consent.

IV. FINDINGS & DISCUSSION

4.1 Response Rate

The researcher received 387 of the 417 distributed questionnaires, yielding a response rate of about 93%.

4.2 Exposure to Violent Media Content

To assess levels of exposure to violent content on the media, respondents indicated how often they had observed violent acts in the media over the past six months, using a 3-point Likert scale from "never" to "frequently," as shown in Figure 1.

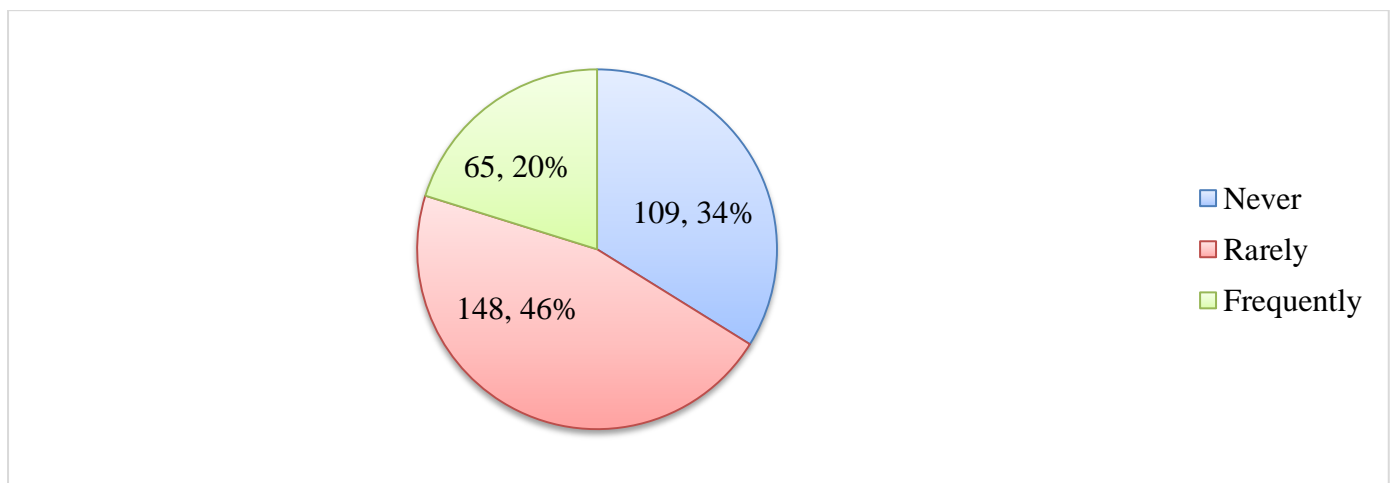


Figure 1
Frequency of Experience of Violence on the Media

The findings show that 46% of respondents rarely observed violent content on the media, while 20% frequently did, with the majority of this latter group (59%) being exposed to this kind of content on television and the least (11%) on radio. Content analysis of respondents' top three TV shows revealed frequent violent incidents. The three most popular shows were 'Sultana' on citizen TV, 'Thapki' on Zee World Africa and 'World Wrestling Entertainment (WWE)' on SuperSport, identified by 62%, 26% and 12% of respondents respectively. 'Sultana' depicted moderate violence, including verbal, physical, and emotional abuse. Examples include Sultana's father physically beating her and her brother inflicting verbal and psychological abuse, reflecting relational violence against women. 'Thapki' depicts various forms of violence, including overt physical violence as seen from a near acid attack on Thapki, as well as relational violence against her through social isolation due to her stutter. There are also other various forms of violence such as blackmail, threats, and verbal insults often driven by rivalry and family status protection. 'World Wrestling Entertainment (WWE)' primarily showcases physical aggression, involving combat, staged fights, risky maneuvers, and scripted confrontations. In terms of the levels of depiction of violence in the three shows, this was as summarized in figure 2.

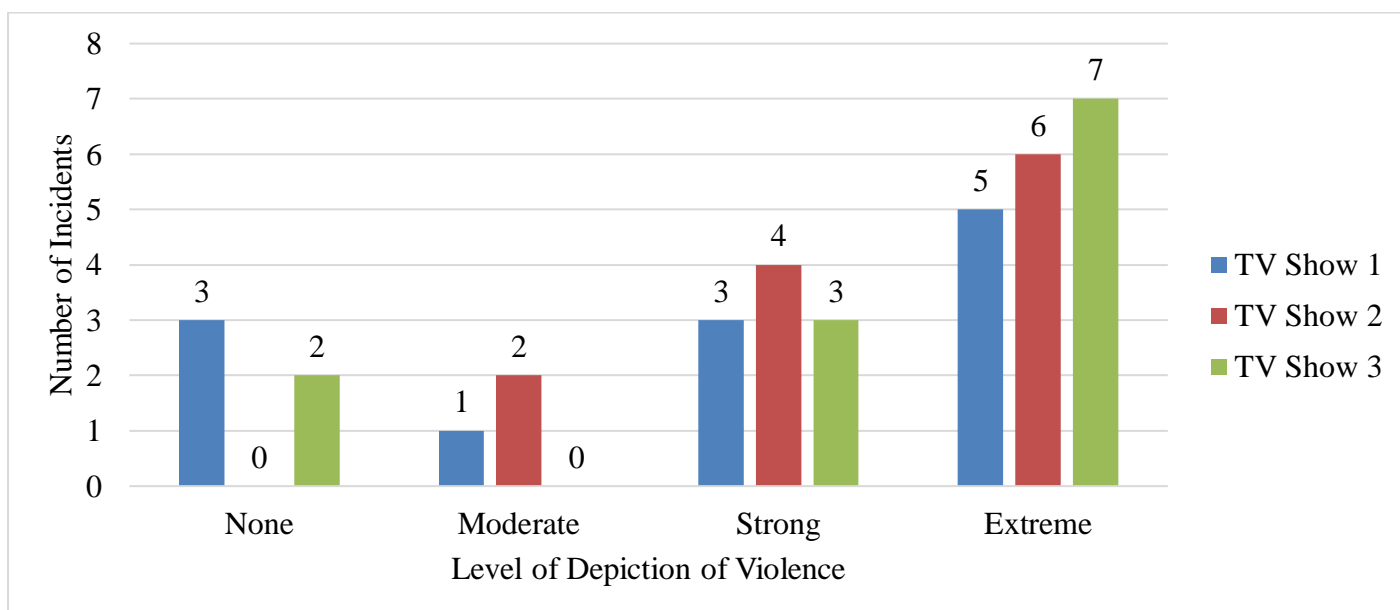


Figure 2
Incidences of Depiction of Violent Media Content in 3 Popular Television Shows

The findings indicated that out of the incidents of violence identified in the 3 most popular shows, half of them were identified as extreme (50%). More specifically, this was distributed as follows: 42% from ‘Sultana’, 50% from ‘Thapki’, and 58% from ‘WWE’. This is despite only 20% of respondents self-reporting on experiencing extreme media violence. These discrepancies may arise from perceptual biases and desensitization, which can skew interpretations of violence, or from inaccurate self-reporting influenced by social desirability bias. A study by Wulansari et al. (2020) found that about 20% of youth encounter media violence daily across seven countries, depicting various forms including bullying, peer aggression, intimate partner violence, and homicide, with some perpetrators portrayed as heroes, thus normalizing their actions.

4.3 Imitation of Violent Media Content

To assess the impact of media consumption, respondents were asked to report the frequency with which they imitated violent acts observed in the media. The results are summarized in Table 1.

Table 1
Frequency of Imitation of Violent Media Content

Frequency of Imitation	Always	Sometimes	Never
Percentage of Learners	11%	37%	52%

The results showed that 52% of respondents never imitated the violent behavior observed in media, while 11% always did. Among those who consistently imitated violence, 34% cited mobile phones and 30% television as their main sources, with 21% and 15% attributing it to social media and radio, respectively, as illustrated in Figure 3.

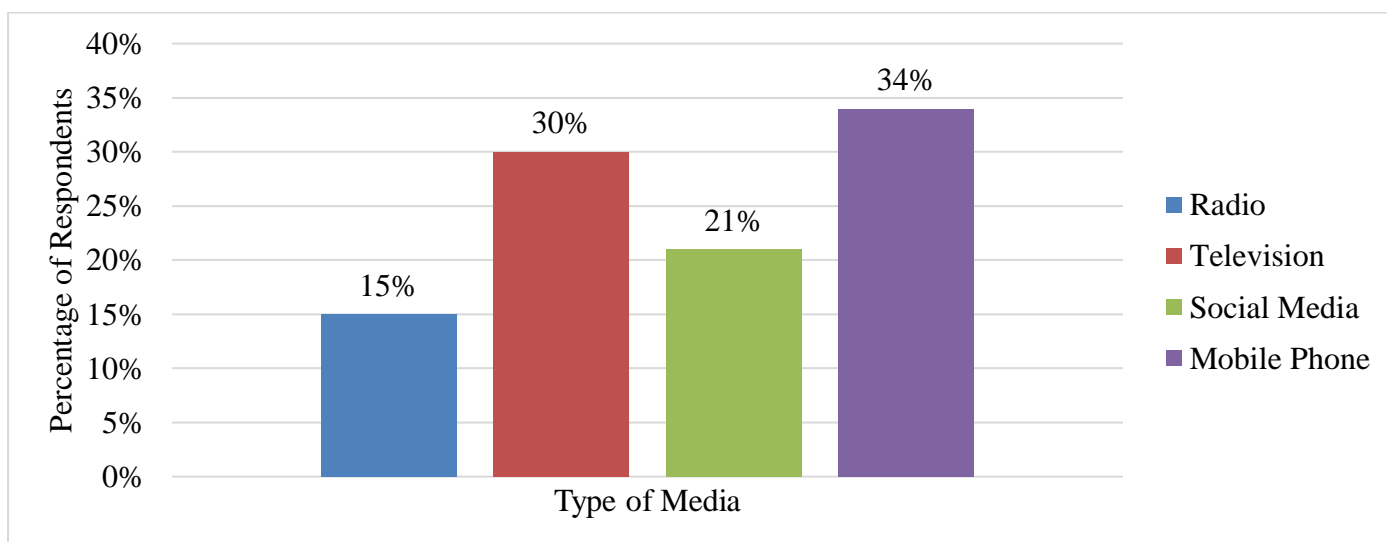


Figure 3
Frequent Imitation of Violence Observed Across Different Media Platforms

The findings suggest that visual media, such as phones and television, are more likely to influence learners to imitate violent behavior than auditory media like radio. However, as Ahn et al. (2020) note, the lasting impact of such behavior depends on the observed consequences, with media exposure serving as a risk factor rather than a direct cause of aggressive tendencies.

4.4 Perception of Violent Media Content

Participants were asked to evaluate how often they perceived the aggressive actions of media characters as justified. The findings are presented in Figure 4.

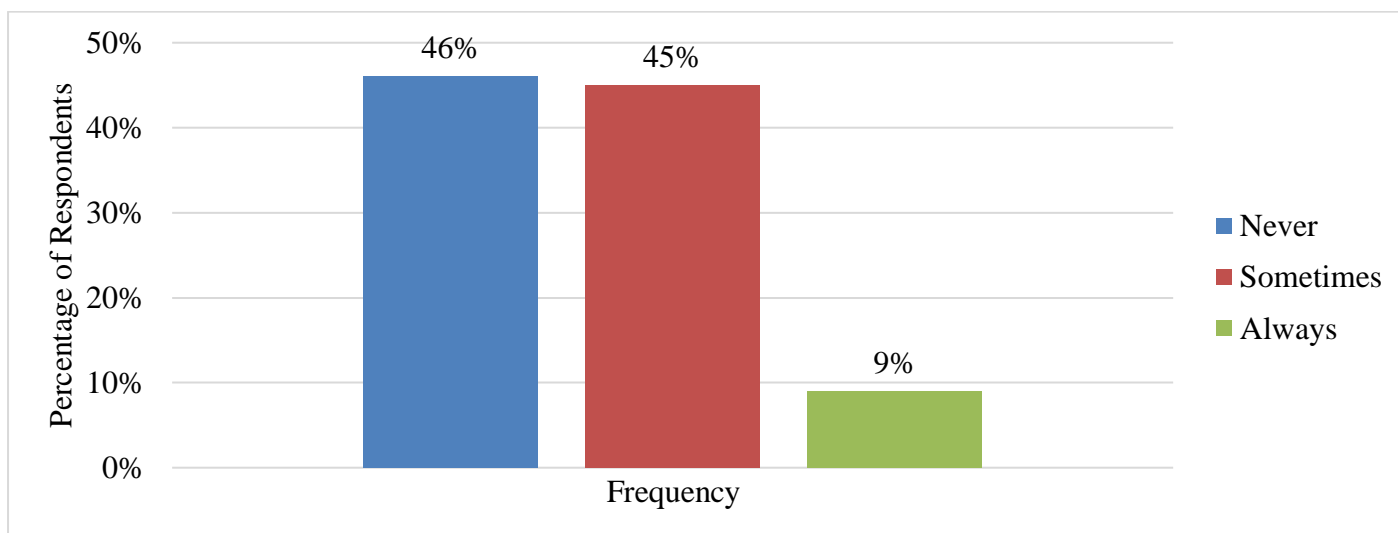


Figure 4
Justification of Violence Observed in the Media

The results show that 46% of respondents believed that media characters who exhibited violence were never justified, while 45% thought they were sometimes justified, and 9% felt they were always justified. This highlights significant disagreement within the population on the justification of violence as observed in the media. These differing views may stem from varying moral frameworks, cultural influences, and personal values shaped by home, school, and peer environments.

4.5 Aggressive Tendencies

Aggressive tendencies were measured using the Adolescent Peer Relations Instrument (APRI) by Parada (2000), which assesses aggression in two dimensions, thus, as a victim and as a perpetrator. Table 2 presents the levels of aggression and corresponding respondent percentages.



Table 2
Levels of Aggression

Level of Aggression	Victim (%)	Perpetrator (%)
None	16.7	18.5
Mild	56.5	53.1
Moderate	14.0	15.9
High	5.0	6.0
Very High	5.0	5.7
Extremely High	2.0	0.8

Responses for both victims and perpetrators of aggression were similar across aggression levels, with most reporting mild aggression as victims (53.1%) or perpetrators (56.5%), while a smaller group reported high to extreme aggression (victims: 12.8%, perpetrators: 12.5%). This aligns with Dieris-Hirche et al.'s (2020) study, which linked problematic gaming behavior to violence and social issues. The findings highlight the need to explore underlying causes of aggression, prompting further analysis of potential links between aggressive tendencies and media exposure.

4.6 Relationship between Exposure to Violent Content in the Media and Aggression

A Spearman's correlation analysis was performed to assess the relationship between exposure to violent content on the media (radio, television, mobile phone, social media) and levels of aggression, with exposure as the independent variable and aggression as the dependent variable. Table 2 shows the simplified correlation matrix thereby derived.

Table 2
Relationship between Exposure to Violent Content on Radio, Television, Mobile Phone, Social Media, and Aggression

		1	2	3	4	5
Radio (1)	Correlation- coefficient	1.000				
	Sig. (2-tailed)					
Television (2)	Correlation- coefficient	.147**	1.000			
	Sig. (2-tailed)	.004				
Mobile Phone (3)	Correlation- coefficient	.132**	.452**	1.000		
	Sig. (2-tailed)	.010	.000			
Social Media (4)	Correlation- coefficient	.112*	.307**	.615**	1.000	
	Sig. (2-tailed)	.028	.000	.000		
Aggression (5)	Correlation- coefficient	-.058	.211**	.154**	.137**	1.000
	Sig. (2-tailed)	.256	.000	.002	.007	

** Correlation significant at the 0.01 level (2-tailed)

* Correlation significant at the 0.05 level (2-tailed)

The Spearman's correlation analysis identified several significant relationships between exposure to violent media content and aggression. Specifically, a weak but significant positive correlation was observed between exposure to violent content on television and aggression ($r = 0.211$, $p = 0.000$), along with weak positive correlations for mobile phone ($r = 0.154$, $p = 0.002$) and social media ($r = 0.137$, $p = 0.007$) content. These findings are consistent with prior research by Khurana et al. (2019), Parmaksiz and Kiliçarslan (2021), and Viner et al. (2019), suggesting a modest association between violent media exposure and heightened aggression. Conversely, no significant relationship was found between exposure to violent content on radio and aggression ($r = -0.058$, $p = 0.256$), indicating a very weak negative correlation. Additionally, Abu-Baker and Ayyd (2018) reported significant correlations between electronic media violence and school bullying, highlighting gaming strategies as a potential pathway for this influence. Many of these games utilize violence as a tactic to defeat opponents, which may inadvertently encourage users to adopt violent behaviors as a means to achieve their objectives.

4.7 Regression Analysis of Violent Media Content Exposure and Aggression Levels

To determine the individual and overall impact of different media exposures on aggression, a regression analysis was conducted. This analysis evaluated the strength of each media exposure variable, thus, television, mobile phone, and social media, on aggression levels, providing insights into which type of media had the greatest influence and the cumulative effect of all media types combined. The regression model derived is as indicated in Table 3.



Table 3
Regression Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate
253 ^a	.064	.054	1.077

a. Predictors: (Constant),

On average, how often do you observe violence on the social media daily?, On average, how often do you observe violence on the radio daily?, On average, how often do you observe violence on television daily?, On average, how often do you observe violence on mobile phone daily?

The R value of 0.253 indicates a weak positive correlation between the predicted and observed values, while the R-squared value of 0.064 suggests that only 6.4% of the variation in aggression levels is explained by exposure to violent content on the media (radio, television, mobile phone, and social media). This indicates a poor model fit. The Adjusted R-squared of 0.054 further highlights the model’s limited predictive power. However, with a standard error of 1.077, the model’s predictions deviate by an average of 1.077 units, which suggests a reasonable fit despite its low explanatory power. The ANOVA table derived was as indicated in Table 4.

Table 4
ANOVA^b

	Sum of Squares	df	Mean Square	F	Sig.
Regression	30.128	4	7.532	.490	.000 ^a
Residual	439.831	79	1.161		
Total	469.959	83			

a. Predictors: (Constant),

On average, how often do you observe violence on the social media daily?, On average, how often do you observe violence on the radio daily?, On average, how often do you observe violence on television daily?, On average, how often do you observe violence on mobile phone daily? b. Dependent Variable: In the past 6 months, to what level have you been a perpetrator of violence against fellow learners?

The ANOVA analysis shows a statistically significant difference between the regression model and the residual, with an F-value of 6.490 and a significance level of .000 ($p < 0.05$). This indicates that the predictors (exposure to violent content on radio, exposure to violent content on TV, exposure to violent content on mobile phone, and exposure to violent content on social media) collectively influence the dependent variable (level of aggression), and the relationship is not due to chance. However, the residual sum of squares (439.831) shows that a portion of the variation in aggression remains unexplained, suggesting that other factors, such as exposure to violent content or reduced family time, may contribute to increased aggression. The regression coefficients are presented in Table 5.

Table 5
Regression Coefficients^a

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	1.845	.167		11.075	.000
Exposure on radio	-.120	.053	-.115	-2.247	.025
Exposure on television	.218	.054	.229	4.028	.000
Exposure on mobile phone	.002	.059	.003	.038	.970
Exposure on social media	.038	.051	.049	.739	.461

a. Dependent Variable: Level of perpetuation of aggression

The regression analysis highlighted the differential contributions of various media exposures to aggression levels. Exposure to violent content on television exhibited the most significant positive relationship with aggression ($B = 0.218$, $Beta = 0.229$, $p = 0.000$), indicating that increased television exposure substantially elevates aggression levels. In contrast, exposure to violent content on radio demonstrated a significant negative association with aggression ($B = -0.120$, $Beta = -0.115$, $p = 0.025$), suggesting that greater access to radio may have a mitigating effect on aggressive behavior. The analysis further indicated that exposure to violent content on mobile phones had a negligible impact on aggression ($B = 0.002$, $Beta = 0.003$, $p = 0.970$), showing no significant influence within this model. Similarly, exposure to violent content on social media was not a significant predictor of aggression ($B = 0.038$, $Beta = 0.049$, $p = 0.461$), indicating only a minor and statistically insignificant contribution. Overall, the findings reveal that exposure to violent content on television is the strongest contributor to aggression, followed by a smaller yet significant inverse relationship with radio, while mobile phone and social media exposure demonstrated minimal explanatory power in this context.

V. CONCLUSIONS & RECOMMENDATIONS

5.1 Conclusions

The study found the highest significant correlation between aggression and exposure to violent content on television ($r = 0.211$, $p = 0.000$), with television also identified as the most substantial contributor to aggression ($B = 0.218$, $p = 0.001$). Additionally, 46% of adolescents in Kakamega, Kisii, and Siaya reported constant exposure to violent media content, while 11% indicated they frequently imitate the violence they observe, primarily on their mobile phones. Furthermore, 9% of respondents justified the violence they encountered on the media, and 56.5% exhibited mild violent tendencies. These findings underscore the pervasive influence of media violence on adolescent behavior in the studied regions.

5.2 Recommendations

The study recommends enhancing the enforcement of media violence regulations, especially for television, by increasing inspections and imposing stricter penalties. It also suggests requiring parental guidance ratings for all entertainment content, introducing media literacy education in schools, and restricting unsupervised internet access by minors in public cybercafes.

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