

The Impact of Media Violence on Child and Adolescent Aggression

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Abstract. With the continuous development of electronic technology, the media of television and films, video games and music are everywhere in everyday life. Media exposure is increasing among kids and teenagers. As a result, children and adolescents frequently encounter violence in the media in a variety of forms, which has an effect on their behavior. Previous research has found that exposure to media violence increases aggressive behavior or aggression-related beliefs and emotional arousal in children or adolescents. This study summarizes the similarities and differences in the effects of different forms of media violence on children and adolescents based on their different cognitive developmental characteristics and the frequency of exposure to different types of media. Also, it makes suggestions for future research and aims to lessen how aggression in children and teenagers is affected by media violence. This study finds that all forms of media violence were positively associated with aggression in children and adolescents, with younger children mostly displaying aggressive behavior through direct imitation, while older adolescents developed desensitization and cognitive changes related to aggression, and parenting styles also moderated the relationship. The study suggests that parents should adopt autonomous and supportive communication styles and game developers should consider pro-social rather than violent behaviors in games to positively influence the game audience.

Keywords: Media violence; children aggression; teenager aggression.

1. Introduction

When it comes to aggressive behaviors in children and adolescents, exposure to media violence is an influential factor. Media violence has long been a concern, and with the development of electronics, more and more films and games with violent content are accessible. With children having access to more and more cartoons and adolescents being exposed to more bloody and violent TV movies and even immersive gaming technology, this media violence scenario may further increase the involvement of both groups in scenes of violence, which can have adverse effects.

2. Aggressive Behavior

2.1. Definition

The definition of aggression includes any action aimed at causing harm to another person. Violence is considered a more extreme form of physical aggression, which has the potential to cause physical injury or even death [1]. Acts that accidentally cause harm are not categorized as aggressive, but rather those that are intended to cause harm to others are aggressive. Some of the more extreme acts such as murder and physical assault are also classified as aggressive behavior [2].

2.2. Factors Influencing Aggressive Behavior in Children

The general aggression model (GAM) points out that biological, environmental, present internal state and appraisal factors can lead to an outcome of aggression and generate interactions [3]. The GAM is divided into two processes: the process of distal causes and the process of proximate causes. A person's personality is determined by both biological and environmental factors during the distal causes process. For example, biological factor like the symptoms of depression had the highest effect size in a regression model across various media types [4]. The proximate causes contain three stages

including the inputs, routes and outcomes. In the inputs stage, person factors refer to some certain specific personality traits and the situation factors refer to some situations that aggression usually occurs. Cognition, emotion and arousal constitute the current internal state, which can interact with each other in two ways and can also be influenced by external factors in other stages. The outcomes stage focuses on appraisal and decision of action. In this part, one's aggressive outcomes will mostly be determined by whether he or she thinks the automatic, immediate appraisal is satisfying and important. If not, a reappraisal occurs to generate alternative behavioral strategies towards the present situation.

It can be seen from the GAM that many factors are involved in the regulation of the outcome of aggressive behavior, and these factors also interact with each other, making it difficult to determine which factor is the decisive factor in causing a person to be aggressive. The present review focuses on the impact of one specific situation factor in the inputs stage, the exposure to violent media, on aggressive behavior in children and adolescents.

2.3. Different Impacts of Long-term and Short-term Exposure to Media Violence on Aggression

Time is an important variable in the impact of violent media on aggressive behaviors, short-term and long-term exposure to media violence can have different effects on aggression. For short-term exposure, there is usually an increased chance of aggressive thoughts, feelings and actions, both physical and verbal. Teenagers find observed violence's fast-paced, high-intensity action sequences to be immensely appealing, as indicated by physiological markers of arousal. Aggressive behaviors may become more frequent in the short term if violence in the media attracts high levels of attention from the audience. When this emotional arousal becomes a given habit or an available pattern, children become accustomed to the patterns and scripts associated with these actions and adopt them as a model for their own behaviors. The initiating effect of this situation, in the form of a short-term influence of media violence, can also become a long-term lasting influence.

For long-term exposure, prolonged exposure to media violence can directly to the development of cognitive scripts of personal affect aggression. Individuals with chronic contact with media violence have a greater likelihood of developing higher levels of anger intensity and arousal and to develop more aggressive aggression in the face of the same stimuli than those with less exposure.

3. Media violence

3.1. Definition

The term "media violence" refers to any violent acts by one person against another at the physical level that are depicted on television, rather than any suggested off-screen poisonings [5]. Media violence is the same as media content violence, which is a phenomenon where the implied violence in the content of mass media, such as television, radio, movies, newspapers, and periodicals, is distributed and affects how the audience interacts in real life. Definitions of media violence have also evolved as theories about this form of violence have developed, with scenes of violence or elements of violence in the media having the potential to teach viewers to become more violent. Violent media can be media that depicts individuals deliberately harming other individuals. The 'individual' in the definition can be a cartoon character that does not exist in the real world, or a real person, or anything in between.

3.2. Classification of Media Violence

Media violence is mainly divided into TV and movie violence, game violence and music violence. Compared to video games and music, children spend more time watching TV. Significant media violence was reported in all three media, and children's exposure to scenes of violence is likely to be much higher than we might assume [4]. Although the extent varied, all three media had some impact. After controlling for subjects' sociodemographic, family and neighborhood violence, and child mental

health symptom variables, there was an association between children's media violence exposure to three media and children's physical aggression.

Recently, there has been a growing interest in video games with violence, as more and more games are designed and able to engage players in violent situations through physical interaction. More and more kids are playing video games for longer and longer periods of time. In addition, a significant number of these games feature violence. Children who play violent video games are not only spectators of violence, they also participate in it. A first-person shooter game can be more immersive than watching shooting scenes in TV movies. As many games use a stage-based reward system to incentivize violence, kids run the risk of developing aggressive behavior themselves [2].

Researches indicate that violent music has a lot of differences from violent TV and games for this type of medium only presents pure audio and no visual information, and the offensive lyrical elements of popular music are usually only found by the most devoted listeners [6]. And it is the violence in the lyrics not a certain musical style or musician that increases the listeners' aggression and aggression-related cognition.

4. The Impact of Violent Media Scenes on Children

The most immediate effect of media violence is that it can cause children to imitate violent scenes from television and films. Bandura's Bobo doll experiment opened up research into how children with an average age of 52 months learn to be aggressive through viewing violent influences [7]. In this classic experiment, children who viewed adult models of aggressive behavior produced more verbal and physical aggression than children who viewed adult models of non-aggressive behavior and children in the control group. Similarly, when young children see characters on television or cartoons behaving aggressively, they may imitate these behaviors and act aggressively. In Bjorkqvist's experiment, children aged five to six years were recruited to be exposed to violent or non-violent films and their subsequent behavior was assessed [8]. The group that had watched violent films was significantly higher in physical aggression (hitting other children, wrestling, etc.) and other types of aggressive behavior compared to the group that had watched non-violent films.

This shows that the most direct effect of media violence on young children is to cause them to imitate behavior, and because they are not yet able to distinguish between good and bad behavior, young children imitate all the behavior they see, including aggressive behavior or behavior with potentially dangerous outcomes. In addition to direct imitation, the media may play a role in shaping children's perceptions and beliefs. The extent to which viewers perceive events, places and people in the media as real or potentially real is referred to as perceived realism [9]. Young children have difficulty distinguishing between scenarios that can be imitated on television or in films, as only young children over the age of seven have the ability to distinguish what might happen in the real world from what they imagine, and for children under the age of seven, their perceived realism of scenes in the media may be significantly higher than that of older children. Witnessing violence on television predicts subsequent aggression in children, because when children find that characters on television and in films can easily achieve their goals through violent means, they are also more inclined to use violence in their lives to solve the problems they are faced with.

5. The Impact of Violent Media Scenes on Teenager

In promoting violence, entertainment media exaggerates the prevalence of violence around the world, contributing to the idea that the world is a generally violent place in the minds of viewers of such media and convincing them that it is a dangerous place. Driven by this belief, young people, out of fear of becoming victims, and with a sense of self-protection, show a strong incentive to carry weapons and become perpetrators of violence, thus preventing themselves from being attacked by others. Although older adolescents are able to discriminate between display and virtual reality, overexposure to information in the media can also affect adolescents' perception of reality. Nurture

theory states that heavier television viewers are more likely to believe that what happens on television is more likely to happen in real life than lighter viewers. A central proposition and two constructions (nurturing indicators and television exposure) are thought to constitute the nurturing hypothesis, a social science theory. When a particular bias is communicated in the media, the subjective reality that young people portray in their minds is consequently influenced by this bias and deviates from the objectively existing reality.

Desensitization is also an important issue when analyzing the impact of media violence. Adolescents who encounter violence in the media may develop an attitude of apathy. Repeated exposure may also contribute to adolescents' indifference to the phenomenon and make adolescents more receptive to higher levels of violence in films and television programmes. According to a functional MRI, violent video games have different effects on brain regions responsible for aggression and visual attention [10]. The results showed that violent video games were generally associated with activity in brain regions related to emotional processing and that differences were seen in people with different frequencies of exposure. Those who were not normally exposed to video games on a regular basis showed a significant increase in emotional responses when playing violent games. In contrast, the same regions showed active inhibition in those who were normally heavily exposed to violent video games. The results of this study may suggest that having been exposed to a large number of violent video games in their lives has led to a long-term desensitization in these individuals. Therefore, desensitization may also have implications for the possible link between violent video games and adolescent violence. Prolonged exposure to violent games led to a decrease in emotional arousal and an increase in acceptance of violence in adolescents' daily life.

6. Similarities and Differences in the Impact of Violent Media Scenes on Children and Adolescents

6.1. Similarity

Overall, while the media provides a more accessible and engaging learning outlet for children, exposure to scenes of violence can have varying degrees of negative impact on both children and young people. Whether it is scenes from television and films, participatory experiences in games or violent music, children and young people can be overexposed to violent scenes in these media, leading them to believe that violence is also commonplace in real life. There is also a direct link between such normative beliefs about aggression and aggressive behavior. When children and adolescents believe that aggressive behavior is commonplace in their lives, they are more likely to use aggressive behavior as a way of solving their problems. Alternatively, they may be more inclined to believe that the use of aggressive behavior is justified when their favorite heroic figure or the side representing justice wins by defeating their opponent through more violent means.

6.2. Difference

6.2.1 Difference in the type of media violence

For younger children, television is the main media they are exposed to and therefore violent scenes on television or violence in cartoons have been the main subject of research on media violence regarding child aggression. The impacts of playing violent games were studied more in the adolescent population due to higher cognitive development than the child stage, which allows for understanding and exposure to violent games.

6.2.2 Differences in variables and instrument

In most cases, aggression in older children and adolescents is measured by questionnaires or laboratory methods, using self-report scales and hot sauce paradigm. For younger children who are unable to understand self-report scales, aggression was usually judged by observing their spontaneous behavior in the laboratory. In addition, when considering control variables and covariates for aggression, for different groups experimenters measured different variables, ranging from

participants' gender, IQ, ethnicity, SES, and amount of television watched to a number of cognitive factors such as normative beliefs.

6.2.3 Differences in influence mechanism

As mentioned earlier, the length of exposure to media violence can have a differential impact, yet this differential impact can also vary across the two groups of children and adolescents. The short-term effects of violent media should be more pronounced for adults, or in this case adolescents. Stimuli in media violence can act on individual behavior through a pre-existing network of behavioral scripts, beliefs and patterns related to aggression. The formation of this network depends on a great deal of experience and repeated learning. Thus, as an individual ages, he or she is more likely to have a more refined and developed network of patterns that enable him or her to respond more quickly to violence-related stimuli. In contrast, for younger children, such scripts, beliefs and networks of aggression are not yet fully formed due to a lack of similar experiences and learning. Children's behavioral patterns are therefore more susceptible to influence and change by external factors, and the long-term effects can be more pronounced, with prolonged exposure allowing them to learn relevant behavioral patterns through violent scenes and adopt them as their own network of patterns. For those who have formed fixed beliefs, they may respond to stimuli based on their pre-existing patterns rather than reconstructing their original network through observational learning.

When it comes to parental restrictions on adolescent media use, previous research has found that parents tend to expose adolescents to less potential media violence in two ways. They are restrictive regulation and active regulation [11]. Restrictive regulation usually involves parents setting mandatory times for their children to regulate their media consumption, while positive regulation involves negotiating an agreement with the child about the acceptability of media violence. And both types of restriction, when combined with parents' own parenting styles (autonomy support, control, inconsistency), may have different effects on adolescents' media exposure. For adolescents in adolescence, who are beginning to seek more autonomy and control over their choices, this period is characterized by more behavior contrary to the wishes of their parents. Parenting and discipline styles may therefore have a strong influence on adolescent behavior and may even have the opposite result if inappropriate parenting styles are used to over-control adolescents. Parents who adopt an autonomy-supportive style of communication are more likely to reduce their adolescents' exposure to media violence and aggressive behavior. Conversely, when parents have strongly divergent parenting styles and use restrictive supervision, young people are more likely to rebel, develop negative emotions and provoke aggressive behavior.

7. Suggestions

To attract more attention, many games use violent elements such as school bullying as a gimmick, and even set up game mechanics that allow players to complete a series of violent acts in order to receive rewards. Such reward mechanics have the potential to further reinforce players to display more violent behaviors in the game and to appear more aggressive in real life. The need for game developers to set higher age limits and time limits for exposure time to such games remains to be explored. In addition to appropriate time limits, the content of games can also be designed to prevent young people from becoming more aggressive, and games containing pro-social behavior are currently being studied to see if they can be used to reduce aggression in young people. The general learning model predicts that as a person plays more antisocial video games, his or her antisocial behavior will increase and pro-social behavior will decrease. Conversely, if people play more pro-social video games, pro-social behavior will grow and anti-social behavior will decrease [12].

Parenting is an integral part of a child's development, so proper parenting and a good upbringing can go a long way in determining whether a child will become a sociopath. Parents can decide what media to expose their children to, control the amount of media they use and help their adolescent children avoid excessive exposure to media violence through communication and negotiation.

In addition, the presence of violence in cartoons may make adults feel less violent by reducing the sense of personal threat. Or, violence may be perpetrated through some non-human figures, but for children, cartoons are also objects of imitation and they may not be able to distinguish between virtual animated figures and real-life people, so it remains to be studied whether the caricature of violence in cartoons can reduce children's imitation of violence.

Finally, although violent elements in music have a lesser and less perceptible impact on young people than the more visual media of visual representation such as film and television and games, there is still a correlation between violent music and aggression. Previous research on violent music is scarce, and more research needs to be done on the basis of whether musical styles and the intensity of musical sounds can be used to elicit violent thoughts and promote aggressive behavior.

8. Conclusion

This paper analyses the effects of media violence on two groups, children and adolescents, based on an analysis of the aggression model proposed by previous authors. In general, greater contact with media violence resulted in more aggression, but the psychological mechanisms of aggressive behaviors differ between children and adolescents due to their different levels of cognitive development, the type of media they are exposed to and the duration of their exposure. In addition, parenting styles play a mediating role in disciplining children's behavior. Autonomous and supportive communication styles are better able to minimize children's vulnerability to media violence, and from a game developer's perspective, consideration could be given to including pro-social rather than violent behaviors in games to positively influence the game audience.

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