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I would first like to thank my husband, Bob, for always encouraging me to pursue my passions and educational goals. Ten years ago, he inspired me to reenroll in school and earn my undergraduate degree. Now, ten years later, he is still showing his ceaseless support while I complete the MSCJ graduation requirements. I would also like to thank my children for being my motivation to continue learning and growing, both academically and personally. My parents also deserve acknowledgement, as they have always supported my decisions, advocated for hard work, and taught me to prioritize education. Finally, I would like to show my appreciation for Dr. Banachowski-Fuller and all the exceptional instructors that are part of the MSCJ program at UW-Platteville. Thank you, all, for the constructive criticism, positive reinforcement, challenges, and for sparking my interest and passion about criminal justice.
Abstract

This research paper was written to investigate and compile previous studies performed about how violent entertainment media may influence mass shooting perpetrators and develop ideal components for an anti-violence and media literacy program to be administered to students along with supplemental family training. In addition, the research conducted explains how national news coverage may be impacting future mass shooting perpetrators and ways to prevent reporting styles that could encourage future mass shooters. Recommended components regarding increasing awareness for news media outlets are provided based on previous research performed on the contagion effect and general imitation, as well as styles of reporting which can inspire future potential mass shooters. Program evaluations of the Adults and Children Together Parents Raising Safe Kids, YouthAlert!, and Media Detective/Media Detective Family programs were used to compile recommendations for ideal program components for both students and families. Program components for students include teaching positive conflict resolution, helping to understanding the roots and consequences of violence, and teaching critical media analysis skills. For families (parents and guardians), ideal program components include education on violent media effects, educating about limiting violent media in the household, enhancing communication, and teaching nonviolent disciplinary skills. Awareness for news media outlets includes teaching about the contagion effect and general imitation, explaining reporting styles and influences on potential mass shooters, and reviewing statistical findings. Social control theory and differential association/social bond theories are used to help explain both why mass shootings may occur and how an anti-violence and media literacy program can possibly work along with news media outlet awareness.
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Introduction

Statement of the Problem

Mass shootings have occurred historically in the United States since the early 1900s. Research shows that the year 1966 marked the beginning of a period of mass murders. In 1966, massacres in both Chicago and Austin occurred within weeks. Charles Whitman killed 16 people and injured 30 at the University of Texas in Austin, which was the worst mass public shooting in American history at the time. Before the mass shooting perpetrated by Whitman, there had been 24 mass shootings in the U.S. (Roque and Duwe, 2018). Since the mass shooting at the University of Texas in Austin, there have been numerous subsequent mass shootings in educational settings. Currently, the mass shooting at Virginia Tech in 2007 perpetrated by Seung-Hui Cho was the deadliest, with 33 fatalities and 29 injured (Federal Bureau of Investigation, 2007). There is evidence that mass shooting occurrences and human casualties have increased in recent years. Controversy surrounds the alleviation and prevention of mass shootings. Enacting stricter firearm laws, increased mental illness awareness and treatment, and anti-bullying agendas in school are examples of different proposals to help in curbing the occurrences of mass shootings (Roque and Duwe, 2018).

The prevalence of mass shootings makes occurrences a significant issue in current American society. Mass shootings are increasing in the United States and approximately 31 percent of the mass shootings occurring worldwide occur in the U.S. (Meindl and Ivy, 2017). Since the year 2000, there have been more mass shootings in U.S. schools than in the entire 20th century and there has been an increase in adolescent perpetrators in the 21st century. Not only have the occurrences of mass shootings increased in the United States, but the number of casualties per incident has also risen (Katsiyannis, Whitford, and Ennis, 2018).
Even though a small proportion of childhood deaths by firearms are attributable to school mass shootings, occurrences receive a disproportionate amount of media attention (Rees, Lee, Fleegler, and Mannix, 2019). It has been suggested that mass shootings are considered to have a “contagion” effect, which means that one mass shooting occurrence is increasing the likelihood of another happening. The amount of broadcasting time dedicated to mass shooting events and style of dramatized reporting has been found to play a role in inspiring future mass shooters (Meindl and Ivy, 2017).

Some research suggests that violent media is one of the possible contributing factors influencing the offenders to perpetrate mass shootings. There are numerous studies which conclude that exposure to violent media is associated with increased aggression and desensitization, among other cognitive and psychological effects (Calvert, Appelbaum, Dodge, Graham, Nagayama, Hamby, Fasig-Caldwell, Citkowicz, Galloway, & Hedges, 2017). The psychological and cognitive effects on youth resulting from exposure to violent media can be considered a possible contributing factor to mass shooting planning and perpetration.

Finding and executing ideal program elements for students and families to prevent possible future mass shootings should be a focus in the U.S. There is currently a limited number of programs for students and families which integrate anti-violence topics with media literacy (Sharrer, 2009). To ensure effectiveness, an anti-violence program which incorporates media literacy should be taught both to adolescent children and their respective families (specifically parents and guardians). Media violence is generally viewed outside of a school-setting, so by educating families as well as students, the problem can be addressed at its core. This research will present a possible alternate way of addressing mass shooting occurrences through ideal program components which focuses on anti-violence with the incorporation of media literacy for
both students and their parents/guardians. Since there are a limited number of programs based on anti-violence with media literacy incorporation, more research is needed to evaluate whether an anti-violence and media literacy program can be successful in curbing school violence and mass shootings (Scharrer, 2009). Furthermore, this research will provide suggestions for mass news media outlets to potentially reduce the influence reporting has on future mass shooters.

**Purpose of the Study**

The purpose of this research paper is to explore and compile previous studies conducted on how violent entertainment media may influence those who perpetrate mass shootings and generate ideal components for a program to be taught in schools with supplemental family training. Additionally, the research includes how national news coverage may be contributing to occurrences and ways to combat reporting styles that could encourage future mass shooters. Suggested components for guidelines and awareness for news coverage outlets are given based on previous research conducted on the contagion effect and styles of reporting which can inspire future mass shooters.

**Significance of the Study**

This research paper argues that there should be more awareness about violent entertainment media in schools and for parents/guardians. The strategy used to support the research presented is through successful program evaluations of both anti-violence programs for children and families (ACT Against Violence: Parents Raising Safe Kids and YouthAlert!) as well as media literacy programs for schools and families (Media Detective Family Program and universal media literacy and violence programs). The successful elements of the programs have been combined to create suggestions based on evidence found for an ideal anti-violence program which incorporates media literacy to be taught to youth in schools and also supplementary
optional education for parents. According to Scharrer (2009), there is a limited number of anti-violence programs which incorporate media literacy into the curriculum. By combining anti-violence programs with a media literacy curriculum for both students and parents/guardians, the program could prove to be an effective way to reduce mass shooting occurrences.

It is also be argued that national news production companies should be educated on how their reporting style could precipitate another mass shooting and gives suggestions based on research about how to address the reporting styles and coverage that inspire, rather than deter, mass shootings. This research could be significant because mass shootings are on the rise and media is more accessible than ever due to technological advances in recent years (Meindl and Ivy, 2017). Therefore, suggesting guideline components for news media outlets could prove to help reduce potential mass shootings in the future.

**Literature Review**

The following literature review is divided into seven sections. The first section is a summary of mass casualty and location statistics to give the reader information about mass shooting occurrences and victims. The second section describes known psychological and emotional impacts on victims (survivors) of mass shooting events to establish the significant impact mass shootings can have on survivors. The third section was written to explain the general characteristics of mass shooting perpetrators to further help understand the emotional and psychological state of many mass shooters. Research definitions are given in the fourth section of the literature review to facilitate understanding of common language and terms used in the research. The fifth section of the literature review covers news media influences on potential future mass shooters and has two subsections. The first subsection describes how news media reporting styles impact and inspire future mass shooters. The second subsection explains how the
contagion effect and general imitation can be promoted by news media reporting. The sixth subsection describes the effects of exposure to violent entertainment media on adolescents and has two subsections. The first subsection is used to explain how exposure to violent television and movies can negatively impact adolescents and the second subsection is used to describe how violent video game exposure can negatively affect adolescents. Lastly, the seventh subsection summarizes the literature review by explaining the need for a program with components that focus on anti-violence with a media literacy incorporation.

**Mass Shooting Casualty and Location Statistics**

Mass shooting occurrences are not considered a common event. There were 277 active shooter incidents in the U.S. from 2000 to 2018 and 2,430 kill and wounded casualties. Among the casualties, 884 individuals were killed. Approximately 43.7 percent of the shootings during this period occurred at a location involving commerce, 20.6 percent at an educational location, 13.4 percent in an open space, and 9.4 percent occurred at a government site (Federal Bureau of Investigation, n.d.). The top five deadliest mass shootings in U.S. history as of 2021 are listed below. Locations include commerce, educational settings, and a religious venue. All mass shootings occurred between 2007 and 2017, which supports that mass shootings casualties are becoming deadlier than they were in the past.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Date</th>
<th>Location</th>
<th>Perpetrator</th>
<th>Deaths</th>
<th>Injuries</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10/01/2017</td>
<td>Route 91 Harvest Festival (Las Vegas, NV)</td>
<td>Steven Paddock</td>
<td>58</td>
<td>489</td>
</tr>
<tr>
<td>2</td>
<td>06/12/2016</td>
<td>Pulse Nightclub (Orlando, FL)</td>
<td>Omar Marteen</td>
<td>49</td>
<td>53</td>
</tr>
<tr>
<td>3</td>
<td>04/16/2007</td>
<td>Virginia Tech (Blacksburg, VA)</td>
<td>Seung Hui Cho</td>
<td>32</td>
<td>17</td>
</tr>
</tbody>
</table>
Even though commerce locations are more common for mass shooting occurrences, educational locations receive more public, media, and academic attention (Roque and Duwe, 2018). There are many psychological and emotional impacts which can affect survivors of mass shootings and since mass shootings which occur in educational settings generally involve children and adolescents, long-term psychological and emotional effects can be considered more significant (Shultz, Thoreson, Flynn, Muschert, Shaw, Espinel, Walter, Gaither, Garcia-Barcena, O’Keefe, and Cohen, 2014).

**Psychological/Emotional Impacts of Mass Shootings on Victims**

Even though mass shootings are considered “rare events,” the impact perpetrations have on society is significant. Mass shootings which occur at educational locations have been shown to receive more attention from researchers, scholars, media outlets, politicians, and the public (Roque and Duwe, 2018). There is consistent evidence that psychological effects of exposure to mass shootings include posttraumatic stress disorder (PTSD), anxiety, and an increase of depression symptoms. Studies performed on those exposed to mass shootings also show evidence of a link between victims of prior sexual trauma and a decreased adjustment concerning PTSD and depression after one-year post-shooting. Evidence also shows that those exposed to mass shootings have problems with emotional regulation, disassociation, experiential avoidance, and psychological and mental health functioning afterwards. Additionally, some researchers have
found evidence that females and ethnic minorities are more vulnerable to an increase mental health issues post-shooting (Shultz et al., 2014).

Approximately 30-40 percent of children and adolescents exposed to a life-threatening event will suffer from PTSD, with severity influenced by proximity to the zone of impact. Risk factors that contribute to psychological impacts include proximity to the event, degree of exposure, emotional sensitivity, lack of self-expressive abilities, female gender, status of immigration, and lack of apparent family and social support. Children and adolescents have a stress response to life-threatening events, which includes anxiety, fear, feelings of helplessness, mood and behavioral symptoms, and bodily complaints. Some experience stress reactions, such as reoccurring intrusive thoughts and images, nightmares, strong emotions, and the avoidance of reminders of the event. It is not uncommon for children and adolescents to experience social withdrawal, hyperarousal symptoms, sleep disorders, irritability, and difficulties with concentration (Shultz et al., 2014).

There is evidence which supports that mass shooting perpetrators want to not only kill victims, but also have a harmful impact on survivors. This may be because they see themselves as victims and have anger due to feeling abandoned and rejected (Fernandez, Callen, Johnson, Gaspar, Kulhanek, and Jose-Bueno, 2020). The following section describes general mass shooter characteristics, including psychological and emotional states of most mass shooters, information as to their demographics, and why perpetrators commit mass shootings.

**General Mass Shooter Characteristics**

Most mass shooters are males. Studies of mass shooting perpetrators show that they have a “sense of aggravated entitlement” and have a premeditated manner of shooting. Most mass shooter males have had a sense of disaffection, social rejection, and loss of social valence in his
mind and is a victim of interpersonal, cyber, and social media bullying (Shultz et al., 2014). A study performed by Fernandez et al. (2020) found that most of the mass shooters from the years 2000 through 2015 were between the ages of 26 and 49 and more than half were Caucasian. The researchers also found evidence that motivation behind the mass shootings was most often caused by anger triggered by abandonment and rejection and least influenced by physical assaults. Silva and Green-Colozzi (2019) found when studying mass shootings in the U.S. from years 1966 to 2018 that there was overwhelming evidence of fame-seeking perpetrators of mass shootings to be white males who identified themselves as victims. Mass shooting perpetrators during the period studied were more likely to be students with signs of mental illness, suicidal tendencies, and ostentatious behaviors. Additionally, they were found to be more likely to target educational settings and use a combination of weapons to perpetrate a mass shooting.

**Research Definitions**

This section of the Literature Review is used to define and explain specific research terms used in this paper. Understanding the research terminology used is important to clearly define the written content. Some definitions were retrieved from governmental websites and others were adapted from dictionary websites.

**Mass Shooting.** The Congressional Research Services (CRS) defines a mass shooting as an event when more than four people are killed by a firearm within the same incident in one or more location (Office for Victims of Crime, 2018). The Federal Bureau of Investigation (FBI) utilized the term “active shooter,” instead of “mass shooter.” The FBI defines these events as a person actively engaged in killing or attempting to kill people in a populated location (Office for Victims of Crime, 2018).
Violence. Violence is defined as, “The use of physical force so as to injure, abuse, damage, or destroy.” (Merriam-Webster, 2019). According to U.S. Code §16, the crime of violence is legally defined as, “An offense that has the element of use, attempted use, or threatened use of physical force against the person or property of another,” or, “Any other offense that is a felony and that, by its nature, involves substantial risk that physical force against the person or property of another may be used in the course of committing the offense.” (Cornell Law School, n.d.). Combining both of these definitions, one could define violence as, “The use or threat of use of physical force against another individual or their property that results in injury, harm, abuse, damage and/or destruction of property.”

News Media. Generally, the definition of mass media (plural form of “mass medium”) is, “A medium of communication that is designed to reach the mass of the people.” (Merriam-Webster, 2019). For this research paper, mass media refers to a medium of communication, specifically news coverage, generally broadcasted on television for the mass of people in the U.S. to view.

Entertainment Media. Entertainment media is a type of mass media. It focuses on the entertainment of its viewers or users, with the goal of enjoyment. For this research paper, entertainment media specifically refers to video games and films or television shows.

Media Literacy. Media literacy is defined as the ability to acutely analyze for accuracy, reliability, or evidence of partiality the content generated and consumed in various media outlets (Dictionary.com, n.d.). Some examples of different media outlets are radio, television, internet websites, and social media, and video games. Media literacy pertaining to television and video games will be focused on for the purpose of this research.
News Media Outlet Influences on Mass Shooters

There is a significant amount of research which supports that news media outlets influence future mass shooters through reporting styles and coverage. News media outlets can also impact future mass shooting perpetrators through the contagion effect and general imitation. Potential mass shooters can gain inspiration, ideology, and motivation from the way in which the news media reports mass shooting events (Meindl and Ivy, 2017).

How Reporting Styles Impact Future Mass Shooters. Major media outlets have recently pondered whether the way in which they cover mass shooting events increases the risk of future attacks and have asked how they can change their reporting style. In reaction, 149 experts have suggested that the media cease publishing of the names and photos of mass shooting perpetrators, except in cases involving searches for escaped suspects. The experts also recommended that the media continue to report other details of the events to keep the public informed as needed. Evidence has been found that there is a link between the number of victims harmed and the amount of media coverage the perpetrator receives—the more victims, the more coverage. This is a concern due to the contagion effect and generalized imitation. The coverage by the media acts as an advertisement for potential mass shooters, as media coverage of mass shootings has been shown to increase the likelihood of a subsequent mass shooting event. Potential mass shooters view the fame and attention perpetrators receive and can be inspired to commit a mass shooting themselves. Media attention rewards perpetrators with fame, provides incentive for fame-seekers, and gives motivation to kill as many people as possible (Lankford and Madfis, 2018).

Murray (2017) researched mass shooters and how the media coverage of previous shootings influenced perpetrators to carry-out mass shooting events. The author was able to
identify seven stages mass media coverage utilizes for the reporting of mass shootings. Mass media coverage of these events could have unintended consequences due to the details and images they publicize. Murray (2017) suggests that by providing a build-up of information and stylistic reporting, the media could inspire those who are planning mass shootings to perpetrate their crime. The killers wanted to be noticed, which is why chose to commit a mass shooting, so they know they will get the attention they want by the media because of the coverage other incidents have gotten in the past.

The first stage is “Tragic Shock,” which is generally when the shooting is referred to as an abnormal and shocking event. The number of casualties fluctuates during this stage, as it is an initial report before all of the injured and dead have been accounted for. Stage 2 is called “First Witness Reports,” when victims and witnesses explain their experience. The recollection is sometimes inaccurate and usually words like “bloody” and “death” are used to describe the incident. Stage 3 is “Identification of Shooter,” which is when the shooter is identified and compared to previous mass shooters. During the third stage, the media sometimes reports inaccurate information about the shooter’s identity. The fourth stage is “Reports of Character of Shooter,” which is when the media goes to outside sources about who the shooter is/was. Sometimes in the rush to get the information reported, media outlets can damage the reputation of others and demonize other groups of people with similar characteristics as the perpetrator. Stage 5 is called “Media Branding: The Packaging of a Massacre.” The fifth stage is when most media outlets are at the scene of the shooting and use emotionally charged reporting styles to report the event. The sixth stage is “Official Response and Office Report,” which is when a task force is assigned to investigate the crime and addresses security and safety concerns that contributed to the shooting. The final and seventh stage is called “Return to Stage 1, and Begin
Cycle.” During the last stage, the media recycles and replays previous footage of mass shooting events, even though little progress is made towards prevention (Murray, 2017).

A study conducted by Silva and Capellan (2019) used a comparison analysis of news media coverage pertaining to four types of mass shootings. The four types of mass shootings were rampage, disgruntled employee, school, and lone-wolf terrorist. Silva and Capellan (2019) identified the differences in media coverage, quantity of coverage, evolution in coverage over time, and the factors that impact the coverage. The authors found that school shootings and lone-wolf terrorist shootings receive significantly more media coverage than rampage and disgruntled employee shootings.

Silva and Capellan (2019) found that school shootings and lone-wolf terrorism shootings have a more continuous coverage in the media and influences viewers to have a bigger fear of crime. The increased media coverage of these two types of shootings can give the public anxiety about shootings and can result in counterproductive preventative measures to be enacted. Also, the increased publicity can result in the other types of mass shootings to not be addressed by policymakers due to the public’s lack of a response (Silva & Capellan, 2019). It can also be concluded that the disproportionate coverage of school shootings and lone-wolf terrorist shootings could influence future individuals who are planning to perpetrate a mass shooting of these types at an increased rate.

Dahmen (2018) conducted a study which examined U.S. newspaper photographic coverage after three major school shootings. There was a total of 4,934 photographs within 9 days of newspaper coverage which were analyzed. Dahmen (2018) found empirical evidence that the newspaper coverage gave more individual attention to the perpetrators of the shooting than
the individual deceased victims by a rate of 16 to 1. This study raises serious concerns about contagion effect based on the attention given to the perpetrator through the publication of photos.

The research and evidence proving that reporting styles and coverage of mass shooting events by news media outlets influences future mass shooters can be considered significant. Reporting styles and coverage has been shown to inspire and motivate potential mass shooters through the contagion effect and general imitation (Dahmen, 2018). The following subsection will describe how the contagion effect and general imitation are initiated by news reporting and coverage.

**Mass Shooting Contagion Effect and General Imitation from Reporting.** A relevant factor to the spread of mass shootings and other contagious behavior is generalized imitation. In mass shooting incidents, the media appears to be significantly responsible for supplying the model to imitate. There are several factors which influence mass shootings, but the way in which the media reports mass shootings is imperative to reducing and preventing the occurrence of mass shooting events. Media-prompted imitation expands past mass shootings and has been shown to influence suicide and possibly other extreme events, such as domestic terrorism and racially motivated crimes (Meindl and Ivy, 2017).

A study performed by Towers, Gomez-Lievano, Khan, Mubayi, and Casillo-Chavez (2015) found a significant connection between the occurrence of mass shootings involving firearms and similar incidents occurring shortly thereafter. It was found that the temporary increase of incidence of mass shootings happens during a 13-day period post-shooting. Evidence also established that each incident that occurs provokes at least 0.3 new incidents of mass shootings. School shootings have a significant “contagion effect,” which means that one event triggers an increase in future mass school shootings. Towers et al. (2015) found that, on average,
mass shootings occur every two weeks, while school shootings transpire monthly. The authors suggest that by witnessing similar events in the media, potential mass shooters could be inspired to act upon perpetration of their own plan for a mass shooting.

Prior research has shown that several mass shooting perpetrators have explicitly stated that they want fame and have reached out to media outlets to achieve it. Fame-seeking perpetrators are especially dangerous because they have killed and injured more victims than any other type of mass shooter. They also often attempt to compete for attention by trying to maximize fatalities and can inspire contagion and copycat effects. Media coverage gives fame-seeking perpetrators incentive to commit future attacks that are similar or more extreme than those covered in the news. On average, fame-seeking mass shooters kill and injure more than twice as many individuals than other types of mass shooters. When mass shooters receive a high amount of media attention, they can be turned into role models for other impressionable individuals, who are then more likely to commit a mass shooting of their own creation (Lankford and Madifs, 2018).

**Violent Entertainment Media Influence on Potential Mass Shooters**

The effects of adolescent exposure to violent entertainment media have been significantly researched. There is evidence of a positive correlation between violent entertainment media and increased aggressive thoughts and behaviors in youth as well as other behavioral issues (Anderson and Bushman, 2001). Aggression and behavioral issues can possibly lead to future mass shooting perpetration, as mass shootings are considered a violent event.

**Effects of Violent Television and Movie Exposure on Adolescents.** Violent television and movie scenes have substantial evidence that exposure, even briefly, causes significant increases in aggression. Repeated exposure of children to media violence increases their
aggression as young adults and they are more prone towards youth violence. The study of violent television and movie exposure causing significant increases in aggression and violence can be considered one of the strongest research topics in psychology (Anderson and Bushman, 2001). It is possible that a juvenile who has exposure to violent movies and television could have an increased probability of committing a mass shooting due to the substantial intensification of their aggression and violence after viewing violent entertainment media.

A study by Bushman, Jamison, Weitz, and Romer (2013) analyzed the presence of violence for half of the top 50 films since 1950 and the presence of gun violence in films since 1985 (the first year in which the rating of PG-13 was used). It was noted that PG-13 movies are the top-rated films and attract a majority of youth. Results from the analysis found that violence in films has more than doubled since 1950 and gun violence in movies has more than tripled since 1985. When the PG-13 rating was established, films with this rating contained as much violence as G and PG-rated films. Furthermore, since 2009, PG-13 movies have contained as much or more violence as R-rated movies.

The results of the analysis suggested that youth are being exposed to a rise in gun violence through top-selling movies. The “weapons effect” may be strengthened by the gun violence shown in films by showing gun violence in films; this is concerning because previous studies have shown that aggression is intensified by violent movies and television. Since violent movies and media are now more accessible to youth through the use of modern technology, this study suggests that the presence of weapons in movies may strengthen the effects of violent films on aggression (Bushman et al., 2013). Potential mass shooters might be influenced by movies and television in which gun violence is used and their aggressive nature could be intensified to a point of pushing them to perpetrate a mass shooting.
Tumaini, Elliott, Schwebel, Windle, Toomey, Tortolero, Hertz, Peskin, and Schuster (2015) performed a study which examined the association between media violent exposure and physical aggression in fifth graders across three types of media. Data was collected and analyzed from a population-based, cross-sectional survey of 5,147 fifth graders and their parents in three U.S. cities. Using the Problem Behavior Frequency Scale, the authors examined the association between children’s exposure to violence in television/film, video games, and music. Tumaini et al. (2015) found that the association between physical aggression and exposure to media violence is significant and constant and might be as strong as the association of other factors which influence child aggressive behavior, such as neighborhood violence, home violence, mental health, and male gender.

Violent television and movies are only one form of violent entertainment media in which some adolescents are exposed to. Adolescent exposure to violent video games can also lead to similar negative effects previously described. The following subsection is used to explain and describe the potential negative effects of violent video game exposure on adolescents based on research and previous studies.

**Effects of Violent Video Game Exposure on Adolescents.** There are numerous studies which have found a positive correlation between violent video game exposure and aggression, specifically in children and adolescents. Violent video games potentially have played a role in several mass shootings (Chananie, 2007). The 1999 Columbine High School shooting perpetrators were active players of the first-person shooter video game, “Doom.” In 2003, during the trial for the D.C. area snipers, John Allen Muhammad and Lee Boyd Malvo, the defense team attempted to blame violent video games for the killing (Chananie, 2007). Adam
Lanza, the Sandy Hook Elementary shooter, was an avid player of the violent shooter game, Call of Duty (Barraclough, 2013).

Carnegay and Anderson (2005) performed a study on young adults and the aggressive effect, aggressive cognition, and aggressive behavior after playing three types of video games—one where violent behavior was rewarded, another where violent behavior was punished, and one was a non-violent version. The game that rewarded violent behavior increased hostile emotion, aggressive thinking, and aggressive behavior among participants. The game that punished violent behavior was shown to increase hostile behavior but did not affect aggressive thinking or behavior. The study results can help to support the idea that violent video game exposure could influence potential mass shooters to have increased aggression and hostility, which could lead to perpetration of the crime.

After three school shootings took place in Paducah, Jonesboro, and Littleton/Columbine, where the shooter(s) were found to have played violent video games, Anderson and Bushman (2001) analyzed the findings of 33 independent studies on violence and aggression, with a total of 3,033 participants. The findings reported a definite increase in aggression when there was a high amount of violence in video games. They also found that children, youth, and young adults who had violent video game exposure had negative effects on prosocial behavior and it positively influences aggressive affect and physiological stimulation. This could impact young individuals to develop an aggressive personality over time (Anderson & Bushman, 2001).

Evidence has shown that the psychosocial and biological changes of adolescence are connected to a rise in aggressiveness during early childhood, which is when violent video game play is at its highest point (Kirsh, 2003). Gentile, Lynch, Linder, Ruh, & Walsh (2004) found that youth who are exposed to greater amounts of video game violence are more hostile, get into
arguments with teacher more often, were more likely to partake in physical fighting, and had reduced school performance. A study conducted by Leiner, Peinado, Villanos, Alvarado, Singh, & Dwivedi (2014) examined 579 adolescents using a child behavior checklist and analyzed the video games they played over a 6-month period. It was found that children who played violent video games had a greater amount of emotional and behavioral problems when compared to children that did not play violent video games.

Two studies conducted by Anderson & Dill (2000) examined violent video game effects on aggression-related behavior. The first study used a group of 227 undergraduate students at a large university. The group was given a self-report questionnaire to collect individual data on aggressive behavior. The first part of the questionnaire had the group list their five favorite video games, including the category of each game, the level of violence in the game, and rate how often they played the game. The second part of the questionnaire asked the respondents to estimate how likely it would be for a person to experience one-of-four crimes in their lifetime. The results indicated that playing violent video games had a direct correlation with aggressive behavior.

The second study by Anderson & Dill (2000) monitored students playing a violent video game versus a non-violent video game. During the study, it was found that the blood pressure and heart rate of the participants playing the violent video were higher than the participants playing the non-violent video game. After each game, participants then completed a video game rating sheet, which asked how difficult, enjoyable, exciting, or frustrating the video games were. The results concluded that being exposed to violent video games increased aggressive thoughts and behavior.
Literature Review Conclusion

Upon analyzing the research data in the literature review, evidence exists to support that mass shooting occurrences are becoming more prevalent along with an increased number of casualties. There is also supporting evidence that news media reporting styles and coverage can inspire potential mass shooting perpetrators. Additional evidence is shown to support that adolescent exposure to violent entertainment media can lead to increased aggressive behavior and thoughts and emotional and behavioral problems, all of which could possibly influence a future mass shooter. Therefore, there is a need for a program with anti-violence and media literacy components for children and parents/guardians as well as reporting and education suggestions for news media outlets to possibly reduce the occurrences of mass shootings.

Program Evaluation: Current Examples of Anti-Violence and/or Media Literacy Programs

There are various anti-violence programs taught in schools, however, there is a very limited number of programs which focus on integrating media literacy with an anti-violence curriculum for students (Scharrer, 2009). The Adults and Children Together Parents Raising Safe Kids (ACT-PRSK) program is for parents/guardians of young children and focuses on violence prevention in the home. ACT-PRSK also incorporates education for parents/guardians on the effects of media violence exposure on children (Knox, Burkhart, and Hunter, 2011). The YouthAlert! (YA!) program, which concentrates on student education on violence, abuse, and bullying, is also reviewed. The Media Detective and Media Detective Family (MD/MDF) programs have been included in this program evaluation section because the program included media literacy training for both students and families through interactive educational classes. Event though MD/MDF is based on substance abuse prevention, the components of the program that are successful may be considered effective in an anti-violence and media literacy program.
Lastly, a universal media literacy program on conflict and violence for students was reviewed, since it is the closest program found to have components that can be incorporated into an anti-violence and media literacy program. Each program has notable successes with certain components of which will be used to form recommendations for ideal program components in the following section.

**Adults and Children Together Parents Raising Safe Kids (ACT-PRSK)**

The ACT-PRSK is an interactive violence prevention program that was created by the American Psychological Association (APA) for parents of young children. The program both teaches and supports parents in the areas of child development, origins and outcomes of violence, anger management skills for parents and children, social problem solving, positive discipline, and the impacts of media violence exposure on children (Knox et al., 2011). Currently, the program has been both implemented and evaluated in several countries. The program has been rated by the California Evidence Base Clearinghouse as having “promising research evidence” (American Psychological Association, 2017). One component of the ACT-PRSK program is helping parents to reduce the influence of media violence on children. Part of the ACT Parent Handbook includes media literacy, among other helpful parenting guidelines (American Psychological Association, 2008).

Porter and Howe (2008) performed the first controlled program evaluation on the ACT-PRSK program. The piolet evaluation had 18 parent participants, who were referred from Child Welfare Services and the Exchange Club Parenting Center. Eight of the parent participants were mandated to take parenting classes by family court or child protective services, but participation in the study was voluntary. All parents who participated were of low economic status and experienced multiple stressors.
The program lasted 8 weeks with one two-hour session weekly. Families met at local churches and were provided a free dinner and childcare. Additional surveys were given the first and second weeks. The first week survey was used for a baseline score and the second week survey was given to finish the pretesting. The surveys asked for responses on key areas, such as physical punishment, positive parenting, anger management, and misdirected frustration. At the seventh week class, the parent participants completed the first and second week surveys again with updated responses after finishing most of the ACT-PRSK program. There was also a 3-month follow up posttest given, but only 33 percent of the participants responded (Porter and Howe, 2008).

The results of the evaluation by Porter and Howe (2008) found that the reported use of physical punishment was reduced between the pretest and posttest. Anger management, misdirected frustration, and positive parenting showed no significant change between pre- and post-testing. There was, however, an improvement between the pretest and follow up test in anger management, which suggested that it is possible anger management skills taught in the program took more than eight weeks to show improvement and implementation by the parents. The media literacy components of the program showed no changes between the pretest and posttest or follow up test along with family communication and affection and beliefs about a crying and/or screaming child. There was a moderate increase in the monitoring of children’s television viewing and understanding the possible negative effects of television among children. An improvement was also found pretest to posttest regarding hostile attributions and beliefs about spanking as well as the importance of educating children how to use their words and get along with others. Parents were also asked about their children’s behavior pretest and posttest. No significant changes were revealed about child aggression in the pretest and posttest, but there
was a notable slight trend of decreased child aggression. However, there was a significant decrease between the posttest and follow up test. The ACT-PRSK program was found to be an overall success according to the authors, as it effectively met most goals of the program (Porter and Howe, 2008).

An evaluation was conducted by Knox et al. (2011) which collected parenting behavior data from 92 parents/guardians of young children who participated in the program. The first 50 participants were in an intervention group and completed the ACT-PRSK program. The remaining 42 participants served as a comparison group. The results of the study showed evidence of a reduced rate of spanking and hitting children with object for the ACT-PRSK completion group. The group who completed the ACT-PRSK program also showed evidence of improved knowledge, behaviors, and beliefs regarding violence prevention and parenting. Results provided support for the effectiveness of types of intervention like ACT-PRSK for preventing child maltreatment.

Another evaluation was performed by Portwood, Lambert, Abrams, Nelson, and Brooks (2011) the efficacy of the ACT-PRSK program regarding parenting behaviors, knowledge, and behaviors after completing the program. The comparison group received standard community-based support services. The ACT-PRSK group attained positive results in multiple areas associated with effective parenting, including a decreased use of harsh verbal and physical discipline and a notable increase in nurturing behavior. Positive changes were shown at both the initial completion of the program and the three-month follow-up. Results also indicated a positive effect on parent expectations and social support for the parents who originally needed the most help in these areas. The parents stated perceiving numerous benefits of completing the program, which included help with controlling their anger, the implementation of better
discipline and parenting strategies, and recognizing developmentally appropriate behavior in their children. The authors concluded that the ACT-PRS K program is a promising prevention strategy that can be implemented within a diverse community setting.

**YouthAlert!**

The YouthAlert! (YA!) program is a school-based universal program which focuses on child and youth violence, bullying, and abuse. It incorporates a prevention and health education along with anti-violence components (YouthAlert! Program, 2017). The program lasts 18 weeks, at five days per week for one-hour sessions. The YA! program is designed for students ranging from elementary to high school. Program curriculum covers peer violence, shadow violence, dating violence, prevention, media, bullying, justice, guns, and self-harm. Several learning techniques are utilized in the YA! Program, including group activities, presentations, role playing, debates, and question and answer sessions. Participants are taught about the effects of media on their behavior and includes both movies/television and video game violence (Youth Alert!, 2018).

Wain, Omar, and Shahtahmasebi (2017) performed a program evaluation on the YA! program using data from students in Kentucky using School Report Cards (SRCs). SRCs provide information about each district and includes data such as test performance, teacher qualifications, student safety, awards, violence, and parent involvement. Wain et al. (2017) measured the difference in violent behavior reported by the SRCs both before and after the completion of the YA! program. Program participants were also surveyed before and after the program implementation to further analyze its success. The authors focused on students in high school and middle school since they showed the greatest need for the YA! program, as well as students in “alternative” schools. Reported behavior for the study included incidents of assault, violence,
use of weapons, alcohol, drugs/tobacco, bullying, and harassment. Results indicated that the YA! program was successful at reducing reported violence. The reduction in school violence ranged from 33 percent to 67 percent. The program evaluation of YA! provides evidence that in-class violence prevention education can help to change attitudes and perceptions. There is supporting evidence provided by surveys of the students and teachers that the program had a sustained effect on attitudes and behaviors and reducing school violence.

**Media Detective & Media Detective Family**

The Media Detective (MDF) program is designed to strengthen youth’s logical responses to media messages and their emotional reactions to the media. MDF is a group-based media literacy education substance abuse prevention program. It is administered online for both parents and children to complete together. The Media Detective (MD) program is different in that it is administered in a school setting for children only. There is well-documented evidence that the media can influence adolescents to use substances. Media-related contagions increase the prediction of substance use even beyond the influence of parents and peers in adolescent and young children. Studies suggest that media literacy education programs about substance use have a positive effect that has been duplicated across various age groups. Furthermore, interventions involving parents can add to successful school-based preventative programs. Increasing parent-child communication, monitoring children’s behavior, using positive norms and expectations pertaining to abstinence from alcohol and tobacco use, and demonstrating healthy behaviors are ways in which parents can reduce the use of substances (Scull, Kupersmidt, and Weatherholt, 2017).

A study performed by Scull et al. (2017) used data from families living in two states in the U.S. that have the largest rural populations. Three diverse counties in each state were selected
and participants had children with third, fourth, and fifth grade students who owned computers, spoke English, and had internet access. There was a total of 229 families recruited for the study. Each family self-selected a child and parent to complete a questionnaire and 83 parent-child groups were selected to complete the MDF program; the others were placed into a control group. A pre-test, post-test, and three month follow up questionnaire were given to all participants. MDF is designed for family activity and entertainment purposes, which differs from the school-based program (MF). Parents and children are trained together to develop into “media detectives” by solving a series of mysteries that are associated with advertising. Discussions are promoted in the program to help parents and children practice and develop critical thinking and communication skills.

Scull et al. (2017) found that children who completed the MDF program reported a significant reduction in their use of tobacco and alcohol over time when compared to those in the control group. Parents who completed the program reported very positive responses to MDF, with an overall 86 percent satisfaction rate. Over half of the children who completed the program reported overall satisfaction with the program. Half of the parents in MDF reported more or much more ready to talk to their children about substance use, the media, and advertising after completing the program. Parents also reported feeling a higher level of effectiveness with their personal media analysis skills. One-third of the parents responded that they were “more” or “much more” likely to change their own substance use behaviors after program completion. The study results show evidence that MDF positively impacts the preparedness of parents pertaining to communication with their children about substance use and the media.

Kupersmidt, Scull, and Austin (2010) conducted a study on MD involving elementary school children. MD is different than MDF, as it targets children with no parent incorporation.
The program lasts 10-weeks and focuses on critical thinking skills pertaining to media messages to reduce the media’s influence on substance use. Two groups were created for the study—one control group and one group who completed the MD program. Results showed evidence that boys who completed the MD program reported significantly less interest in alcohol-branded products than boys in the control group. Students in the program who reported less tobacco and alcohol use in the past showed to have significantly less intent to use substances and more self-efficacy to reject substances than student who were in the control group and those who had reported previously using substances. The study provided evidence that MD can be successful at preventing substance use in elementary students. The findings also indicate that media literacy programs and interventions can serve as a universal and directed prevention program that has the potential to assist elementary school students in making healthier, more educated choices about the use of tobacco and alcohol.

**Universal Media Literacy Program on Conflict and Violence**

Scharrer (2009) conducted a program evaluation on a universal media literacy program on conflict and violence. The program was five sessions long and concentrated on face-to-face conflict mediation and on-screen media violence. There were 89 sixth graders from five different classes within a 20-mile radius who participated in the program. The test classes were located in rural, college-oriented, and a small post-industrial area in New England. Questionnaires were given to participants before and after program completion. The pre-test included preexisting attitudes and thoughts about conflict and violence in the media. The pre-test answers were then compared to the responses given after the program was completed to determine if change occurred.
The media literacy and violence prevention program used for the study was developed to encourage critical thinking, facilitate media literacy, and promote non-violent conflict resolution. The curriculum of the program began with an introduction of the program topics, followed by open-ended discussions and activities with the teacher. Lessons were taught with themes and summaries about media effects and interpersonal communication research on conflict and violence. Activities which followed the lesson material focused on student-centered discussions, collaborative activities, exercises with role-playing, and a media production project (Scharrer, 2009).

Data collected was analyzed using only students who were present for every program session and completed the pre-test and post-test questionnaires, which reduced the sample size to 57 participants. Results indicated that students were more likely to choose non-aggressive approaches to two of the three conflict scenarios presented. The first conflict scenario involved a friend exposing another friend’s secret to others and did not attain a statistical significance. The second conflict scenario comprised of getting a poor grade on an exam and being ridiculed by other students. This second scenario resulted in a significant difference pre-test versus post-test. The third scenario, where a classmate intentionally caused peer to fall and laughed about it, also had a significant difference (Scharrer, 2009).

Boys were more prone to recognize two out of three effects of media violence. Both mean world syndrome and learning aggression appeared to be learned by boys, but not girls. Desensitization (the third effect) was mixed, as it only showed a difference when the participant’s television and video game exposure were entered as covariates. The sample also did not show an overall increase in agreement that people who view a significant amount of television perceive the world as scary and mean. The results did, however, reveal that girls
became less likely to agree that mean world syndrome effects occur, and boys were more likely to agree. Girls also became less likely to agree that television violence exposure can influence people to think violence is an acceptable way to solve conflict, but boys were significantly more likely to agree (Scharrer, 2009).

Scharrer (2009) found there was no support that students would be less likely to think of violence as acceptable after the program was completed versus before. The majority of participants responded both before and after the program that they would choose a non-aggressive response to conflict scenarios. The data collected from the study showed both promising and alarming results. Promising results were shown in conflict resolution, which shifted from aggressive to non-aggressive responses in the pre- and post-questionnaires. There was also a notable significant positive response from boys who participated in the program. Girls, however, showed alarming and troubling results because they were less likely to agree that mean world syndrome and learning aggression effects stem from media violence exposure, which suggests a resistance to the program curriculum.

In the following section, theoretical framework will be discussed and how it relates to mass shooting perpetrators and also an anti-violence and media literacy program for students and parents. By using criminological and sociological theory, certain behaviors can be considered predictable and preventable. Social control theory along with differential association and social bond theories can help to explain why mass shooters are influenced by news media and violent entertainment media, along with how a program with ideal components can possibly help to change thoughts and behaviors which contribute to mass shooting perpetrations.
Theoretical Framework

Social control theory as well as differential association and social learning theory can be used to explain mass shootings and the possible success of an anti-violence and media literacy program for students and parents/guardians. Using theory to understand mass shootings can help to prevent future mass shootings by addressing known, predictable conditions or behaviors before they escalate into a mass shooting perpetration. The theories used both concentrate on socialization, which can be considered a primary contributing factor to mass shooting perpetrations.

Social Control Theory

Control theories assume that delinquent behaviors happen when an individual’s bond to society is weakened or broken. The more weakened the bond to the groups in which the individual belong are, the less the individual relies on them. Consequently, the individual depends on himself or herself and does not recognize any other rules of conduct than what are founded on their own private interests. The elements of the bond to conventional society are attachment, commitment, involvement, and belief (Hirschi, 1969).

The essence of internalization of norms, conscience, or superego is in the attachment of individuals to others. Freedom from normal societal and moral constraints can contribute to increased impulsivity and aggression. When alienated from others, there is usually an interpersonal conflict present. This interpersonal conflict could supply an ample amount of socially derived hostility adequate enough to account for the aggression in those whose attachments to others have been weakened (Hirschi, 1969).

Commitment is the idea that an individual invests time, energy, and themselves in a certain activity (such as education or profession). When the individual considerers acting in a
delinquent manner, they consider the cost of that delinquent action and the risk of losing the investment they have made. In social control theory, it is usually assumed that the decision to commit a crime is determined rationally due to the risks and cost of the crime. Most people have commitments they do not want to risk losing by committing a deviant act. Actions thought to jeopardize commitments are generally avoided by most people in society (Hirschi, 1969).

Involvement in conventional activities is an element of social control theory. It is assumed that if an individual is too busy with conventional activities, there is little time for engagement in deviant behavior. To compensate for the time and effort needed to commit a crime, individuals who are involved in conventional activities would have to eliminate some of those activities to find time to perpetrate their crime. It is assumed that those who have idle time are more likely to commit a crime, since they have the time to plan and execute delinquent activities (Hirschi, 1969).

According to Hirschi (1969), control theory assumes the presence of a common value system within the society or group whose norms are being infringed. One explanation, according to control theory, is that beliefs are regarded as just words that mean little or nothing if the other elements of control are absent; words do not pose a real threat to the commission of a crime. Another explanation is that individuals who commit deviant acts rationalize their behavior so that they can maintain the belief once it has been violated. If a person can “neutralize” their deviant act in their beliefs, the person is free to commit deviant acts. However, there is a variance in the extent to which individuals believe they should obey rules of society, so the less likely one believes in the rules, the more likely they are to break them.

In summary, social control theory suggests that crime occurs when bonds are diminished or are not well established. Criminality is seen as a prospect for all people within society and
avoided by those who try to maintain familial and social bonds according to Hirschi’s theory. There are three factors which influence familial and social bonds and prevent individuals from committing criminal activities: attachment, commitment, involvement, and belief (Ontario Ministry of Children, Community, and Social Services, 2016).

Attachment in social control theory refers to a person’s sensitivity and empathy regarding the feelings of others. Most school shooters are angry at those who bullied, ridiculed, and ostracized the perpetrator, which diminishes attachment. Research has shown that school shooters often make a list of targets but are willing to also take innocent lives during the shooting. Commitment is referred to as the time and energy an individual spends pursuing a certain activity, according to social control theory. Most school shooters do not expect to get away with the crime due to a “kill or be killed” attitude and are willing to commit suicide. The commitment shooters have towards their crime is significant since they are willing to die to commit their crime. Involvement, according to social control theory, posits that if a person is immersed in conventional social activities, that person will not have the time or want to partake in delinquent activities. Most school shooters have used a significant amount of time engrossed in questionable online activities, such as how to make bombs/explosives. Research also indicates that 50 percent of shooters take the time to plan their attack and targets at least two weeks prior to the event. Planning a mass shooting and researching weapons are not generally considered “conventional” social activities. The final element to social control theory is belief, which is when an individual believes in the social rules and laws of society. Revenge was found to be the motive in more than 50 percent of school shootings. Perpetrators of revenge shootings believe that retaliation is the sole option available to remedy the perceived unfair behaviors and actions of others. Most school shooters target certain victims and are more inclined to kill innocent
people in the process without any feelings of guilt or remorse. Thus, many school shooters have a strong belief that they have no other options for revenge other than to take the lives of the people who they perceive to have victimized them (Pittaro, 2007).

Hirschi’s social control theory can also be applied to family-based anti-violence and media literacy programs. Attachment could be formed by the promotion of familial communication and activity. By engaging in a program with family members and talking about violence and media-related topics and participating in group activities with family, peers, siblings, or teachers, an individual could form attachment to others and increase their empathy and sensitivity. If the program is completed and participated in on a regular basis, an individual’s commitment is present, and they have a positive purpose and goal in which they are pursuing. Involvement in the program would help to promote an activity that is socially acceptable. Many families and individuals engage in constructive programs to help them make better choices or provide education about “normal” topics. An individual’s belief could also be influenced by an anti-violence and media literacy program through educational and interactive components. The goal for most programs is to change behaviors and the beliefs of those who participate.

**Differential Association and Social Learning Theories**

Sutherland’s (1947) differential association theory has nine components which explain the process in which a person become engaged in criminal behavior. The first factor is that criminal behavior is learned. Second, is that criminal behavior is learned through interaction with other people in a communication process. The third component is the principal part of learning criminal behavior happens within personal groups. When criminal behavior is learned, the learning involves techniques of committing crimes and the specific instructions of motives,
drives, rationalizations, and attitudes is the fourth factor. The fifth part involves the specific direction of motives and drives as being learned from meanings of legal rules as favorable or unfavorable. An individual becomes delinquent because of an overabundance of definitions favorable to defiance of the law over definitions unfavorable to the violation of law is the sixth element. The seventh factor is differential associations may differ in incidence, duration, importance, and intensity. The eighth component to Sutherland’s theory is that the method of learning criminal behavior by association with criminal and anti-criminal patterns includes all the processes that are involved in any other learning. Finally, the ninth element is that while criminal behavior is a manifestation of common needs and values, it is not justified by those general needs and values since non-criminal behavior is an expression of the identical needs and values (Sutherland, 1947).

In summary, the differential association theory posits that organized social groups expose individuals to forms of behaviors of law-abiding or law-breaking practices. Edwin Sutherland first developed the theory, which primarily claims that behavior is learned through associations with intimate personal groups. Propensity to criminal behavior is learned through extensive exposure to criminal activity and makes it easier for individuals to commit crimes (Hart, 2014).

Ronald Akers developed the social learning theory with Robert Burgess by expanding Sutherland’s differential association theory. Akers and Burgess (1966) wrote six new propositions to Sutherland’s original nine propositions of his theory. The first is that criminal behavior is learned through the principal of operant conditioning (rewards for certain behavior). The second proposition is that criminal behavior is learned both in non-social situations that are strengthening or discriminative and through that social interaction in which the conduct of the other people is reinforcing or discriminative for criminal behavior. The third proposition to
amend Sutherland’s theory is that the principal part of the learning of deviant behavior occurs in the groups which include the individual’s main source of reinforcement. The fourth amended proposition Akers and Burgess (1966) suggest is that the learning of deviant behavior, including particular techniques, attitudes, and avoidance processes, is a function of the effective and accessible reinforcers, and the existing reinforcement exigencies. The particular class of behaviors that are absorbed and their rate of occurrence are a function of the reinforcers which are effective and available, and the rules and norms by which those reinforcers are used is the fifth proposition. Lastly, the sixth proposition is that criminal behavior is a function of norms that are discriminative for deviance, the learning of which happens when such behavior is more highly reinforced than law-abiding behavior (Akers and Burgess. 1966).

Akers and Burgess focused on learning as a mean of learning definitions, such as ways to commit crimes and crime imitation for personal gain or attention. Social learning theory suggests that deviant behavior is learned through association involving deviant peers via differential reinforcement and imitation. Individuals learn that the perceived benefits of committing a crime outweigh the possible consequences. Modeling behavior by imitation is reinforced by peers and other sources, such as the media (Hart, 2014).

Families, peer groups, schools, and religious institutions are all examples of socialization agents, but families provide primary socialization for children. Primary socialization is the process in which children learn which attitudes, values, and beliefs are acceptable to their family and society. Social learning theory suggests that criminal behavior is not only learned through immediate association and communication with criminals, but also via observation and modeling. Therefore, more frequent exposure to criminal behavior will cause a greater degree of criminal learning and acceptance. Criminal learning includes techniques, motivations, and
Mass shootings draw attention from society and the media, which reinforces the behavior of perpetrators for other potential mass shooter perpetrators. The attention also gives subsequent mass shooters a chance to learn from the perpetrators. Even though potential mass shooters do not have a real, personal relationship with the perpetrators of mass shootings, media coverage can reduce the social distance and assist future mass shooters to identify with the previous shooter. Social learning theory can also help to explain how mass shooting perpetrators deal with stressors of perceived victimization and provide a connection to potential future mass shooters. The media coverage of mass shooters is a possible benefit that can create positive reinforcement for future mass shooting perpetrators. Since most mass shooters are willing to die for their cause, the benefit of potentially killing a multitude of individuals outweighs the cost of the crime (Hart, 2014).

Both the differential association and social learning theories can be also applied to an anti-violence and media literacy program for students and parents. By explaining the benefits or positive association with components of the program, it could reduce the occurrence of violence in schools. The increased attention from parents/guardians, teachers, and peers could reinforce social expectations and bonds. Learning how to properly cope with violent urges and how to perceive media violence could also help to sway individuals from violent behaviors. Groupwork in the program can also help participants to form a social connection to others who will be displaying similar behaviors of anti-violence and media literacy.

In the following section of the research paper, recommendations for ideal components for an anti-violence and media literacy program and suggestions for news media outlets will be
discussed. The recommendations may help students who potentially could commit a mass shooting in the future to form stronger social bonds, learn positive conflict resolution, understand the consequences of violence, and gain critical media analysis skills. Recommendations for ideal components for the parent/guardian program can also help to reduced learned violence in the home through education about violent entertainment media, limiting violent media exposure, and promoting communication and non-violent discipline. Suggestions to increase news media awareness on inspiring potential mass shooters will also be reviewed. Awareness should be promoted pertaining to the contagion effect and general imitation, reporting styles, and be presented along with statistical evidence to reduce the influence media outlets have on future mass shooters.

**Recommendations**

Recommendations for ideal components for an anti-violence and media literacy program for students and parents/guardians have been compiled based on findings from the literature review, program evaluations, and theoretical framework previously reviewed in this research paper. These ideal component recommendations were developed using successful components of previously evaluated programs and used research from the literature review to focus recommendations to combat certain negative effects of violence on adolescents. Suggestions for media awareness and education about their possible effect on potential mass shooters are also given based on the literature review and theoretical framework to help combat the possibility of influencing future mass shooters.

**Ideal Components for an Anti-Violence and Media Literacy Program Overview**

Certain components from three programs, including ACT-PRSK, YA!, and MDF/MD, can be combined to create an anti-violence and media literacy program for students and parents.
The successful program components can help to educate both students and parents about anti-violence topics and teach participants about media literacy to potentially reduce the likelihood of violent occurrences, including mass shootings. The program would need to be held in two separate sessions, one for students while in school and the other for parents, ideally in the evening after normal work hours.

**Students**

Students would participate in the program during school hours, to best ensure attendance. The program could be facilitated to several age groups, including elementary, middle, and high schoolers. Violence in learning environments has long-term negative impacts on educational and social outcomes, such as isolation, detachment, and disfranchisement from scholar and academic activities (Wain et al., 2017). The implementation of a universal anti-violence and media literacy program can potentially reduce school violence and student aggression and increase peer bonding through groupwork and activities. The following components have been proven to be successful from the four programs focused on for this research—all of which can be incorporated into a universal anti-violence and media literacy program for students.

**Positive Conflict Resolution.** Increasing emotional regulation, social situational understanding, and developing effective and nonviolent resolutions are important outcomes of a successful anti-violence program. By teaching positive conflict resolution, it can reduce aggressive behaviors when dealing with real-life situations. Through role-playing and individual and group activities, students can learn to resolve conflict without the use of violence (YA!, 2017). Scharrer (2009) found in a program evaluation of a universal media literacy program on conflict and violence that one of the most successful components of the program evaluated was conflict resolution. The program Scharrer (2009) evaluated used an introduction to the weekly
topics, followed by discussions and group activities (such as role-playing and collaborative activities). Anger management strategies can be taught along with positive conflict resolution. When children are taught effective methods for controlling powerful feelings along with positive conflict resolution, they show better and less aggressive behavior (Knox et al., 2011). The ACT-PRISK program showed positive results in a 3-month follow up after program completion regarding anger management and conflict resolution for parents and children. Positive conflict resolution and anger management skills should be taught based on the age group of the student participants to match their psychological and emotional development (Porter and Howe, 2008). By teaching students how to constructively solve conflicts and manage their anger, it is possible that violence and aggressive behaviors can be successfully reduced.

According to differential association and social learning theories, learning how to properly resolve conflicts and overcome violent tendencies can help to sway students to solve conflicts in a non-aggressive manner. Additionally, utilizing groupwork can help participants to form a social connection to peers who are also learning and exhibiting behaviors of anti-violence and positive conflict resolution. Also, according to Hirschi’s (1969) social control theory, attachment could be formed by students and increase their sensitivity and empathy, thus creating non-aggressive conflict resolution when situations with tension occur. Positive conflict resolution should be incorporated into an anti-violence and media literacy program, as it has shown to help students choose non-aggressive behaviors in reaction to a conflict situation.

**Understanding Roots and Consequences of Violence.** There is a challenge in eradicating violence due to the social acceptance and attitudes pertaining to violence. Violence is considered entertaining in society, which conditions people to accept it rather than condemn it. Teaching students that the negative effects of violence are long-term and have an adverse effect
on health, economic, and social outcomes can help to reduce violence in schools. Many anti-violence and anti-bullying programs and initiatives fail due to targeting victims or potential victims while disregarding the impact of the environment, origins of violence, and consequences of violent behavior. Prevention programs must teach resilience to adolescents regarding violence, which can change behavior at an early age, as shown in the YA! program evaluation. A reduction in violent behavior may be able to be sustained if the perceptions, understanding, and attitudes regarding violence are altered (Wain, 2017). According to Hirschi’s (1969) social control theory, the involvement of students in an anti-violence and media literacy program could help sway students from violence by learning what is socially acceptable through understanding the origins and outcomes of violence.

**Critical Media Analysis Skills.** There is an established relationship between media violence exposure and childhood behavioral problems. Research has consistently shown that the likelihood of long and short term aggressive and violent behavior in adolescents increases with exposure to violent entertainment media (Knox et al., 2011). Since studies have shown that youth in the U.S. spend an average of six to eight hours per day with media, there is recognition that media literacy curriculum needs to be prioritized. An evaluation of a universal anti-violence and media literacy program was conducted and found that negative media violence outcomes and desensitization were reduced after the program was completed. The evaluation concluded that critical media analysis skills can prove to be fruitful for students (Scharrer, 2009). Additionally, media literacy can be incorporated into the program through several different techniques and components that were proven to be successful in the MD/MDF program. Helping students to understand the purpose of media messages, including violence, could help critical media analysis skills in children. A study performed by Scull et al. (2017) found that helping children to
understand the purpose of advertising had an 87.5 percent positive rating. Communicating with students about media violence and teaching students how to assess and analyze media violence are two other successful media literacy components taken from the study by Scull et al. (2017) and adapted to an anti-violence program. When applying Hirschi’s (1969) social control theory, it could be posited that the beliefs that students may have regarding violence in the media could be changed by the program by providing the skills necessary to critically analyze media.

**Parents and Guardians**

Parents play a crucial role in the development and maintenance of behavioral issues in children, according to research. Experts recommend parent training in behavior management of children. (Burkhart, Knox, and Brockmyer, 2012). A parent/guardian program which coincides with the student program should be offered on an optional basis to the parents, guardians, or caregivers of students who are participating in the school program. The following components have been taken from the programs reviewed in the research and have proven to be effective.

**Education on Violent Media.** The link between media violence exposure and childhood behavioral issues is well established by research and there is significant evidence supporting that media violence increases the probability of aggressive and violent behavior in youth (Knox et al., 2011). The ACT-PRSK program incorporates education on media violence for parents. An evaluation of the ACT-PRSK program conducted by Porter and Howe (2008) found that there was a reported moderate increase in the monitoring of programs watched by children on television and understanding the possible adverse effects of violent television viewing among children after completing the ACT-PRSK program. Educating parents/caregivers about the effects of violent media on their children is important because they may not be aware of the consequences of violent media since society readily accepts violence as entertainment.
Presenting parents/caregivers with information and facts regarding the negative consequences of violent media on children can be an effective way to communicate the importance of anti-violence in the home and media literacy.

**Limiting Violent Media in the Household.** Teaching parents/guardians ways to monitor children’s exposure to violent media is a key component of an anti-violence and media literacy program. Parents/guardians should also be trained on how to select age-appropriate television shows, movies, and video games for their children. Additionally, Scull et al. (2017) found that changing parent behavior was not the most successful component of the MDF program, however, 33.34 percent of parents reported that they were going to try to change how they use substances after completing the course. Educating parents/guardians about the effects of violent media in an anti-violence and media literacy program could have a similar effect as MDF. Parents/guardians may not be aware of how their own viewing of media violence can impact behavior and influence children prior to completing the program. Sutherland’s (1947) differential association theory and Burgess and Akers’s (1966) social learning theory can be applied to limiting the violence in households, since violence can be learned from the media and familial acceptance of aggression portrayed on television and in video games.

**Parent/Guardian-Child Communication.** MDF was found to have a positive rating regarding parents/caregivers talking to their children about media messages (70.8 percent). By encouraging communication through activities and learning, the MDF program helped to promote communication between families. More than half of the participants of a MDF study reported that after the program, there was a positive link involving communication between parents/caregivers and children regarding expectations about behavior (Scull et al., 2017). The ACT-PRSK program educates parents/guardians about developmentally appropriate
communication with their children. Porter and Howe (2008) found in an evaluation of the ACT-PRSK program that there was an improvement in parental response regarding the importance of educating children how to communicate effectively and get along with other individuals. Educating parents/guardians about effective communication techniques and topics regarding media influences and violence is a way to open conversations about various issues or concerns children may be facing. According to Hirschi’s (1969) social control theory, more effective parent/guardian to child communication can help to promote attachment and involvement through positive communication.

**Nonviolent Discipline.** Children learn empathy and to not hurt others through the disciplinary actions of their parents. The use of harsh disciplinary punishments on young children was found to positively predict future aggressive behavior. Teaching parents/guardians how to reframe their children’s misbehavior as mistakes that justify teaching instead of deliberate assaults or spiteful behaviors is important. The ACT-PRSK program teaches parents/guardians how to manage their anger and how to model proper anger management skills when disciplining their children. It is also important to teach parents how to teach children developmentally appropriate anger management and social problem-solving skills. Studies have indicated that children show improved and less aggressive behaviors when they have been instructed to use social-cognitive interventions (Burkhart et al., 2012). Since violence can be learned through family influence according to differential association theory (Sutherland, 1947) and social learning theory (Burgess and Akers, 1966), reducing violent discipline by parents/guardians could make children less likely to accept violence as a resolution to conflict or tension.
News Media Awareness Suggestions

Along with the development of an anti-violence and media literacy universal program for parents and students, recommendations for news media outlets can be offered. Since several major news media outlets are aware that broadcasting styles and content can spur future incidents of violence, the outlets may be more receptive to suggested guidelines or changes to their reporting. According to Lankford and Madfis (2018), experts have previously responded to the inquiry by suggesting that reports do not concentrate on the perpetrator of the mass shooting by not showing photos or using their name. Providing a more comprehensive explanation in the form of education may be more effective; education could be offered in the form of an online class, presentation, or informational report for news outlets.

Explaining the Contagion Effect and Imitation

Explaining how the contagion effects works and why future mass shooters are significantly influenced by media reporting is imperative to helping news media outlets understand the impact of reporting. Changing media reporting styles and frequency has proven to be successful in decreasing imitated suicide. The World Health Organization (WHO) has released suggested media guidelines to help prevent imitational suicides. The guidelines include recommendations such as not sensationalizing suicide, averting prominent headlines, not blaming suicide on a single factor (such as depression), avoiding suicide reporting repetition, not giving a detailed account of suicidal method(s) used, limiting photos or videos, and being specifically cautious with reporting when a celebrity has committed suicide (Meindl and Ivy, 2017).

The “Don’t Name Them” campaign developed by the Advanced Law Enforcement Rapid Response Training team and Federal Bureau of Investigations focuses on the media’s response to
mass shootings. The campaign aims to decrease media-induced imitational mass shootings by minimizing naming mass shooting perpetrators, reducing sensationalism, and declining to broadcast shooter declarations or videos. The overall goal of “Don’t Name Them” is to shift media focus from the perpetrators to the victims, survivors, and heroes involved in shooting events (Don’t Name Them, n.d.).

Other suggestions include strategies such as reporting mass shooters in a negative way, such as the perpetrator being a coward or using shaming. The perceived reward of fame for committing a mass shooting could be less intriguing to future shooters if more negative attention were associated with the perpetrator. Lastly, it has been suggested that decreasing the frequency and duration of mass shooter coverage on the news could help to reduce imitational incidents. Reporting of mass shooting events generally lasts for weeks and is shown frequently, which may increase the fame and notoriety of the perpetrator and make potential imitators more likely to carry out their own shooting. Details of the shooting should also not be reported. Giving potential future mass shooters details about how the perpetrator committed a mass shooting event could prompt imitation (Meindl and Ivy, 2017).

Sutherland’s (1947) differential association theory and Burgess and Akers’s (1966) social learning theory can help to explain how potential mass shooters succumb to general imitation and the contagion effect. News media outlets generally share information about mass shooter perpetrators, which can cause a potential mass shooter to feel a connection with the perpetrator, even though there may not be an actual personal connection. Potential mass shooters may identify with the perpetrator’s perceived victimization and motives, which gives them reinforcement to commit their own mass shooting in the future.
Suggested Reporting Style Changes

Explaining to mass media outlets how reporting styles can contribute to the contagion effect and general imitation pertaining to mass shooting perpetrators can be considered an important component of news media awareness. Using Murray’s (2017) research regarding the reporting style and steps that have been previously used to broadcast mass shooting events could be a comprehensive approach to educating media outlets about controlling their influence on future potential mass shooters. Since the media has been found to sensationalize mass shooting perpetrators through reporting styles, recommending that they avoid the reporting steps covered by Murray (2017) may prove to be beneficial to reducing the amount of future mass shooting occurrences. Entertainment-style media reporting of mass shootings has an unintended consequence of provoking potential mass shooters, so limiting the reporting to only covering confirmed information with limited details could be the best solution to decreasing future mass shootings within the media’s control. While most viewers are probably saddened and scared by the reporting, potential mass shooters can be inspired. When applying Sutherland’s (1947) differential association theory and Burgess and Akers’s (1966) social learning theory to mass shooting news media coverage, it can be hypothesized that the attention from society and the media reinforces the behavior of mass shooting perpetrators by providing a dramatic and sensationalized view of the occurrence.

Statistical Evidence

Lastly, providing news media outlets with statistics to show how media coverage influences possible future shooting events can provide important and significant information in a different way. The research conducted by Towers et al. (2015) should be presented to media outlets, specifically the portion of the research that explains how mass shooting events
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statistically increase the likelihood of a subsequent mass shooting. Overall mass shooting statistics from the U.S. should also be included, along with where the country ranks worldwide for mass shooting events to give a comprehensive statistical view of the challenge the U.S. has pertaining to mass shooting occurrences.

In summary, if the previously listed recommendations are followed, it is possible that future mass shooting events could decrease. By implementing an anti-violence and media literacy program for students and parents which incorporates the recommended ideal components, it could help to change future behaviors, attitudes, and beliefs that contribute to mass shooting perpetrations at a young age. If the news media outlets are made aware of their possible influence on future mass shooters through the suggestions given, it could lead to fewer mass shooting events. In the following concluding section, limitations of the study and recommendations for future research are given to help guide potential researchers and readers in evaluating this research paper.

Conclusion

Mass shooting events are increasing along with the exposure to violent entertainment media, which warrants further investigation into a potential connection between the two (Kimmig, Andringa, and Derntl, 2018). Even though mass shootings are considered a rare event, they have shown to have significant impacts on victims, survivors, potential perpetrators, and society (Shultz et al., 2014). There is also significant evidence that links news media reporting styles to future occurrences of mass shooting events through the contagion effect and general imitation (Murray, 2017).

Through an extensive literature review, it can be concluded that adolescent exposure to violent entertainment media can increase aggressive thoughts and behaviors. It can also be
established through the literature review that certain widely used news media outlet reporting styles can influence future mass shootings through general imitation and the contagion effect. To further understand how mass media reporting can impact future mass shooters and an anti-violence and media literacy program with ideal components can be effective in possibly decreasing mass shooting occurrences, Hirschi’s (1969) social control theory, Sutherland’s (1947) differential association theory, and Burgess and Akers’s (1966) social learning theory can be applied.

The ideal program components for an anti-violence and media literacy program for parents/guardians and students could prove to be an effective way to reduce future mass shootings. By incorporating positive conflict resolution, understanding the roots and consequences of violence, and critical media analysis skills into an anti-violence and media literacy program targeting students, many of the negative effects of violent entertainment media exposure could be countered. Additionally, by supplementing the student learning with a parent/guardian program that incorporates education on violent media, limiting violent media in the household, parent/guardian-child communication, and non-violent discipline techniques, the acceptance of aggression and exposure to violence could possibly be mitigated at home.

Raising awareness among mass news media outlets about their impact on potential mass shooters could help to deter future mass shooters who are inspired by mass shooting events that occur. This could be accomplished through the suggested awareness components, which are explaining the contagion effect and general imitation, making suggested reporting style changes, and presenting statistical evidence for better understanding and comprehension of the problem to mass news media outlets. Although news media outlets do not have to comply with the suggestions, by comprehensively explaining how general imitation and the contagion effect can
be influenced through reporting styles may be enough to sway news media outlets to change their reporting styles. The supplementation of statistical evidence can further reiterate the issue and convey the seriousness of the problem.

The recommended ideal program components and news media awareness suggestions are not a “cure all” for mass shootings, but they could prove to be a way to reduce occurrences in the future. The recommendations and suggestions are a way to address the problem of mass shootings with proactive measures. Regulating mass shooting perpetrators can be considered impossible, but the way in which they are inspired or influenced can possibly be controlled.

**Limitations of the Research**

There are some limitations to the research performed for this paper. One notable limitation is the lack of a direct and substantial connection between violent entertainment media and mass shooting perpetrators. The research gathered focused on violent entertainment media being linked to aggressive and violent behavior, which may eventually lead to mass shooting perpetration. Another limitation to the study is that there are a small number of programs that have been evaluated pertaining to anti-violence with a media literacy incorporation. The recommended ideal program components were taken from multiple programs which were proven to be successful overall, however, the program components developed are untested together as a whole. A limitation to the research pertaining to news media outlet awareness is that research states news media outlets are aware of their potential influence on future mass shooters, but changes in their reporting styles is yet to be observed to see if the suggested changes have made a difference in future occurrences. An overall limitation to the research is that many mass shooting perpetrators either commit suicide or are killed by law enforcement, so performing
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Interviews to gain first-hand information is not possible unless they left statements or manifestos behind.

**Recommendations for Future Research**

In the future, it could be recommended that more information about mass shooting perpetrators be gathered—specifically their possible usage of violent entertainment media to provide a more direct link. It may also be beneficial to research if mass shooters have completed any anti-violence or media literacy programs in their past. This could be beneficial to future research to see if there is a reduced program completion by perpetrators which could help to further assess whether programs are successful in reducing mass shootings. Additionally, studies on mass news media outlet coverage of mass shooting events after they are given recommendations about reporting could be important for future research. Comparing the mass shooting statistics prior to suggestion implementation and after could help to further prove the media’s influence over potential mass shooting perpetrators.
References


