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Chapter I

Review of the Literature

Despite the perpetual development of crime prevention and reduction programs, there is a substantial number of violent crimes committed in the United States. In 2008, 4.9 million people were victims of nonfatal violent crimes (US Department of Justice Bureau of Justice Statistics, 2010a), and 14,180 murders were reported with 90% of the offenders being male (U.S. Department of Justice Criminal Justice Information Services Division, 2008). Some groups are more vulnerable to violence than others. Violence is a devastating force in the African American community. In 2008, African Americans committed 51.5% of all homicides, in which the race of the offender was known (U.S. Department of Justice Criminal Justice Information Services Division, 2008). As the leading cause of death among African American males aged 15 to 34, violence takes more lives in this group than any disease (Heron, 2007). The great majority of violent crimes in the African American community are perpetrated by African American men in the age range of 18 to 24 years old (US Department of Justice Bureau of Justice Statistics, 2010b). From 1976 to 2005, 94% of African American murder victims were killed by an African American person (US Department of Justice Bureau of Justice Statistics, 2010b). The disproportionate prevalence of violence in the African American community has been explained in various ways. One explanation is that because African Americans often experience racism and economic disadvantage, they endure a great amount of strain in comparison to other races, which results in anger, and violent behavior is used as a coping strategy (Hammond & Yung, 1993; Jang & Johnson, 2003). Another explanation is that African Americans often live in environments with few opportunities for success, which increases the likelihood of engaging in violent behavior (Caldwell, Kohn-Wood, Schmeelk-Cone, Chavous, & Zimmerman, 2004; Hammond & Yung, 1993).
This research project aims to investigate some of the major psychosocial factors that might explain such violence among young adult African American men. In today's digital media world, images of violence can be almost impossible to escape. Numerous depictions of violence can be found in media outlets, such as movies, television shows, video games, and music. The content of television and movies has become increasingly more violent (Parents Television Council, 2007), and Americans are consuming these media outlets more than ever before (The Nielsen Company, 2009).

The viewing of violent television shows and movies has been found to have a positive relationship with increased levels of aggressive behaviors, thoughts, and affect (Anderson et al., 2003; Bushman, 1998; Christakis & Zimmerman, 2007; Coyne et al., 2008; Eron, Huesmann, Lefkowitz, & Walder, 1972; Zillmann & Weaver, 1999). In a longitudinal study, Johnson, Cohen, Smailas, Kasen, & Brooks (2002) examined the relationship between television viewing and aggressive behavior using a sample of 707 children aged 1 to 10, who were 91% Caucasian and 51% male. The families were interviewed about how much television the children watched from 1991 to 1993. Subsequently the children were given the Diagnostic Interview Schedule for Children to determine aggressive and criminal behaviors at age 14 and 22. It was found that there was a significant and positive correlation between time spent watching television and aggressive and criminal acts at age 14 and at age 22 even after previous aggressive behavior, childhood neglect, family income, neighborhood violence, parental education, and psychiatric disorders were statistically controlled.

In another study, Zillmann and Weaver III (1999) found a positive relationship between prolonged exposure to violent movies and hostile behavior using a sample of 93 undergraduate students at a southeastern university. The participants viewed one movie a day for four consecutive days in a row. The movies were either all violent or all nonviolent. It was found that
the students who viewed the violent movies and were then provoked by insulting feedback on an unrelated task were more likely to behave in a hostile manner toward the person giving the feedback than the students who viewed the nonviolent films and were similarly provoked.

Although there have been a vast amount of studies done on the relationship between viewing of violent television and movies and aggression, there has been little research done on this relationship with African Americans. While discussing this lack of research, Stroman (1991) wrote, “little research has actually been conducted in a controlled setting to determine if violent television fare has an influence on subsequent aggressive behavior in African American children” (p. 318). Concerning why more research is needed, Levin and Carlsson-Paige (2003) also state, “careful research and documentation are needed to help us better understand the problems created for children of color by the violence marketed to them and how we can work to counteract this influence” (p. 434). Given the high rates of violence in which young African American men are involved and the connection that has been made between media violence and aggression, a study on the effects of media violence on young African American men may contribute to the literature that aims to understand and prevent violence.

Moreover, much of the research on media and aggression has focused on television violence or included movie violence with other forms of violent media. Funk, Baldacci, Pasold, and Baumgardner (2004) stated that compared to research on television violence, “there has been less focus on movie violence” (p. 24). It appears that the effect of violent movies would be similar to that of violent television shows. For example Fanti, Vanman, Henrich, and Avraamides (2009) found that desensitization occurs after viewing multiple violent movie clips. As their participants watched more violent clips, they enjoyed the violent scenes more and felt less sympathy for the violence victims.
In addition, Funk et al. (2003) found that movie violence has a positive correlation with "pro-violence attitudes" (p.30). Their study was done with 150 participants who were 58% Caucasian and 24% African American and had an average age of 9. The participants completed a questionnaire which asked about the amount of time they spent playing videogames, watching movies, watching television, and using the internet and asked about the content in three of their favorites from each category. The participants also completed the KID-Screen for Adolescent Violence Exposure which measured their exposure to real life violence, the Attitudes Towards Violence Scale: Child Version which assessed their attitudes toward violence, and the Children's Empathy Questionnaire which assessed their empathy levels. Exposure to movie violence and videogame violence were found to have a positive relationship with pro-violence attitudes.

The major purpose of this study is to investigate the effect that the viewing of violence in movie clips has on the aggressive affect of African American young men. This research question will be examined by using random assignment of participants into either the group that views a movie clip depicting an African American male model of violence or the group that views a movie clip depicting a non-African American male model of violence. Participants will complete a measure of aggressive affect, before viewing a violent movie clip and again after viewing the movie clip. A mixed-design, two-factor ANOVA will be used in which time (before movie clip, after movie clip) and group (violent model is African American, violent model is not African American) are the factors and aggressive affect is the dependent variable.

There are two additional aims of the study that are relevant to the African American experience. One additional aim is to investigate self-efficacy for violence by determining whether it is higher when the aggressive male models are African American versus not African American. This research question will be examined by using random assignment of participants into either the group that views African American male models of violence or the group that views non-
African American male models of violence. Self-efficacy for aggression/violence will be measured after the participants view the movie clip. An ANOVA will be used to compare the two groups on self-efficacy for violence.

Also, this study aims to investigate the relationship between race centrality and aggressive thought and the relationship between race centrality and self-efficacy for violence. Race centrality will be measured before the video clip is shown. Its correlation with aggressive affect and self-efficacy for violence will be measured to determine whether it may be a potential protective factor against the effects of viewing violence.

A review of the literature on the social learning theory is presented next. This review will also present the literature on observational learning of aggression and on imitation of aggressive models on film. Following is a review of the literature on the relationship between violent media and aggression. Lastly, the literature on the aggression of African American men is reviewed.

Social Learning Theory

According to the social learning theory, observational learning is an essential means for learning new behaviors (Bandura, 1973a). Observational learning, which occurs when one observes and imitates a behavior emitted by a model, plays a role in the learning of nearly all behaviors (Bandura, 2004). Observational learning is imperative in learning the correct way to perform behaviors that may be dangerous if performed incorrectly because it can prevent the student from making unnecessary mistakes that may lead to injuries (Bandura, 2004).
Furthermore, there are some complex behaviors, such as speaking a language that can only be learned with the help of models. Even when a behavior can be learned without observational learning, it has been found that observational learning can shorten the learning process (Bandura,
1973a). Thelen, Frautschi, Roberts, Kirkland, and Dollinger (1981) found various advantages to observational learning. In their study, teachers rated elementary school students, who imitated behaviors at a high level as more intelligent and creative and as more likely to succeed in school than students who imitated behaviors at a lower level.

Abramovitch and Grusec (1978) studied observational learning in a natural setting. They studied 58 middle-class children aged 3 to 11 from a suburban preschool and a private elementary school. The children were observed in their classrooms over a three-month period, during which the number of times a participant imitated a behavior performed by a peer was counted. The results showed there was an average of 7.804 imitative acts performed by the participants each hour. There was one particular preschool classroom, in which the participants performed 14.82 imitative acts each hour. It was shown in this study that children engage in observational learning in their everyday lives.

Bandura (1973a) posits there are four components that influence the degree of observational learning that takes place. The first component is attentional processes. Imitation of a behavior cannot occur if one does not attend to the important features of the model's behavior. The deemed functional value of a model's behavior and the model's interpersonal attractiveness determine if the behaviors modeled will be attended to by observers (Bandura, 1973a). Retentional processes also influence observational learning. The modeled behaviors must be placed into long-term memory in order for them to be reproduced when the model is no longer present (Bandura, 1973a). The third component of observational learning is motor reproduction processes since a behavior cannot be reproduced without the required motor skills and physical capabilities (Bandura, 1973a). The last component is reinforcement and motivational processes. A person may attend to and retain the modeled behavior and be physically capable to perform it, but the behavior is less likely to be reproduced if the model is punished for producing it. If a
behavior is reinforced when the model or the observer emits it, then it is more likely to be imitated than when it is punished (Bandura, 1973a).

Various studies have also suggested that observational learning is more likely to occur if observers perceive the model as similar to themselves (Grace, David, & Ryan, 2008; Hilmert, Kulik, & Christenfeld, 2006; Rosekrans 1967; Schunk, 1987; Slaby & Frey, 1975; Wolf, 1973). Rosekrans (1967) demonstrated this tendency in a study of 90 boy scouts ages 11 through 14. The participants were asked to play a war strategy game. Before the participants began to play, they were told they would watch a video of a boy playing the same game. Some of the participants were told that the boy in the video was similar to them because he was a boy scout, he attended a similar school, and he liked to do two activities that they enjoyed doing. The other participants were told the boy was not like them because he was not a boy scout, he attended a dissimilar school, and he did not like to do two activities that they enjoyed doing. The participants completed a measure indicating how similar they believed they were to the model, and were then observed playing the war strategy game and assessed for imitative behaviors. It was found that the participants who believed they were similar to the model emitted a significantly higher amount of imitative responses than the participants who believed they were not similar to the model.

Bussey and Perry (1982) also investigated how likely observers are to imitate behaviors when the model is similar to them. The 48 Australian participants in the study were 50% male and 50% female and had an average age of 8. The participants watched a video of four male models and four female models similar in age to the participants being asked if they liked particular toys by an experimenter. The experimenter varied which children were asked each question. He would ask all four boys, all four girls, or two boys and two girls. After watching the video, the participants were shown pictures of the items and asked which ones they liked or
disliked. It was shown in the results that the participants preferred the toys that were liked by the models of the same sex over the toys that were liked by the opposite sex models or the male pus female models. Bussey and Perry believed this indicated that the participants were imitating models similar to them.

In a study done by Wolf (1973), the ability of same sex models to produce imitation of play that is stereotypically sexually inappropriate was explored. The sample included 30 boys with an average age of 8 and 30 girls with an average age of 9 who were members of a summer camp. The participants were predominantly in the middle-class, and they were all Caucasians except for one African American boy. The participants were individually taken away from camp activities, and along with a male or female model of the same age they were led to a secluded, outdoor area. They watched while a model played with a toy that was sexually inappropriate for the participant. The female participants watched a female or male model play with a toy truck, and the male participants watched a male or female model play with a toy oven. The participants were then led to believe they were left alone while the experimenter took the model back to the camp activities. Their behavior was then recorded by a hidden observer. It was found that both the female and male participants played with the sexually inappropriate toy for a longer amount of time following exposure to a same sex model than they did following exposure to an opposite sex model.

More recently, Grace, David, and Ryan (2008) investigated children's imitation and memory of behaviors produced by same sex and opposite sex models. The participants in the study were 62 preschool children, who were 39 to 68 months old and 48% male. Data was not collected on the race/ethnicity of the participants. Participants watched one of four videos, in which three male and three female models performed various behaviors. In each of the videos, the female models all performed the same behavior while the male models all performed another
behavior. After watching the video, the participants were asked if they would like to play the game they just saw and were observed. Following the observation participants were asked to recall the behaviors of both the male and female models. The results showed that although the participants remembered the behaviors produced by the same sex models and the opposite sex models equally, they imitated the behavior of the same sex models more than the opposite sex models.

Hilmert, Kulik, and Christenfeld (2006) found similar results when exploring the imitation of opinions. The participants in the study were 247 female undergraduate students whose age and race/ethnicity were not specified. Each participant in the experimental condition was interviewed by the experimenter with a female model present. The participant was made to believe that the model was also a participant. The participant and the model were asked demographic questions, which the model responded to in either a similar or dissimilar way as the participant. The participant then listened to six pieces of music and rated each one on how much she liked it. The model then gave either similar or dissimilar ratings to the same songs. The participant was then asked to listen to and rate another previously unplayed song, which the model identified as her favorite song. It was found that when the participants believed the model had music taste similar to theirs, the participants were more likely to give a positive rating to the song that the model liked than if the participants believed the model had dissimilar taste in music. This pattern was enhanced when the participants believed the model also had a similar background.

Another factor that may influence whether a model’s behavior is imitated is self-efficacy, people’s estimates of their capability to perform a certain task (Bandura, 2006). Bandura and Adams (1977) posited that one’s level of self-efficacy is influenced by four sources: (a) the personal experience of successfully carrying out a task, (b) being told by oneself or by others that
one is capable of performing a task, (c) physiological arousal from which judgments are made about stress and anxiety levels, and (d) modeling. Self-efficacy through modeling, particularly when the model is similar to the observer, may be one of the most significant factors influencing imitation (Bandura, 1969). Watching a model successfully perform a task can increase one's self-efficacy, which would make one more likely to also perform the task (Bandura, 1982). The standard method of measuring self-efficacy beliefs is with a self-rating scale (Bandura, 2006). Individuals are asked to rate their level of confidence that they can successfully complete a task on a 100-point scale with 10-unit intervals. Self-efficacy for completing a task can be measured using one item asking about overall confidence or it can be measured with several items asking about confidence in completing different components of the task (Bandura, 2006).

Observational Learning of Aggression

The social learning theory has been used to explain aggressive behavior. According to the theory, one of the ways that people learn to act aggressively is by watching others engage in aggressive acts (Bandura, 1973b). By watching others perform aggressive acts, an individual learns how those aggressive acts are executed. The demonstration of aggression can then be held in memory and used as a guide for action in similar situations (Bandura, 1973b). The seminal research that demonstrated observational learning of aggressive behavior was conducted mainly in the 1960's and 1970's (e.g., Bandura, 1973b; Bandura & Huston, 1961; Bandura, Ross, & Ross, 1961; Kuhn, Madsen, & Becker, 1967; Nelson, Gelfand, & Hartmann, 1969).

In a well known study done by Bandura, Ross, and Ross (1961), the imitation of aggressive behaviors was demonstrated with 36 boys and 36 girls aged 3 to 5. They hypothesized that participants exposed to aggressive models would reproduce aggressive behaviors similar to those of the models and that participants exposed to nonaggressive models would produce
significantly less aggressive behaviors than those exposed to aggressive models. They also hypothesized that since aggression is considered a masculine behavior, male participants would be more likely to imitate aggression than female participants.

In the Bandura, Ross, and Ross study (1961), participants in the experimental group were brought to a room and given materials, with which to create pictures. A model was then brought into the room and given toys. The model behaved non-aggressively while in the room with half of the participants in the experimental condition by assembling tinker toys in a calm manner. When in the room with the other half of the participants, the model first assembled tinker toys and then behaved aggressively toward a Bobo doll. The model produced specific aggressive behaviors, which included punching the doll, kicking the doll, hitting the doll with a mallet, and making verbally aggressive statements. Following exposure to the model the participants were taken to another room with toys, and they were told they could play with them. In an effort to frustrate the participants and evoke a “mild” aggression arousal in them, they were told after a few minutes that they could not play with the toys because they were the best toys in the facility and were reserved for other children (Bandura, Ross, and Ross, 1961, p.576). They were then taken to another room that contained different toys, which included toys similar to the ones the model had. The participants were observed playing with the toys and their behaviors were assessed for physical and verbal aggression. Bandura, Ross, and Ross (1961) found that the participants who were exposed to the aggressive model produced physical and verbal aggressive behaviors at a significantly higher level than the participants exposed to the nonaggressive model. Many of the aggressive behaviors emitted by the participants, who were exposed to the aggressive model, were imitative of those produced by the model. It was also found that the male participants produced a significantly higher amount of imitative physical aggression than the female participants.
Nelson, Gelfand, and Hartmann (1969) found similar results when examining the imitation of aggressive behaviors after the frustration of losing competitions. In the study, 48 boys and 48 girls, aged 5 to 7 made clay figures with an adult, female model in pairs. The model then told the two children to continue playing while she finished some work. The model then engaged in either aggressive behaviors or nonaggressive behaviors. When the model behaved aggressively, she aggressed toward a Bobo doll using specific aggressive behaviors that were accompanied by aggressive verbalizations. When the model behaved nonaggressively, she played with clay. Following exposure to the aggressive or nonaggressive model, the participant pairs went to another room to play games with each other. Some of the pairs played games that were made to be competitive with prizes and praise for the winners. The other subjects played noncompetitive games, in which there were no winners. Nelson, Gelfand, and Hartmann found that the number of both imitative and non-imitative aggressive behaviors during the games was higher for the participants exposed to the aggressive model than for participants exposed to the nonaggressive model. It was also discovered that there was an even larger increase in aggressive behaviors after participants experienced the frustration of losing competitive games.

Kuhn, Madsen, and Becker (1967) demonstrated that frustration is not a required prerequisite for the imitation of aggressive behaviors. The researchers examined the effects of aggressive modeling and frustration on imitative aggressive behaviors. In the study, 80 nursery school children with a mean age of four were divided into four groups. All of the participants were told they were going to do some things with the experimenter and then receive candy, but their subsequent activities differed. In the frustration condition, participants watched a neutral movie and did not receive the promised candy. They were told they did not get the candy because they did not pay attention to the movie. In the Exposure to the aggressive model condition, the participants were exposed to a filmed aggressive model and given candy.
Participants in the aggressive modeling and frustration were exposed to the same aggressive model but were not given the promised candy. Participants in the neutral condition watched a neutral movie and were given candy. As in the above studies, it was found that exposure to an aggressive model increased aggressive behaviors produced by participants. The addition of frustration to exposure to the aggressive model did not enhance aggression. The only group that had an increase in aggressive behaviors was the exposure to the aggressive model group, which was not subjected to frustration. Instead of enhancing aggressive responses as they predicted, Kuhn, Madsen, and Becker, believed the frustration inhibited aggressive behaviors.

Bandura and Huston (1961) found that children not only imitate aggressive behaviors, they imitate them more readily than nonaggressive behaviors. Twenty-four girls and 24 boys played a game with a model, in which they took turns guessing where a sticker was hidden among a number of boxes. Each time it was the model’s turn to guess, she would emit a number of specific behaviors, such as marching and saying certain phrases. One of the behaviors was aggressive, in which the model knocked over a doll sitting on top of the boxes. The number of these behaviors the participants emitted when it was their turn to find the sticker was used as a measure of imitation. It was found that all of the specific behaviors emitted by the model were imitated by some of the participants. The aggressive behavior was the highest imitated behavior, with 90% of the participants imitating it. The second most imitated behavior, marching, was only imitated by 45% of the participants.

The findings from recent literature on models of aggressive behaviors are consistent with Bandura’s early research. Murrell, Christoff, and Henning (2007) investigated the observational learning of aggression with men who were arrested for domestic violence. The 1,099 participants were 85% African American and 14% Caucasian, and had recently been court ordered to go to a domestic violence center for assessment. The frequency and severity of domestic violence
perpetrated by the participants was assessed using a questionnaire. The extent to which the participants engaged in violent behavior against others besides intimate partners was assessed using police reports and a measure of child abuse potential. Information was also obtained about the participants' exposure to domestic abuse before the age of 16. It was shown in the results that the level of non-intimate partner violence committed by the participants had a positive relationship with the level of exposure to domestic abuse. Both frequency and severity of domestic violence committed by participants were also found to have a positive relationship with level of exposure to domestic abuse. Murrell, Christoff, and Henning concluded that, as adults, participants produced the violent behaviors they learned through exposure to violent models as children.

These results have been found in cultures outside of the United States as well. For example, Garcia, Restubog, and Denson (2010) found similar results when investigating the relationship between exposure to aggression in the home as a child and aggression as an adult. The sample for the study consisted of 158 participants who worked for a company in the Philippines. They were 69% male and had a mean age of 31.95 years. Participants completed a scale measuring their exposure to verbal and physical aggression in the home as a child. Co-workers of the participants provided information on how often the participants had engaged in a variety of verbally and physically aggressive acts in the past two months. It was found that exposure to aggression in the home was positively related to co-worker ratings of aggression.

Bandura (1973a) cites three sources for models of aggressive behavior. One such source is family members, who children naturally look to for guidance in behaving. Another source is community subsystems, such as schools, workplaces, and churches with which a person has regular contact. Bandura identifies the media as an additional source for models of aggressive behavior; media, in fact, can expose people to a much wider variety of behaviors and situations
than their families or immediate communities. In a society that is rapidly changing, media can also keep people more up to date on desirable and rewarding behaviors (Bandura, 1973a).

**The Prevalence of Violence in Television and Movies**

A myriad of aggressive and violent models are frequently presented in the various visual media forms, especially television and movies. According to a study done by the Parents Television Council (2007), during the six weeks that the study took place in the 2005 to 2006 television season, 49% of all episodes aired on television contained at least one act of violence, and of the acts of violence 54% showed a death or implied that a death occurred.

Glascock (2008) assessed the amount of verbal, physical, and indirect aggression on network prime-time television. All of the shows that aired on six broadcast channels (ABC, NBC, CBS, FOX, WB, and UPN) from 8:00pm to 11:00pm during a one-month period were analyzed. It was discovered that 71.2% of shows in the sample contained at least one act of physical aggression, and an average of 13 physically aggressive acts were committed every hour. At least one verbally aggressive act was performed in 95.5% of the shows, and 97.3% of shows contained an act of indirect aggression, which Glascock (2008) defined as “verbal or physical aggression done behind another’s back, such as gossiping, criticizing another behind their back, rolling eyes, and ignoring” (p.273).

Signorielli (2003) investigated the contexts for violence in television shows. In the study, 1,127 primetime programs aired between 1993 and 2001 were analyzed. Analyses revealed that approximately 60% of shows in the sample contained some violence. 40% of these shows contained violence that was portrayed in a serious manner, and less than 25% contained violence that was portrayed in a humorous manner. It was also found that violent acts in the shows were committed more by men than by women, which means there were more aggressive male models who male observers might readily imitate due to their similarity in gender.
Violence has also been found to be prevalent in movies (Browne et al., 2002; Center for Media and Public Affairs, 2002; Jenkins, Webb, Browne, Afifi, & Kraus, 2005). The Center for Media and Public Affairs (2002) did a study, in which movies were analyzed for extremely violent content. The study limited the violent acts included in their analysis to those that resulted in significant injury or death of the victim. It was found that in the 50 top grossing movies of 1998 and the 50 top grossing movies of 2000, there were a total of 30 extremely violent scenes, and authors suggested the number of violent scenes found in the study may have been higher if the requirements were less stringent for a scene to be defined as violent.

Jenkins, Webb, Browne, Afifi, and Kraus (2005) analyzed movies for violent content with less stringent criteria for violence. The sample included 98 of the top 100 grossing American movies in 1994. The movies were coded for violence, and every violent gesture, such as a punch or the discharge of a firearm, was included in analysis. It was found that the movies contained a total of 2,143 violent acts, in which bodily harm was caused to a character, and all but three of the movies contained at least one of these violent acts. Using the same sample of the 100 top grossing movies in 1994, Browne et al. (2002) performed a frame-by-frame analysis of violent content in movies. In this study, a violent act was defined as a physical act of aggression committed by a person. It was found that 2,184 violent acts against the body were found in the sample, and 44.1% of these acts involved the use of lethal force. The action films had an average of 47 violent acts per movie, the dramas had an average of 16.8 violent acts per movie, and the comedies had an average of 14 violent acts per movie.

The violence in television shows and movies is reaching a larger audience than ever before. Through electronic tracking of television usage in about 9,000 households, The Nielsen Company (2009a) revealed that the average amount of time that television is watched each day in the American household is at an all time peak of 8 hours and 21 minutes. Using the same
methods, The Nielsen Company (2009b) also found that the average American teenager is consuming 3 hours and 21 minutes of television a day. In addition to television consumption, 71% of Americans watch at least one movie a week at the movie theater or at home (Pew Research Center, 2006).

Worth, Chambers, Nassau, Rakhra, and Sargent (2008) discovered that adolescents are not only being widely exposed to movies; they are being widely exposed to violent movies. The authors conducted a study with a sample of 69,522 adolescents aged 10 to 14. The gender and race/ethnicity distribution of the sample was not specified, but the authors stated that the gender distribution was almost equal to that of the United States census. Data was collected from the participants in 2003. The movie sample that was analyzed consisted of the 100 top grossing American movies each year from 1998 to 2002 and 32 movies that earned at least 15 million dollars in the first four months of 2003. The movies were classified according to violent content and 40 were classified as extremely violent. Each participant was presented with a list of 50 randomly selected movies from the sample, and they were asked if they had seen each movie on the list.

It was found in the Worth et al., (2008) study that all of the 40 extremely violent movies had been seen by some of the participants. The amount of participants who had seen each movie was calculated. The percentage of participants who reported that they had viewed movies from the list ranged from 1.9% to 48.1%, indicating that certain extremely violent movies were reported to have been viewed by only a very low percentage of participants, whereas other extremely violent movies had been viewed by nearly half of the participants. The extremely violent movie that was seen most among the participants was “Scary Movie” with 48.1% of participants having viewed it. Using the Taylor Series Expansion Method, it was estimated that 10 million 10 to 14 year olds in the United States have seen this movie. Exposure to the
extremely violent movies was higher among the African American participants than the Caucasian participants with the African American participants 5.5 more times likely than Caucasian participants to have seen more than one of the extremely violent movies.

With the high levels of violent content in television and movies, there are many aggressive models for viewers to observe. Given the link found between exposure to aggressive models and subsequent aggressive behavior (Bandura, Ross, & Ross, 1961; Garcia, Restubog, & Denson, 2010; Kuhn, Madsen, and Becker, 1967; Murrell, Christoff, Henning, 2007), the effect of violent media on aggressive behavior has been a widely studied topic. As Jigpuep and Sanders-Phillips (2003) stated “The phenomenon of media violence is one of the most extensively studied issues in the social and behavioral sciences, spanning more than 1,000 publications in recent years” (p. 383). It has been shown in a variety of ways that aggressive acts depicted in the media are related to increases in aggressive behavior, cognitions and affect (Anderson et al., 2003). These increases have been demonstrated for media outlets such as music, music videos, television, movies, and most recently for videogames (Anderson, 1997; Anderson, Carnagey, & Eubanks, 2003; Anderson et al., 2003; Carnagey & Anderson, 2005; Huesmann & Taylor, 2006).

Television / Movie Violence and Aggressive Behavior

Various research studies have investigated the link between television and movie viewing and aggressive behavior. Eron (1963) investigated the link between viewing violent television and aggressive behavior in 367 boys and 322 girls in the third grade living in a semi-rural county in Hudson Valley, New York. Each child rated every other child in his/her class on aggressive behavior using a peer rating measure of aggression. Information about the amount of television viewed by the participants and the types of shows they watched was obtained in an interview with
their parents. The television shows that were revealed as being watched by each child were given violence ratings by the researchers based on the amount of violence in them. A significant, positive relationship was found between the violence ratings of the shows children watched and the aggression of the male participants. There was also a significant, negative relationship found between the amount of time spent watching television and aggression of the male participants. No significant relationships were found for the female participants.

Using the data from the previously mentioned study, Eron, Huesmann, Lefkowitz, and Walder (1972) did a longitudinal study on the relationship between television viewing and aggressive behavior. 472 of the participants from the Eron (1963) study were assessed 10 years later when they had a mean age of 19 years old. At the 10-year follow-up, the aggression of participants was measured using a peer rating measure. There was a significant positive relationship found between the violence rating of shows in the third grade and aggression 10 years later for the male participants. This relationship was not found for female participants.

Leyens, Camino, Parke, and Berkowitz (1975) also researched how viewing violent television, movies, and videogame media is related to aggression. Participants for the study were 802 high school students, who had a mean age of 16.83 years old. 48.4% of the participants were male and 45.9% were racial minorities. The participants were asked about their three favorite television shows, movies, and videogames when they were seven and eight years old and throughout their teenage years. The aggressiveness of the participants and the violent behaviors engaged in by the participants was assessed with measures of delinquency, physical aggression, trait aggressiveness, and general aggressiveness. Exposure to real life aggression was also measured. It was shown in the results that a current and childhood preference for violent media was predictive of violent behavior and general aggression in the participants. Preference for
violent media also added to the predictiveness of exposure to real life aggression for violent behavior and general aggression in the participants.

The effect of viewing violent movies on aggressive behavior was studied by Leyens, Camino, Parke, and Berkowitz (1975) in a field setting. The study included 85 boys in a private Belgian institution for boys in secondary school who lacked adequate care at home or who had problems with the court, school, or their parents. The race/ethnicity of the participants was not indicated. The participants were observed for six 30-second intervals every day for a week while they watched either a violent or nonviolent movie each day. They were also observed for a week before the week of movie watching, and for a week after the movie watching. It was found that there was a significant increase in physical aggression for the participants who watched the violent movies. This increase was the highest immediately following the viewing of the violent movies.

Phillips (1983) examined the relationship between violent televised sports events and aggressive behavior. He compared the dates of championship heavyweight prize fights from 1973 to 1978 to homicide rates in the United States. After controlling for periods of time when homicides normally go up (e.g. holidays, winter), it was found that homicides had a significant increase of an average of 7.47 on the third day after the championship heavyweight prize fights and an increase of 4.15 on the fourth day.

Kuntsche, Pickett, Overpeck, Craig, Boyce, and Gaspar de Matos (2006) investigated the relationship between viewing television and bullying in eight different countries. The study utilized data collected by the World Health Organization between 2001 and 2002. The sample included 31,177 adolescents age 11, 13, and 15 from the United States, Canada, Estonia, Israel, Latvia, Macedonia, Poland, and Portugal. The participants were 52.6% female and the
race/ethnicity distribution of the sample was not stated. Participants completed questionnaires that included information on the number of hours they watched television every day and how often they engaged in verbal and physical bullying behaviors. Although there was not a positive relationship found between watching television and physical bullying behaviors in all eight of the countries, there was a positive relationship found between television viewing and physical bullying behaviors in the United States. The United States tied Poland for second place in having the strongest positive relationship between television viewing and bullying behaviors. Estonia was the top ranked country.

Johnson, Cohen, Smailes, Kasen, and Brooks (2002) conducted a longitudinal study on the relationship between viewing violent television and aggressive behavior. Data was used from a series of interviews with families that occurred from 1975 to 1993, in which information about television viewing habits was obtained. The participants then filled out questionnaires concerning aggressive behaviors in 2000, and the arrest records of the participants in 2000 were also obtained. The participants were 707 children in northern New York who were 51% male and 91% Caucasian. They had a mean age of 5.8 years at the beginning of the study and a mean age of 30 years at its completion. The results showed that time spent watching television at a mean age of 14 was significantly and positively related to subsequent aggressive acts among participants with and without a history of aggressive behavior. The same results were found for time spent watching television at a mean age of 22. At both ages, there was a significant positive relationship found for the male participants between time spent watching television and subsequent assaults and physical fights.

In their longitudinal study, Huesmann, Moise-Titus, Podolski, and Eron (2003) studied the relationship between television violence and aggressive behavior and also investigated identification with the television models. Data was collected during a two-year period and during
a two-year follow-up period 15 years later. The participants were 557 elementary school students at a public school and 2 parochial schools in Illinois. During the initial data collection the participants were in the first through fourth grades, and at the 15-year follow-up they were 20 to 22 years old. During the two years of the initial data collection, participants were asked about their favorite television shows once each year. To assess their levels of identification with aggressive television models, participants were asked how much they acted similar or did things similar to four different aggressive characters. Aggressive behavior was measured with a peer nomination measure, and information was obtained about how realistic participants thought violent programs were. In the 15-year follow-up, participants were asked to identify their three favorite television programs, and aggression was measured through self-report, peer report, and criminal conviction records. As in previous studies, the results showed that viewing of violent television as a child was significantly and positively correlated with aggression as an adult. It was also found that identification with same sex, aggressive television models and perceptions that television violence is real as a child were both significantly and positively correlated with aggression as an adult.

Robinson, Wilde, Navracruz, Haydel, and Varady, (2001) did the opposite of what has been done in many studies on the relationship between media violence and aggressive behavior. They investigated the effect of a reduction in television and movie viewing and video game use on aggression in third and fourth grade students from elementary schools in San Jose, California. Information about time spent playing video games and watching television and movies was collected through questionnaires the participants filled out and through over the phone interviews with their parents. A peer nomination survey was used as a measure of aggressive behavior, and 60% of the participants were observed during recess for aggressive behaviors. After baseline data was collected, participants took part in an intervention aimed at reducing media usage. It
consisted of 18 lessons taught by their regular teachers. The parents of the participants were also sent newsletters to motivate them and give them strategies to reduce their children's media usage. Following the intervention, aggression levels and time spent playing video games and watching television and movies were measured again using the same methods. Compared to children who did not receive the intervention, children who received the intervention had a significant reduction in time spent playing video games and watching television and movies. They also had significant decreases in peer ratings of aggression compared to children who did not receive the intervention. The results of this study give even more evidence that the viewing of violent media and aggression have a positive relationship.

Hopf, Huber, and Weib (2008) examined the effects of violent media on violent behavior and delinquency. The participants in the study were 314 students in Germany with an average age of 12 years old and who were 58% male. The race/ethnicity of the participants was not stated. The participants filled out a questionnaire about how often they watched television, viewed horror or violent films, and played violent video games. They also completed measures of violent behavior, violence beliefs, and aggressive emotions and behavior. The participants then completed the same measures at a two-year follow up, when they had a mean age of 14.7 years. It was found that early exposure to violent media was predictive of later exposure to media violence and delinquency. Out of the three types of media studied, violent and horror movies were most strongly linked to violent behavior. Research has shown a positive relationship between viewing violent television and movies and aggressive behavior. A study examining this relationship in African Americans may help to explain the high prevalence of violence in the African American community.
Television /Movie Violence and Aggressive Affect and Cognition

In addition to aggressive behavior, aggressive affect and cognition have also been studied in relation to violent media. In one study focusing on the relationship between viewing violent movies and aggressive affect, Bushman (1995) tested his hypothesis that people who view violent movies are more likely to experience subsequent aggressive affect than people who do not. The sample consisted of 160 undergraduate students, who were 50% male and 50% female. The race/ethnicity of the participants was not stated. Half of the sample watched a 15-minute segment of a violent movie and the other half watched a 15-minute segment of a nonviolent movie. As a measure of aggressive affect, the participants completed a modified version of the Hostility subscale of the Multiple Affect Adjective Checklist-Revised before and after viewing the movie. As a part of a previous study, they also completed the Assault subscale of the Buss-Durkee Hostility Inventory, which was used as a measure of trait-aggressiveness. As predicted, the participants who watched the violent movie reported higher levels of aggressive affect than those who watched a nonviolent movie. Trait aggressiveness was found to moderate this effect.

Violent television and movies have also been found to have a positive relationship with aggressive cognition. Bushman (1998) performed a series of experiments to test his hypothesis that the viewing of violent movies makes aggressive constructs more accessible in the minds of viewers. The first experiment had 200 undergraduate student participants. 50% of the participants were men and 87% were Caucasian. The participants watched either a violent or nonviolent segment of a movie and then completed a word association task, which included aggressive words, nonaggressive words, and homonyms with multiple meanings, one of which was aggressive. It was found that participants who saw the violent movie segment had a greater number of aggressive associations to the nonaggressive words and the words with the homonyms than the participants who watched the nonviolent movie segment.
In the second experiment by Bushman (1998), there were 300 undergraduate participants. 50% of the participants were women and 87% were Caucasian. The participants watched either a violent or nonviolent movie segment. They then performed a lexical decision task, in which they decided as quickly as possible if a string of letters was a word. Half of the words presented in the task were aggressive and half were nonaggressive. It was found that participants who watched the violent movie segment had significantly faster reaction times to the aggressive words than the participants who watched the nonviolent segment, and there was no difference in reaction times found for the nonaggressive words. Bushman believed these two experiments demonstrated that the viewing of violent media makes aggressive constructs more accessible.

Anderson (1997) conducted a study, in which both aggressive cognition and aggressive affect were examined. In his study, 53 undergraduates, whose race/ethnicity was not identified, viewed a 15-minute movie segment of either a violent or nonviolent movie. After viewing the movie segment, aggressive affect was measured using a revised form of the State Hostility Scale, which asked about participants’ current levels of various emotions, and aggressive cognition was measured using a reading task. During the reading task participants were presented with a series of words that had periods in between each letter and were either aggressive or nonaggressive. The participants were instructed to read each word out loud as fast as possible. The results showed that the participants who watched the violent movie reported significantly greater state hostility than those who watched the nonviolent movie. There was no relationship found between the type of movie watched and the reading task. Research has shown a positive relationship between violent television and movies and aggressive affect and cognition. It would be of interest to determine if being a young, African American man might replicate previous findings or if there might be differences to explore.
Larger Consumption of Television/Movies Viewed at Home by African Americans

Prevalence data indicates that African Americans watch more television and movies at home compared to other Americans. According to a study done on all African Americans who watch television in the United States from October 2004 to November 2004, African Americans watch more television than the average American with a total of 11 hours and 4 minutes per day for each household (Steadman, 2005) compared to 8 hours and 21 minutes per day in the average household (The Nielsen Company, 2009). African American men age 18 and over watch an average of 4 hours and 40 minutes a day, and African American teenagers ages 12 to 17 watch an average of 3 hours and 6 minutes a day (Steadman, 2005). In addition, a higher percentage of African Americans watch movies compared to Caucasians. Caucasians and African Americans watch movies at the movie theater at about the same rate, but 76% of African Americans watch at least one movie a week at home compared to 69% of Caucasians (Pew Research Center, 2006).

One hypothesis for the reason why African Americans watch more television and movies at home than other Americans is that African Americans are often at a low socioeconomic level, and therefore do not have much money or resources to spend on activities outside of the home (Stroman, 1991). Considering the substantial consumption of television and movies by African Americans, it may be of importance to investigate how this population is affected by viewing television and movies.

The Effect of Television/Movie Violence on African American Men

Despite the considerable time spent watching television and movies by African Americans, there has been little research done on the relationship between violent media viewing and aggression that focuses on African Americans in general (Levin and Carlsson-Paige, 2003; Stroman, 1991), and therefore, African American men in particular. In one study by Thelen and
Soltz (1969) African Americans made up the majority of participants studied. The imitation of filmed models was examined using 35 male participants, aged 4 through 6. Most of the participants were in the lower socioeconomic class and 86% of them were African American. The participants watched a video of a male model physically and verbally aggressing toward a Bobo doll. There were different levels of reinforcement given to the model. Some participants watched a video with the model receiving no reinforcement. Some watched a video with the model receiving continuous verbal reinforcement from a non-visible person after every aggressive act. Another group of participants watched a video with the model receiving verbal reinforcement after every other aggressive act. The control group did not watch a video. After the participants watched one of the videos, they were taken to a room and observed while they played with toys. The results showed that the participants who watched a video with the aggressive model produced more imitative, aggressive acts than the control group. Contrary to the expectations of Thelen and Soltz, the participants that watched the video with the model that received no reinforcement produced about three times as many imitative, aggressive acts, compared to participants who watched the videos with the model that received reinforcement. In this experiment, African American boys were shown to imitate aggressive models in the same way that Caucasian children had been shown to do in other experiments.

Thelen and Soltz (1969) compared the previously described experiment to a similar experiment. The exact same methods were used, but the characteristics of the sample were different. The participants were 30 Caucasian males aged four through six. Most of them were in the middle or upper socioeconomic class. The same videos were shown to the participants except that instead of a video with verbal reinforcement after every other aggressive act, there was a video in which the model received a single verbal reinforcement at the end. There was also no control group. Different results were obtained concerning the differences in imitation after
viewing the different levels of reinforcement in this experiment compared to the first experiment. In this experiment it was found that the participants who saw the continuous reinforcement video produced more imitative, aggressive acts than the participants who saw the video with no reinforcement. This was the opposite of what occurred in the first experiment with lower socioeconomic class participants who were 86% African American. Therefore, race/ethnicity as well as socioeconomic status may explain these outcome differences. Given the lack of recent studies on how violent television and movies affect African Americans, it may be important to explore this topic.

Although there has not been much research on the relationship between violent media and aggression among African American men in particular, a number of earlier and recent studies have found that aggression after exposure to violent media is higher for males than for females (Bandura et al., 1963; Eron, 1963; Eron et al., 1972; Hicks, 1965; Johnson et al., 2002). Bushman (1995) demonstrated this trend in a study on the effect of violent movies on aggression. The sample for the study was 330 male and 408 female undergraduate students, whose race/ethnicity was not identified. While their blood pressure and heart rates were being monitored, the participants completed a task, in which they set levels of white noise for an "ostensible opponent" to hear during 25 separate trials (Bushman, 1995, p. 957). Before setting the level, the participants saw the level the opponent set for them on a computer screen. The higher level of white noise the participants set for the opponent, the more aggressive they were believed to be. After 25 trials, the participants watched a segment of a violent or nonviolent movie. The participants then participated in the same white noise task again. It was shown in the results that the participants who saw the violent movie showed significantly more aggression than the participants who saw the nonviolent movie. The male participants were found to be significantly
more aggressive than the female participants because they set the white noise level at a
significantly higher level than the females.

Bartholow and Anderson (2002) conducted a similar experiment with video games. 43
undergraduate students aged 18 to 23 participated in the study. The sample was 51% male, and
the race/ethnicity of the sample was not indicated. The participants played either a violent or
nonviolent videogame and then completed a reaction time task. Participants were made to
believe they were competing against an opponent in pushing a button as quickly as possible
following an auditory tone. There were 25 trials, and whoever lost each trial received a
punishment of hearing white noise, which had a volume that was set by the winner. It was found
that the male participants who played the violent videogame behaved more aggressively by
setting the level of white noise higher than the male participants who played the nonviolent
videogame. However, there was no significant difference between the white noise levels set by
the female participants who played the violent videogame and the female participants who played
the nonviolent videogame.

Ostrov, Gentile, and Crick (2006) found similar results in a longitudinal study. There
were 76 participants in the study, who were 50% male, 62% Caucasian, and 11% African
American. Their mean age at the start of the study was 47 months. Parents of the participants
were asked about the amount of time their child spent watching television. They were also asked
to name their child’s three favorite television shows and three favorite movies and to rate them on
violence. Aggressive behaviors of participants were assessed through four separate observations
of the participants during the two-year period and through a measure that was completed once by
the teachers of the participants. It was found that time spent watching television had a positive
relationship with physical aggression for the male participants but not for the female participants.
After reviewing the literature on the relationship between violent media and aggression,
Huesmann and Taylor (2006) also concluded that males engage in higher levels of physical aggression following exposure to violent media than females. Furthermore, in a meta-analysis of 217 studies on the effect of violent television on aggression, Paik and Comstock (1994) found that males consistently act more aggressive than females following exposure to violent television. Researchers, who have studied predominantly Caucasian adult participants and African American children, have found a link between violent television and movies and aggression. Furthermore, since researchers, who have studied males in general, have found that males have higher levels of aggression after exposure to violent media, it may be of interest to study how African American men in particular are affected by violent media.

The Role of Race/Ethnicity in the Imitation of Models’ Behaviors

A few factors related to race/ethnicity have been investigated in the research on observational learning and behavior modeling, and the research has resulted in mixed findings. One factor that may influence imitation by African American men is the similarity of the model in race/ethnicity. There have been inconclusive findings concerning the importance of a model’s race/ethnicity in eliciting the imitation of behavior from African American children and adolescent observers. When it was investigated by Thelen (1971), no racial preference was shown by African American observers. The participants for the study were 32 Caucasian and 32 African American males in kindergarten and first grade. The participants watched either a video of a Caucasian male model or an African American male model emitting aggressive behaviors while playing. After watching one of the videos, the participants were taken to another room and observed while they played with toys. To assess memory for the aggressive acts of the models, the participants were then asked to recall what the model did in the video. It was shown in the results that the Caucasian participants imitated the aggressive behaviors of the African American model significantly more than the Caucasian model, while the African American participants
imitated the African American and Caucasian models almost equally. The Caucasian participants were found to produce more non-imitative, aggressive behaviors than the African American participants. It was also found that the African American participants recalled more of the behaviors of the models than the Caucasian participants, and all of the participants recalled the behaviors of the Caucasian models more than the behaviors of the African American models.

Neely, Heckel, and Leichtman (1973) found different results. The participants for the study were 80 African American children aged 3 to 5. The participants were asked to perform a discrimination task, in which they chose one toy from a pair of two. Before starting the task, they watched a video of either an African American or Caucasian model of the same age range perform the task. The participants were then observed completing the task. It was found that the African American participants imitated the Caucasian model more than the African American model.

King and Multon (1996) had yet another finding concerning the race/ethnicity of models. The sample was 108 African American junior high school students, who were between the ages of 11 and 16 and were 43% male. The participants filled out a survey that asked information about favorite television characters, identification with characters, and role model influence of characters. It was shown in the results that the African American participants chose more African American television characters as favorite characters and as role models than they chose characters of other races/ethnicities. Although this study investigated self-reports of adolescents regarding their role models as opposed to directly investigating imitation behaviors, this finding may be of particular importance since it was found by Martin and Bush (2000) that African American adolescents view athletes and entertainers as better role models than their fathers. African American males may be looking to African American males in the media as models of appropriate behavior. The Martin and Bush study was conducted to determine which role models
have the strongest influence on adolescent consumer purchases. Participants in the study were 218 high school students aged 13 to 18, who were 45% male, 61% Caucasian and 27% African American. To determine which role models had the most influence over the participants, participants completed one role model influence scale on their mothers, one on their fathers, one on their favorite athlete, and one on their favorite entertainer. It was found that the Caucasian participants viewed their fathers as role models to a greater extent than the African American participants. The African American participants rated their fathers as the lowest potential role model out of the four categories. Given the inconclusive findings about how the race/ethnicity similarity of a model affects African Americans, a study exploring this issue further may be of significance.

Another factor that may influence whether or not African American men imitate violent media models is their self-efficacy for violence. In a qualitative study done by Manzo and Bailey (2005), Black Canadian juvenile offenders were interviewed about how they define their race/ethnicity and the extent to which they associate criminality with their identities. The majority of the participants were aware of the stereotypes that Blacks are violent and are criminals and they seemed to have adopted these characteristics as part of what it means to be Black (Manzo and Bailey, 2005). One participant said, "if this is how society sees me, I might as well act in this way" (Manzo and Bailey, 2005, p. 296). To the extent that violent behavior is perceived to be associated with an individual’s ethnic/racial group, viewing violent behavior may increase that individual’s self-efficacy for violence, i.e., it may make them more likely to imitate violent models. Although the psychosocial experiences of Black Canadians may differ from those of African Americans, the negative stereotypes appear to be shared experiences. Therefore, research on young African American male samples may reveal culturally-relevant knowledge concerning the roles that the similarity of the television/movie model in race/ethnicity and self-
efficacy for violence play in the participants’ likelihood to commit violent acts following
television/movie violence.

Culturally-Relevant Protective Factors for African American Men

An examination of culturally-relevant protective factors from aggressive and violent
behaviors may be of interest in determining protective factors for African American men against
television and movie violence. Researchers have found socioenvironmental and culturally-
relevant factors that protect African American young people from behavioral problems such as
aggressive or violent acts (Caldwell, Kohn-Wood, Schmeelk-Cone, Chavous, & Zimmerman,
2004; Herrenkohl et al., 2003). These culturally-relevant factors concern parental influence
within the family and cultural/racial dignity. Parental supervision has been well-supported as a
protective factor for African American adolescents and young adults against a number of at-risk
behaviors such as delinquent behavior, aggressive acts, and alcohol/drug use (Cookston, 1999;
Herrenkohl et al., 2003; Reboussin, Hubbard, & Ialongo, 2007). Herrenkohl et al. found “good
family management” to be a protective factor against violent behavior for African Americans at
age 15 (p. 185). Good family management is described by Herrenkohl et al. as parents providing
supervision, reinforcement of good work habits, and clear rules and expectations for behavior.
Reboussin et al. (2007) conducted a longitudinal study of 488 African Americans who were 53%
males. Participants were in the first grade at the beginning of the study and in the eighth grade at
the end. Reboussin et al. found that high parental monitoring was a protective factor against
marijuana use. Cookston (1999) investigated the relationship between parental supervision and
delinquent behavior in a sample of 684 participants aged 9 through 11, who were 64.2%
Caucasian, 26.8% African American, and 53% male. Cookston found that those with low levels
of parental supervision engaged in higher amounts of delinquent behavior.
Race centrality has been found to be a protective factor against behavioral problems in a number of studies (Caldwell, Kohn-Wood, et al., 2004; Zimmerman, 2004). Further, race centrality may serve as a protective factor for African American young men against engaging in violence against African Americans. As a component of the Multidimensional Model of Racial Identity, Sellers, Rowley, Chavous, Shelton, and Smith (1997) defined race centrality as the “extent to which a person normatively defines her or himself with regard to race” (p. 806). It is the importance of race in forming a definition of oneself (Chavous et al., 2003). Sellers et al. (1997) posited that one’s self-concept consists of a hierarchical ranking of different characteristics that are important to one’s identity. The higher race is ranked, the higher is one’s race centrality. For example, an African American man may view being a male as more important to his identity than being African American, whereas another African American man with higher race centrality would view being African American as more important to his identity than being a male (Sellers, Chavous, & Cooke, 1998). Race centrality is thought to remain relatively stable across situations (Sellers, Chavous, & Cooke, 1998).

Race centrality has been found to be a protective factor against a number of negative behaviors. Caldwell et al. (2004) conducted a longitudinal study on race centrality with 325 African Americans, who were 45% male. At the start of the study, the participants were in the ninth grade. Caldwell et al. found that African American males are less likely to engage in violent behavior when confronted with discrimination if their race centrality is high. Race centrality has been shown to be a protective factor against additional risky behaviors including adolescent alcohol use, which is often a factor in acts of violence. Caldwell, Sellers, Bernat, and Zimmerman (2004) investigated the relationship between race centrality and alcohol use. The sample in the study included 488 African Americans, who had a mean age of 17 and were 46% male. It was found that a high level of race centrality was associated with less alcohol use in participants who
felt positively about African Americans. Research on the protective factors of race centrality is consistent with an earlier study on the protective nature of having a positive sense of one's racial identity. Rotheram-Borus (1990) conducted a study on racial identity with 330 high school students who were 38% male. The sample was racially/ethnically diverse with 21% Caucasian, 30% African American, 30% Hispanic, and 19% Asian. It was shown in the results that, along with Caucasian participants, African American participants with strong racial identities engaged in less problem behaviors than those who had lower racial identities. Since race centrality has been found to be a protective factor against a number of negative behaviors, a study investigating its effect on aggressive affect may add to the literature that aims to prevent violence.

Summary

Depictions of aggression and violence are very common in the video media. An abundance of research has shown that the more a person views violent television and movies, the more likely it is for that person to engage in subsequent aggressive acts. This relationship has been shown to be even stronger for males. Although African Americans watch more television than the average American (Steadman, 2005) and more movies than Caucasians (Pew Research Center, 2006), there has been minimal research that focuses on the effect of viewing violent television and movies on African Americans. The research done on videotaped, aggressive models has found that African Americans children and adolescents will imitate a model's behavior just as Caucasians have been shown to do, but there is a need for research with African Americans adult males that focuses on violent television shows and movies. For African American males in particular, self-efficacy for violence may be an important factor, while racial centrality may be an important protective factor that is culturally-relevant.
Chapter II

Rationale and Hypotheses

The relationship between media violence and aggression has been a widely studied topic (Jigme & Sanders-Phillips, 2003). Violent media has been found in numerous studies to have a positive relationship with aggressive thoughts, behaviors, and affect (Anderson et al., 2003; Bushman, 1998; Christakis & Zimmerman, 2007; Coyne et al., 2008; Eron, Huesmann, Lefkowitz, & Walder, 1972; Zillmann & Weaver, 1999). This relationship has been found for an assortment of media outlets including television, movies, videogames, and music. Although African Americans committed 51.5% of all homicides in 2008, in which the race of the offender was known (U.S. Department of Justice Criminal Justice Information Services Division, 2008), there has been little investigation into the link between aggression and violent media in the African American population (Levin & Carlsson-Paige, 2003; Stroman, 1991).

The samples included in the majority of studies on aggression and violent media have been primarily Caucasian and middle-class. This research suggests that the viewing of violent television and movies has a positive relationship with aggressive behaviors, cognition, and affect (Anderson et al., 2003; Bushman, 1998; Christakis & Zimmerman, 2007; Coyne et al., 2008; Eron et al., 1972; Zillmann & Weaver, 1999). As African Americans watch more television than the average American (Steadman, 2005), and more movies than Caucasians (Pew Research Center, 2006), there has been a call by some researchers for an investigation of how the relationship between violent media and aggression may affect African Americans. A study examining this relationship may provide useful information leading to a reduction in violence-provoking factors.
This research aims to study such factors as they relate to watching violent movies. Bandura's social learning theory posits that learning often takes place through the observation and imitation of models (Bandura, 2004), and numerous studies have suggested that imitation of models is enhanced when the model is similar to the observer (Grace, David, & Ryan, 2008; Hilmert, Kulik, & Christenfeld, 2006; Schunk, 1987; Slaby & Frey, 1975; Wolf, 1973). Another aim of this study is to explore differences in self-efficacy for aggression/violence in African American young men when the race/ethnicity of the aggressive/violent model depicted in a movie clip is similar versus different to theirs.

Given the high rates of violence in which young African American men are involved, the high levels of television and movies viewed by African Americans, and the connection that has been made between media violence and aggression, a study on the effects of media violence on young African American men may contribute to the literature that aims to understand and prevent violence.

**Hypothesis 1**

Participants will have an increase in aggressive affect after viewing a violent movie clip as compared to participants in the control condition who will view a nonviolent movie clip. This will be measured by an increase in scores on the Revised State Hostility Scale (SHS) from before watching the violent movie clip to after watching the violent movie clip. Various research studies have found that aggressive affect increases after watching violent movies and television (Anderson, 1997; Anderson, 2003; Bushman, 1995). Consistent with previous research, it is predicted that aggressive affect will increase in an African American, male sample following the viewing of a violent movie clip.
Hypothesis 2

There will be greater self-efficacy for aggression in the group that watches a movie clip with an African American male committing an act of violence as compared to the group that watches a movie clip with a Caucasian male committing an act of violence and the control condition group that watches a nonviolent movie. This will be measured by higher scores on the modified self-efficacy questionnaire for the participants watching the movie clip with the African American male committing an act of violence than the group that watches a movie clip with a Caucasian male committing an act of violence.

Hypothesis 3

Among the African American young adult male sample, race centrality at baseline will have a negative relationship with level of aggressive affect after viewing a violent movie clip. Race centrality will be measured with the Race Centrality scale of the Multidimensional Inventory of Black Identity (MIBI, Sellers et al., 1997). Aggressive affect will be measured using the Revised State Hostility Scale.

Hypothesis 4

Among the African American young adult male sample, level of race centrality at baseline will have a negative relationship with level of self-efficacy for aggression after viewing a violent movie clip. Race centrality will be measured with the Race Centrality scale of the Multidimensional Inventory of Black Identity (MIBI, Sellers et al., 1997). Self-efficacy for aggression will be measured using a modified version of the self-efficacy questionnaire used by Perry, Perry and Rasmussen (1986) in their study of aggression and self-efficacy.
Chapter III

Method

Participants

Participants in this study will be African American male, undergraduate students ranging in age from 18 to 22, recruited through the general psychology classes and other introductory level classes at a historically Black university located in the southeast region of the United States. Participants who do not identify themselves as African American on the demographic questionnaire will be excluded from the analysis. Analyses will include a two-factor ANOVA, a one-factor ANOVA, and linear correlational analyses. Based on Cohen’s (1992) power table, in order to have a power of 0.80 to detect a medium effect size with an alpha of 0.05, 156 participants would be needed; therefore, 160 participants will be recruited to account for potential study dropouts.

Measures

Aggressive affect. Aggressive affect will be measured using the revised version of the State Hostility Scale (SHS) used in Anderson (1997). This scale asks participants how they currently feel by having them rate various feelings (e.g., “I feel outraged,” “I feel bitter”) using a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). It has 35 items and has been found to have an internal reliability of .93 (Carnagey & Anderson, 2005). The Revised State Hostility Scale has been used in numerous studies to measure levels of aggressive affect after exposure to media, and consistent with these studies, responses to the 35 items on the Revised State Hostility Scale will be summed with higher scores indicating more aggressive affect (Anderson, 1997; Anderson & Carnagey 2009; Anderson, Carnagey, & Eubanks, 2003; Carnagey & Anderson, 2005; Ivory & Kalyanaraman, 2007). The Revised State Hostility Scale
will be used to measure state hostility because it has been widely used as a measure of aggressive affect in the violent media literature. Furthermore, since Anderson (1997) found that participants who watched a violent movie clip had significantly greater scores on the Revised State Hostility Scale than participants who watched a nonviolent movie clip, the Revised State Hostility Scale will be used to determine if this finding can be replicated with an African American sample.

**Race centrality.** Race centrality will be measured using the Multidimensional Inventory of Black Identity (MIBI) (Sellers et al., 1997). The MIBI was developed by Sellers et al. to measure race centrality and two other components of the Multidimensional Model of Racial Identity in African American college students and adults. The Centrality Scale of the MIBI consists of eight statements concerning different aspects of race centrality, such as "In general, being Black is an important part of my self-image" and "I have a strong attachment to other Black people." Participants rate the statements using a 7-point Likert scale, which ranges from 1 (strongly disagree) to 7 (strongly agree). In one study the Centrality Scale has been found to have internal reliability ranging from .75 to .78 (Sellers et al., 1997). The Centrality Scale has been used in numerous studies to assess race centrality in African Americans (Caldwell, Zimmerman, Bernat, Sellers, & Notaro, 2002; Chavous et al., 2003; Sellers, Caldwell, Schmeekle-Cone, & Zimmerman 2003; Sellers, Chavous, & Cooke, 1998). In the current study, the entire MIBI will be administered, which contains a total of 56 items, which are all on a 7-point Likert scale. While only the Centrality Scale of the MIBI will be addressed in the main study, the additional subscales (Ideology and Regard Scales) will be of interest to subsequent research.

**Self-efficacy for aggression.** Self-efficacy for aggression will be measured with a modified version of the self-efficacy questionnaire used by Perry, Perry and Rasmussen (1986). Perry et al.'s self-efficacy questionnaire has been used in various studies to measure perceived self-efficacy for aggression (Andreou, 2004; Camodeca & Goossens, 2005; Gottheil & Dubow,
Perry et al.’s self-efficacy questionnaire asks respondents to rate how easy it would be to perform specific behaviors in response to various situations, and the respondents rate the ease of performing the behaviors on a 4-point Likert-type scale. Perry et al.’s self-efficacy questionnaire contains a total of 46 items, of which 16 items are related to aggression (including eight items that measure perceived self-efficacy for aggression and eight items that measure perceived self-efficacy for inhibition of aggression). There are 30 additional items, which measure perceived self-efficacy for verbal persuasion skills and perceived self-efficacy for pro-social behavior.

The self-efficacy questionnaire used in the Perry et al. (1986) study was designed for children aged 9 through 12. However, in the current study, the social situations described in the questionnaire may not be relatable to men aged 18 to 24. Thus, it is necessary to modify items in the questionnaire. A panel of four professional psychologists (two Caucasian and two African American) will assist in generating a list of at least two alternate scenarios for each item that are more applicable to the participants of this study. The same panel will then vote on the most appropriate, culturally-relevant scenario for each item. For each item, the scenario with the most votes will be used. If there is a tie in votes, the panel will discuss the item in order to select which scenario is most similar to that used by Perry et al. The modified version of the self-efficacy questionnaire will use the same format and number of items as used by Perry et al. All 46 items will be administered to the participants, which include 16 aggression-related items and 30 additional items to make it less obvious that aggression is being assessed.

**Violent video clips.** One movie clip showing a violent act committed by an African American man against an African American man, one movie clip showing a violent act committed by a Caucasian man against a Caucasian man, and one movie clip that is nonviolent will be used in the study. A focus group of approximately seven African American, male
undergraduate students will help to determine which movie clips will be used. The focus group will be given a written description of the violent movie clip and the nonviolent movie clip used in the studies done by Anderson (1997) and Bushman (1995). After reading the written descriptions, the focus group members will be asked to generate a list of recent movie scenes that are similar to the movie clips in the Anderson (1997) and Bushman (1995) studies. The focus group members will be led in a discussion of each movie clip one at a time. They will be asked to come to a consensus on one recent nonviolent movie scene that is most comparable to the nonviolent movie clip used in the Anderson (1997) and Bushman (1995) studies. They will also be asked to come to a consensus on one recent violent movie scene with an African American assailant and African American victim and one recent movie scene with a Caucasian assailant and Caucasian victim that are most similar to the violent movie clip used in the Anderson (1997) and Bushman (1995) studies. If all of the focus group members cannot agree on the recent movie scenes, the scenes that the majority of the members choose will be used in the study.

Procedure

The primary researcher will submit this study to be approved by two Institutional Review Boards, including the primary researcher's university and the university from which the study participants will be recruited. Upon approval, this research will comply with the protocols established by the Institutional Review Boards. Experiment procedures will be carried out by the primary researcher and undergraduate social science students trained by the primary researcher. The primary researcher will recruit students by describing the study and announcing the time and location to students in various introduction level classes. Approximately two days prior to the study, the primary researcher will send flyers to the classes to remind students of the study's time and location. Upon arriving at the research location, participants will be sequentially assigned to one of three conditions: the African American model condition, the non-African American model
condition, and the control condition. The African American model condition includes a movie clip with an African American man committing a violent act against an African American male victim and the non-African American model condition includes a movie clip with a Caucasian man committing a violent act against a Caucasian male victim. The control condition includes a nonviolent movie clip.

The participants will receive a sealed envelope with a room assignment printed inside of it. The three movie clips will be shown in three different rooms (one in each room), and after being sequentially assigned to a condition, participants will be directed to the room in which the corresponding movie clip is shown. The number of participants present in each room will be recorded. After obtaining informed consent, participants will complete the Revised State Hostility Scale, and the MIBI. Participants will then view one of the movie clips based on random assignment. Following the movie clip, participants will complete the Revised State Hostility Scale and self-efficacy questionnaire. Participants will randomly be given the Revised State Hostility Scale and the modified self-efficacy questionnaire in different orders in an effort to reduce the possibility of order effects. Lastly, participants will be administered a brief demographic questionnaire. After each group has viewed the movie clip and completed the measures, participants will be given an opportunity to remain in the room to be debriefed and to ask questions and voice concerns about the research study. In order to increase the likelihood of participation, participants will be given the chance to enter a raffle for one of two $50 cash equivalent gift cards. In addition, the investigator will encourage the professors of the students to award course-related participation credit.
Chapter IV

Proposed Analyses

In order to test the first hypothesis that African American males will have an increase in aggressive affect after viewing a violent movie, a two-factor ANOVA will be used. The two factors will be time (before movie clip, after movie clip) and group (violent model is African American, violent model is Caucasian, no violent model), and the dependent variable will be aggressive affect as measured by the Revised State Hostility Scale. An alpha level of .05 will be used to indicate statistical significance.

A one-factor ANOVA will also be used to test the second hypothesis that the group that watches the movie clip with the African American aggressive model will have greater self-efficacy for aggression than the group that watches the movie clip with the Caucasian aggressive model. The ANOVA will compare the two groups on self-efficacy for violence. An alpha level of .05 will be used to indicate statistical significance.

The third and fourth hypotheses will be measured with linear correlational analyses. The correlation between race centrality (as measured by the Race Centrality subscale of the MIBI) and aggressive affect (as measured by the Revised State Hostility Scale) will be computed to test the hypothesis that there will be a negative correlation between race centrality and aggressive affect. The correlation between race centrality and self-efficacy for aggression (as measured by the modified version of the Perry et al. (1986) self-efficacy questionnaire) will be computed to test the hypothesis that there will be a negative correlation between race centrality and self-efficacy for aggression after viewing a violent movie clip. An alpha level of .05 will be used to indicate statistical significance.
References


McNally.


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exposure to aggressive home culture in the relationship between negative reciprocity beliefs and aggression. *Journal of Research in Personality, 44*, 380-385. doi: 10.1016/j.jrp.2010.04.003


Hicks, D.J. (1965). Imitation and retention of film-mediated aggressive peer and


Rosekrans, M.A. (1967). Imitation in children as a function of perceived similarity to


Appendix A
Demographic Form

Please provide answers to the following demographic questions:

1. Age:  __________

2. Current Year in School:  __________________________

3. Religion or Spirituality:

4. Sex:  □ Male  □ Female

5. Race/Ethnicity:

   □ Asian/Pacific Islander

   □ Black/African American, Non-Hispanic

   □ Hispanic/Latino

   □ Native American/Alaskan Native

   □ White/Caucasian, Non-Hispanic

   □ Other:  __________________________
6. What region of the United States is your permanent address in?
   □ Midwest (Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin)
   □ South Atlantic (Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia)
   □ Southeast (Alabama, Kentucky, Mississippi, Tennessee)
   □ Southwest (Arkansas, Louisiana, Oklahoma, Texas)
   □ West (Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming)

7. Please answer the following questions about you and your family.

Are you the first in your immediate family to attend college? □ Yes □ No □ don't know

Was your mother was born in the United States? □ Yes □ No □ don't know

Was your father was born in the United States? □ Yes □ No □ don't know

Who lived in your household during your high school years (Check all that apply)

□ Mother □ Grandmother □ Aunt □ Foster Family □ Brother(s)
□ Father □ Grandfather □ Uncle □ Friend(s) □ Sister(s)
□ Others:

________________________________________
Appendix B

Informed Consent Document

You are being asked to volunteer to participate in a project conducted through Xavier University. By signing below, you are indicating your consent for participation. An overview of the study’s procedures is outlined below:

This study seeks to understand the movie viewing process. First, you will complete two questionnaires – one about your background and one about your thoughts or emotions. Next, you will watch a movie clip. After viewing the movie clip, you will complete two additional questionnaires and a demographic form. Upon completion of the study, your name will be entered in a raffle for one of three $50 gift cards to a local mall.

There are no foreseen risks for this study. Because some people are uncomfortable to questions that appear in various questionnaires; the nature of some of the questions in this study may possibly be uncomfortable for you. Careful measures to ensure your privacy and confidentiality will be exercised. Your name will not be used on any of the questionnaires that you complete. Also, you have the right to stop and withdraw from the study at anytime, without penalty.

After you complete the questionnaires, you will be asked to provide some identifying information if you choose to be entered into the raffle. This information will be kept separate from the questionnaires, as all of the questionnaires will be confidential and anonymous. Also, the questionnaires will be locked in a storage container. Only the principle investigator, Rena Hill, and her faculty advisor, Dr. Anna Ghee, will have access to the stored data. Consistent with ethical guidelines, data will be destroyed in six years.

If you have questions at any time during this study, you may direct them toward the researcher that is present. After the completion of the study, you will receive a copy of this form along with an additional paper that also contains contact information for the researcher. Please feel free to contact the researcher, Rena Hill, (614-805-6978 or hillr3@xavier.edu) or her faculty advisor, Dr. Anna Ghee (513-745-3533 or ghee@xavier.edu) with your questions or comments.
If you agree to participate, please sign below and take this form to the researcher for further instructions.

_______________________________
Participant Signature

If you do not agree to participate, please check here □ and take this form to the researcher for further instructions.
Appendix C

Debrief Form

Thank you for your participation in this study! Previous research has indicated that watching violent movies is related to increases in aggressive thoughts and emotions. The main purpose of this study is to evaluate if aggressive emotions are increased in African American men after viewing violent movies, and if racial identity may lower aggressive emotions in African American men. The study will also investigate whether the race/ethnicity of the characters in the movie clip matters.

Everyone who participated in the study completed the same questionnaires. Some participants watched a movie clip with an African American man behaving aggressively/violently and others watched a movie clip with a Caucasian man behaving aggressively/violently.

Your participation in this study is greatly appreciated. In order to get genuine and accurate responses, we ask that you do not discuss the purpose of this study with others, especially other students on campus, as they may also be participants. We also ask that you leave this debrief form with the researcher. You will be given the bottom part of this form which contains contact information if you have any questions or concerns or are interested in the results of this study.

THANK YOU AGAIN FOR YOUR PARTICIPATION.

You are welcome to contact the researcher, Rena Hill (614-805-6978 or hillr3@xavier.edu) or her faculty advisor, Dr. Anna Ghee (513-745-3533 or ghee@xavier.edu) with your questions or comments about this research study.
Appendix D

Participant Raffle Entry Form:

In order to be entered into the raffle, please give your name and email address below:

1. Name: ____________________________

   Email Address: ______________________
Chapter V: Dissertation

Abstract

This study investigated the effects that the viewing of violence in movie clips has on the aggressive affect and self-efficacy for aggression/violence among African American men when the aggressive/violent model is similar versus different to them in race/ethnicity. A dimension of racial identity (race centrality) was also investigated as a protective factor against aggressive affect and self-efficacy for violence. The sample consisted of 127 African Americans aged 18 to 22, of which only the 76 men were investigated in this study. Aggressive affect significantly increased after viewing a movie clip with an African American, aggressive model but not after viewing a movie clip with a Caucasian, aggressive model. There were no significant results found concerning self-efficacy for aggression. There was no relationship between race centrality and aggressive affect.
Media Violence and its Effects on Young African American Men

The relationship between media violence and aggression has been a widely studied topic (Jiguet-P & Sanders-Phillips, 2003). In numerous studies, violent media has been found to have a positive relationship with aggressive thoughts, behaviors, and affect (Anderson et al., 2003; Christakis & Zimmerman, 2007; Coyne et al., 2008; Eron, Huesmann, Lefkowitz, & Walder, 1972). The research that investigates the link between aggression and violent media within the African American population, however, is very limited (Levin & Carlsson-Paige, 2003; Stroman, 1991).

The samples included in the majority of studies on aggression and violent media have been primarily Caucasian and middle-class. Since African Americans watch more television than the average American (Steadman, 2005) and more movies than Caucasians (Pew Research Center, 2006) and they commit a high volume of violent crimes (Heron, 2007; US Department of Justice Bureau of Justice Statistics, 2010b; U.S. Department of Justice Criminal Justice Information Services Division, 2008), studies examining how the relationship between violent media and aggression affects African Americans might provide useful information leading to a reduction in violence-provoking factors. This research aimed to study such factors as they relate to watching violent movies.

The large body of extant research indicates that increases in aggressive affect, cognition, and behavior are related to watching violent media (Anderson et al., 2003). Bandura's social learning theory posits that learning often takes place through the observation and imitation of models (Bandura, 2004), and numerous studies have suggested that the imitation of models is enhanced when the model is similar to the observer (Grace, David, & Ryan, 2008; Hilmert, Kulik, & Christenfeld, 2006; Schunk, 1987; Slaby & Frey, 1975; Wolf, 1973). This research study
tested this theory in regards to how affect and cognition are influenced by exposure to vicarious violence as it relates to African American men. The researcher investigated the influence that observing aggressive/violent models in movies clips has on aggressive affect. There were two additional aims of the study that are relevant to the African American experience. One additional aim was to examine a cognitive factor, i.e., whether self-efficacy for violence is higher when the aggressive male model is portrayed by an African American in an African American context versus a model that is not African American. An additional aim was to explore the role of race identity as it concerns factors related to violent behavior, and toward this aim, the relationships between race centrality, aggressive affect, and self-efficacy for violence were investigated. Given the high rates of violence in which young African American men are involved, the high levels of television and movies viewed by African Americans, and the connection that has been made between media violence and aggression, a study on the effects of media violence on young African American men may contribute to the literature that aims to understand and prevent violence.

Social Learning Theory

According to the social learning theory, observational learning is an essential means for learning new behaviors (Bandura, 1973a). Observational learning, which occurs when one observes and imitates a behavior emitted by a model, plays a role in the learning of nearly all behaviors (Bandura, 2004). Various studies have suggested that certain factors can make it more likely for observational learning to occur. One such factor is if observers perceive the model to be similar to themselves (Grace, David, & Ryan, 2008; Hilbert, Kulik, & Christenfeld, 2006; Rosekrans 1967; Schunk, 1987; Slaby & Frey, 1975; Wolf, 1973). Another factor is self-efficacy, which is one's estimate of one's capability to perform a certain task (Bandura, 2006). Self-efficacy through modeling, particularly when the model is similar to the observer, may be one of the most
significant factors influencing imitation (Bandura, 1969). Watching a model successfully perform a task can increase one’s self-efficacy, which would make one more likely to also perform the task (Bandura, 1982).

Observational Learning of Aggression

The social learning theory has been used to explain aggressive behavior. According to the theory, one of the ways that people learn to act aggressively is by watching others engage in aggressive acts (Bandura, 1973b). By watching others perform aggressive acts, an individual learns how those aggressive acts are executed. The demonstration of aggression can then be held in memory and used as a guide for action in similar situations (Bandura, 1973b). Researchers have shown that, as adults, participants produced the violent behaviors they learned through exposure to violent models as children (Garcia, Restubog, and Denson, 2010; Murrell, Christoff, & Henning, 2007).

The Prevalence of Violence in Television and Movies

Bandura (1973a) indicates that violent media is a major source for models of aggressive behavior. He argued that media can expose people to a much wider variety of behaviors and situations than their families or immediate communities. A myriad of aggressive and violent models are frequently presented in the various visual media forms, especially television (Glascock, 2008; Parent’s Television Council, 2007) and movies (Browne et al., 2002; Center for Media and Public Affairs, 2002; Jenkins, Webb, Browne, Asifi, & Kraus, 2005). Regarding movies, the Center for Media and Public Affairs found that in the 50 top grossing movies of 1998 and the 50 top grossing movies of 2000, there were a total of 30 scenes containing acts of aggression resulting in significant injury or death of the victim. In 98 of the top 100 grossing American movies in 1994, Jenkins et al. found 2,184 physical acts of aggression and 44.1% of
these acts involved the use of lethal force.

With the high levels of violent content in television and movies, there are many aggressive models for viewers to observe. Given the link found between exposure to aggressive models and subsequent aggressive behavior (Bandura, Ross, & Ross, 1961; Garcia, Restubog, & Denson, 2010; Kuhn, Madsen, and Becker, 1967; Murrell, Christoff, Henning, 2007), the effect of violent media on aggressive behavior has been a widely studied topic. As Jigme and Sanders-Phillips (2003) stated "The phenomenon of media violence is one of the most extensively studied issues in the social and behavioral sciences, spanning more than 1,000 publications in recent years" (p. 383).

Television / Movie Violence and Aggressive Behavior

It has been shown in a variety of ways that aggressive acts depicted in the media are related to increases in aggressive behavior, cognitions, and affect (Anderson et al., 2003). Research evidence over the past 50 years has concluded that exposure to violent media increases aggressive behavior (Huesmann, Moise-Titus, Podolski, & Eron, 2003; Johnson, Cohen, Smailes, Kasen, & Brooks, 2002; Kuntsche, Pickett, Overpeck, Craig, Boyce, & Gaspar de Matos, 2006; Robinson, Wilde, Navracruz, Haydel, & Varady, 2001). Through various methodologies, including longitudinal studies, researchers have provided evidence of the strong link between television and movie viewing and aggressive behavior (Huesmann et al., 2003; Johnson et al., 2002). In longitudinal studies, Johnson et al. found a positive correlation for males between time spent watching television and subsequent assaults and physical fights, and Huesmann et al. found a positive correlation between viewing violent television as a child and aggression as an adult. In addition, Robinson et al. found a reduction in peer ratings of aggression after children decreased the amount of video games played and television and movies watched.
Television /Movie Violence and Aggressive Affect and Cognition

In addition to aggressive behavior, aggressive affect and cognition have also been studied in relation to violent media (Bushman, 1995; Anderson, 1997). Bushman (1995) and Anderson (1997) both showed that people who view violent movies are more likely to experience subsequent aggressive affect than people who view non-violent movies. As far as aggressive cognitions, Bushman (1998) found that the viewing of violent movies makes aggressive constructs more accessible in the minds of viewers. It would be of interest to determine if previous findings could be replicated using African American, young men or if there might be differences to explore. An important reason is that there is a larger consumption of television and movies viewed at home by African Americans. African Americans watch more television than the average American with a total of 11 hours and 4 minutes per day for each household (Steadman, 2005) compared to 8 hours and 21 minutes per day in the average household (The Nielsen Company, 2009). In addition, a higher percentage of African Americans watch movies at home compared to Caucasians.

The Effect of Television /Movie Violence on African American Men

Despite the considerable time spent watching television and movies by African Americans, there has been little research done on the relationship between violent media viewing and aggression that focuses on African Americans in general (Levin and Carlsson-Paige, 2003; Stroman, 1991), and therefore, African American men in particular. In one study by Thelen and Soltz (1969) African American children, ages 4 through 6 made up the majority of participants studied. The results showed that participants, who watched a video of a model behaving aggressively toward a bobo doll, subsequently produced more imitative, aggressive acts toward a bobo doll than the control group. In this experiment, African American boys were shown to
imitate aggressive models in the same way that Caucasian children had been shown to do in other experiments.

Although there has not been much research on the relationship between violent media and aggression among African American men in particular, a number of earlier and recent studies have found that aggression after exposure to violent media is higher for males than for females (Bandura et al., 1963; Eron, 1963; Eron et al., 1972; Hicks, 1965; Johnson et al., 2002). Bushman (1995) demonstrated this trend when he found that participants who saw a violent movie produced more aggressive behaviors than participants who saw a non-violent movie. The male participants, in particular, were found to produce a significantly higher amount of aggressive behaviors than the females. In a longitudinal study, Ostrov, Gentile, and Crick (2006) found that time spent watching television had a positive relationship with physical aggression for their male participants but not for their female participants. After reviewing the literature on the relationship between violent media and aggression, Huesmann and Taylor (2006) also concluded that males engage in higher levels of physical aggression following exposure to violent media than females. Furthermore, in a meta-analysis of 217 studies on the effect of violent television on aggression, Paik and Comstock (1994) found that males consistently act more aggressively than females following exposure to violent television. Researchers, who have studied predominantly Caucasian adult participants and African American children, have found a link between aggression and violent television and movies. Furthermore, since researchers, who have studied males in general, have found that males have higher levels of aggression after exposure to violent media, it may be of interest to study how African American men in particular are affected by violent media.

**The Role of Race/Ethnicity in the Imitation of Models’ Behaviors**

A few factors related to race/ethnicity have been investigated in the research on observational learning and behavior modeling, and the research has resulted in mixed findings.
One factor that may influence imitation by African American men is the similarity of the model in race/ethnicity. There have been inconclusive findings concerning the importance of a model's race/ethnicity in eliciting the imitation of behavior from African American children and adolescent observers. When it was investigated by Thelen (1971), African American children showed no preference for imitating either an African American or Caucasian aggressive model. Neely, Heckel, and Leichtman (1973) found different results. In their study, African American children ages 3 to 5 imitated a Caucasian model more than an African American model performing a discrimination task. King and Multon (1996) had yet another finding concerning the race/ethnicity of models. In their study, African American junior high school students chose more African American television characters as role models than they chose characters of other races/ethnicities. Although this study investigated self-reports of adolescents regarding their role models as opposed to directly investigating imitation behaviors, this finding may be of particular importance since it was found by Martin and Bush (2000) that African American adolescents view athletes and entertainers as better role models than their fathers.

Another factor that may influence whether or not African American men imitate violent media models is their self-efficacy for violence. In a qualitative study done by Manzo and Bailey (2005), it was found that Black Canadian juvenile offenders were aware of the stereotypes that Blacks are violent and are criminals, and they seemed to have adopted these characteristics as part of what it means to be Black. One participant said, "if this is how society sees me, I might as well act in this way" (Manzo and Bailey, p. 296). To the extent that violent behavior is perceived to be associated with an individual's ethnic/racial group, viewing the violent behavior of an African American model may increase an African American's self-efficacy for violence. Although the psychosocial experiences of Black Canadians may differ from those of African Americans, the negative stereotypes appear to be shared experiences. Therefore, research on young African
American male samples may reveal culturally-relevant knowledge concerning the roles that the self-efficacy for violence and the similarity of the television/movie model in race/ethnicity play in participants' likelihood to commit violent acts following television/movie violence.

**Culturally-Relevant Protective Factors for African American Men**

An examination of culturally-relevant protective factors from aggressive and violent behaviors may be of interest in determining protective factors for African American men against television and movie violence. Race centrality has been found to be a protective factor against behavioral problems in a number of studies (Caldwell, Kohn-Wood, et al., 2004; Zimmerman, 2004). Further, race centrality may serve as a protective factor for African American young men against engaging in violence against other African Americans. As a component of the Multidimensional Model of Racial Identity, Sellers, Rowley, Chavous, Shelton, and Smith (1997) defined race centrality as the “extent to which a person normatively defines her or himself with regard to race” (p. 806). It is the importance of race in forming a definition of oneself (Chavous et al., 2003). Caldwell, Kohn-Wood, et al. (2004) found that African American males are less likely to engage in violent behavior when confronted with discrimination if their race centrality is high. Race centrality was also shown by Caldwell, Sellers, Bernat, and Zimmerman (2004) to be a protective factor against alcohol use by African American adolescents. Since race centrality has been found to be a protective factor against a number of negative behaviors, a study investigating its relationship to aggressive affect may add to the literature that aims to prevent violence.
Method

Participants

The sample was comprised of 150 undergraduate male and female college students from a mid-western university and a southern university, and out of this sample, 127 identified as being African American and between the ages of aged 18 and 22. Only the data collected from the 76 male participants between the ages of 18 and 22, who identified as African American, were used in analyzing the hypotheses. As shown in Table 1, the whole sample ranged in age from 18 to 47 with a mean age of 20.86. They were 53.3% male and 46.7% female. When asked about their race/ethnicity, 90.7% identified as African American, 6.7% identified as Caucasian, 0.7% identified as Native American, 0.7% identified as Asian/Pacific Islander, and 1.3% identified as other.

The participants were recruited through passing out flyers to behavioral sciences classes and through contacting university clubs. Some of the participants were awarded course related credit, and all of the participants were offered a chance to win one of two 100-dollar cash-equivalent cards. All participants filled out the same baseline measures, and then they watched a movie clip depending on which one of three groups they were sequentially assigned. One group watched a violent movie clip with an African American victim and an African American perpetrator (African American model condition), one group watched a violent movie clip with a Caucasian victim and a Caucasian perpetrator (non-African American model condition), and one group watched a non-violent movie clip (control condition). Details of the movie clips are described below in the measures section.

The African American, male sample used for analyzing the hypotheses consisted of 76 participants with a mean age of 19.83 (see Table 1). Out of this subset, there were 28 in the
African American model condition, 23 in the non-African American model condition, and 25 in the control condition.

Measures

**Aggressive affect.** Aggressive affect was measured at baseline and post-movie clip with the revised version of the State Hostility Scale (SHS) used in Anderson (1997). This scale asks participants how they currently feel by having them rate various feelings (e.g., “I feel outraged,” “I feel bitter”) using a 5-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). It has 35 items and has been found to have an internal reliability of .93 (Carnagey & Anderson, 2005). The Revised State Hostility Scale has been used in numerous studies to measure levels of aggressive affect after exposure to media (Anderson, 1997; Anderson & Carnagey 2009; Anderson, Carnagey, & Eubanks, 2003; Carnagey & Anderson, 2005; Ivory & Kalyanaraman, 2007).

**Race centrality.** Race centrality was measured at baseline using the Centrality Scale of the Multidimensional Inventory of Black Identity (MIBI) (Sellers et al., 1997). The MIBI was developed by Sellers et al. (1997) to measure race centrality and two other components of the Multidimensional Model of Racial Identity in African American college students and adults. In the current study, the entire MIBI was administered. It contains a total of 56 items on a Likert scale, which ranges from 1 (strongly disagree) to 7 (strongly agree). The Centrality Scale of the MIBI consists of eight statements concerning different aspects of race centrality, such as “In general, being Black is an important part of my self-image.” The Centrality Scale has been found to have internal reliability ranging from .75 to .78 (Sellers et al., 1997) and has been used in numerous studies to assess race centrality in African Americans (Caldwell, Zimmerman, Bernat,

**Self-efficacy for aggression.** Self-efficacy for aggression was measured post-movie clip with a modified version of the self-efficacy questionnaire used by Perry, Perry and Rasmussen (1986). Perry et al.’s self-efficacy questionnaire has been used in various studies to measure perceived self-efficacy for aggression (Andreou, 2004; Camodeca & Goossens, 2005; Gottheil & Dubow, 2001; Perry, Perry & Rasmussen). It asks respondents to rate how easy it would be to perform specific behaviors in response to various situations, and the respondents rate the ease of performing the behaviors on a 4-point Likert-type scale. Perry et al.’s self-efficacy questionnaire contains a total of 46 items, of which 16 items are related to aggression.

The self-efficacy questionnaire used in the Perry et al. (1986) study was designed for children aged 9 through 12. Since the current study involves adults aged 18 to 22, it was necessary to modify the items in the questionnaire. For each item, a panel of four professional psychologists (two Caucasian and two African American) created social situations more suitable for adult men. The modified version of the self-efficacy questionnaire uses the same format and number of items used by Perry et al. All 46 items were administered to the participants, which include 16 aggression-related items and 30 additional items to make it less obvious that aggression was being assessed.

**Video clips.** The three conditions of this study had three corresponding movie clips: one movie clip showing a violent act committed by an African American man against another African American man (African American model condition), one movie clip showing a violent act committed by a Caucasian man against another Caucasian man (non-African American model condition), and one movie clip that is non-violent (control condition). A focus group of eight
African American, male undergraduate students helped to determine which movie clips were used. The focus group was given a written description of the violent movie clip and the non-violent movie clip used in the studies done by Anderson (1997) and Bushman (1995). After reading the written descriptions, the focus group members were asked to generate a list of recent movie scenes that are similar to the movie clips in the Anderson (1997) and Bushman (1995) studies. The focus group members were led in a discussion of each movie clip one at a time. After each movie clip was described, it was requested that the focus group generate a list of movies with similar scenes. They were then asked to come to a consensus on one recent non-violent movie scene from the generated list that is most comparable to the non-violent movie clip used in the Anderson (1997) and Bushman (1995) studies, and they decided on the opening scene in Mighty Joe Young (Hartley, Jacobson, & Underwood, 1998). This scene depicts a baby gorilla playing in a forest. The focus group was also asked to generate lists of similar movie scenes and come to a consensus on two recent, violent movie scenes similar to the ones used in the Anderson (1997) and Bushman (1995) studies. It was required that one movie scene contain two African American characters, and the group chose a scene from Waist Deep (Field & Curtis-Hall, 2006), in which two African American, adult males engage in a fistfight. It was required that the other violent movie scene contain two Caucasian characters, and the group chose a scene from The Matrix (Silver, Wachowski, & Wachowski, 1999), which depicts two Caucasian, adult males engaging in a fistfight.

There were multiple measures taken to increase consistency among the video clips. In an effort to make the two violent video clips similar in violent content, the fight scenes were edited so that the male characters were not shown using any type of weapon or object other than their hands and feet. The Matrix is a science fiction movie in which the characters have supernatural powers and an editing effect is used throughout the movie that makes the characters appear to be
moving in slow motion. *The Matrix* movie clip was edited, so that no slow motion movement or supernatural powers were shown. Instead of deleting parts of each movie scene and putting pieces of them together, continuous segments of each movie scene were selected that did not show weapons or supernatural powers. This meant that one of the violent movie scenes had to be cut down to 17 seconds. The other three movie clips were also made to be 17 seconds, so that the lengths were consistent. In addition, the audio was removed from all three clips. In one of the violent video clips, the two male characters have a dialogue while they are fighting, which makes it clear that the fight occurred due to one character hitting a woman. Because this dialogue added context to the violent movie clip which was different from the other violent movie clip and which may have generated strong emotions that were not the focus of this study, the audio was removed. In an effort to make the video clips consistent, the audio from all three clips was removed.

**Procedure**

The primary researcher submitted this study to be approved by the Institutional Review Boards at the two different universities from which the study participants were recruited (see appendix A and appendix B). Data was collected on five separate occasions. For the two data collections done on one university campus, recruitment of participants was done by posting flyers and passing out flyers in undergraduate, social sciences classes. When participants arrived for the data collections done on this campus, they were gathered into one room where they were sequentially assigned to the African American model condition, the non-African American model condition, or the control condition. The sequential assignment was done by randomly providing participants with a sealed envelope with a room assignment printed inside of it. The three movie clips were shown in different rooms (one in each room) on a projector. The number of participants present in each room was recorded.
After obtaining informed consent, participants completed the Revised State Hostility Scale, and the M1BI. Participants then viewed one of the movie clips based on random assignment. Following the movie clip, participants completed the Revised State Hostility Scale and the modified self-efficacy questionnaire. Participants were randomly given the Revised State Hostility Scale and the modified self-efficacy questionnaire in different orders in an effort to reduce the possibility of order effects. Lastly, participants were administered a brief demographic questionnaire. After each group viewed the movie clip and completed the measures, participants were given an opportunity to remain in the room to be debriefed and to ask questions and voice concerns about the research study. In order to increase the likelihood of participation, all participants were given the chance to enter a raffle for one of two 100-dollar cash equivalent gift cards. In addition, some professors awarded course-related credit for participating in the study.

There were three data collections that took place on the other university campus. They were similar to those done on the first campus, but participants were sequentially assigned to conditions differently. In these data collections, the participants were assigned a condition on a rotating basis as they arrived to the data collection site. They watched the movie clip corresponding to their condition on separate computers. The other procedures for these three data collections were the same as the first two data collections described above.

Results

Preliminary Analyses

Preliminary analyses included checking for outliers. There was one outlier found in the total baseline SHS scores. It was the highest baseline SHS score and it was 4 deviations above the mean. This outlier was replaced with the same value as the second highest baseline SHS score, so it was changed from 136 to 124. Preliminary analyses also included assessing the distributional
properties of all variables for normalcy. The scores of the State Hostility Scale given at baseline had a positively skewed distribution. The Kolmogorov-Smirnov test of normality was significant (K-S = 0.141, p = 0.001), and the original mean (M = 72.93) compared to the trimmed mean (M = 71.50) also indicated that the distribution for the baseline hostility data was not normal. While the violation of normality is not uncommon for large samples, the current study used a small sample. Therefore, the hostility data was transformed using a logarithm transformation on the baseline and post-movie clip State Hostility Scale data (Tabachnick & Fidell, 2004). The means and standard deviations for the four variables used in the study are listed in Table 2.

**Hypothesis One**

Hypothesis one predicted that African American, male participants would have an increase in aggressive affect after viewing a violent movie clip as compared to participants in the control condition who viewed a non-violent movie clip. To test this hypothesis, a mixed between-within ANOVA was conducted with the two factors being time (before movie clip, after movie clip) and model condition (violent model is African American, violent model is Caucasian, no violent model), and the dependent variable being aggressive affect as measured by the Revised State Hostility Scale (SHS). An alpha level of 0.05 was used to indicate statistical significance. A significant interaction was found between time and model condition [F(2, 73) = 4.31, p = 0.02]. The means and standard deviations for the SHS, comparing the three conditions are listed in Table 3.

Three paired samples t-tests were used to make post hoc comparisons among conditions. The results indicated a significant difference in SHS scores for participants in the African American model condition before watching the movie clip (M = 1.83, SD = 0.12) and SHS scores after watching the clip (M = 1.88, SD = 0.15); (t = -2.56, p = 0.02). No significant difference was
found between baseline ($M=1.83, SD=0.13$) and post ($M=1.81, SD=0.11$) SHS scores for participants in the non-African American model condition ($r=1.35, p=0.19$). There was also no significant difference found between baseline ($M=1.81, SD=0.10$) and post ($M=1.84, SD=0.12$) SHS scores for participants in the control condition ($r=-1.81, p=0.08$).

**Hypothesis Two**

Hypothesis two predicted that among the African American, male participants there would be greater self-efficacy for aggression in the group that watched a movie clip with an African American male committing an act of violence as compared to the group that watched a movie clip with a Caucasian male committing an act of violence and the control condition group that watched a non-violent movie. A one-factor ANOVA was used to compare the African American model group, the non-African American model group, and the control group on self-efficacy for aggression using scores on the self-efficacy questionnaire. No significant difference in self-efficacy for aggression was found among the three groups [$F(2, 73)=0.75, p = 0.48$]. The means and standard deviations for the self-efficacy questionnaire, comparing the three conditions are listed in Table 4.

**Hypothesis Three**

Hypothesis three predicted that among the African American, young adult, male sample, race centrality at baseline would have a negative relationship with level of aggressive affect after viewing a violent movie clip. This was measured by conducting a linear correlational analysis between race centrality and aggressive affect. The correlation between race centrality at baseline and aggressive affect at post was insignificant ($r = -0.04, p = 0.74$).
Hypothesis Four

Hypothesis four predicted that among the African American, young adult, male sample, level of race centrality at baseline would have a negative relationship with level of self-efficacy for aggression after viewing a violent movie clip. This was measured by conducting a linear correlational analysis between race centrality at baseline and self-efficacy for aggression at post. The correlation between race centrality at baseline and self-efficacy for aggression at post was insignificant ($r = -0.06$, $p = 0.63$).

Exploratory Analyses

Hypothesis one for females. Since hypothesis one was supported with significant findings for African American male participants, exploratory analyses were conducted to determine if the findings could be replicated with the African American female participants between the ages of 18 and 22. A mixed between-within ANOVA was conducted with the two factors being time (before movie clip, after movie clip) and model condition (violent model is African American, violent model is Caucasian, no violent model), and the dependent variable was aggressive affect as measured by the Revised State Hostility Scale (SHS). An alpha level of 0.05 was used to indicate statistical significance. The results were not significant for only female participants $[\Lambda=0.99, F(1, 48)=3.70, p=0.06]$.

Male and female comparisons. Exploratory analyses were conducted to compare men and women aged 18 to 22 on the study's four variables. Please refer to Table 6 for the means and standard deviations for these variables grouped by sex of participant. An alpha level of 0.05 was used to indicate statistical significance. Based on the results from independent samples t-tests, there were no significant differences between men and women on any of the variables: aggressive affect at baseline ($t=-0.11, p=0.73$); aggressive affect post-movie clip ($t=0.14, p=0.11$); race
centrality at baseline ($t = 1.50, p = 0.17$); and self-efficacy for aggression post-movie clip ($t = 0.14, p = 0.83$).

**University comparisons.** Participants in this study were recruited from two different universities, a Midwestern private university and a Southern public university. Four independent samples t-tests were done comparing the male participants aged 18 to 22 from the private university and the public university on the following variables: aggressive affect at baseline, aggressive affect post-movie clip, race centrality, and self-efficacy for aggression. There was not a significant difference in aggressive affect at baseline, which was measured with the SHS, between the male participants from the private university ($M = 72.16, SD = 21.48$) and the public university ($M = 66.68, SD = 17.80$); ($t = -1.21, p = 0.11$). There was also no significant difference found between male participants from the private university ($M = 77.28, SD = 24.60$) and the public university ($M = 70.14, SD = 22.68$) in SHS scores post-movie clip ($t = -1.31, p = 0.40$). A significant difference was not found between the private university ($M = 42.69, SD = 7.41$) and the public university ($M = 39.09, SD = 9.91$) in race centrality ($t = -1.73, p = 0.10$). Lastly, no significant difference was found in self-efficacy for aggression between participants from the private university ($M = 19.00, SD = 3.92$) and participants from the public university ($M = 20.27, SD = 4.78$); ($t = 1.23, p = 0.51$).

**Discussion**

The enormous body of existing research indicates that increases in aggressive affect, cognitions, and behavior are related to watching violent media. In this study, the consequences of viewing violent movies were investigated in regards to aggressive affect, aggressive cognition, and factors associated with race. The findings of this study showed different effects for aggressive affect than for aggressive cognitions. In regards to aggressive affect, the results
indicated a significant increase in aggressive affect for the sample of African American, male college students when the violent perpetrator and victim matched them in race and gender. However, when the movie characters involved in violence did not match the participants, there was no significant change in aggressive affect for the African American, male participants. Thus, these results suggest that the racial/cultural relevance of a vicariously violent situation may be an important factor in influencing the emotional consequences.

The above results have both similarities and differences with previous research. The finding that male, African American participants experienced an increase in aggressive affect when exposed to a violent, African American, male model via a movie clip, is consistent with research which indicates that people more readily imitate a model with similar characteristics (Grace, David, & Ryan, 2008; Hilpert, Kulik, & Christenfeld, 2006; Rosekrans 1967; Schunk, 1987; Slaby & Frey, 1975; Wolf, 1973). In addition, the finding is consistent with research which suggests that individuals are more likely to feel empathy toward others of the same race/ethnicity than they are to feel empathy toward others of a different race/ethnicity (Avenanti, Sirigu, & Agliot, 2010; Xu, Zuo, Wang, & Han, 2009). However, the insignificant results for the participants observing the violent, Caucasian, male model contradict previous research, which has found a tendency for people in general to develop aggressive affect after observing an aggressive model with any characteristics (Anderson, 1997; Bushman, 1995).

Vis-à-vis aggressive cognition, this study investigated self-efficacy for violence, which is a relevant cognitive factor in observational learning theory. Among the African American, male sample, participants who watched a violent movie clip with African American, male characters were compared to those who watched a violent movie clip with Caucasian, male characters. There were no significant differences in self-efficacy for violence between the two groups, which suggests that it does not matter whether the context of the movie violence was representative of
the participants' race/culture or not regarding self-efficacy effects.

The above findings were not consistent with previous literature that indicates that self-efficacy is higher when there is more similarity between the model and the viewer (Bandura, 1982; Manzo & Bailey, 2005). There are several potential explanations. One explanation is that the cognitive appraisal involved when individuals believe they are more capable of performing a behavior after observing a similar model perform that behavior (Grace, David, & Ryan, 2008; Hilmert, Kulik, & Christenfeld, 2006; Rosekrans 1967; Schunk, 1987; Slaby & Frey, 1975; Wolf, 1973) was not activated by the violent movie clip's models. It is plausible that the participants did not view the African American models in the video clip to be sufficiently similar to them. Race and sex are only two aspects of identity, and it is possible that the college students in this sample made a cognitive appraisal, which resulted in them not identifying strongly enough with either of the male models who may have differed from them in various ways (e.g. age, style of dress, social class). Another possible explanation is that participants may have not experienced vicarious reinforcement (Bandura, 1973a; Carnagey & Anderson, 2005) by watching the violent models in either condition. Vicarious reinforcement occurs when the observation of a model performing a behavior results in a reward, and the observer anticipates a similar reward for similar behavior. For example, if the participants did not approve of such violent behaviors as a means to resolve conflicts, they would not have anticipated that imitating the behaviors would help them personally. Musher-Eizenman et al. (2004) showed that if one does not approve of aggressive retaliation, one is less likely to engage in aggressive behaviors. In the current study, the self-efficacy for aggression questionnaire asked respondents how easy it would be for them to react in an aggressive manner to the actions of others, so the participants may have obtained low scores because they do not approve of retaliatory aggression. In addition, the education level of the sample used may also explain the finding. A study done in Latin America by Oprinas (1999) found that adults were more likely to engage in violent behaviors if they were not confident that
they could solve conflicts without violence. The college level education of the sample used in the current study may cause the sample to have better problem solving skills than others with less education.

A secondary aim of the study was to consider the role of racial identity while understanding that racial group identification alone has its limitations in regards to explanatory function. It was predicted that among the African American, young adult, male sample, race centrality at baseline would have a negative relationship with level of aggressive affect after viewing a violent movie clip. The results were insignificant, which suggests that the current study was unable to detect an association between these two variables for the sample of African American male undergraduates. These findings appear to diverge from the research of Caldwell, Kohn-Wood, et al., which found race centrality to be a protective factor against aggressive behaviors. The inference in the current study was that because race centrality has been found to protect individuals from aggressive behaviors, higher race centrality would be associated with lower aggressive affect as well. However, the current study did not find support for this proposed relationship. One possible reason for this conflicting finding is that Caldwell, Kohn-Wood, et al. assessed aggressive behavior with a retroactive measure that asked respondents to recall how many times they had engaged in certain aggressive behaviors in a one-year period, whereas the current study measured changes in aggressive affect after the viewing of a movie clip. In addition, Caldwell, Kohn-Wood, et al. assessed aggressive behavior of African American males as a reaction to racism while in the current study, the experience of racism was not included as a variable.

Racial identity in this study was also investigated as it relates to self-efficacy for aggression. As it was predicted that race centrality would be a protective factor against aggressive affect, it was also predicted that it would be a protective factor against self-efficacy for
aggression. Since it was found in previous research to be a protective factor against aggressive behaviors (Caldwell, Kohn-Wood, et al., 2004), level of race centrality at baseline was expected to have a negative relationship with level of self-efficacy for aggression after viewing a violent movie clip. Contrary to the Caldwell, Kohn-Wood, et al. study, the results were not significant, thus the current study was unable to find an association between the two variables. As mentioned above, this study measured self-efficacy for aggressive behavior, which is a measure of aggressive cognitions. The previous authors, however, used a self-report measure of past aggressive behavior. It is likely that the hypothetical situations used in the measure of self-efficacy for aggression in the current study were not as realistic as the measure used in the Caldwell, Kohn-Wood, et al. study, which was based on self-report of real behaviors. Also, the Caldwell, Kohn-Wood, et al. study assessed aggressive behaviors in response to racism while in the current study, racism was not included as a variable.

Limitations

Some limitations should be considered when interpreting the results of this study. First, the sample consisted of a small number of African American, male college students, which may not accurately represent the African American, young adult population. Increasing the number of participants and recruiting participants from other places besides universities may have increased the effect size and provided a better understanding of aggressive affect in African American males. Second, all of the constructs were measured using self-report measures. If possible, future studies may want to rely less on the self-report of participants, and instead include collaborative reports from peers or family. This may increase the reliability and accuracy of data. In addition, the self-efficacy questionnaire used to measure self-efficacy for aggression was modified from its original version. Although the modified self-efficacy questionnaire had acceptable internal reliability with a Cronbach's Alpha of 0.77, modifying the questionnaire may have had an impact
on the results. Further, it may have been informative to investigate whether self-efficacy changed from baseline to the time after the movie clip was watched, instead of only checking for self-efficacy differences between the conditions after the movie clip was viewed. In addition, the research assistants, who presented the movie clips and measures to participants, varied in gender and race/ethnicity. The research assistants included African American women, Caucasian women, and African American men. The race of the research assistant in the room may have had an impact on participants’ responses to the racial identity measure (race centrality) and to their reactions to the race of the model in the video clip. In future studies, the researcher may want to utilize research assistants of the same race and gender to decrease the amount of possible confounding variables.

There were also limitations in regards to the movie clips used in the study. It was left to the discretion of a focus group to select the movie clips, and the impact of using popular movies was not taken into consideration. *The Matrix* is a widely known movie, and the fact that aggressive affect did not significantly change after participants viewed *The Matrix* video clip may have been influenced by participants’ familiarity with the movie, and this movie clip may have generated other cognitions and emotions that were not the focus of this study. However, when the focus group comprised of African American men was asked to think of a movie clip with African American characters, they thought of and selected *Waist Deep*, which may indicate that it is also a well known movie among this population. Therefore, it is unlikely that familiarity alone confounded the study’s results. Future studies may inquire about familiarity with the movie clips used. Another factor is that the focus group was not asked to consider additional relevant identity markers other than race and sex when selecting movie clips, such as social class and body type. These other identity markers that were present in the video clips may have produced emotions that were not the focus of this study, so in future studies the researchers might investigate the
influence of various identity markers besides the assumed race of the characters. The
aforementioned limitations in regards to the movie clips underscore that they were edited to
increase internal validity, but in doing so, external validity may have been compromised. For
example, in order to decrease confounding variables, the movie clips chosen by the focus group
were edited so that they were the same length. This meant that all three clips had to be cut down
to the length of the shortest clip, and they all ended up being 17 seconds. Future studies may want
to choose longer video clips to assess if the length of the movie clips has an impact on the amount
of aggressive emotions and cognitions they produce. Another example is that the internal validity
of the movie clips was increased by the removal of audio, however; the external validity was
decreased because without the audio there was a reduction in context and meaning attributed to
the violence.

Conclusion

This study aimed to investigate the impact of observing an aggressive model on African
American men. Bandura’s social learning theory posits that aggressive models are readily
imitated by observers, and through media, such as movies and television, there are a multitude of
aggressive models available to observe (Bandura, 1973a). Previous research has been done to
support Bandura’s theory, however; the majority of it has focused on middle class Caucasians.
Since violent crimes are being committed by African Americans at a high rate (U.S. Department
of Justice Criminal Justice Information Services Division, 2008), and African Americans watch
more television and movies than Caucasians, (Pew Research Center, 2006; Steadman, 2005), it
was deemed important to investigate the link between aggression and the viewing of violent
media in this population.
Participants in this study were shown either a movie clip with an aggressive African American male model, a movie clip with an aggressive Caucasian male model, or a non-violent movie clip. Among the African American, male sample, only the group that watched the movie with the aggressive African American model had a significant increase in aggressive affect. Because of the small sample size and the restriction of the sample to college students, it is difficult to generalize the findings. However, the findings may suggest that African American, young men are more likely to reproduce similar aggressive affect of aggressive models who are in movies and similar to them. However, although it was anticipated that the race of the aggressive model would influence the participants’ self-efficacy for aggression (aggressive cognition), the results did not support this prediction. This finding raises questions about what conditions influence aggressive affect and what factors influence aggressive self-efficacy. Future studies with larger and more generalized samples would need to replicate the findings in order to determine how this information could assist those who seek to decrease violence in the African American community. Intervention strategies can be created aimed at limiting exposure to aggressive, African American models or to finding and applying protective factors to mitigate the effects of these models.
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Pearson Education.


Table 1

*Characteristics of the Sample*

<table>
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<tr>
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<th>Overall Sample</th>
<th>African American Male Sample (n=76)</th>
</tr>
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<tbody>
<tr>
<td>Age</td>
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<tr>
<td>Mean</td>
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</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>0.7</td>
<td>0</td>
</tr>
<tr>
<td>Native American</td>
<td>0.7</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>1.3</td>
<td>0</td>
</tr>
<tr>
<td>Sex (Percentage)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>53.3</td>
<td>100</td>
</tr>
<tr>
<td>Female</td>
<td>46.7</td>
<td>0</td>
</tr>
<tr>
<td>Grade Level (Percentage)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Freshman</td>
<td>34.0</td>
<td>32.9</td>
</tr>
<tr>
<td>Sophomore</td>
<td>23.3</td>
<td>26.3</td>
</tr>
<tr>
<td>Junior</td>
<td>15.3</td>
<td>11.8</td>
</tr>
<tr>
<td>Senior</td>
<td>18.7</td>
<td>22.4</td>
</tr>
<tr>
<td>2\textsuperscript{nd} Year Senior</td>
<td>0.7</td>
<td>0</td>
</tr>
</tbody>
</table>

Note. All number are percentages except for the numbers in the age category.
Table 2

*Means and Standard Deviation for African American Male Participants*

<table>
<thead>
<tr>
<th></th>
<th>Baseline Mean</th>
<th>Baseline SD</th>
<th>Post Mean</th>
<th>Post SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggressive Affect (SHS)</td>
<td>68.99</td>
<td>19.49</td>
<td>73.14</td>
<td>23.62</td>
</tr>
<tr>
<td>(Original)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aggressive Affect (SHS)</td>
<td>1.82</td>
<td>0.11</td>
<td>1.84</td>
<td>0.13</td>
</tr>
<tr>
<td>(Log transformed)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Efficacy for Aggression</td>
<td>n/a</td>
<td>n/a</td>
<td>19.74</td>
<td>4.46</td>
</tr>
<tr>
<td>Race Centrality</td>
<td>40.61</td>
<td>9.06</td>
<td>n/a</td>
<td>n/a</td>
</tr>
</tbody>
</table>
Table 3

Means and Standard Deviations for Aggressive Affect of African American Males by Movie Condition

<table>
<thead>
<tr>
<th>Model</th>
<th>Baseline Mean</th>
<th>Baseline SD</th>
<th>Post Mean</th>
<th>Post SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Violent African American Model (Original)</td>
<td>70.64</td>
<td>19.43</td>
<td>80.89</td>
<td>28.37</td>
</tr>
<tr>
<td>*Violent African American Model (Log transformed)</td>
<td>1.83</td>
<td>0.12</td>
<td>1.88</td>
<td>0.15</td>
</tr>
<tr>
<td>Violent Non-African American Model (Original)</td>
<td>70.74</td>
<td>23.25</td>
<td>66.09</td>
<td>19.16</td>
</tr>
<tr>
<td>Violent Non-African American Model (Log transformed)</td>
<td>1.83</td>
<td>0.13</td>
<td>1.81</td>
<td>0.11</td>
</tr>
<tr>
<td>Non-Violent Control Model (Original)</td>
<td>65.52</td>
<td>15.74</td>
<td>70.96</td>
<td>19.46</td>
</tr>
<tr>
<td>Non-Violent Control Model (Log transformed)</td>
<td>1.81</td>
<td>0.10</td>
<td>1.84</td>
<td>0.12</td>
</tr>
</tbody>
</table>

*p < .05
Table 4

*Means and Standard Deviation for Self-Efficacy for Aggression of African American Males by Movie Condition*

<table>
<thead>
<tr>
<th></th>
<th>Post Mean</th>
<th>Post SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self Efficacy for Aggression</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Violent African American Model</td>
<td>19.82</td>
<td>4.25</td>
</tr>
<tr>
<td>Violent Non-African American Model</td>
<td>18.87</td>
<td>5.08</td>
</tr>
<tr>
<td>Non-Violent Control Model</td>
<td>20.44</td>
<td>4.10</td>
</tr>
</tbody>
</table>
Table 5

*T-Test Means and Standard Deviations for African American Male Participants by University*

<table>
<thead>
<tr>
<th></th>
<th>Private University Mean (n=32)</th>
<th>Private University SD (n=32)</th>
<th>Public University Mean (n=44)</th>
<th>Public University SD (n=44)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggressive Affect Baseline (SHS)</td>
<td>72.16</td>
<td>21.48</td>
<td>66.68</td>
<td>17.80</td>
</tr>
<tr>
<td>Aggressive Affect Post-Movie Clip (SHS)</td>
<td>77.28</td>
<td>24.60</td>
<td>70.14</td>
<td>22.68</td>
</tr>
<tr>
<td>Self-Efficacy for Aggression post-movie clip</td>
<td>19.00</td>
<td>3.92</td>
<td>20.27</td>
<td>4.78</td>
</tr>
<tr>
<td>Race Centrality at baseline</td>
<td>42.69</td>
<td>7.41</td>
<td>39.09</td>
<td>9.91</td>
</tr>
</tbody>
</table>
Table 6

*T-Test Means and Standard Deviations comparing African American Males and Females*

<table>
<thead>
<tr>
<th></th>
<th>Male Mean (n=76)</th>
<th>Male SD (n=76)</th>
<th>Female Mean (n=51)</th>
<th>Female SD (n=51)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aggressive Affect Baseline (SHS)</td>
<td>68.99</td>
<td>19.49</td>
<td>69.37</td>
<td>17.54</td>
</tr>
<tr>
<td>Aggressive Affect Post- Movie Clip (SHS)</td>
<td>73.14</td>
<td>23.62</td>
<td>72.61</td>
<td>18.99</td>
</tr>
<tr>
<td>Self-Efficacy for Aggression post-movie clip</td>
<td>19.74</td>
<td>4.46</td>
<td>19.63</td>
<td>4.51</td>
</tr>
<tr>
<td>Race Centrality at baseline</td>
<td>40.61</td>
<td>9.06</td>
<td>38.27</td>
<td>7.85</td>
</tr>
</tbody>
</table>
Appendix A
Xavier University Institutional Review Board Approval Letter

June 27, 2011

Rena Hill
4123 Huston Ave. Apt. 1
Cincinnati, OH 45212

Dear Ms. Hill:

If you wish to modify your study, including any changes to the approved Informed Consent form, it will be necessary to obtain IRB approval prior to implementing the modification. If any adverse events occur, please notify the IRB immediately.

We wish you success with your research!

Sincerely,

[Signature]

Morell E. Mullins, Jr., Ph.D.
Chair, Institutional Review Board
Xavier University

MEM/sb

c: Anna Ghee, advisor
Appendix B

Kentucky State University Institutional Review Board Approval Letter

Office of Sponsored Programs
Institutional Review Board
Hathaway Hall, Rm 311
Frankfort KY 40601
502-597-6684

MEMORANDUM

To: Ms. Rena Hill

From: Dr. Lynn Bowers, Chair

RE: Application #090811-05

Date: October 30, 2011

The Board has received the changes that were recommended to you and the application is now complete. The Board is approving your study. Please remember that you are required to submit annual updates on your study and to submit a final report once the study is complete. Should you determine to make any changes in your study you must obtain approval from this Board before you begin. We wish you well in your study.
Summary

Title: Media Violence and its Effects on Young African American Men

Problem: There has been general agreement in research that exposure to violent media increases aggressive affect, cognitions, and behavior. While there has been a considerable amount of research done in this area, it has been mainly limited to middle-class, Caucasians (Levin & Carlsson-Paige, 2003; Stroman, 1991). This study attempted to expand this area of research by exploring the relationship between violent media and aggressive affect for young, African American men. Exploration of this relationship was deemed to be of importance given the high rates of violent crimes committed by African American males (Heron, 2007; US Department of Justice Bureau of Justice Statistics, 2010b; U.S. Department of Justice Criminal Justice Information Services Division, 2008) and the high volume of movies and television watched by this population (Pew Research Center, 2006; Steadman, 2005). An additional aim of this study was to explore differences in self-efficacy for aggression/violence in African American young men when the race/ethnicity of the aggressive/violent model depicted in a movie clip is similar versus different to theirs. A dimension of racial identity (race centrality) was also investigated as a protective factor against aggressive affect and self-efficacy for violence.

Method: Participants were sequentially assigned to one of three conditions: the African American model condition, the non-African American model condition, or the control condition. They were all given a measure of aggressive affect (revised State Hostility Scale) and a measure of race centrality (Multidimensional Inventory of Black Identity). They were then shown a movie clip according to the condition to which they were assigned. Those in the African American model condition watched a movie clip with two African American males engaged in a physical fight, those in the non-African American model condition watched a movie clip with two Caucasian males engaged in a physical fight, and those in the control condition watched a non-violent movie clip. After watching the movie clip, participants completed the aggressive affect measure again and they completed a measure of self-efficacy for aggression.

Findings: A mixed between-within ANOVA yielded a significant interaction between the model condition and aggressive affect before and after the movie clip. Paired sample t-tests were used to make post-hoc comparisons, and a significant difference was found between pre and post aggressive affect scores for the African American model condition [$\Delta=0.89$, $F(2, 73)=4.31$, $p=0.02$]. No significant differences were found between pre and post aggressive affect scores for the non-African American model condition or for the model condition. There were no significant results found concerning self-efficacy for aggression, and race centrality was not identified as a protective factor against aggressive affect.

Implications: The significant increase in aggressive affect found among the young, African American, male participants who watched a movie clip with an aggressive African American, male model supports previous research on media violence. Similar to what has been shown for Caucasians, young, African American men were shown to imitate aggressive models. They were also shown to imitate models similar in race/ethnicity more readily than other models. Research in this area can be expanded to include more participants and participants from other minority
groups. Based on these findings, intervention strategies can be created aimed at limiting exposure to aggressive, African American models or to finding and applying protective factors to mitigate the effects of these models.