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Criminological Self-Efficacy: Increased or Hindered From Crime TV Shows

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CRIMINOLOGICAL SELF-EFFICACY:
INCREASED OR HINDERED FROM CRIME TV SHOWS

A Thesis
Presented to
The Graduate Faculty
Central Washington University

In Partial Fulfillment
of the Requirements for the Degree
Master of Science
Mental Health Counseling

by
Dorothy Ann Moore
June 2018

CENTRAL WASHINGTON UNIVERSITY

Graduate Studies

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ABSTRACT

CRIMINOLOGICAL SELF-EFFICACY: INCREASED OR HINDERED FROM CRIME TV SHOWS

by

Dorothy Ann Moore

June 2018

There is an age-old question that surrounds whether or not media have an effect on its viewers. There is substantial evidence that supports the claim that violent content in media may increase relational, physical, and/or overall aggression levels. The aim of the current study is to explore the relationship between several factors that may be related to one's belief in one's ability (self-efficacy) to commit and get away with murder. These factors are the amount of crime TV a person watches, aggressive tendency, recklessness tendency, and potential protective factors. It is hypothesized that the more crime TV watched, the higher aggressive and recklessness tendencies and fewer protective factors, the higher their self-efficacy will be in committing and getting away with murder. The data were analyzed using multiple linear regression with amount of crime TV watched, their basic aggression level, recklessness tendencies and potential protective factors as predictors of their belief in their self-efficacy to commit and get away with murder. The results showed that the only significant predictor was amount of crime TV watched in a week, meaning people who report higher amounts of crime TV per week have higher

self-efficacy scores in committing and getting away with murder. The implications of this result will be discussed.

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CHAPTER I

INTRODUCTION

Media is a broad term that encompasses many different modalities that cross cultural boundaries, socioeconomic levels and individual preferences (Krahé, 2016). It includes movies, music, video games, live broadcasting TV, streaming TV shows: all of the things that are available on or through some form of technology. Because of media's wide reach, there is a longstanding debate over the strength of its influence. There is also speculation about whether or not media add to the increase of violent crime. Violent crime increased for the second straight year in 2016 (FBI National Press, 2017). It seems important to explore this topic further to see if there is a potential relationship between certain TV show genres and a viewer's thoughts, beliefs and behaviors.

Gentile and Bushman (2012) and Krahé, Möller, Huesmann, Kirwil, Felber and Berger (2011) found that violent media can have a negative effect on its viewers' behavior. Further, Savage and Yancey (2008) explored the claims of media effects on viewers by looking at the potential relationship between violent media and a person's criminal behavior. They found there was an overall negative effect of visual media on a person's aggressive behavior but not a strong enough relationship to support a connection to criminal actions. These findings taken together lend support to the idea for cultivation theory which can be understood as the phenomenon where viewers of media are affected by the underlying messages and attitudes of their chosen media (Gerbner, Gross, Morgan, Signorielli, & Shanahan, 2002), and will be discussed in more detail later in this paper.

The theory that people can be affected by the media they subject themselves to was first touched on by Bandura, Ross, and Ross (1963). Bandura et al. were interested in seeing if children would act out aggressive behavior after watching a video of an adult act out an aggressive attack on a Bobo doll. It was found that children who watched the adult model's aggressive behavior imitated this behavior significantly more often than the children in the control group, where there were no adults modeling aggressive behavior. Similarly, it has been shown that violent media not only has a relationship with a viewer's imitation of violent behavior towards toys but also with an increase in desensitization to violent media (Cantor, 2000) and an increase in a person's relational/physical aggression (Coyne et al., 2008). These brief mentions of behavioral observations in viewers of violent and criminal media lend support to the interest in exploring other possible relationships.

Further, these points on criminal and violent content having a potential relationship with a viewer's personal behavior and thoughts, taken together with the idea of imitation, support the argument that chosen TV of an individual may have a relationship with a person's behaviors and beliefs. With the rise in violent crime and the possible influence of personal traits on viewers, the question is what could be going on? The current study is designed to explore a potential relationship between a person's chosen media programming and their resulting characteristics. In particular, does crime TV have an effect on a person's self-efficacy with committing and getting away with the crime of murder?

Crime

Overall, the motivation to participate in and carry out criminal acts is widely researched. However, this research largely focuses on already established criminals or only in the law environment. Gueta and Chen (2016) explored common pathways to committing crime among a group of inmates. Gueta and Chen determined that for both women and men victimization and power seeking are the most common starting points to criminal offending. Specifically, victimization as an initial or motivating incident is more common among women, whereas with men it is the need for more power or respect. It is not to say that if an individual experiences one of these events it is expected for them to become offending criminals; it is, however, to say that crime may happen for precipitating reasons.

Crime also is depicted in the media. This depiction of crime is a fascinating subject to many individuals: the theoretical act, participation in and punishment of crime. Crime TV shows are available 24 hours a day. Coyne, Padilla-Walker, and Howard (2013) state that emerging adults, 18 to 24 years old, use some form of media each day. The amount of media used can be as high as 12 hours a day for emerging adults and up to 11 hours a day for adolescents (Coyne et al., 2013), which gives ample time for indulgence and binge consumption of TV shows, video games or the internet. However, this statistic of emerging adults using 12 hours of media a day includes time spent online for homework, school work, job related work, etc. The important point to highlight

though is that 12 hours a day is half of a day, and when you take away 6 to 8 hours for sleep, there is very little time that a person has to do other things that do not include some form of media. This amount of usage is only attainable because of the access individuals have to it, especially through the internet on computers, phones, tablets and smart TVs.

Another important component of the fascination with crime TV is that it may perpetuate the phenomenon known as the CSI effect or the exaggeration of crime scene investigative tactics in TV shows (Maeder & Corbett, 2015; Sarapin & Sparks, 2014; Smith, Stinson & Patry, 2011). This exaggeration can be seen on many shows and has to do with the idea that viewers learn the ways criminals are caught or avoid detection and the crime analyses and conceptualizations used. The CSI effect has been most deeply looked at in regards to jurors. The CSI effect in this case is the idea that jurors are learning about and expecting certain *important* forensic tests that they require to be presented in court proceedings before a decision can be made about a suspected perpetrator's guilt or innocence (Maeder & Corbett, 2015; Sarapin & Sparks, 2014; Smith et al., 2011). How is the CSI effect even possible? Again, the access to TV at any hour gives an abundance of opportunity for viewers to watch criminal content whenever they feel so inclined.

Another interesting aspect of having access to media, especially crime shows, is the implication that criminal offenders might be getting smarter from the crime depictions they are exposed to. TV shows do not pick and choose viewers; viewers have choice over the content they watch. What this means is that criminals who may be looking for ideas

or ways of committing a crime may seek ideas from depictions in TV shows. Or, at the very least, potential criminals may gain inspiration from the depictions and content of crime in the TV shows they watch. Sarapin and Sparks (2014) suggest that the CSI effect may actually extend to criminals and their behaviors, insofar as criminals have learned not to leave forensic evidence behind in their committed crimes. This idea of crime and possible effects on viewers will be discussed further.

Violence

Because violence is usually a common aspect of criminal offenses depicted in media, exposure to violence has been shown to create a desensitization effect in observers which means a person becomes less affected by violence the more they see it (Cantor, 2000; Mrug, Madan, & Windle, 2016; Stockdale, Morrison, Kmiecik, Garbarino & Silton, 2015). Being exposed to violence is associated with a decreased ability to read and interpret facial expressions in others, inhibiting processing of more neutral/normal facial emotions (Stockdale et al., 2015). This alteration of a person's processing may lead to changed beliefs and reactions towards future violent observations or depictions (Stockdale et al., 2015).

Another reaction that has been documented, opposite of desensitization, is sensitization. Sensitization is where individuals are more prone to read neutral stimuli as something emotionally charged (Martins, 2013). For instance, Martins (2013) looked at the relationship between children and their ability to process facial expressions after exposure to aggressive content. It was found that children who were exposed to

aggressive content were less likely to interpret neutral faces as neutral and would interpret them as more hostile and would then have more aggressive behavior than children who were not specifically exposed to aggressive content. These findings are important because it supports the idea that violent and aggressive content may be changing the way children interpret their realities and how they behave in their environments. Further, individuals appear to be experiencing a decrease in their natural fight or flight response that signals violence as bad (Martins, 2013), thus possibly adding to the acceptance and perception of normalcy of violence for individuals when they observe such behavior.

Mrug et al. (2016) were interested in seeing if exposure to repeated *real-life violence* had similar effects or a similar relationship to a person's desensitization as media content. Real-life violence is violence that is observed not through a screen, but observed walking to/from school, violence at school, violence in their home, etc. It was found that adolescents who were exposed to higher levels of violence in their daily lives actually had less arousal to observed violence than do adolescents who were exposed to either mild or moderate levels of violence, thus supporting desensitization. Krahé et al. (2011) also supported the idea of desensitization after a person was exposed to violence from a 2.5-4 min video clip, and further showed that some individuals had an increase in their general pleasant arousal after being exposed to certain violence. Something important to mention about Krahé et al.'s findings is that individuals who had increased pleasant arousal after being exposed to the violence, were also the individuals who

habitually chose violent content over other genres. What this means is there is not a clear understanding if people who are drawn to this type of content already have a higher likelihood of experiencing desensitization or if anyone can experience this effect with enough exposure to this type of content. What is important is that this desensitization effect can be measured in most habitual viewers of violent content.

Another important effect of being exposed to violence is that it may prime the brain to have easier access to aggressive cognitions (Krahé et al., 2011). This is important because violence and aggression are similar constructs that could be argued to trigger one another. The act of violence and the act of aggression are usually rooted in the same emotion of anger (Krahé et al., 2011). This is how they could trigger one another: by activating the anger emotion and having it radiate out and affect similar behaviors, acts, feelings and intentions. Further, there is some evidence that the more aggressive an individual is, the more likely they will be to seek out violent content in media (Cantor, 2000).

Looking at this information as a whole, individuals who are exposed to violent behavior may have a greater tendency to be more aggressive and act out violent behavior they have seen than individuals who are not frequently exposed to violent behavior (Savage, 2004; Savage & Yancey, 2008). Savage (2004) and Savage and Yancey (2008) were not able to find support for this predicted relationship between violence exposure, increased aggression, and criminal offending. However, Wagar and Mandracchia (2016) similarly explored criminal cognitions in individuals and did find a relationship. Wagar

and Mandracchia were interested in looking at a person's thinking patterns about crime and criminal behavior and any factors that could be related. Wagar and Mandracchia found that exposure to violent media did increase aggression levels, which also had an effect on a person's criminal behavior, attitudes, beliefs and thinking patterns. This will be further discussed below.

Media, Aggression and Priming

The most common types of media researched are video games (Levermore & Salisbury, 2009), internet sites (Gerbner et al., 2002), and TV shows (Comstock, 1986; Martins, 2013; Vetro, Csapo, Szilard & Vargha, 1988), all of which are readily available 24 hours a day. This makes the saying "at your fingertips" literal when talking about access to content that could be full of crime and violence depictions. As previously mentioned, being exposed to violence may have a positive relationship with a person's aggression level (Cantor, 2000; Krahe et al., 2011), meaning that violent exposure has some sort of a relationship with a person's actual aggressive behavior and that there is a specific relationship between a person's aggression level and the type of media they are being exposed to or interacting with (Savage, 2004; Savage & Yancey, 2008).

A popular type of media that is used by adolescents is video games (Levermore & Salisbury, 2009). Video games are becoming more violent and aggressive as the years go by and are fueling the debate on whether or not video games are having an observable and negative effect on adolescents (Coyne et al., 2013). For example, Levermore and

Salisbury found a positive correlation between the violent possibilities in the game *Grand Theft Auto* and an adolescent's physical, verbal, and overall aggression levels. Video games are commonly and frequently used by adolescents and are apart of the 11 hours a day of media usage for them (Coyne et al., 2013). Levermore and Salisbury state that video games can increase an individual's aggression by priming aggressive cognitions and giving easier access to these cognitions due in part to their priming effect. This priming is accomplished by the behaviors that the gamer instructs the characters to engage in through their hands, thoughts, or intentions. These instructions to have the video game characters act in a certain way, based on the gamer's intentions, can prime the gamer's cognitions to be more aggressive because of what they are instructing the character to do.

This priming effect or the access to these aggressive cognitions is also similar to the findings of Comstock (1986) who concluded that individuals who are exposed to violent content are more likely to be comfortable with future witnessed violent behavior. Comstock stated four specific factors that may influence a person's aggressive responses: the amount of efficacy/competency and amount of reward a perpetrator is given after a violent act, how pertinent or suitable a behavior is for real-life situations, the normalcy of a behavior or how appropriate the behavior is, and how much the observed behavior created emotional arousal or connection in the viewer. If a violent act is depicted with efficacy (i.e., competence or confidence) and the perpetrator is rewarded, this implicitly sends a message to the viewer that they, too, could partake in a similar crime and have

similar rewards. Further, having the violent act both possible in real-life and a behavior that is common enough to participate in may prime a viewer into being more inclined to reenact the observed behavior. Lastly, if the viewer feels emotionally tied to the perpetrator and thus has a personal emotional or aggressive response, it is more likely that they will interpret the behavior as appropriate for future engagement. Usually, violent video games give depictions with the above factors, showing best-case scenarios for the perpetrators (i.e., players) when participating in criminal and aggressive behavior.

Similarly, TV shows are particularly good at showing what happens before, during and after a violent scene and usually paints a best-case scenario for the perpetrator and/or exactly what law enforcers have to do to catch the perpetrator. The depiction of what law enforcers have to do allows anyone watching the show to know exactly how the perpetrator messed up and how their mistakes could have been avoided. In this sense, people who play video games or observe TV shows have greater access to Comstock's (1986) factors that are shown to influence aggressive tendencies. This influence may be even stronger than it would be if a person witnessed a violent scene in real life because the whole picture and mistakes are given to the person watching the TV show or playing the video game.

Gerbner et al. (2002) state that the internet is another form of media that may affect its users, especially with regards to using the internet to stream TV shows. The internet has been suggested as a form of media that is only used if TV is not being used as a preferred medium; however that idea has been shown to be false and that the internet

actually acts as a supplemental avenue to different content (Gerbner et al., 2002). Further, the internet allows access to many TV shows and websites that allow episode and season streaming. TV shows are just as big of an avenue for viewers to be exposed to violent content as the internet is (Coyne et al., 2013; Gerbner et al., 2002). Coyne et al. (2008) and Martins (2013) showed that viewers of relational or physical aggression in TV shows were found to be more relationally or physically aggressive in their own behavior. Coyne et al. (2008) specifically looked at the effect on adults who viewed relational or physical aggression. It was found that they would be more relationally or physically aggressive in their own behavior depending on the content they were exposed to.

Martins (2013) and Coyne et al. (2008) highlight that there are carryover effects of violence and aggression depicted in TV or video clips to the viewers who are subjected to their content. Similarly, Vetro et al. (1988) stated that the more crime and adventure TV an adolescent watched, the more aggressive they were compared to peers that did not watch as much of that genre of TV. Portrayals of violent and aggressive behavior have been shown to have a positive relationship with a viewer's personal aggressive behavior, showing a possible relationship that may increase a person's aggressive behavior (Cantor, 2000; Coyne et al., 2008; Krahe et al., 2011; Savage & Yancey, 2008; Savage, 2004). Because TV shows (live broadcasted or streamed) are one of the most popular types of media that are used by individuals across the world, it is important to explore the possible ramifications of the *learning* that might be going on from exposure to violence and crime in such TV shows (Gerbner et al., 2002).

TV Shows, Crime TV and Priming

Shrum, Wyer, and O'Guinn (1998) found support for the claim that people have perceptual changes based on the type of TV and the amount of TV they watch. Shrum et al. argue that TV acts as a natural prime for behavior and cognitions, especially in the sense that it may elicit an emotional arousal that then activates certain cognitive pathways and cognitions in a person's brain. Gibson, Thompson, Hou and Bushman (2014) found similar results in their study that looked at surveillance TV shows such as *Keeping up With the Kardashians* or *Operation Repo*. Surveillance TV can be understood as the genre of TV that looks like it is a documentary of someone's life. Gibson et al. found that most TV shows that are seen as a documentary of someone's life can increase a viewer's aggressive tendencies in comparison to viewers who do not frequently watch this genre of TV. This distinction of surveillance TV from other violent TV is important because surveillance shows are supposedly less scripted than other TV shows that are based off of a script. This idea can relate back to Comstock's (1986) factors, that state the more appropriate or normal the behavior appears in real life, the more likely an individual might be to participate in such behavior in their personal life.

Researchers have established that viewers of violence and aggressive behavior are influenced and have observable changes in their own personal behavior (Bandura et al., 1963; McGuigan, Makinson and Whiten, 2011). It is common to want to imitate behavior that has been observed as shown by Bandura et al.'s (1963) study of children imitating an adult's aggressive behavior. Similarly, McGuigan et al. (2011) stated that imitation

happens in adults as well. Adults' imitation has actually been shown to be more exact or precise of the modeled behavior than children's. McGuigan et al. looked at children's (ages 3 to 5) and at adults' imitation tendencies after viewing either an adult or a child model how to open a box. It was found that adults had the greatest fidelity in copying the model's behavior, both in terms of necessary and unnecessary movements. McGuigan et al. state that as people get older, the imitation of a model can become more exact compared to younger ages where the tendency and ability to do so is less developed. This is important because it raises the notion that if an adult wants a specific end result or goal, and it has been something that has been modeled or depicted in a TV show, they may have a tendency to participate in the depicted behavior.

Similar to the possible imitation effect, the crime TV genre has been stated to create a *CSI effect* in individuals on a jury who then expect certain forensic information to be provided in court proceedings; the same expectations known as the *CSI effect* from observed TV, may also be adding to the amount of aggressive take-aways viewers have from violence depicted in a show's content (Maeder & Corbett, 2015). Earlier stated, the *CSI effect* is the exaggeration of crime scene investigation tactics in TV shows. For example, crime TV shows have specifically been found to change jurors' expectations for the criminal evidence that is needed to assess guilt or innocence in a suspected perpetrator (Smith et al., 2011). Jurors are believing that the forensic tests that are depicted in TV shows have real-life relevance because they were relevant in the TV show. It is still under-researched if there is similar *learning* going on with potential

criminals and not just with juries. Crime TV is one genre of TV that should be further explored because of the potential effects it may have on viewers' aggression levels, perceptions of reality and a person's criminal thinking/intentions. Are aggressive people being drawn to criminal TV (Cantor, 2000; Gibson et al., 2014), does crime TV just encourage altered behavior and attitudes or are they watching in order to learn how to be better criminals? The underlying relevance is that viewers might be having measurable changes in their aggressive behavior and their criminal thinking because of the exposure to such content.

Cultivation Theory

Cultivation theory is the idea that viewers of TV are affected by the underlying beliefs, attitudes, lessons and facts of a show's content, whether true or not, which may then affect a viewer's conception of reality (Gerbner et al., 2002; Maeder & Corbett, 2015). The actual process of looking at the effects of cultivation theory is called cultivation analysis, which refers to the study of long-term exposure to TV shows and the potential consequences that can arise from that entire message system (Gerbner et al., 2002). The longer people participate or engage in the realm of TV, the more likely their beliefs about their reality will change to be more in line with what they see on TV. "Most of what we know, or think we know, is a mixture of all the stories and images we have

absorbed” (Gerbner et al., 2002, p. 52) from all experiences, interactions, and media that are witnessed.

Adults are not the only viewers exposed to violence and aggression in TV content but children and adolescents are also being exposed to the variety of content depicted on TV (Gerbner et al., 2002). Continually being exposed to various TV content and the potential underlying lessons, attitudes, and beliefs are potentially adding to the development of a person’s worldview (Gerbner et al., 2002). If these underlying lessons are construed as normal, a person will most likely adopt inaccurate beliefs about personal values, larger value systems, beliefs, etc. and possibly participate in inappropriate behavior (Gerbner et al., 2002).

Factors Encouraging and Hindering Media Influences

There are both risk and protective factors when it comes to influencing a person’s behavior, attitudes, and beliefs in general and in specific circumstances. Risk factors are characteristics and history of a person that may increase the negative outcomes of experiences, observations and delinquent intentions a person may experience (Gentile & Bushman, 2012). Such potential risk factors can be exposure to violence both in real-life and through the media, physical victimization, gender of the individual, amount of parental support or monitoring, perception of social support, and prior aggressive behavior (Gentile & Bushman, 2012). All of these potential influencers can hinder a person’s pro-social behavior and make them more susceptible to acting out aggressively

or criminally. Further, these risk factors can have influences on all aspects of a person's life and may affect how a person processes and copes with experiences that are out of their control or add to delinquent behavior. So the question may be, how has the world not succumbed to unruly criminals and aggressive people? The literature has addressed this question by stating protective factors that individuals may have that may counteract numerous risk factors.

Protective factors are characteristics and history of a person that may decrease the effects of negative experiences, observations or delinquent intentions (Gentile & Bushman, 2012; Levermore & Salisbury, 2009; Swisher & Dennison, 2016). No one has the same combination of protective factors or risk factors, but it has been shown that a certain combination of protective factors may be more helpful in decreasing negative effects than other combinations (Gentile & Bushman, 2012). Combinations that may be better at decreasing negative effects from violent and criminal media generally include positive relationships and perceived support from friends and family and decreased viewing of violent media (Gentile & Bushman, 2012). For example, Gentile & Bushman (2012) stated that individuals who have a sense of connection to someone else or have high-quality relationships were shown to be less likely to engage in risky behaviors including aggression or criminal activity.

Other protective factors that could mitigate common risk factors are level of education and socioeconomic status (Swisher & Dennison, 2016); level of perceived peer support, quality of relationships, and no prior offending (Paternoster & Brame, 1997);

involvement in church and other extracurricular activities (Levermore & Salisbury, 2009); and level of family involvement (Swisher & Dennison, 2016; Paternoster & Brame, 1997). Having more education may potentially lessen the false perceptions and realities that TV may foster, and higher socioeconomic status may help a person be eligible for such education (Swisher & Dennison, 2016). Further, peer support and quality relationships give an individual something to lose if they are caught for delinquent behavior. This is also where involvement in extra-curricular activities comes in and gives individuals something else that they can connect to and may act as a buffer for aggressive tendencies (Levermore & Salisbury, 2009). These factors are the overall buffering influences that may blur the relationship that violent and criminal TV shows may have on viewers.

Criminogenic Thinking

People have various characteristics and behaviors that are unique to them; these behaviors, characteristics and attitudes can be affected and molded by experiences a person goes through and observes (Wagar & Mandracchia, 2016). Of interest in the current study is criminogenic thinking (Wagar & Mandracchia, 2016). *Criminogenic thinking*, or criminal thinking patterns, is a unique cognitive style or belief system that may contribute to criminal behavior (Wagar & Mandracchia, 2016). Historically, this term has been only associated with criminal offenders but lately it has been associated

with the general public. Criminal thinking patterns can be further explained as any belief or attitude that might add to maladaptive and irresponsible behavior (Wagar & Mandracchia, 2016).

Along with a person's criminogenic thinking, a person's readiness to participate in risk-taking is of interest. Risk-taking is any action that could be dangerous to other people or to the person engaging in these behaviors (Fischer, Greitemeyer, Kastenmüller, Vogrincic & Sauer, 2011). Fischer et al. (2011) state that for individuals who are exposed to risky behavior in media, the viewers who are exposed to active media (e.g., video games), or behavior that is most closely related to real-world behavior, have higher tendencies to participate in observed risk-taking behavior. Fischer et al. state that media have at least some relationship to a person's risk-taking behavior by potentially encouraging a person to participate in the same behavior that they see depicted in their chosen media. This risk-taking tendency is important in providing support for the current study by showing that a person could engage in risky behavior that is depicted in different types of media. One could argue that criminal behavior is risky behavior and viewing criminal behavior could stimulate a person's criminogenic thinking. This tendency to want to take risks might motivate a person to act on their criminal thinking patterns.

Purpose

The purpose of the present study is to explore if people are gaining self-efficacy in committing crimes from the crime TV shows they watch. Are people learning how to

be *smarter* in committing and getting away with a crime? There has been a lot of research on the effects of depicted violence in media on its viewers. People tend to be more aggressive if they watch more violent content than those who watch less violent content (Coyne et al., 2008; Vetro et al., 1988). The current study will investigate if the amount of crime TV shows being watched, a person's aggression level, potential protective factors and a person's recklessness tendency, share a relationship with a person's self-efficacy in getting away with murder.

It is hypothesized that people who watch a high amount of crime TV, have higher aggressive and recklessness tendencies and fewer protective factors will have higher self-efficacy scores in believing they can get away with a committed murder than individuals who do not watch as much crime TV or have lower aggressive/recklessness tendencies, and more protective factors.

CHAPTER II

METHODS

The purpose of the current study is to explore the relationship between the amount of crime TV a person watches, their aggression and recklessness levels and potential protective factors, and their self-efficacy about getting away with a committed murder. It is hypothesized that individuals who watch more crime TV shows, have higher aggressive and recklessness tendencies and fewer protective factors, will have higher self-efficacy scores in getting away with a committed murder than individuals who do not watch a lot of crime TV, have lower aggressive and recklessness tendencies, and more protective factors.

Participants

There was a total of 201 participants; 12 data pieces were deleted because they were not fully complete and 1 datum was deleted because the participant indicated they were under the age of 18. This left 188 usable participants. Participants were recruited through Sona (Appendix A), a website through CWU that houses online studies, and through Facebook. There were 155 participants who stated they took the survey through Sona, 20 participants from Facebook and 13 participants stated other. There were 173 students and 15 community participants. Age ranged from 18 to 66 ($M = 23.5$, $SD = 8.24$) years old with one participant stating “other.” There were 42 freshmen, 27 sophomores, 47 juniors, 49 seniors, 5 graduate participants and 3 other participants. Participants who

took the study through Sona received the possibility of extra credit for their participation. There was no compensation for participants who took the study through Facebook.

Materials

The current study consisted of scales that were taken from the International Personality Item Pool website. This website has over 250 scales designed to measure constructs and personality characteristics and is a public domain website. These scales were put into an original Qualtrics survey with a 5-point Likert scale for answering. There were four constructs that measured: a person's *protective factors* as measured by their believed/felt family love & support and a person's interest/connection to extracurricular activities and peers; a person's *aggressive tendencies*; a person's *recklessness tendencies*; and a person's *self-efficacy* in getting away with a committed murder after getting a scenario prompt.

Protective factors. The scale targeting family support and love is called *Capacity for Love* (Cronbach's alpha = .70), based off of the Values in Action (VIA) authored by Peterson and Seligman (2004) (Appendix B). There were 9 questions for this scale, and each of them had a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). The other scale that is targeting involvement in extracurricular and peer support (still part of a person's protective factors) is also based in the VIA, called *Citizenship/Teamwork* (Cronbach's alpha = .78) (Appendix B). There were 9 questions for this scale, and most had a 5-point Likert scale for answering. Three questions had a 6th-point, stating not relevant as an option. Taken together, the protective factor scale

consists of 18 questions. The two protective factor scales were combined into one over scale that looked at a person's level of protective factors because each sub-scale was looking at a different factor, either perceived love and support from family and friends or how involved a participant was in extracurricular activities.

Aggressive tendency. The scale that is targeting a person's aggressive tendencies is *Anger* (Cronbach's alpha = .88) developed by Johnson (2014) from the NEO: N2, which is measuring similar constructs that are found in the NEO-PI-R (Appendix C). There were 10 questions in this scale, and all of the questions had a 5-point Likert scale for answering. The Likert scale ranges from 1(strongly disagree) to 5(strongly agree).

Recklessness tendency. The scale that is targeting a person's recklessness is *Recklessness* (Cronbach's alpha = .72) from the TCI: HA4-reflected which is measuring constructs similar to the Temperament and Character Inventory by Cloninger (Appendix D). There were 10 questions in this scale, and all of the questions had a 5-point Likert scale for answering. The Likert scale ranges from 1(strongly disagree) to 5(strongly agree).

Self-Efficacy. The scale that is targeting a person's believed self-efficacy is *Self-Efficacy* (Cronbach's alpha = .81) from the CPI: IN which is measuring similar constructs to the California Psychological Inventory by Gough (1996) (Appendix E). In this scale, there were changes to the wording of the original questions, to tailor the questions to be specific to this survey. The changed wording is noted in the bracketed sections in Appendix E. There are 10 questions in this scale, and all of the questions had a 5-point

Likert scale for answering. The Likert scale ranges from 1 (strongly disagree) to 5 (strongly agree).

Amount of TV. There were two questions that asked the participant to state how much crime TV they watch on an average (Appendix F).

Scenario. Before the participants were taken to the Self-efficacy questions, they were given the crime scenario depicting murder (Appendix G). The scenario is loosely based off a similar depiction from the popular crime TV show *Law and Order: Special Victims Unit* (Wolf, 1999-present). This depiction is important for the measurement of self-efficacy a participant feels, because it sets up the foundation and context for their self-efficacy in getting away with a committed murder. With this in mind, the scenario was always given right before the self-efficacy scale was given. Further details are provided in the procedure.

Design

The present study used a multiple linear regression to investigate the significance of amount of crime TV watched, aggressive tendencies, recklessness tendencies and protective factors as predictors of self-efficacy in committing and getting away with murder.

Procedure

Participants were directed to Qualtrics where the study was housed. Once the participants were directed to the study, they were asked to agree to the informed consent by manually clicking and agreeing to everything stated in the informed consent

(Appendix H). From there, the participants started the study and upon completion, were directed to a brief demographic survey and then to a debrief form.

The study itself consisted of four blocks. The first two blocks were presented in randomized order. One block consisted of the recklessness and aggressiveness scales with all items presented randomly. The second block consisted of the scenario and the self-efficacy scale. The scenario was always presented before the self-efficacy scale. The questions within the self-efficacy scale were randomly presented.

The third block consisted of the protective factor scales (capacity for love & citizenship/teamwork) which were randomly presented. The fourth section of the study consisted of the TV usage questions (Appendix F) and the demographic questions (Appendix I). Once all of these sections were completed, the participants were taken to the debrief form (Appendix J). There was no compensation for the participants' time for general volunteers; the psychology students who were taking this survey through the Sona system would most likely have been granted extra credit if their professors allowed.

CHAPTER III

RESULTS

Scoring

Scales. Before analyses could be conducted, the six (five predictors and one predicted) scales had to be reverse scored. Looking at all six scales, Appendixes C-F, the second half of scales with an asterisk indicates reverse scored questions. Once these were reverse scored, the scales were summed to give a total on each scale.

TV Usage. There were two scores that indicated amount of crime TV watched: raw scores and subjective scores. The raw score was the TV question asking, “In an average week how many hours do you watch media shows that involve criminal content (e.g., murder, espionage, violence, etc.),” for a lump sum of hours watched per week of crime genre. This question provides a direct compact answer from the participants. The subjective score was meant as a check of the raw score. The subjective score question asked participants to list their top five TV shows and the corresponding number of hours watched per week. Answers had to be coded by typing the show’s name into the *Internet Movie Database* (IMDb) in order to determine whether or not it fit in the crime genre. In doing so, this score was one-step removed from the participant. A list of the coded shows for the crime genre can be found in Appendix K.

Prior to analyses, a Mahalanobis distance test was conducted in order to test for outliers. There were 5 outliers deleted leaving 183 participants. Table 1 presents the

means and standard deviations for all the variables, including both measures of time watching crime TV.

Table 1.

Means and Standard Deviations for Predictors and Self-Efficacy (all n = 183)

Predictor	Mean	Standard Deviation
Capacity for Love	34.57	4.85
Citizenship/Teamwork	32.46	4.76
Aggression	27.28	6.62
Recklessness	23.98	5.88
Hours of crime TV (Raw Score)	4.42	5.31
Hours of crime TV (Subjective)	3.02	5.52
Self-efficacy	33.08	5.29

A repeated t test was conducted on the two scores for number of hours of crime TV to see if the two scores were significantly different. In order to ensure that only hours of crime TV was being compared, those whose subjective-score was zero for time spent watching crime TV ($n = 80$) were left out of the analysis. The analysis indicated no significant difference between the two means ($M_{RS} = 5.62$; $M_{SS} = 5.36$), $t(102) = 0.49$, $p = .63$.

However, when all scores were included, the difference was significant, $t(183) = 3.63, p < .001$ (see Table 1). This may indicate that either or both measures of hours watched of crime TV are inaccurate. Therefore, both analyses are presented.

Multiple linear regression using raw TV scores

Multiple linear regression was conducted with predictors recklessness tendencies, aggressive tendencies, protective factors (capacity for love & citizenship/teamwork) and raw score of crime TV watched. The predicted value was self-efficacy scores in committing and getting away with murder. The correlations between all variables are presented in Table 2. There was no multicollinearity between the variables. The model significantly predicted self-efficacy, $F(5,177) = 2.55, p = .03$, adjusted $R^2 = .04$. As indicated in Table 3, only the amount of crime TV watched was a significant predictor of self-efficacy, thus supporting the hypothesis.

Table 2.

Correlations Between Variables

	Capacity for Love	Citizenship/ Teamwork	Aggression	Recklessness	TV usage (Raw)	TV usage (Subjective)	Self-efficacy
Capacity for Love	1	.45**	-.30**	-.07	-.17*	-.12	.10
Citizenship/Teamwork		1	-.24**	-.09	-.17*	-.13	.11
Aggression			1	.36**	.15*	.19*	-.14
Recklessness				1	.17*	.17*	-.10
TV usage (Raw)					1	.53**	.14
TV usage (Subjective)						1	.08

* $p < .05$ ** $p < .01$

Table 3.

Multiple Linear Regression Predicting Self-Efficacy Scores Using Raw Scores

Predictor	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>p</i>
Capacity for Love	.15	.09	.13	1.61	.11
Citizenship/Teamwork	-.07	.09	-.06	-.74	.46
Aggression	-.11	.07	-.13	-1.60	.11
Recklessness	-.07	.07	-.07	-.92	.36
Hours of crime TV weekly	.19	.08	.19	2.51	.01

Multiple linear regression using subjective TV scores

Multiple linear regression was conducted with predictors recklessness tendencies, aggressive tendencies, protective factors (capacity for love & citizenship/teamwork) and the subjective score of crime TV watched. The predicted value was self-efficacy scores in committing and getting away with murder. There was no multicollinearity between the predictors, as seen in Table 3. The model does not significantly predict self-efficacy, $F(5,177) = 1.78, p = .12, \text{adjusted } R^2 = .02$. As indicated in Table 4, there are no significant predictors of self-efficacy when using the subjective measure of time watching crime TV.

Table 4.

Multiple Linear Regression Predicting Self-Efficacy Scores Using Subjective Scores

Predictor	<i>B</i>	<i>SE B</i>	β	<i>t</i>	<i>p</i>
Capacity for Love	-.08	.09	-.08	-.91	.36
Citizenship/Teamwork	-.14	.09	.12	1.49	.14
Aggression	-.11	.07	-.14	-1.65	.10
Recklessness	-.05	.07	.07	-.06	.45
Hours of crime TV weekly	.12	.07	.12	1.62	.11

CHAPTER IV

DISCUSSION

This study was performed in order to see if people are learning or gaining something from the crime TV shows they are watching. More specifically, this study was aimed at seeing if people are gaining self-efficacy in committing and getting away with a crime such as murder. The current study investigated if the amount of crime TV shows being watched, a person's aggression level, potential protective factors and a person's recklessness tendency, contribute to a person's corresponding self-efficacy in committing and getting away with murder. It was hypothesized that people who watch a high amount of crime TV, have higher aggressive and recklessness tendencies and have fewer protective factors will have higher self-efficacy scores in believing they can get away with a committed murder.

There were two measures for the amount of crime TV watched a week. The first score was a "lump sum" that asked for a weekly average of crime TV watched, termed the raw-score. This score was a significant predictor of self-efficacy in committing and getting away with murder. The other score was a check for the raw-score, called the subjective-score. The subjective-score was not a significant predictor for self-efficacy in committing and getting away with murder. There is no clear explanation as to why one score was significant and the other one was not. It is thought that the subjective score asked the participants to think more critically and list out the shows and corresponding hours whereas the raw score might have been seen as a more "gut response" score. Moving forward, it would be interesting to combine the two question sets to make one

question that asked participants to list their top three shows, corresponding hours and whether or not they consider the show to be in the crime genre.

The subjective-score is subjective because the principal researcher had to code the genre of the given TV shows. In the subjective-score, participants were asked to list their top five TV shows they watch in a week and give corresponding hours watched of that TV show. The principal researcher then coded the reported shows by typing the show name into the *Internet Movie Database* (IMDb). After all of the shows were coded, the hours of TV for the subjective-scores were totaled. A list of the coded crime TV shows can be found in Appendix K. Further, the two crime TV scores were analyzed using a repeated t test. The results of this t test reported no significant difference between the two means, meaning the two scores measured statistically similar results for weekly watched crime TV. It is unclear as to why there is this difference of significance between the raw-score predictor and the subjective-score predictor. This difference should be further explored in future research. Results showed that of the five predictors, the only significant predictor in predicting self-efficacy was crime TV watched in a week as measured by a raw score.

The significant predictor of crime TV watched a week in predicting self-efficacy adds to the already established literature regarding media and its potential effects on viewers. This finding highlights the cultivation theory, which is understood as a phenomenon where viewers of media are affected by the implicit messages and attitudes of a chosen TV show whether real or true (Gerbner et al., 2002; Maeder & Corbett,

2015). The cultivation theory also stipulates that the longer people engage in the realm of TV, the more likely their beliefs about their reality will change to be more in line with what they see on TV (Gerbner et al., 2002). This implies there is a potential effect of not getting out and experiencing real-world reality, and might suggest people are learning virtual-reality social cues and norms for behavior. This change in beliefs may encourage people to participate in corresponding behaviors related to behavior modeled in the show. The results of the current study suggest and offer support for the claim of behavior effects, by showing that people who watch higher amounts of crime TV have higher reported self-efficacy scores for committing and getting away with murder at least as measured with raw scores. Similarly, this study's results support the idea that TV may act as a natural prime for behaviors and cognitions for viewers (Shrum et al., 1998).

Also, the current study's results support the idea that adults potentially imitate behavior that is modeled for them or at least believe they could imitate behavior if need be. McGuigan et al. (2011) found that adults' imitation is more exact or precise following a model's behavior than children, even when it is from a video demonstration. Because the current participants who watched higher amounts of crime TV reported they believed in their own ability to commit and get away with murder more successfully, these results support McGuigan et al.'s findings. The potential implication is that adults might be learning socially unacceptable behaviors from the TV they watch, that they then participate in, in real-life.

Related to the possible imitation effect, the crime TV genre has been stated to create a CSI effect where individuals are learning about and expecting certain forensic information in court proceedings (Maeder & Corbett, 2015; Sarapin & Sparks, 2014; Smith et al., 2011). Although the CSI effect has only been seen in research on juries, results from the current study suggest that there is a potential CSI effect for individuals who watch higher amounts of crime TV. There is a potential CSI effect insofar as suggesting the more crime TV that is watched, the higher reported self-efficacy scores will be in committing and getting away with murder. This points to a possible link to the CSI effect because without watching more crime TV, a person's self-efficacy scores might not be as high, as seen in the low watchers of crime TV in this study. The CSI effect is defined as the potential effect on viewers of such content, but any such link in the literature has been found only in juries. The CSI effect is similar to criminogenic thinking which is criminal thinking patterns and criminal behavior intentions because both are focused on behaviors or potential behaviors that may be influenced by another factor (Wagar & Mandracchia, 2016). This is important because criminogenic thinking looks at related factors that may add to a person's criminal cognitions and behavioral intentions. The current study was aimed at exploring related factors (amount of crime TV watched a week, aggressive tendencies, recklessness tendencies, and capacity for love & citizen/teamwork) in predicting self-efficacy scores for committing and getting away with murder; the only predictor that was significant was amount of crime TV watched in a

week as measured by raw score. These factors should be further explored in future research.

Possible future directions should address some of the already listed problems of the current study and further look more in-depth into the possible effects that the crime TV genre may be having on its viewers. Future research should develop a validated scale that could somehow measure all of the potential factors/predictors that may go in to a person's belief about committing and getting away with murder or other crimes such as a person's recklessness tendency, a person's aggression baseline and potential, previous crimes committed, level of protective factor protection, and the amount of criminal or violent media being used. Further, future research should also look at other crimes instead of just murder. This was a limitation of the current study, only looking at one crime instead of looking at other clusters of crimes.

Similar to having a validated scale to measure all potential predictors, replicating this study with a more focused crime TV question would be beneficial. The more focused or specific crime TV question would ask participants to list their top five favorite shows, the corresponding hours for that show and then add a question asking the participants to put the genre of TV they believe the show to be. In doing this, it will remove the necessity for the researcher or third-party coders to subjectively code the show's genre. This would keep the answers more closely originating from the participant than taking it one-step removed through an outside coding.

Another limitation that should be changed for future studies is the number of participants and the diversity of participants. Participants were mostly women; this is potentially a problem because women are seen socially as less violent. Participants were also mostly students; it would be interesting to see what the data look like with individuals who were older and not students. Lastly, it would be interesting to see a longitudinal study where people were followed for 10 or 20 years and had their amount of crime TV watched and corresponding behavior tracked. The current study adds to the literature that already exists but also raises new questions and highlights new areas that need to be explored.

Conclusion

The hypothesis of the current study was that individuals who watched higher amounts of crime TV, had higher recklessness and aggressive tendencies, and had fewer protective factors would have higher self-efficacy scores in committing and getting away with murder. The results of this study only support that amount of crime TV watched per week, as measured by the raw scores, as a significant factor in predicting a person's self-efficacy in committing and getting away with murder. The other factors were found not to be significant thus confirming the need for future research. Television is a gateway to another reality, whether or not it is real or true. The higher amount of time that people spend indulging in this other reality probably has some sort of impact on the person; just what kind of impact or effect has yet to be determined.

REFERENCES

- Bandura, A., Ross, D., & Ross, S. A. (1963). Imitation of film-mediated aggressive models. *Journal of Abnormal and Social Psychology, 66*, 3-11. doi: 10.1037/h0048687.
- Cantor, J. (2000). Media violence. *Journal of Adolescent Health, 27*, 30- 34.pii: S1054-139X(00)00129-4.
- Cloninger, C. R. (1994). The temperament and character inventory (TCI): A guide to its development and use. St. Louis, Mo: Center for Psychobiology of Personality, Washington University. Retrieved from <http://ipip.ori.org/newTCIKey.htm#Recklessness>
- Comstock, G. A. (1986). Sexual effects of movie and TV violence. *Medical Aspects of Human Sexuality, 20*, 96- 99. Print version.
- Coyne, S. M., Nelson, D.A., Lawton, F., Haslam, S., Rooney, L., Titterington, L., Trainor, H., Remnant, J., &Ogunlaja, L. (2008). The effects of viewing physical and relational aggression in the media: Evidence for a cross-over effect. *Journal of Experimental Social Psychology, 44*, 1551-1554. doi: 10.1016/j.jesp.2008.06.006.
- Coyne, S. M., Padilla-Walker, L. M., & Howard, E. (2013). Emerging in a digital world: A decade review of media use, effects, and gratifications in emerging adulthood. *Emerging Adulthood, 1*, 125-137.doi: 10.1177/2167696813479782.

- Fischer, P., Greitemeyer, T., Kastenmüller, A., Vogrincic, C., & Sauer, A. (2011). The effects of risk-glorifying media exposure on risk-positive cognitions, emotions, and behaviors: A meta-analytic review. *Psychological Bulletin, 137*, 367-390. doi: 10.1037/a0022267.
- Gentile, D. A., & Bushman, B. J. (2012). Reassessing media violence effects using a risk and resilience approach to understanding aggression. *Psychology of Popular Media Culture, 1*, 138-151. doi: 10.1037/a0028481.
- Gerbner, G., Gross, L., Morgan, M., Signorielli, N., & Shanahan, J. (2002). Growing up with television: Cultivation processes. In J. Bryant, & D. Zillmann, (Eds.), *Media effects: Advances in theory and research*, 2nd ed (pp. 43-67). Mahwah, NJ: Lawrence Erlbaum Associates Publishers.
- Gibson, B., Thompson, J., Hou, B., & Bushman, B. J. (2014). Just “harmless entertainment”? Effects of surveillance reality tv on physical aggression. *Psychology of Popular Media Culture, 5*, 66-73. doi: 10.1037/ppm0000040.
- Gough, H. G. (1957). *Manual for the California Psychological Inventory*. Palo Alto, CA: Consulting Psychologists Press. Retrieved from <http://ipip.ori.org/newCPIKey.htm#Self-Efficacy>
- Gueta, K., & Chen, G. (2016). Men and women inmates' accounts of their pathways to crime: A gender analysis. *Deviant Behavior, 37*, 1459-1472.
- Internet Movie Database (IMDb) (2018). *Amazon.com*, retrieved from <https://www.imdb.com/>

- Johnson, J. A. (2014). Measuring thirty facets of the Five Factor Model with a 120-item public domain inventory: Development of the IPIP-NEO-120. *Journal of Research in Personality, 51*, 78-89. Retrieved from <http://ipip.ori.org/newNEOKey.htm#Anger>
- Krahé, B. (2016). Violent media effects on aggression: A commentary from a cross-cultural perspective. *Analyses of Social Issues and Public Policy, 16*, 439-442. doi: 10.1111/asap.12107.
- Krahé, B., Möller, I., Huesmann, L. R., Kirwil, L., Felber, J., & Berger, A. (2011). Desensitization to media violence: Links with habitual media violence exposure, aggressive cognitions, and aggressive behavior. *Journal of Personality and Social Psychology, 100*, 630- 646. doi: 10.1037/a0021711.
- Levermore, M. A., & Salisbury, G. L. (2009). The relationship between virtual & actual aggression: Youth exposure to violent media. *The Forensic Examiner, 18*, 32- 42. Accession number: 2009-08433-002.
- Maeder, E. M., & Corbett, R. (2015). Beyond frequency: Perceived realism and the CSI effect. *Canadian Journal of Criminology and Criminal Justice, 57*, 83- 115. doi: 10.3138/cjccj.2013.E44.
- Martins, N. (2013). Televised relational and physical aggression and children's hostile intent attributions. *Journal of Experimental Child Psychology, 116*, 945-952. doi: 10.1016/j.jecp.2013.05.006.
- McGuigan, N., Makinson, J., & Whiten, A. (2011). From over-imitation to super-copying: Adults imitate causally irrelevant aspects of tool use with higher fidelity

than young children. *British Journal of Psychology*, *102*, 1-18. doi:
10.1348/000712610X493115.

Mrug, S., Madan, A., & Windle, M. (2016). Emotional desensitization to violence contributes to adolescents' violent behavior. *Journal of Abnormal Child Psychology*, *44*, 75-86. doi: 10.1007/s10802-015-9986-x.

Paternoster, R., & Brame, R. (1997). Multiple routes to delinquency? A test of developmental and general theories of crime. *Criminology*, *35*, 49-84. doi: 10.1111/j.1745-9125.1997.tb00870.x.

Peterson, C., & Seligman, M. E. P. (2004). Character strengths and virtues: A handbook and classification. New York: Oxford University Press/Washington, DC: American Psychological Association. Retrieved from
http://ipip.ori.org/newVIAKey.htm#Capacity_Love

Sarapin, S. H., & Sparks, G. G. (2014). Eyewitnesses to TV versions of reality: the relationship between exposure to TV crime dramas and perceptions of the criminal justice system. In Macey, D. A., Ryan, K. M., & Springer, N. J. (Eds.), *How television shapes our worldview: Media representations of social trends and change*. Retrieved from <https://ebookcentral-proquest-com.ezp.lib.cwu.edu/lib/cwu/detail.action?docID=1691887#>

Savage, J. (2004). Does viewing violent media really cause criminal violence? A methodological review. *Aggression and Violent Behavior*, *10*, 99- 128. doi: 10.1016/j.avb.2003.10.001.

- Savage, J. & Yancey, C. (2008). The effects of media violence exposure on criminal aggression. *Criminal Justice and Behavior, 35*, 772- 791.doi: 10.1177/0093854808316487.
- Shrum, L. J., Wyer, R. S., & O'Guinn, T. C. (1998). The effects of television consumption on social perceptions: The use of priming procedures to investigate psychological processes. *Journal of Consumer Research, 24*, 447-458.
- Smith, S. M., Stinson, V., & Patry, M. W. (2011) Fact or Fiction? The myth and reality of the CSI effect. *Court Review, 47*, 4-7.
- Stockdale, L. A., Morrison, R. G., Kmiecik, M. J., Garbarino, J., & Siltan, R. L. (2015). Emotionally anesthetized: Media violence induces neural changes during emotional face processing. *Social Cognitive and Affective Neuroscience, 10*, 1373- 1382.doi: 10.1093/scan/nsv025.
- Swisher, R. R., & Dennison, C. R. (2016). Educational pathways and change in crime between adolescence and early adulthood. *Journal of Research in Crime and Delinquency, 53*, 840-871. doi: 10.1177/0022427816645380.
- Vetro, A., Csapo, A., Szilard, J., & Vargha, M. (1988). Effects of television on aggressivity of adolescents. *International Journal of Adolescent Medicine and Health, 3*, 303-320. doi:10.1515/IJAMH.1988.3.4.303.
- Wagar, L. & Mandracchia, J. (2016). Criminogenic thinking mediates the relation between violent media exposure and aggression. *Journal of Aggression, Maltreatment and Trauma, 25*, 537-554. doi: 10.1080/10926771.2016.1158761.

Wolf, D. (1999-present). *Law and Order: Special Victims Unit* [Television Series]. New York, NY: Wolf Films.

APPENDIXES

Appendix A

Sona Description

Central Washington University students are being asked to participate in a study that is exploring various personality characteristics and media usage. Participants will answer questions following a target scenario and is solely based on personal beliefs. This study should take about 20 minutes to complete. Your time is appreciated, and your responses will add to a great pool of data. Thank you again for your time and please make sure to read the instructions carefully.

Once you have selected the survey, it will start and you will have to finish it at that time.

If you don't have time now, do not start the survey but return to take it when you have time.

Appendix B

Protective Factor Questions

Instructions: There are no right or wrong answers, and your responses are confidential and anonymous. There is no way to connect your individual responses to you.

Capacity for Love – From VIA:

I am willing to take risks to establish new relationships because I learned from my parents

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I know that my family accepts my shortcomings

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I know that I have family in my life who care as much for me as for themselves

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I am the most important person in my parent/s life

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I can express love to my family

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I know someone whom I really care about as a person

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I do not easily share my feelings with my family*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I feel isolated from my family*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I have difficulty accepting love from my parents*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

Citizenship/Teamwork – From VIA:

I never miss an after-school activity or team practice

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree) 6 (Not relevant)

I enjoy being part of a group

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I support teammates or fellow group members when working in a group

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree) 6 (Not relevant)

I feel I must respect the decisions made by a group I am in

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree) 6 (Not relevant)

I am not good at working with a group of people*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I prefer to do everything alone*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I work best when I am alone*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I keep to myself*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I don't think it's important to socialize with others*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

(*) = reversed keyed

Appendix C

Anger from NEO:N2

Instructions: There are no right or wrong answers, and your responses are confidential and anonymous. There is no way to connect your individual responses to you.

I get angry easily

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I get irritated easily

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I get upset easily

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I am often in a bad mood

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I lose my temper easily

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I rarely get irritated*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I seldom get mad*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I am not easily annoyed*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I keep my cool*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I rarely complain*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

(*) = reversed keyed

Appendix D

Recklessness from TCI: HA4-reflected

Instructions: There are no right or wrong answers, and your responses are confidential and anonymous. There is no way to connect your individual responses to you.

I jump into things without thinking

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I rush into things

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I like to act on a whim

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I make rash decisions

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I like to sleep on things before acting*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I think twice before doing something*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I take precautions*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I have an eye for detail*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I reflect on things before acting*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I investigate all possibilities before acting*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

(*) = reversed keyed

Appendix E

Self-Efficacy from CPI: IN

Instructions: There are no right or wrong answers, and your responses are confidential and anonymous. There is no way to connect your individual responses to you.

I can handle complex problems [like committing murder]**

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I can think quickly [to avoid detection]**

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I can formulate ideas clearly [so my plan is foolproof]**

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I have excellent ideas [about how to avoid being caught]**

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I am quick to understand things [regarding police procedures]**

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I never challenge things and always go with the flow*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I undertake few things on my own*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I let others determine my choices*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I let myself be directed by others*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

I do not have a good imagination*

1 (Strongly disagree) 2 3 (undecided) 4 5 (Strongly agree)

(*) = reversed keyed

(**) = information in brackets was added to question

Appendix F

Amount of TV

For the following few questions, answer the questions in terms of the media shows you have watched in the past 6 months.

1. **In an average week how many hours do you watch media shows that involve criminal content (e.g., murder, espionage, violence, etc.)?**
 _____ (fill-in the blank)

2. **In an average week how many hours do you watch media shows?**
 _____ (fill-in the blank)

3. **List your top 5 media shows you watch most often, either streaming or through live broadcasting**

Show:	Average hours watched a week:
_____ (fill-in the blank)	_____ (fill-in the blank)
_____ (fill-in the blank)	_____ (fill-in the blank)
_____ (fill-in the blank)	_____ (fill-in the blank)
_____ (fill-in the blank)	_____ (fill-in the blank)
_____ (fill-in the blank)	_____ (fill-in the blank)

Appendix G

Crime Scenario – Murder

Murder:

Assume you have a partner who you have been living with for several years. You two have been very happy and have had very few problems up until the last three months or so. Over the last three months you have started to suspect your partner is cheating on you. You have no proof yet, but your instincts are telling you your partner has a lover.

You normally have a set schedule and are gone in the mornings while your partner is at home. This morning you wake up and decide to test your instincts. You decide to “forget” your lunch and to come back home unexpectedly.

When you arrive home unexpectedly, you catch your partner with another lover. You knew it. The lover is startled and runs out of the house. You are so angry, you physically attack your partner to death. After you realize what you have done, you do all you can think of to cover up your crime.

Appendix H

Informed Consent

You are being asked to participate in a research study conducted through Central Washington University. You must be at least 18 years old to participate in this study.

- Your participation is completely voluntary. If you decide to participate now you may change your mind and stop at any time, for any reason, without penalty or loss of any future services or benefits you may be eligible to receive from the University.
- The purpose of the study is to explore your personal reactions regarding your media usage.
- The survey should take about 20 minutes to complete. The survey must be completed in one session.
- Reasonable and appropriate safeguards have been used in the creation of the web-based survey to maximize the confidentiality and security of your responses; however, when using information technology, it is never possible to guarantee complete privacy.

If you have any questions or concerns about the study, please contact Dorothy Moore at mooredo@cwu.edu or her thesis chair, Dr. Marte Fallshore at marte.fallshore@cwu.edu.

If you have any concerns about your rights as participants in this study, please contact CWU's Human Subjects Review Council at (509) 963-3115 or hsrc@cwu.edu.

Appendix I

Demographic Survey

1. What is your age as of your last birthday?

_____ (Fill in the blank)

2. What is your gender?

Male

Female

Other _____

Decline to answer

3. Are you a student?

Yes

No

If Yes: What is your year in school?

Freshman

Sophomore

Junior

Senior

Graduate

Other

What is your intended major?

_____ (Fill in the blank)

If No: What is your job?

_____ (Fill in the blank)

4. How did you find out about this survey?

Sona

Flyer

Facebook

Other _____ (Fill in the blank)

Appendix J

Debrief Form

The study you participated in was about exploring the potential relationship between how much crime TV you watch and your believed self-efficacy in getting away with a hypothetical committed murder. In this study, you were also assessed on your aggressive tendencies and your recklessness tendencies to see if there was a relationship between your scores and your resulting self-efficacy. Lastly, you were asked about protective factors you may have that might be lessening the possible effect your media shows are having on you and your self-efficacy score.

Taking a step back, media usage has been heavily researched in the literature and has been found to have varying degrees of relationships with viewers and viewer characteristics. This generally can be understood by looking at the cultivation theory. The cultivation theory states that the more TV a person watches, the more likely they are to see TV reality as real-life reality, and may or may not adopt tendencies, attitudes or behaviors from the TV content as their own. So, this study was interested in looking at if you have learned or adopted anything about how to commit a hypothetical murder from the TV shows you watch.

Your results and the information from other participants, will provide a better idea about if individuals are learning how to be better criminals from the TV shows they watch.

If you have any questions or concerns regarding this study or if you would like to see the final results, please feel free to contact Dorothy Moore at mooredo@cwu.edu or her thesis advisor Dr. Marte Fallshore at Marte.Fallshore@CWU.edu.

Or if you have any other questions or comments regarding how you were treated as a participant in this study, please feel free to contact CWU's Human Subjects Review Council at (509) 963-3115 or hsrc@cwu.edu.

Thank you for your participation. Research could not happen without people like you.

It is also requested that you not discuss this study with anyone who has not participated yet.

**TO PROTECT YOUR PRIVACY, PLEASE CLEAR THE CACHE (HISTORY)
THEN CLOSE THE BROWSER BEFORE LEAVING THE COMPUTER.”**

Appendix K

Crime TV – Coded

<i>Criminal Minds (n = 32)</i>	<i>Chicago fire</i>
<i>How to Get Away with Murder (n = 15)</i>	<i>Chicago MEd</i>
<i>Riverdale (n = 13)</i>	<i>Chuck</i>
<i>NCIS (n = 10)</i>	<i>Cops</i>
<i>Dexter (n = 8)</i>	<i>CSI Los Angeles</i>
<i>Law and Order: SVU (n = 8)</i>	<i>Daredevil</i>
<i>Scandal (n = 6)</i>	<i>Dateline</i>
<i>9-1-1 (n = 5)</i>	<i>Death Row Stories</i>
<i>Law and Order (n = 5)</i>	<i>First 48</i>
<i>Hawaii 5-0 (n = 4)</i>	<i>Flint town</i>
<i>Live P.D. (n = 4)</i>	<i>Girls Incarcerated- Young and Locked up</i>
<i>Psych (n = 4)</i>	<i>Jessica Jones</i>
<i>CSI (n = 3)</i>	<i>Lethal Weapon (the TV show)</i>
<i>ID Channel (n = 3)</i>	<i>Limitless</i>
<i>Arrow (n = 2)</i>	<i>Lockdown</i>
<i>Blacklist (n = 2)</i>	<i>Local News</i>
<i>Blue Bloods (n = 2)</i>	<i>MindHunters</i>
<i>Breaking bad (n = 2)</i>	<i>Miscellaneous crime documentaries</i>
<i>Bones (n = 2)</i>	<i>Murder Documentaries</i>
<i>Chicago PD (n = 2)</i>	<i>Narcos</i>
<i>Forensic Files (n = 2)</i>	<i>NCIS New Orleans</i>
<i>Gotham (n = 2)</i>	<i>Nikita</i>
<i>Hannibal (n = 2)</i>	<i>OJ</i>
<i>Locked Up Raw (n = 2)</i>	<i>Quantico</i>
<i>NCIS Los Angeles (n = 2)</i>	<i>Scorpion</i>
<i>Orange is the New Black (n = 2)</i>	<i>Seal Team</i>
<i>Sons of Anarchy (n = 2)</i>	<i>Seven Seconds</i>
<i>The Punisher (n = 2)</i>	<i>The Catch</i>
<i>20/20</i>	<i>Under Arrest</i>
<i>60 days in</i>	<i>Vice news</i>
<i>A Crime to Remember</i>	<i>Vice</i>
<i>Blindspot</i>	<i>White Collar</i>
<i>Castle</i>	<i>Xfiles</i>