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JOURNAL OF UNDERGRADUATE RESEARCH

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TABLE OF CONTENTS

CONTENTS

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Examining the Influence of Sexual Assault on the Mental Health of College Students

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Abstract

This article explores the potential relationship between sexual assault and experiencing mental illnesses among a college population. Previous literature suggests that when an individual is sexually assaulted, they are more likely to develop mental illnesses (e.g., depression, anxiety, PTSD) (Carey, Norris, Durney, Shepardson & Carey, 2018; Combs, Jordan, & Smith; 2013; Krahe & Berger, 2017). The current study took place during the fall semester of 2020 at Cabrini University. Electronic surveys were administered to a variety of courses, Cabrini alumni, and sports teams. Results show there is a significant relationship between unwanted touching in the private parts and developing mental illness symptoms. It was also found that unwanted touching in the private sexual parts and seeking mental health treatment was significant.

SEXUAL ASSAULT AND MENTAL HEALTH

Introduction

The beginning of college can be associated with many good experiences but may also be related to risky behaviors, such as binge drinking, and these behaviors can increase the risk of sexual assault (McDougall, Langille, Steenbeek, Asbridge, & Andreou, 2016). Carey et al., (2018) define sexual assault as unwanted sexual outcomes achieved through physical force, threats, and incapacitation. Specifically, sexual trauma among college aged women involves molestation, rape, and ongoing sexual abuse (Kaltman, Krupick, Stockton, Hooper & Green, 2005). Among college women, 20-30% report being sexually victimized at one point in their life (Baker et al., 2016). While all college-aged women are at risk of sexual victimization, it can be noted that first-year students are at a higher risk of victimization (Carey et al., 2018). Between 17-20% of first-year students experience unwanted sexual contact which may also be referred to as the "red zone" (Carey et al., 2018; Kaltman et al., 2005). The "red zone" is the period of time where first-year students are at higher risk of being sexually assaulted due to their unfamiliarity with the campus and party culture (Kardian, 2017).

Sexual assault and abuse can cause trauma, which can increase the possibility of a victim developing psychological disorders (Carey et al., 2018; Krahe & Berger, 2017). Combs et al., (2013), state that after an assault, women internalize the trauma differently. This internalization of trauma more often than not, results in a disorder such as major depression and anxiety (Combs et al., 2013). Trauma may be expressed externally through binge drinking, and illicit drug use (Combs et al., 2013). Similarly, authors Carey et al. (2018) and Naragon-Gainey, Simpson, Moore, Varra, and Kaysen (2012) found sufficient evidence supporting this same finding. Krahe and Berger (2017) report high levels of depression among male or female sexual assault victims.

SEXUAL ASSAULT AND MENTAL HEALTH

This study will further examine the relationship between sexual assault among college aged students and how it affects their mental health.

Literature Review

Sexual Miscommunication

Sexual consent is a key part of sexual assault cases (Jozkowski et al., 2014). It is crucial for both male and female college students to understand the definition of sexual consent because a lack of understanding can contribute to sexual assault. As such, it is important to evaluate misconceptions and misunderstandings when discussing sexual cues. Misunderstanding a "sexual cue" can lead to sexual assault or sexual aggression because one individual believes they have consent. This creates a barrier and increases the likelihood of sexual assault (Jozkowski et al., 2014).

Misunderstanding sexual consent may contribute to sexual aggression. Jozkowski et al. (2014) found that men interpret women's refusal to sex as a "token resistance." This is when a man thinks a woman is saying no but she means yes. How each person defines and conceptualizes sexual consent is different depending on the person. As such, researchers cannot come to one definition of sexual consent (Jozkowski et al., 2014). Sexual scripts are a set of cultural guidelines for appropriate sexual behaviors and how to progress in a sexual encounter and tend to be based on gender roles of a male or female (Jozkowski et al., 2014). In typical sexual encounters a woman's role is typically portrayed as submissive and resistant (Jozkowski et al., 2014). As for men, they are to be assertive, the initiators and to always want sex (Jozkowski et al., 2014). Jozkowski et al. (2014) also stated that traditional sexual scripts indicate that women are the ones voicing consent and that consent is interpreted by men. Based

on previous studies, it can be concluded that miscommunications around consent can result in victimization (Hayes, Lorenz, and Bell, 2013; Yeater, Hoyt, and Rinehart, 2008).

Today, victimization is viewed as a female issue and this is because typically rape myths focus on a woman's behavior, and how it led to her victimization (Hayes et al., 2013). There are a couple of reasons why victim blaming may occur after a sexual assault such as a woman was wearing promiscuous attire, or she was asking for it (Hayes et al., 2013). These statements are in fact just all a part of rape myths, and contribute to rape culture (Hayes et al., 2013). Rape myths contribute to and encourage victim blaming, and this makes a victim less likely to report their assault (Stewart, 2014). From this literature, it can be noted that a victim being blamed for an assault may be at higher risk of developing mental illnesses (Hayes et al., 2013), (Nikulina et al., 2019). Therefore, it is crucial to listen to a victim, make them feel valid and care for them after an assault to prevent revictimization (Hayes et al., 2013).

Sexual Assault and Revictimization

Sexual assault is a social and public health problem in the United States, where one in five women report being sexually assaulted at least once in their lifetime (Jozkowski et al., 2014; Nikulina, Bautista, & Brown, 2019). This may not only include one encounter with rape or sexual assault, but rather many encounters. Revictimization is complex and hard to understand because there are many possible contributors (Neilson et al., 2018). Combs et al., (2013) stated that a large predictor of being sexually assaulted as an adult is experiencing victimization as a child. Additionally, many other studies stated that child sexual abuse/assault can be associated with revictimization (Decou, Kaplan, Spencer & Lynch, 2019; Kaltman et al., 2005; Neilson et al., 2018; McDougall et al., 2019). One analysis estimated that 15-79% of childhood sexual abuse survivors in fact experienced rape as an adult (Kaltman et al., 2005). These victims also

experience significantly higher rates of intimate partner violence (Kaltman et al., 2005). Women who may experience more than one traumatic event are also at a higher risk of developing mental health disorders such as PTSD, depression, and anxiety (Kaltman et al., 2005). Prior assaults can not only relate to revictimization and mental health disorders, but also risky behaviors including alcohol and drug abuse (Combs et al., 2013; Neilson, Gilmore, Pinsky, Shepard, Lewis, & George, 2018).

College is associated with risky behaviors, such as drinking, illicit drug use, and partying. Many college-aged women are at a heightened risk of being sexually assaulted while drinking because they do not have the judgement of risky situations and the ability to resist (Neilson et al., 2018). Sexual and dating violence in a college setting may also be associated with high levels of substance abuse and alcohol dependence (Naragon- Gainey et al., 2012). Approximately 50-70% of women who are sexually victimized are intoxicated at the time of the assault (Neilson et al., 2018). It can also be noted that victims of sexual assault may respond to this trauma differently, including increased drug and alcohol consumption after victimization (Combs et al., 2013). It is shown that 13- 49% of women experience alcohol dependence, and 28- 61% report illicit drug use after victimization (Combs et al., 2013). The risk of revictimization also increases due to the combination of substance abuse and prior assault (Combs et al., 2013). Overall, these numbers are relatively high and may be contributing to self-medicating practices to distract from psychological disorders.

Intoxicated women may be lacking a sense of judgement in these types of risky situations, and it is found that women who experience depressive symptoms after being sexually assaulted may also lack this sense of judgement (Neilson et al., 2018). Furthermore, Krahe & Berger (2017), Carey et al. (2018) and Neilson et al., (2018) discuss the relationship between an individual

being sexually assaulted and the heightened risk of revictimization due to self-blaming, and heightened levels of depressive behaviors. Krahe and Berger (2017) expanded on this ideology, explaining that when a victim experiences heightened levels of depression after being sexually assaulted, it can be a vulnerability factor for revictimization.**Psychological Effects after Sexual Assault**

Sexual assault can be one of the most serious forms of trauma, and as previously stated each victim may cope in different ways (Combs et al., 2013; Neilson et al., 2018; Swanson & Szymanski, 2019). Previous findings suggest that sexual assault is linked to and affects a victim's physical, mental and sexual health (Baker et al., 2016; Carey et al., 2018; Jozkowski et al., 2014; Kaltman et al., 2005; Krahe & Berger, 2017; McDougall et al., 2019). After a victim is sexually assaulted, they are more likely to experience high levels of depression, anxiety, PTSD and may initially feel shock, anger, and fear (Krahe & Berger, 2017; McDougall et al., 2019). Over time, it is understood that the longer a victim deals with this trauma, mental health disorders may surface (e.g., depression, anxiety, PTSD, suicidal ideation, and completed suicide) (Combs et al., 2013; McDougall et al., 2019; Swanson & Szymanski, 2020).

The more times an individual experiences sexual assault or rape the higher their depressive symptoms will be (McDougall et al., 2019). Therefore, it is important to consider the number of traumatic events an individual has been exposed to when examining sexual assault and mental health (Kaltman et al., 2005). When examining the number of victimizations, it is important to not only look at recent assaults but rather, possible assaults from childhood. Individuals that experience one or more encounters of sexual assault/rape are at a high risk of experiencing mental illness (e.g., depression, anxiety, PTSD, suicidal ideation, and obsessive-compulsive disorder) into adolescence and through adulthood (Combs et al., 2013; Decou et al.,

2019; Kaltman et al., 2005; McDougall et al., 2019; Neilson et al., 2018). Carey et al. (2018) expanded on the relationship between poor mental health and sexual assault and found in a nationally representative study that 36% of victims experienced PTSD and major depressive disorder. Another study from Combs et al. (2013) suggests that 13-51% of sexual assault victims developed depression and 73-82% developed anxiety and fear.

Neilson et al., (2018) stated that women who experience psychological disorders due to being victimized cope by binge drinking, using illicit drugs and increasing their sexual activity. These types of behaviors may also be referred to *externalizing dysfunction*, which is when a victim of sexual assault may react with highly negative emotions and aggressive behaviors (Combs et al., 2013). While one victim may externalize their trauma through risky behaviors, another may internalize their trauma. *Internalizing dysfunction* can be depicted as high negative emotions with very low positive emotions, which is commonly expressed in fear, anxiety, and depressive behaviors (Combs et al., 2013). There is another similar coping technique that has properties of internalizing dysfunction. This can be defined as *avoidance coping*, which is when a victim makes significant efforts to emotionally move away from thoughts or feelings associated with the sexual assault (Swanson & Szymanski, 2020). While no expression of trauma is more common than the other, each type of victim may be at an equally higher risk of developing depression and anxiety disorders. Therefore, the present study will examine the influence sexual assault may have on a victim's mental health, and thus it is hypothesized that students who are sexually assaulted will experience more mental illness symptoms and seek mental health treatment.

Methodology

Sample and Procedure

SEXUAL ASSAULT AND MENTAL HEALTH

In the Fall semester of 2020, quantitative research was conducted using electronic surveys at Cabrini University. Using a non-probability sampling design, availability sampling was used to reach the student participants. Student participants were prompted to answer the electronic survey questions on their personal laptop or cell phone via Google Forms at the convenience of the researcher. The electronic surveys were administered through multiple undergraduate classes, sports teams, and Cabrini alumni. Before administering electronic surveys, the researchers had to receive approval from Cabrini's Institutional Review Board (IRB). In order to be granted approval by the IRB, researchers had to complete the proper paperwork. Included in this paperwork was a consent form that needed to be filled out by each participant, along with a description of the purpose and methodology of the study. According to the IRB's procedure, this proposal went under a full board review.

Professors and coaches were contacted by the researchers to receive permission to use available class time or practice time to administer the electronic survey. The researcher contacted the respondents through the professor/coach or sent a link to the respondents directly to voluntarily complete the survey. In the classroom, the researcher administered the link to the survey, and ensured the students that participation was completely voluntary, and that the students can refuse to participate. When the researchers contacted the sports teams, an email containing the link was sent directly to the players. Again, this email contained information ensuring that participation was completely voluntary. When contacting Cabrini alumni, researchers sent a text message or email, which contained the survey link, and a message stating that participation was completely voluntary.

Prior to completing the surveys, the respondents were required to sign a consent form immediately after opening the link. This consent form included the purpose of research, any

SEXUAL ASSAULT AND MENTAL HEALTH

benefits, the participants' rights, and the primary researchers' contact information. Additionally,

the consent form included the sensitive nature of the research. If a participant felt that they were

harmed by the survey, they were reminded of, and provided with contact information of the

psychological services on Cabrini's campus. Participants were reminded that data was both

confidential and anonymous.

One hundred and thirteen surveys were administered (N=113) and two responses

emerged as missing data. The sample consisted of 30.4% (n= 34) female respondents and 69.6%

(n=78) male respondents. The racial distribution of the sample consisted of 85.6% (n=95)

White, 5.4% (n=6) who identified as Other, 4.5% (n=5) Black or African American, 3.6% (n=4)

Mixed and finally 0.9% (n=1) who identified as Asian. The sample consisted of 9% (n=10)

Freshmen, 9.9% (n=11) were Sophomores, 9.9% (n=16), 14.4% (n=16) were Juniors, 60.4%

(n=67) were Seniors and finally 6.3% (n=7) identified as Other. Due to its significance,

participating in a NCAA sport was included in the sample demographic. When looking at the

respondents 78.8% (n= 89) have participated in an NCAA sport, while 21.2% (n=24) have not.

See Table one below for the demographic distribution of the sample.

Table 1.

Sample Demographics

Variable	Frequency	Percent
Class Year		
Freshman	10	9.0
Sophomore	11	9.9
Junior	16	14.4
Senior	67	60.4
Other	7	6.3
Gender		
Female	34	30.4
Male	78	69.6

SEXUAL ASSAULT AND MENTAL HEALTH

Race		
Asian	1	.9
Black/African American	5	4.5
White	95	85.6
Mixed	4	3.6
Other	6	5.4
NCAA Sport		
Yes	89	78.8
No	24	21.2

Independent Variables: Sexual Assault Penetration and Touch

The first independent variable of this study is sexual assault. This study defines sexual assault as unwanted sexual outcomes achieved through physical force, threats, and incapacitation (Carey et al., 2018). Respondents were asked to answer a series of the following four questions. In the past five years, has anyone male or female touched your private sexual parts when you didn't want them to? 1= Yes, 2= No, 3= I don't know (Kilpatrick et al., 2000). In the past five years, has anyone male or female put objects or fingers in your vagina or anus against your will by using force or threats? 1= Yes, 2= No, 3= I don't know (Kilpatrick et al., 1997). In the past five years, has anyone made you have anal sex by using force or threat harm? Just so there is no mistake, by anal sex, we mean putting penis in your anus, 1= Yes, 2= No, 3= I don't know (Kilpatrick et al., 2000). In the past five years, has a man or boy made you have sex by using force or threatening to harm you or someone close to you? Just so there is no mistake, by sex we mean putting penis in your vagina, 1= Yes, 2= No, 3= I don't know (Kilpatrick et al., 2000).

A binary variable of the four questions was created. Cronbach's alpha was used to determine the reliability of the scale measuring sexual assault, this value was 0.554, which does not exceed the needed value of 0.7. This low value indicates that one of the four variables was not measuring the same concept. It was determined that the first question about unwanted touch

did not measure the same concept as the other three questions about penetration. A new binary

variable was created with three questions that discussed penetration. Cronbach's alpha was then

used again to determine the scales reliability, and the new value was 0.899. This new value

exceeds the needed value of 0.7, and thus concluding that using the new variable to measure

penetration during sexual assault was appropriate. The new variables were coded as 1= Yes, 2=

No, and no respondents reported I don't know. Overall, 2 (1.8%) respondents stated that they

have been penetrated during a sexual assault while 107 (98.2%) respondents stated that they have

not been penetrated during sexual assault.

The second independent variable of the study is unwanted touching in the private sexual

parts. This variable was derived from Cronbach's alpha which indicated that it should be

measured by itself. Using Kilpatrick et al., (1997) question inquiring sexual touch read: In the

past five years, has anyone male or female touched your private sexual parts when you didn't

want them to? 1= Yes, 2= No, 3= I don't know. Overall, 13 (11.9%) of respondents reported

unwanted touch in their private sexual parts while 96 (88.1%) reported that they have not.

Dependent Variables: Mental Illness Symptoms and Treatment

The first dependent variable of this study is displaying mental illness symptoms.

According to the Centers for Disease Control and Prevention (2018), mental illness can be

defined as conditions that affect ones thinking, feeling, mood or behaviors (e.g., depression,

anxiety, PTSD, bipolar disorder). The depression impairment scale developed by Bentley,

Gallagher, Carl & Barlow (2014) is used in this study to measure symptoms of mental illness

using a Likert scale measure ranging from 1= strongly disagree to 5= strongly agree. The

questions and statements respondents were prompted to answer required them to think if they

have experienced any of these feelings in the past five years. There were a total of ten Likert

SEXUAL ASSAULT AND MENTAL HEALTH

scale questions derived from the impairment scale that respondents were prompted to answer…

(1) During your daily life, how often do you have a feeling of hopelessness?, (2) During your

daily life, how often do you have a feeling of hopelessness?, (3) In the past five years, how often

did your depression interfere with your ability to do the things you needed to do at work, at

school, or at home?, (4) During your daily life, how often do you have difficulty caring about

anything?, (5) In the past five years, when you have felt depressed, how intense or severe was

your depression?, (6) I often get sudden anxiety attacks, (7) I do not panic, even in the face of

threats or danger, (8) I get anxiety attacks for no reason, (9) How often do you experience

feelings of tenseness?, (10) How often do you feel like you're losing control?

A scale was created to make the ten statements and questions into one value for each

participant. Cronbach's Alpha was used to determine the scales reliability in measuring

participants mental illness symptoms. The Cronbach's Alpha value was 0.863 (10 items), which

exceeds the value of 0.7 for significance. Therefore, it can be concluded that using an additive

scale to measure mental illness symptoms is appropriate. The scale created is intended to place

participants in an index ranging from 10 to 50 with lower scores representing less symptoms and

higher scores indicating more symptoms. After the creation of the scale, the actual range of

scores was 12 to 50. The actual range suggests that all the respondents have experienced some

mental illness symptoms. The most frequent score was 17, while the median was 22, and the

average score was 22.75 (M= 22.75, SD= 8.14). See *Figure 1* below for the distribution of

mental illness scores.
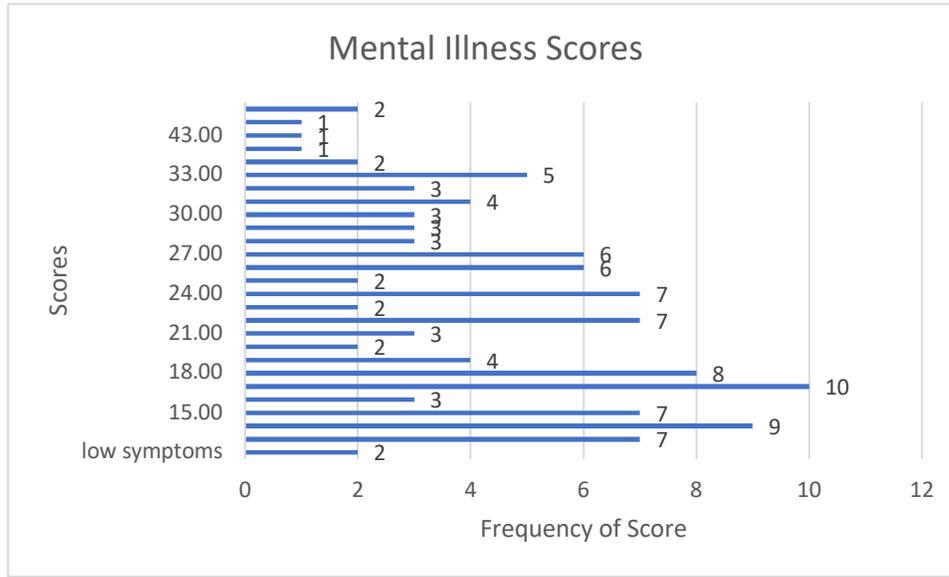
Figure 1. Distribution of scores from the mental illness symptoms scale.

The second dependent variable of this study is seeking mental health treatment. Participants were prompted to answer four questions based on seeking mental health treatment in their entire life and within the past five years. The following four questions were derived from Bentley et al., (2014): (1) In the past five years, have you ever been treated for depression? 1= Yes, 2= No, 3= I don't know, (2) Have you ever been treated for depression throughout your entire life? 1= Yes, 2= No, 3= I don't know, (3) In the past five years, have you ever been treated for anxiety? 1= Yes, 2= No, 3= I don't know, (4) Have you ever been treated for anxiety? The four questions were created into a new binary variable. Cronbach's Alpha was used to determine the reliability of the questions in measuring a participant seeking mental health treatment. The Cronbach's Alpha value was determined to be 0.872, which exceeds the needed score of 0.7 to be reliable. Therefore, it was determined that creating a scale to measure mental health treatment is appropriate. The new scale of four variables was coded as 1= Yes and 2= No. Overall, 24 (21.2%) of respondents reported seeking mental health treatment while 89 (78.8%) respondents

reported not seeking treatment. Descriptive Statistics for all four variables are reported in Table 2.

Table 2.

Descriptive Statistics of Independent and Dependent Variables

Variable	*N*	*M*	*SD*	*Median*	*Mode*	*Range*
Penetration	109	-	-	-	2.00	1.00
Unwanted Touch	109	-	-	-	2.00	1.00
Mental Illness Symptoms	113	22.75	8.14	22.00	17.00	38.00
Mental Health Treatment	113	-	-	-	2.00	1.00

Plan for Analysis

One Pearson correlation test was conducted to determine if there was an existing relationship between the four variables. Pearson correlations are used when there are two or more continuous or binary variables. The variables are appropriate for a Pearson correlation because they are either continuous or binary. The Pearson correlation was conducted to analyze the possible four relationships between variables. The first relationship would be between penetration and displaying mental illness symptoms, second being penetration and seeking mental health treatment, third being unwanted touch in the private sexual parts and experiencing mental health symptoms, and finally the last relationship being examined is unwanted touch in

the private sexual parts and seeking mental health treatment. It was hypothesized that being sexually assaulted would increase mental illness symptoms and victims would seek mental health treatment.

Results

Table 3 below displays the existing relationships among variables. The first relationship between the variable mental illness symptoms and victim penetration was not significant; r(107)= -.184, p=.056. Although the relationship was statistically not significant, it can be noted that it was approaching significance. The second relationship between mental health treatment and victim penetration was not significant; r(107)= .107, p=.270. The third relationship between mental illness symptoms and victim unwanted touch was statistically significant; r(107)= -.235, p<.05, which indicates a weak negative correlation (r= -.235, p= .014) between the two variables. Overall, it can be determined that when a victim experiences unwanted touch in their private sexual parts, the more mental illness symptoms they experience. The last relationship between victim unwanted touch and mental health treatment was significant; r(107)= .238, p<.05. The relationship had a weak positive correlation (r= .238, p= .013). Furthermore, 6% of the variance in seeking mental health treatment can be explained by a victim experiencing unwanted touch in the private sexual parts (R^2= .056). This correlation indicates when a victim experiences unwanted touching in their private sexual parts, they seek mental health treatment.

Table 1.

Pearson Correlation to determine strength of existing relationships.

Variables	*(1)*	*(2)*	*(3)*	*(4)*

SEXUAL ASSAULT AND MENTAL HEALTH

1) *Mental Illness Symptoms*	1	-	-	-
2) *Mental Health Treatment*	-.558**	1	-	-
3) *Victim Penetration*	-.184	.107	1	-
4) *Victim Touched*	-.235*	.238*	.160	1

*p<.05, **p<.01

Discussion

The present study considered the effects sexual assault (penetration and unwanted touch) has on a victim's mental health (displaying symptoms and seeking mental health treatment). This relationship is not proven to be causative, rather the correlation shows that the two are related. The research design cannot uncover whether mental health symptoms or unwanted touching occurred first. It was found that unwanted touching in the private sexual parts has a significant effect on college student's mental health. This is determined from the mental illness symptoms scale. These findings are consistent with the hypothesis of this study, being that sexual assault has a negative impact on the mental health of victims. It is more likely that a victim of sexual assault will experience symptoms of mental illness such as anxiety, depression, and fear. Victims of sexual assault are also more likely to seek treatment from a mental health professional due to the increase in mental illness symptoms from the sexual assault. Similarly, it was determined that the variable victim unwanted touch has a significant effect on mental health treatment. Regarding the relationship between sexual penetration with both dependent variables it was revealed from the Pearson Correlation that there is no significant relationship.

It is important to note that although the test was statistically not significant between sexual penetration and mental illness symptoms, it was approaching significance. It can be assumed that if the sample size was larger, the relationship would have been statistically

SEXUAL ASSAULT AND MENTAL HEALTH

significant. Another important note is that most of the sample, specifically 69.6% (*n*=78) of respondents identified as male. Men making up a large percentage of the sample was potentially influential on the statistical results. Male victimization is not as common as female victimization, however, male victimization still occurs (Allen, Ridgeway, & Swan, 2015). Due to the way male gender roles are socialized, men are less likely to report being victimized even if they are in great distress (Allen et al., 2015). Overall, these results partially supported the original hypothesis that sexual assault (both penetration and unwanted touch) will increase mental illness symptoms and seeking mental health treatment.

Limitations

There are various limitations of the study that affect the generalizability. First, the sample size obtained is too small for it to be generalizable to other universities/ colleges. The sampling method, availability sampling, can also be considered a limitation. This type of sampling possibly develops bias because it prevents a true representativeness of the sample. Therefore, it is a possibility that bias was produced by researchers choosing courses that were available at their convenience. Probability sampling was not used in this study; therefore, the results are not generalizable to a larger population outside of Cabrini University.

Another possible limitation that affects this study is the global pandemic. Due to the global pandemic of COVID-19, researchers had limited access to be present in the classroom when administering surveys. Therefore, electronic surveys were administered to limit contact between students. Electronic surveys have a significantly lower response rate compared to pencil-and-paper surveys (Nulty, 2008).

SEXUAL ASSAULT AND MENTAL HEALTH

The sensitivity of the study also may have been a limitation. Sexual assault is a sensitive subject because it may bring up memories of specific trauma for some respondents. This may cause some respondents to skip over this portion of the survey. We know that some respondents did skip over this portion of the survey due to missing data. When looking at the questions used in this survey, they were outdated. Due to the dates the questions were created, sexual assault definitions and how it is measured has changed immensely. Gender neutral questions were attempted to be adapted from the "*measurement of sexual assault"* from Kilpatrick et al., (2000). This was done so that researchers could include the possibility of both male and female victims even though gendered sexual assault was not being examined in the study.

Future Research

Future research seeking to explore the effects sexual assault may have on a victim's mental health should consider using gender specific questions. There is a large gap in literature regarding male victimization (Allen et al., 2015). Female victimization is widely covered in literature and previous research whereas male victimization is believed to only occur in institutions (Allen et al., 2015). Along with female victims, male victims are also very likely of developing symptoms of mental illnesses. Therefore, male and female victimization should be examined due to the lack in previous literature (Allen et al., 2015). Future studies should focus exclusively on males and include a large sample of males who identify as victims. Using a larger sample size for both men and women, and in different populations, would also benefit researchers by producing more generalizable results.

Overall Findings

SEXUAL ASSAULT AND MENTAL HEALTH

The findings of this study suggest that sexual assault, specifically being touched without giving consent, is a factor in developing mental illness symptoms. Experiencing unwanted touching in the private sexual parts may also lead a victim to seeking mental health treatment among college students. Sexual assault is one of the most prevalent crimes being committed on college campuses (Combs et al., 2013). Victims of sexual assault are more likely to develop symptoms of mental illness and seek mental health treatment. Future studies may be able to use the findings of this study to further investigate the issue of sexual assault on larger college campuses and how it effects a victim's mental health.

SEXUAL ASSAULT AND MENTAL HEALTH

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The CSI Effect: Perceptions of The Criminal Justice System

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Abstract

Television viewers are exposed to a glamorized world of forensic science. With the popularization of crime-related television such as CSI and other similar shows, it is hard to know what fact or fiction is when it comes to forensic science and how it is applied. This can cause a false perception of the criminal justice system; this phenomenon is called the CSI effect. A survey using non-probability availability sampling was administered to 150 Cabrini University students to analyze the viewing habits of respondents and their perception of the criminal justice system. Results show that there is a significant connection between high consumptions of crime-related television shows and biased perceptions of the criminal justice system. Limitations and suggestions for future research are also discussed.

Introduction

"If being addicted to crime dramas were itself a crime, the entire country would be in lockup" (Roush, 2008, p. 31). Most Americans consume media in everyday life, whether via television, newspapers, the internet, or social media. In 2014, the Daily News reported that the average American watches over five hours of television a day (Hinckley, 2014). Television access has increased with the help of smartphones, computers, tablets, etc. Americans can view television from anywhere on streaming platforms such as Hulu and Netflix. These streaming platforms have thousands of movies and television shows, representing most genres. Crime shows and documentaries are among the most popular genre on TV and consistently rate in the top 20 in the Nielson ratings (Rhineberger, Briggs, & Rader, 2017). However, because of this accessibility and high consumption of television streaming, it can cause people to have a biased perception of the role of forensic science in the criminal justice system (Collicia-Cox & Furst, 2019). Viewers are exposed to a whole different world of forensic science and the criminal justice system in both fictional crime shows and documentaries. The increased viewing of such shows has led to what researchers term the CSI effect (Collicia-Cox & Furst, 2019). Rheinberger et al. (2017, p. 532) explain that the CSI Effect is the perception that "due to the apparent availability of forensic evidence on crime television shows such as CSI, jurors may be either unwilling to convict in the absence of such evidence or overly reliant on it when it is presented."

Literature Review

The CSI Effect has affected many cases because jurors believe they need hardcore evidence. One such case was the murder trial of Robert Blake. Blake was an American actor mostly known for his Emmy-winning role as Tony Baretta in the show Baretta (History, 2005). Blake was accused of soliciting two people to kill his wife, Bonnie Lee Bakley. Blake was

acquitted due to the lack of forensic evidence (Los Angeles Times, 2005). The jurors were not convinced by the circumstantial evidence the prosecution presented. Instead, they wanted actual forensic evidence such as fingerprints on the gun that was used or evidence of gunshot residue on his clothing (Ewanation, Yamamoto, Monnink & Maede, 2017). According to Blankstein and Guccione from the Los Angeles Times (2005), "a juror from the case said, 'I just expected so much more,' she said, acknowledging that such television crime shows did create 'a higher expectation' for her." Her testimony illustrates how jurors have an unrealistic perception of the criminal justice system.

It is beneficial to understand the CSI Effect because it can be the link between prosecuting and/or acquitting someone of a crime, knowing what is factual versus what is shown on crime-related television shows. "Acquittals are blamed on CSI viewers who will not convict unless forensic tests that support conviction are admitted into evidence" (Goodman-Delahunty and Tait, 2003, p.100). This study will focus on the consumption of crime-related television shows and the impact it has on the public's perception of the criminal justice system. This empirical research is intended to confirm previous research that has been conducted on the CSI Effect and the perceptions people have on the criminal justice system, specifically regarding forensic science. The CSI Effect is the outcome of high consumption of crime-related television shows (Collicia-Cox & Furst, 2019), it was not until recently that this phenomenon began appearing (Houck, 2006). The CSI Effect has many definitions that have changed over the years. The most recent definition according to Maeder & Corbett is (2015, p. 84): "The perception commonly held by lawyers, judges, police officers, and even the general public that, due to the apparent availability of forensic evidence on crime television shows such as CSI, jurors may be either unwilling to convict in the absence of such evidence or overly reliant on it when it is presented."

According to Huey (2010), police officers are concerned that the way their job is depicted on crime-related shows is how the public perceives it to be, considering the public's perception of the job of a police officer. A study reported that police officers would normally collect 50 pieces of evidence, but because of the CSI Effect, they may attempt to collect up to 400 pieces of evidence (Hayes & Levett, 2012). It was concluded that all the judges agree that it does in fact impacts trials (Maeder & Corbett, 2015). The CSI Effect affects both prosecution and defense lawyers. A review of surveys revealed that both defense attorneys and prosecutors believe that it can sway the jurors to convict a defendant or acquit them, depending on the evidence presented to them (Maeder & Corbett, 2015).

The main cause of the CSI Effect is the rise of crime-related shows over the past few decades. One of the first crime television shows, Dragnet, was introduced in 1951 (Fedorek, 2013). To make the show more realistic, the producers used actual police cases (Stark, 1987). Dragnet was such a success that it became the segue to other crime-related television shows like Highway Patrol, Night Watch, The Untouchables, and Treasury Men in Action (Fedorek, 2013). Shows like these were the gateway to those currently on television such as 20/20, Snapped, Forensic Files, 48 Hours, Cops, and CSI: Crime Scene Investigation. CSI has been one of the top ten most-watched crime-related television shows since 2000 (Fedorek, 2013). Since its debut, many crime-related shows debuted including spin-offs of CSI, Criminal Minds, Bones, Law and Order, NCIS, and many more. These types of crime-related television shows draw viewers in and have made crime-related shows one of the most popular television genres.

Television shows can be realistic that sometimes it seems that the events are happening, especially with crime-related television programs because they place characters in real-life scenarios. On any given episode of a crime TV show, it usually begins with a dead body being

found and the police officers, crime scene investigators (CSI), or in some cases a medical examiner trying to identify the suspect and his/her/their motive. By the end of a one-hour episode, the murder is solved. Schweitzer and Sakes (2007) stated that in recent years, CSI and its spin-offs have depicted forensic science as almost a magic trick with the small amount of time taken to solve the crimes. That is not the case in real life; it takes weeks, months, years to solve a case. After watching CSI, a content analysis found that 97% of the cases on CSI were solved (Collicia-Cox & Furst, 2019), whereas in real life, according to the Federal Bureau of Investigation (FBI; 2012) offenders are caught in 46.8% of violent crime cases. On most episodes of a crime-related television show, deoxyribonucleic acid (DNA) and/or other forensic evidence is always found, whether that be a fingerprint, bodily fluids, blood, hair, etc. Crime-related television shows glamourize the process of collecting, preserving, and packaging evidence that is found. "A forensic consultant for the CSI show admits that '40% of the scientific techniques depicted in the program do not exist'" (Ewanation et al., 2017, p. 3).

On television, the DNA that is found quickly matches a person of interest. Whereas in real life, it takes lab technicians much longer to match the DNA or fingerprint to someone. In reality, most cases do not have physical evidence (Collicia-Cox & Furst, 2019). Another difference between CSI on TV and CSI in real life is, that on television the main characters are the ones who collect the evidence, interview suspects, and arrest the suspect(s). According to Fedorek (2013), "The hybridization and intertextuality of crime dramas, newscasts, and other news sources blur and blend reality and fiction together making it difficult to separate the two distinct phenomena from one another" (p.14).

According to Goodman-Delahunty and Tait (2003), there are at least five consequences of the CSI Effect. First, it produces better-informed jurors, because of shows like CSI, jurors are

more understanding of evidence when presented. An additional consequence is that jurors have

an investigative focus, meaning that jurors are requesting more evidence even when it has

nothing to do with the case. Consequently, jurors who hold an anti-prosecution bias believe that

if no physical evidence was found the prosecution did not do a good job presenting other types of

evidence. "Since lab-based television shows often portray non-forensic evidence as flimsy,

unreliable, and less valuable, jurors may fail to account for eyewitness testimony or

circumstantial evidence" (Scruggs, 2020, p. 3). That in itself can potently be a negative effect.

Running examinations that are unnecessary can cause a backlog, which then can decrease the

effectiveness of existing labs (Wise, 2010). The forth consequence is that jurors who are more

motivated are more likely to be attentive, which furthermore creates less unbiased decisions

when it is time for a verdict. Pro-prosecution bias is the last consequence. This is when jurors are

presented with evidence and believe that science can never be wrong (Goodman-Delahunty &

Tait, 2003). Because of this belief, it creates biased expectations that if any evidence is presented

it is impossible to be wrong or flawed (Podlas, 2005). Jurors want quasi-scientific evidence to be

concreated like how it is on television. Evidence on television is portrayed as 'slam dunk'

evidence. This ultimately makes the jurors want the same type of evidence, but it is not possible,

even when forensic evidence is presented; it can be contaminated (Podlas, 2005). Some of these

effects can help or hinder a case.

The CSI Effect has both negative and positive effects (Fedorek, 2013). One negative

effect is that jurors believe everything they see on television, which is an example of cultivation

theory, "those who watch more television are more likely to develop certain beliefs about social

reality based on the consistent depictions shown on television" (Fedorek, 2013, p. 43). Such

shows can also make the job of the prosecutor hard because they to see the type of evidence that

they are used to on television. With all the negative effects it has, the CSI Effect also has positive

effects. A positive effect is that watching crime-related television shows can educate jurors

(Fedorek, 2013). A study was conducted, and it indicated that viewers who watch crime-related

television shows are more likely to expect evidence that is related to the crime in hand than non-

crime- related television show viewers (Shelton, 2008). Another positive outcome is that it has

increased the number of forensic science majors. Multiple studies were conducted and found a

correlation between crime-related television shows and forensic science majors (Collica-Cox &

Furst, 2019).

Watching too much TV can have an impact on a person's behavior or belief--this is called

"cultivation theory" (Fedorek, 2013). Cultivation theory was originally developed by Gerbner

(Maeder & Corbett, 2015). According to Gerbner and Gross (1976), cultivation theory was

defined "as the notion that television cultivates the public's perception of reality. Therefore,

people's perceptions of how things work in the real world are heavily influenced by the

depictions of television" (p.76). There has been multiple studies have been conducted concerning

cultivation theory. A study was conducted by Gerbner and Gross in 1976, the study concluded

that people who watch a good amount of crime-related television shows, were more likely to

provide "television answer" to questions about crime, police, and danger rather than an answer

based on actual reality (Gerbner & Gross, 1976). The study exhibited that heavy viewers have

biased and unrealistic viewpoints of the criminal justice system. In addition to that study, another

study was conducted by Carlson (1985) concluded that adolescents who were heavy crime-

related viewers had lower levels of real legal knowledge. This theory goes alongside the CSI

Effect because people who consume crime-related television shows more than others are more

likely to develop certain beliefs. High crime-related television shows consumers believe what they see on TV is a real depiction of the outside world (Fedorek, 2013).

Hypothesis

This present empirical research aims to add literature surrounding the CSI Effect and the perception people have on the criminal justice system. The study is designed to assess the hypothesis that those who watch more crime-related television shows are more likely to have a biased perception of the criminal justice system.

Methodology

Data Collection and Sample

This study utilized a non-probability availability sampling design. The survey was conducted in the spring semester of 2021 at Cabrini University. Before distributing the survey, an IRB (Institutional Review Board) approval was sought. Data was collected from 150 Cabrini students. An electronic survey was distributed to students around campus such as the library, the cafeteria, and the lawn. Professors were contacted via email and asked to send them out to their students. Before participants started to answer the survey question, they were asked to complete the informed consent form. The consent form reiterated the purpose, the participant's rights, the risks, and the nature of the study, and that it was anonymous. The purpose of the survey was to analyze student's perception of the criminal justice system and the CSI Effect by examining their television viewing habits of crime-related television shows.

The sample consisted of 67.3% (n= 101) females and 32% (n=48) males. Out of the 150 participants that took the survey, 0.7% (n=1) of were American Indian or Alaska Native, 1.3% (n=2) were Asian, 14% (n=21) of the participants that took the survey were Black or African American, 69% (n= 104) of the participants were White and 8% (n=12) identified as Multiracial.

Regarding the questions about being Hispanic or Latino, 86.7% (n=130) answered that they were

not Hispanic or Latino while 1.3% (n=2) identified as Mexican American or Chicano and 5.3%

(n=8) identified as being Puerto Rican Finally, 6% (n= 9) identified as being Hispanic or Latino

but not one of the ones that were listed. The descriptive statistics for the sample are available

in Table 1 below.

Table 1.
Sample Demographics (N=150)

Variable	(N)	Percent (%)
Gender		
Female	101	67.3
Male	48	32
Race		
American Indian or Alaska Native	1	.7
Asian	2	1.3
Black or African American	21	14.0
White	104	69.3
Multiracial	12	8.0
Hispanic or Latino		
No	130	86.7
Yes, I am Mexican American or Chicano	2	1.3
Yes, I am Puerto Rican	8	5.3
Yes, Other	9	6.0

Variables of Interest

The independent variable for this study is the number of hours one watches crime-related

television shows in a single day. Crime-related television show is defined as a type of television

genera that depicts true crime events or fictional crime events that are written by directors. The

independent variable is measured by asking the participants: "On an average day how many

hours do you watch television?" (Hayes & Levett, 2012). The indicators to this question are 0

hours, 1-3 hours, 4-6 hours, 7-9 hours, or 10+ hours. Most of the respondents (51.3%) (n=77)

only watch about 1-3 hours of crime-related television shows. On average, 39.3% (n= 59) said

that they watch 0 hours of crime-related television shows. 6% (n=9) responded that they watch 4-

6 hours. Whereas 2% (n=3) watch 7-9 hours and only 1.3% (n=2) said that they watch about 10

or more hours of crime-related television shows. The descriptive of the independent variable are

available in Figure 1 below.

Figure 1.

Consumption of Crime-Related Television Shows
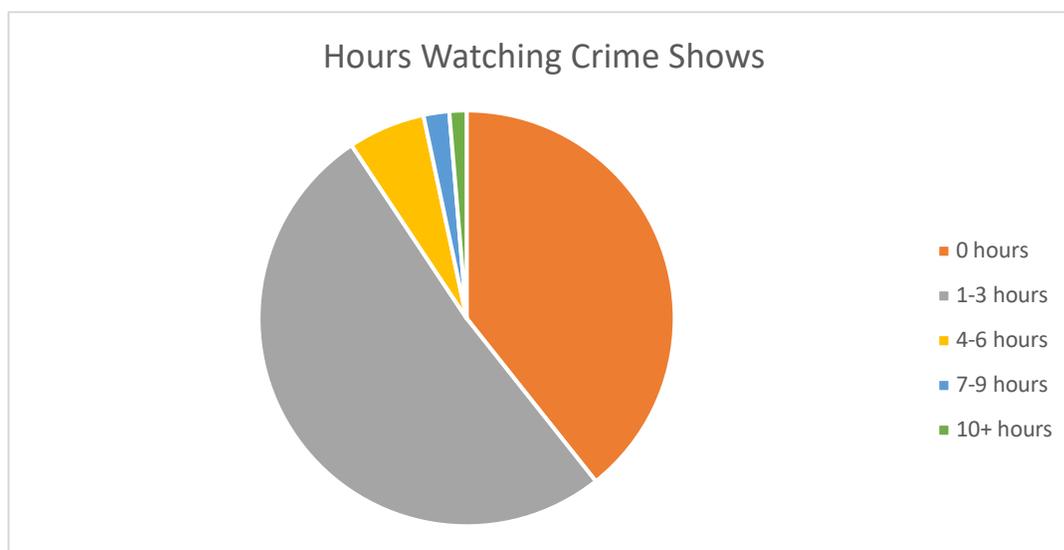
The dependent variable is measured by stating a series of 10 statements on a Likert scale

that ranges from 'strongly disagree' to 'strongly agree (Smith & Bull, 2012). This Likert scale

ranges from 'strongly agree' to 'strongly disagree' is the indicator to all the sample statements.

They were coded as 1= Strongly Agree, 2= Agree, 3= Neutral, 4= Disagree, 5= Strongly

Disagree. The statements are "Every crime can be solved with forensic science." "Every criminal leaves some physical evidence behind at every crime scene." "If forensic evidence suggests a defendant is guilty, this should be enough to convict even if other evidence (e.g., eyewitness testimony, alibi) suggest otherwise. Forensic evidence always eventually identifies the guilty person." "Forensic evidence always provides a conclusive answer." "Science is the most reliable way to identify the perpetrators of crimes." "If no forensic evidence is recovered from a crime scene, it means the investigators did not look hard enough. If there is no forensic evidence presented in a particular case, then the jury should not convict." "Police should not charge someone with a serious crime unless forensic evidence is available to prove their guilt. If no forensic evidence is recovered from a crime scene, the defendant is probably innocent of the crime." See table 2 below for a complete frequency of dependent variables and table 3 for variable descriptives.

Table 2.

Frequencies of dependent variable (*N*=150)

Variable	(N)	Percentage (%)
Every crime can be solved with Forensic Science		
Strongly agree	4	2.7%
Agree	22	14.7%
Neutral	60	40%
Disagree	53	35.3%
Strongly Disagree	11	7.3%
Criminals always leave evidence at crime scene		
Strongly agree	8	5.3%
Agree	51	34%
Neutral	47	31.3%
Disagree	39	26%
Strongly Disagree	5	3.3%
Forensic evidence suggests defendant is guilty		
Strongly agree	4	2.7%
Agree	26	17.3%

Neutral	54	36%
Disagree	54	36%
Strongly Disagree	11	7.3%
Forensic evidence always identifies a guilty person		
Strongly agree	1	.7%
Agree	28	18.7%
Neutral	62	41.3%
Disagree	51	34%
Strongly Disagree	8	5.3%
Forensic evidence provides conclusive answer		
Strongly agree	3	2%
Agree	19	12.7%
Neutral	54	36%
Disagree	64	42.7%
Strongly Disagree	10	6.7%
Science most reliable way to identify offenders		
Strongly agree	1	.7%
Agree	48	32%
Neutral	67	44.7%
Disagree	29	19.3%
Strongly Disagree	4	2.7%
If no forensic evidence, investigators did not look well		
Strongly agree	2	1.3%
Agree	13	8.7%
Neutral	47	31.3%
Disagree	75	50%
Strongly Disagree	13	8.7%
Forensic evidence needed for police charge		
Strongly agree	3	2%
Agree	36	24%
Neutral	63	42%
Disagree	42	28%
Strongly Disagree	6	4%
No forensic evidence, no conviction		
Strongly agree	3	2%
Agree	20	13.3%
Neutral	64	42.7%

Disagree	56	37.3%
Strongly disagree	7	4.7%
Defendant innocent without forensic evidence		
Strongly agree	3	2%
Agree	10	6.7%
Neutral	60	40%
Disagree	61	40.7%
Strongly Disagree	16	10.7%

Table 3.

Variable Descriptives

Variable	*N*	*Mean*	*Median*	*Mode*	*Range*	*Std. Deviation*
Hours watching crime shows	150	1.75	-	-	4	.770
Every crime can be solved with Forensic Science	150	3.30	-	-	4	.903
Always leave evidence at crime scene	150	2.88	-	-	4	.969
Forensic evidence suggests defendant is guilty	149	3.28	-	-	4	.931
Forensic evidence always identifies a guilty person	150	3.25	-	-	4	.843
Forensic evidence provides conclusive answer	150	3.39	-	-	4	.866
Science most reliable way to identify offenders	149	2.91	-	-	4	.805
No forensic evidence, investigators did not look well	150	3.56	-	-	4	.823

Forensic evidence needed for police charge	150	3.08	-	-	4	.871
No forensic evidence, no conviction	150	3.29	-	-	4	.832
Defendant innocent without forensic evidence	150	3.51	-	-	4	.849

Plans for Analysis

To analyze the relationship between consumptions of crime-related television shows and biased perceptions of the criminal justice system, crosstabulations and chi-squares were used to test the hypothesis, those who watch more crime-related television shows are more likely to have a bias perception of the criminal justice system.

Results

Below, table 4 shows the results of the crosstab and chi-square that was conducted to examine the relationship between hours watching crime-related television shows and the perception that criminals always leave physical evidence at a crime scene. The relation between the two variables is significant, X^2 (16, N= 150) = 45.15, p= <.05. The effect size for this finding, Cramer's V, is moderate, at .274. Additionally, table 5 displays the results of the chi-square that examines the relationship between hours watching crime-related television shows and the perception that forensic evidence suggests the defendant is guilty. The relationship between the two was also significant. X^2 (16, N= 150) = 48, p= <.05. The effect size of the relationship is also moderate, at .284.

Table 4.

Chi-square analyses of consumptions of crime-related television shows and leaving evidence behind

		0 Hours	1-3 Hours	4-6 Hours	7-9 Hours	10+ hours	Total
Criminals **always** leave **physical evidenc**e at **crime scene**	**Strongly Agree**	6.8%	1.3%	11.1%	0%	100%	5.3%
	Agree	39%	33.8%	22.2%	0%	0%	34.0%
	Neutral	27.1%	35.1%	33.3%	33.3%	0%	31.3%
	Disagree	25.4%	24.7%	33.3%	66.7%	0	26%
	Strongly Disagree	1.7%	5.2%	0%	0%	0%	3.3%
	Total	100%	100%	100%	100%	100%	100%

Table 5. Chi-square analyses of consumptions of crime-related television shows and forensic evidence suggest defendant is guilty

		0 Hours	1-3 Hours	4-6 Hours	7-9 Hours	10+ hours	Total
Forensic evidence suggest defendant is **guilty**	**Strongly Agree**	3.4%	0%	0%	33.3%	50%	2.7%
	Agree	25.4%	14.5%	0%	0%	0%	17.4%
	Neutral	25.4%	39.5%	77.8%	33.3%	50%	36.2%
	Disagree	40.7%	36.8%	22.2%	0%	0%	36.2%
	Strongly Disagree	5.1%	9.2%	0%	33.3%	0%	7.4%
	Total	100%	100%	100%	100%	100%	100%

Below, tables 6, 7, and 8 display three significant relationships, they all suggest that high

consumption of crime-related television shows lead to bias perceptions of the criminal justice

system. People who watch more crime-related television shows believe that forensic evidence

always identifies a guilty person (X^2 (16, N= 150) = 101.82, p= <.05), the effect size is strong.

This means that people are more likely to believe that forensic evidence always identifies that a

person is guilty. Forensic evidence always provides conclusive answer (X^2 (16, N= 150) = 36.08,

p= <.05), its effect size is moderate. Lastly, science is the most reliable way to identify offenders

(X^2 (16, N= 150) = 100.60, p= <.05) is also significant. Due to Cramer's V, this relationship is

strong.

Table 6.

Chi-square analyses of consumptions of crime-related television shows and forensic science
identifies a guilty person

		0 Hours	1-3 Hours	4-6 Hours	7-9 Hours	10+ hours	Total
Forensic evidence always identifies a guilty person	**Strongly Agree**	0%	0%	0%	0%	50%	0.7%
	Agree	10.2%	27.3%	0%	0%	50%	18.7%
	Neutral	50.8%	28.6%	88.9%	66.7%	0%	41.3%
	Disagree	33.9%	39%	11.1%	0%	0%	34.0%
	Strongly Disagree	5.1%	5.2%	0%	33.3%	0%	5.3%
	Total	100%	100%	100%	100%	100%	100%

Table 7.

Chi-square analyses of consumptions of crime-related television shows and forensic evidence
provides conclusive answers

		0 Hours	1-3 Hours	4-6 Hours	7-9 Hours	10+ hours	Total

		0 Hours	1-3 Hours	4-6 Hours	7-9 Hours	10+ hours	Total
Forensic evidence always provides **conclusive answer**	**Strongly Agree**	3.4%	0%	0%	0%	50%	2.03%
	Agree	10.2%	14.3%	22.2%	0%	0%	12.7%
	Neutral	40.7%	29.9%	55.6%	33.3%	50%	36%
	Disagree	39%	49.4%	22.2%	33.3%	0%	42.7%
	Strongly Disagree	6.8%	6.5%	0%	33.3%	0%	6.7%
	Total	100%	100%	100%	100%	100%	100%

Table 8.

Chi-square analyses of consumptions of crime-related television shows and science is the most reliable way to identify offenders

		0 Hours	1-3 Hours	4-6 Hours	7-9 Hours	10+ hours	Total
Science is the most reliable way **to identify offenders**	**Strongly Agree**	0%	0%	0%	0%	50%	0.7%
	Agree	25.9%	40.3%	11.1%	0%	50%	32.2%
	Neutral	55.2%	35.1%	66.7%	66.7%	0%	45%
	Disagree	13.8%	24.7%	22.2%	0%	0%	19.5%
	Strongly Disagree	5.2%	0%	0%	33.3%	0%	2.7%
	Total	100%	100%	100%	100%	100%	100%

The results of the chi-square analysis above suggested that the hypothesis is partially supported. However, 5 of the 10 variables had no significance. Consumption of crime-related television shows had no impact on people's perceptive that every crime can be solved with forensic science, (X^2 (16, *N*= 150) = 24.69, p=.075). High crime-related television show consumptions had no significance on how people believe that if there's no forensic evidence,

then investigators did not look hard, (X^2 (16, *N*= 150) =20.95, p=.180. Additionally, there was no correlation between hours watching crime-related television shows and if there is no forensic evidence, then there is no conviction, (X^2 (16, *N*= 150) =20.41, p=.202.) Furthermore, there was no significance between hours watching crime-related television and people's beliefs that forensic evidence is needed to make an arrest. Likewise, there was no significance between hours watching crime-related television shows and people's perception that a defendant is innocent without forensic evidence. The 5th chi-square was also not significant, (X^2 (16, *N*= 150) =18.81 p=.278) hours of watching crime-related television shows and how people view the defendant as innocent without forensic evidence.

Discussion

The purpose of this study was to examine if high consumptions of crime-related television influence people's biased perceptions of the criminal justice system. Based on results from previous literature, the hypothesis was formed that those who watch more crime-related television shows are more likely to have a bias perception of the criminal justice system. The results from the study partially supported the hypothesis. The results indicated that high consumptions of crime-related television are significant with having some biased perceptions of the criminal justice system. The results also indicated that people who watch more crime-related television shows are more likely to be pro-defense (jurors would only convict if there is forensic evidence). It associates with the consequences that were mentioned earlier in the literature. Additionally, the results of this study are consistent with the cultivation theory, "those who watch more television are more likely to develop certain beliefs about social reality based on the consistent depictions shown on television" (Fedorek, 2013, p. 43). The participants did have developed beliefs that were significant with high consumptions of crime-related

television shows such as 'criminals always leave physical evidence at crime scene' or 'science is the most reliable way to identify offenders. Although this study did a good job, supporting the hypothesis, there were a few limitations presented.

As with every study, there are limitations. One of the limitations that were found in this study is the generalizability. The size of the sample and the race of the participants limits the generalizability of the findings. Although the sample size was sufficient for the purposes of the statistical analysis, no generalization can be made that high consumptions of crime-related television do have an impact on bias perception of the Criminal Justice system. Another limitation is time constraints. This study had to be conducted in a short period of time which did not allow for additional survey questions to be added or for more participants to be included. Overall, future research could incorporate a larger sample size, have more of a diversity in race. Another suggestion for future research is to have more questions and open-ended questions, possibly a vignette.

Overall, this topic is important to know about because crime-related television shows are one of the top-rated television genera. Most people do not know what the CSI Effect is. It is not a topic that people hear often. It is also important because this phenomenon impacts jurors. According to (Kopacki, 2013, p. 76) "Jurors are justice decision-makers. Since the criminal justice system places a high level of responsibility on jurors, it is important to understand what variables may influence their decision-making." Thus, is important to educate reader who could potentially become jurors in the future. Educate them that they're being conditioned to believe what is seen on television and to not believe everything that is seen on it. A study conducted by Hewson & Goodman-Delahunty (2008) where a mock trial was conducted using a real homicide case. The case had very little evidence and very little DNA evidence. The jurors were informed

about forensic science and the types of technology used for DNA samples. The study concluded that before the study, the participants did not trust DNA evidence. After being educated about forensic science and how it is not what it is glamorized on television, there was a decrease in the belief that forensic science is infallible.

In conclusion, the CSI Effect is always going to prevalent as long as there still crime-related television shows being produced and people entering the criminal justice system. This literature shed light on how watching too much crime-related television show can lead to a bias perception of the Criminal Justice System and the effects it can have. The hypothesis was tested using chi-square, which supported the research question. While the study in hand noted limitations, it sought out information that can be used and add upon for future research.

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The Influence of Media Consumption on Perception of the Defund the Police Movement

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Abstract

The murder of George Floyd on May 25, 2020 renewed national outcries for justice, drawing ever familiar parallels to the murders of other young Black men by police in the previous decades, and dominated all media platforms. Beyond protests and demonstrations, however, George Floyd's murder galvanized a new proposal for criminal justice reform—the Defund the Police movement—which sparked heavily controversial debate surrounding the police and its funding. The Defund the Police movement can be understood through the lens of police legitimacy, which has come under public scrutiny as a result of increased funding and militarization and a strong history of police brutality. The transformation of mass media and the emergence of militant evidence allows media to play a significant role in the public's perceptions of not only the police, but also protest. Survey data collected from undergraduate students at Cabrini University is analyzed to understand the influence of media consumption on the perception of the Defund the Police movement. Results from a multiple regression show that following traditional and alternative media platforms, police legitimacy, militaristic equipment, and political orientation were significant predictors of support for defunding the police.

Introduction

On May 25, 2020, 46-year-old George Floyd was arrested and murdered by Minneapolis police (Hill et al., 2020). Four officers were involved in the arrest and murder, pinning him to the ground when, seventeen minutes later, additional officers arrived; the *New York Times* reported that Derek Chauvin kneeled on his neck for approximately eight minutes and 46 seconds (Hill et al., 2020). In the video captured by witnesses, George Floyd is heard repeating, "I can't breathe" (Taylor, 2020). The following day, the Minneapolis Police Department fired all four police officers, and Derek Chauvin was brought up on third-degree murder and second-degree manslaughter charges (Hill et al., 2020). That same day, protests in Minneapolis erupted and lasted over the subsequent days, with police deploying tear gas and rubber bullets into the crowds (Taylor, 2020).

Protests occurred across the country in 140 major cities and 21 states, including Memphis, Los Angeles, St. Louis, and Chicago (Taylor, 2020). On May 28, 2020 only three days after the murder, Governor Tim Walz activated the National Guard in Minnesota due to the vandalism and fires that broke out during the demonstrations (Taylor, 2020). President Donald Trump responded to the growing crisis by condemning the looters as "thugs" and suggesting the National Guard use force against protesters, stating, "When the looting starts, the shooting starts" (Taylor, 2020). More protests erupted nationwide in New York City, Atlanta, Indianapolis, Detroit, and outside the White House (Taylor, 2020). President Trump then threatened to send the military to quash the protests on June 1, 2020 (Taylor, 2020).

Two days later on June 3, 2020, eight days after George Floyd's murder, new charges were brought against the four police officers: Derek Chauvin's charges were upgraded to second-degree murder, and the other three officers were charged with aiding and abetting second-degree

murder (Hill et al., 2020). Across the various protests, numerous people were killed or injured, sparking more national rage (Associated Press, 2020; Taylor, 2020). Although the protests certainly captivated a strong American audience, George Floyd's murder and the resulting demonstrations caught the attention of the world, with protests seen in dozens of cities around the globe (Cave et al., 2020). In addition to the protests, George Floyd's murder galvanized the calls for defunding the police (Ray, 2020), a newer call for criminal justice reform within the United States. To its advocates, defunding the police is defined as reallocating police funding to other local government agencies, with the understanding that this redirection would largely support social services aimed at mental health, addiction, homelessness, etc. (Ray, 2020). This platform sparked heavily controversial debate and discussion around the police and its funding.

The various media platforms, including more traditional platforms and social media, were integral to chronicling these events. The media delivered and circled through video footage and live video documenting the protests and conveyed messages about the calls for defunding the police. Stories about the protests, rioting, and looting dominated both local and national news stations. Initial research conducted by Heaney (2020b) suggests the George Floyd protests received more media coverage than any other protest in the last half-century, including the Kent State shootings and the Vietnam War protests in the 1970s. Social media played a significant role in providing constant updates, images, and videos about the occurring protests, rioting, and looting, with certain video footage widely circulated, as with the injury of a 75-year-old protester in Buffalo (Taylor, 2020). Facebook, Twitter, Instagram, Snapchat, and TikTok were five prominent social media platforms where information was transmitted.

This research is significant because of the intensity of the public's reactions to the murder of George Floyd and the direct parallels between his murder and the murders of young Black

men in the early 2010s which also produced strong reactions of outrage. Not unlike the calls for

defunding the police, the murders in the early 2010s gave rise to a prominent and controversial

movement, the Black Lives Matter movement, in 2013 following the acquittal of George

Zimmerman, who shot and killed Trayvon Martin (Anderson, 2016). George Floyd's murder

galvanized a newer proposal of criminal justice reform, the defunding of police, in the United

States. The Defund the Police movement must be researched just as the Black Lives Matter

movement has been researched, particularly as support for the movement grew during the course

of the protests. These protests may be considered the primary events of the summer of 2020

based on media coverage alone, and consequently, it is necessary to understand them.

Because the national debates surrounding the Defund the Police movement and its

demonstrations during the summer of 2020 were so prolific, all aspects of defunding the police

and its demonstrations must be better understood and analyzed, for efficacy, cost, social and

structural implications or consequences, support, and dissent, as with any other criminal justice

reform proposal or movement. This research is important because it seeks an understanding of

the media's role regarding defunding the police; American media were crucial in disseminating

information, misinformation, and opinions about both the movement itself and its

demonstrations. Therefore, it is the purpose of this research to lead scientific conversation about

defunding the police, by investigating the influence of media consumption in the establishment

of the Defund the Police movement's supporters and critics.

Literature Review

Contextualizing Defunding the Police

In order to investigate this new reform movement, it is necessary to contextualize it. The

Defund the Police movement can be understood through the analysis of police funding and

militarization, the historical influence of police brutality in the movement's two major

predecessors, and the foundations of the public's perceptions of police legitimacy. The following

literature review will outline these areas and how they relate to the rise of social media during

the 2020 protests of George Floyd's murder at the hands of police.

Funding and Militarization

Police funding has changed dramatically over the past few decades. The source of this

change can be traced back to the War on Poverty during Lyndon B. Johnson's administration,

which evolved into the War on Crime, and eventually, the War on Drugs (Hinton, 2016). The

federal government began relying more heavily on its executive branch and the use of law

enforcement significantly expanded. As a result, there was a dramatic budget increase for

policing (Hinton, 2016). One such source of the dramatic budget increase for policing is

attributed to the 1994 Law Enforcement Act, which provided for 100,000 new police officers and

offered local and state law enforcement agencies significant grant programs to aid with crime

control, including drug enforcement efforts (National Institute of Justice, 2000). It was with this

change in function and funding that the police became increasingly militarized.

The militarization of the police is attributed to several factors, including the Pentagon's

"Section 1033" program (transfers excess military equipment to police departments), increased

reliance on SWAT teams, the growth of surveillance technologies, and the use of the

counterterrorism rationale in police training (Lindsey-Poland, 2016). Police officers now

operated similarly to paramilitary groups. Although such tactics were not always broadcast to the

public, wide-spread critique of police militarization emerged following law enforcement

response to the 2014 protests and rioting after the killing of Michael Brown by Officer Darren

Wilson in Ferguson, Missouri (Steidley & Ramey, 2019). Despite the increased critical eye from

the public, support for police militarization continues to vary. Members of Congress and law

enforcement, especially, tend to favor police militarization (Turner II & Fox, 2019), while

support from the general public is much more varied. Those that perceive the police as more

legitimate are more likely to support the use of militarization to increase their perceived efficacy

and are therefore less likely to hold negative views toward militarization (Moule et al., 2019).

While the militarization of police is a relatively new phenomenon that is receiving increasing

resistance from the public due to incidents like those in Ferguson (Steidley & Ramey, 2019), law

enforcement practices have been the subject of public scrutiny, largely due to the historicism of

police brutality.

Historical Influence of Police Brutality and its Resulting Movements

The United States criminal justice system has a long history of racial discrimination,

particularly with respect to the demographics of police-citizen homicides (Watson, 2019). Police

brutality, though not a new phenomenon, has taken a drastic turn in recent years with the

ubiquitous use of social media. A study analyzing the National Violent Death Reporting system

data on the use of lethal force by law enforcement between 2009 and 2012 (DeGue et al., 2016)

concluded that victims were disproportionately Black and that Black victims not only had a

fatality rate 2.8 times higher than Whites but were also more likely to have been unarmed. These

findings appear to remain steady in the subsequent years: from January 2015 to March 21, 2021,

police have killed 6,139 people, 24% of whom were Black (Tate et al., 2016; Tate et al., 2020).

Approximately half of those victims were White, but African Americans and Hispanic

Americans comprised a disproportionate number of police-related homicides (Tate et al., 2020).

Despite only comprising approximately 13% of the population, the rate for Black people killed

by police is more than twice as high as the rate for Whites (Tate et al., 2020). Police-citizen

homicides involving White officers and Black citizens have gained significant attention from the public, due to the rise of justice movements this past decade.

The Defund the Police movement is far from the first modern movement in response to the perceived injustices of U.S. law enforcement. The Black Lives Matter (BLM) movement amassed national recognition in 2013 after George Zimmerman's acquittal for the murder of Trayvon Martin (Anderson, 2016). Since its birth, BLM has become synonymous with all human rights movements emphasizing racial justice (Roberts, 2018). BLM has garnered significant support from Americans, with 55% of all U.S. adults stating they strongly or somewhat support the movement, although the demographics for supporters lean heavily in favor of Black people and Democrats or Democrat-leaning (Thomas & Menasce Horowitz, 2020). Its phrase, "Black Lives Matter," is plastered across these movements' campaigns and is prominent in mainstream media, to the point that any police protest inevitably alludes to the movement (Roberts, 2018). This was no less true for the Defund the Police movement in the summer of 2020, where the phrase was prominently emblazoned on protesters' signs and the hashtag #BlackLivesMatter dominated social media sites.

Although not nearly as mainstream as BLM, the police abolition movement also emphasizes racial justice within United States' law enforcement practices. In July 2016, following the publicized deaths of Alton Sterling and Philando Castile, there were calls to abolish the police (McDowell & Fernandez, 2018). The rallying cry to employ the strategy became "disband, disempower, and disarm" (For a World Without Police, 2016). This movement informed the current call by activists to defund the police. Though defunding the police may appear a radical reform, it is not nearly as radical as police abolition, which McDowell and Fernandez (2018) argue is the movement that gives the most promise for eliminating current

policing practices. Furthermore, defunding the police is challenged by radical police abolitionists because it fails to address all problems of disbanding, disempowering, and disarming the police (Unity & Struggle, 2020). Despite this criticism, the Defund the Police movement represents a substantial reform targeting the current function of American police.

Defunding the police is the culmination of the perceived injustices, police brutality specifically, of U.S. law enforcement—it is not a new idea. As with its BLM (Anderson, 2016) and police abolition predecessors (McDowell & Fernandez, 2018), the defund the police movement was triggered by the death of a Black male by White law enforcement officers (Ray, 2020). George Floyd's murder served as the movement's anchor in America. Additionally, the Defund the Police movement drew heavily from its predecessors in mobilizing the support of BLM and the tenets of the police abolition movement. Therefore, defunding the police can be understood to be dependent on these two key racial justice movements, rather than its own independent process. Similarly to these movements, its center is intense criticism of the legitimacy of the police.

Legitimacy as the Crux of the Defund the Police Movement

Defunding the police is the newest response to the legacies of police funding changes, militarization of the police, and police brutality. In its goal to reallocate police funds to other government agencies and social services (Ray, 2020), the movement aims to address the issues of police militarization, emphasize other forms of crime prevention, and rebuild trust between the police and the communities they are sworn to serve. While defunding the police may be new to the general public, its foundations are wholly historical. In essence, the only "new" part of defunding the police is the terminology and the understanding that the reform became more

mainstream, as evidenced by the nationwide—and global—attention to the summer of 2020 protests after the murder of George Floyd.

At the core of each issue is a focus on remedying police legitimacy. Police legitimacy is both influenced and determined by perceptions of police militarization (Moule et al., 2019) and police-citizen interactions, direct or vicarious (Parry et al., 2019; Sunshine & Tyler, 2003; Tyler, 2003). Those who trust the police and perceive them as legitimate authorities are less likely to support law enforcement reform proposed by the defund the police movement. Procedural justice is the reigning theoretical framework for legitimacy (Sunshine & Tyler, 2003; Tyler, 2003). Legal authorities, such as the police, depend on public support, which is based on perceived fairness when interacting with the public (Sunshine & Tyler, 2003; Tyler, 2003). Therefore, procedural justice theory is at the heart of the Defund the Police movement, which argues that the police are not fair, do not interact positively with the public (specifically people of color), and therefore do not have legitimacy as an authoritative body. In doing so, defunding the police is seeking to not only reallocate police funding, but also redistribute authority. Police legitimacy and procedural justice theory, therefore, is the framework that the present study utilizes to understand the rise of the Defund the Police movement.

The Transformation of Mass Media and Its Influence

The transformation of technology has altered the function and dynamic of digital communication and mass media. Smartphones enable individuals to capture and distribute audiovisual content (spontaneous videos), allowing everyday citizens to participate in video activism and citizen journalism (Fernández Martínez, 2019). The emergence of citizen journalism bleeds into conventional mass media, where the audiovisual content is imbedded and dispersed, and has become the principal means of communicating public events, such as protests

(Fernández Martínez, 2019). Militant evidence, the theoretical framework proposed by Watson (2019), also understands the role of spontaneous videos, and argues that the sharing of individual or collective traumas, through video, can be used as weapons to encourage rebellion and social justice activism. Spontaneous videos—militant evidence—created and distributed by everyday citizens were crucial in the documentation of the George Floyd protests, the growth of the Defund the Police movement, and the response of the police.

The Effect of Media on the Public's Perception of Police

Media acted as one of the primary agents of public influence during the events of the summer of 2020 because it plays a significant role in the public's perception of the police. Exposure to videos of police-citizen interactions impacts public attitudes toward the police (Boivin et al, 2017; Parry et al., 2019). Videos of police-citizen interactions, including both George Floyd's murder and the rioting and protesting, circulated widely across all media platforms, resulting in Americans being highly exposed to such imagery. Heavy consumers of network news, moreover, are more likely to believe that police misconduct is a frequent occurrence (Dowler & Zawilski, 2007). Media coverage of police misconduct trials similarly affects individuals' perceptions of the case, where an increase in reading about the case increases the perception of the officer's guilt (Chermak et al., 2006). However, the media does not affect everyone equally: the impact of race and personal experiences with the police cannot be ignored. Whites are more likely to believe police misconduct is a rare occurrence and are less likely to believe they experience preferential treatment, while non-Whites are more likely to believe that Whites are treated preferentially (Dowler & Zawilski, 2007). Those that have been arrested or charged with a crime are more likely to believe that police misconduct is a common experience

(Dowler & Zawilski, 2007). The media's impact on public perception in the case of George

Floyd, however, was not limited to its shaping of attitudes toward the police.

Media and Its Role in Protest

The tone of media coverage related to protests may be highly influential on the public's

perceptions of protest groups (McLeod, 1995). Notably, protesters were framed as troublemakers

during the Ferguson riots rather than as justified demonstrators, casting participants in a negative

light (Blackstone et al., 2017). The more peaceful images of the protests proved to be less

impactful on perceptions than the negative imagery (Blackstone et al., 2017). Therefore, content

and bias seriously impact public attitudes toward protesters. The theory of moral panic, well-

known in sociological theories of deviance and crime, explains the influence of the media in

communicating major public events (Cohen, 1972). Mass media serve as agents of social control

by shaping public attitudes and perceptions (Cohen, 1972). Beyond just perception and attitudes

toward protest, however, media also plays a significant role in the public's participation in

protest and activism.

Media platforms influence participation. The distinction between mainstream media and

alternative media shapes individual's political participation regarding protest (Boyle &

Schmierbach, 2009). Those that engage more with traditional media, which includes television

news, newspapers, and mainstream websites, are more likely to engage in traditional forms of

participation, such as attending local forums, attending Democrat or Republican meetings, or

donating money to either political party (Boyle & Schmierbach, 2009). In contrast, those that

engage with alternative media that is more protest-oriented, are more likely to attend or organize

protests, or donate money to protest groups (Boyle & Schmierbach, 2009). Furthermore, social

media has become the primary source of and for activism, revolutionizing protest participation

by improving timeliness and responsiveness (Tufekci, 2017). During the George Floyd protests, social media sites like Instagram and Twitter aided protesters, in terms of mobilization and alerting them to infiltration by authorities like the police (Heaney, 2020a).

Coser's (1957) conflict functionalism is a framework for understanding perceptions of protests and the resulting support or dissent, stating that conflict arises from a comparison of power and questioning of authority by those with lesser power, and this conflict serves as the source for public change. The integration of conflict functionalism (Coser, 1957), police legitimacy, and procedural justice theories explain specifically the Defund the Police protests. When examined together, both Cohen's (1972) and Coser's (1957) theories suggest that protest will polarize supporters and dissenters. Furthermore, the images and videos of both George Floyd's murder and the consequential protests acted as militant evidence, which fueled the protests and public attitudes toward them. This collection of theory serves as the theoretical framework for understanding the influence of the media on the perception of the Defund the Police movement and the following protests in the summer of 2020.

Hypotheses

Hypothesis 1: this research study predicts that the more time participants spent consuming media (traditional and alternative media platforms) about the summer 2020 protests following George Floyd's murder will be correlated with greater support or dissent for the Defund the Police movement.

Hypothesis 2: this research study predicts that the more time participants spent consuming alternative media about the summer 2020 protests following George Floyd's murder will be correlated with greater support for the Defund the Police movement.

Methodology

Data Collection and Sample

This study analyzed quantitative primary data collected through the use of electronic surveys distributed during the 2021 spring semester and relied on a nonprobability availability sampling method. Following approval from the Institutional Review Board (IRB), the participants, undergraduate students attending Cabrini University, were asked to complete the survey at the convenience of the researcher. Sourced primarily from the Department of Criminology and Sociology—although other departments were contacted as well—various professors were requested to distribute the survey link to their students with the provided brief description of the research study. Before the administration of the questionnaire, participants were directed to a form of consent, which included the purpose of the study, its risks and benefits, their rights as participants, referral information for free counseling and psychological services on campus, and the researcher's contact information. Following the consent form, participants were provided a lengthier description of the survey's contents, in addition to reminders that completion of the survey was strictly voluntary, and that all information would be kept confidential.

In total, the sample was comprised of 85 ($N = 85$) participants, 16.5% ($n = 14$) of which were male respondents, 81.2% ($n = 69$) of which were female respondents, and 2.4% ($n = 2$) of which labeled themselves as "Other." The racial distribution of the sample was composed of 60.5% ($n = 49$) White, 18.5% ($n = 15$) Black, 11.1% ($n = 9$) Mixed, 8.6% ($n = 7$) Other, and only 1.2% ($n = 1$) Asian. The overwhelming majority of the sample, 87.1% ($n = 74$), did not identify as Hispanic or Latinx, while 12.9% ($n = 11$) did. Of all the student respondents, most were either

20 (25.9%, *n* = 22) or 21 years old (28.2%, *n* = 24). See Table 1 for the complete demographic

distribution of the sample.

Table 1. *Sample Demographics*

Demographic	*Frequency*	*Valid Percent*
Gender		
Male	14	16.5
Female	69	81.1
Other	2	2.4
Ethnicity		
Hispanic/Latinx	74	87.1
Non-Hispanic/Latinx	11	12.9
Race		
Asian	1	1.2
Black	15	18.5
White	49	60.5
Mixed	9	11.1
Other	7	8.6
Age		
18 years old	8	9.4
19 years old	16	18.8
20 years old	22	25.9
21 years old	24	28.2
22 years or older	15	17.6
Neighborhood		
Rural	9	10.7
Urban	27	32.1
Suburban	48	57.1
Major		
Humanities and Social Sciences	47	57.3
Education	7	8.5
Business, Arts, and Media	15	18.3
Natural Sciences and Allied Health	13	15.9

Independent Variable: Engagement with Media

The independent variable is engagement with media and is defined as both the frequency and type of media consumption about the death of George Floyd and the resulting protests. Type of media consumption is further distinguished between traditional and alternative platforms: traditional platforms consist of local and national broadcast news networks and print newspapers, and alternative media platforms consist of protest-oriented sites such as BLM and social media sites like Facebook, Twitter, Instagram, Snapchat, and TikTok (Haider-Markel & Joslyn, 2017; Intravia et al., 2018). An adapted version of the June 2015 Clear Voice Survey asked respondents how closely they followed both the death of George Floyd and the George Floyd protests on both traditional and alternative media using a Likert Scale 1 = Did Not Follow, 2 = Not Too Closely, 3 = Fairly Closely, and 4 = Very Closely (Haider-Markel & Joslyn, 2017). A modified version of the questions provided by Intravia et al. (2018) asked respondents the number of minutes they followed media about both the death of George Floyd and the George Floyd protests on a scale of 1 = None, 2 = 60 minutes or less, 3 = 61–120 minutes, 4 = 121–180 minutes, 5 = 181–240 minutes, and 6 = 241 minutes or more. See Appendix A for all media measures.

From these media questions, five additive scales were created. The first three scales included all eight statements about how closely participants followed all media (both traditional and alternative platforms), four statements about how closely participants followed traditional media, and four statements about how closely participants followed alternative media about the death and resulting protests to create three overall variables measuring their frequency of media consumption ("*Followed All Media*," "*Followed Traditional Media*," and "*Followed Alternative Media*"). Refer to Appendix A for clarification of the breakdown of the eight statements into the three scales. Cronbach's Alpha was reported for these three scales, indicating strong inter-item

reliability, and determined that these additive scales were appropriate (*Followed All Media*, α = .842, *Followed Traditional Media*, α = .792, *Followed Alternative Media*, α = .826). The media scale for followed all media ranged from 11 to 32, and the scales for followed traditional media and followed alternative media ranged from 4 to 16, with higher scales indicating the more closely participants followed the media about the death and protests. The most common ranking for followed all media was 22 (14.3%, *n* = 12), and the mean score was 21.24 (*SD* = 4.87). For traditional media, the most common ranking was 8 (24.7%, *n* = 21), with a mean score of 9.33 (*SD* = 2.71). As for alternative media, its most common ranking was 16 (16.7%, *n* = 14), with a mean score of 11.92 (*SD* = 2.92).

The final two media scales combined statements of the number of minutes participants consumed the various media about the death and protests. The first minutes scale combined all minute measures except print newspapers, as it was determined that college students do not rely heavily on print newspapers and including this in the scale severely undermined its inter-item reliability. Including online newspapers in the definition of "newspaper" may have increased the strength of this particular variable. The second minutes scale combined all alternative media minute measures. Together, these scales represented a numeric measure of participants' media consumption ("*Minutes on Media*" and "*Minutes on Alternative Media*"). Both scales reported Cronbach's Alpha higher than .6, again indicating inter-item reliability and justifying the creation of these scales (*Minutes on Media*, α = .756, *Minutes on Alternative Media*, α = .655). The media scale for minutes on media ranged from 4 to 18, while the scale for minutes on alternative media ranged from 2 to 12. The most common score for minutes on media was 5 (18.1%, *n* = 15), with a mean score of 8.16 (*SD* = 3.41), while the most common score for minutes on alternative media was 4 (21.7%, *n* = 18) and had a mean score of 5.41 (*SD* = 2.44).

Dependent Variable: Perception of the Defund the Police Movement

A singular dependent variable, perception of the Defund the Police movement, is absent from current scientific literature due to the newness of the movement. Therefore, this research study relies on the dimensions explored in its literature review surrounding the context of the movement's emergence to encompass the full scope of public perception for defunding the police: measures assessing perceptions of police behavior and legitimacy, police militarization, and police funding. While the researcher was able to find existing measures assessing perceptions of police behavior and police legitimacy, the researcher was largely unable to find measures assessing perception of police militarization and police funding. To assess these variables for the purpose of this study, the researcher created her own measures and piloted them to her fellow classmates who were also studying research methods. The first round of piloting garnered significant feedback from all participants and received approval from both a select number of classmates and the faculty sponsor after the second round of piloting. These new measures can be found in Appendices C and D.

Police Behavior and Legitimacy

Police legitimacy and behavior are intrinsically linked (Sunshine & Tyler, 2003; Tyler, 2003). Perception of police behavior is defined as judgment of the fairness of the ways police make decisions and exercise their authority (Sunshine & Tyler, 2003; Tyler, 2003). To measure perceptions of police behavior, elements of the Appropriate Police Behavior and Legitimacy Scale (Trinkner et al., 2018) were utilized (Appendix B), with participants being posed questions like "*How often do the police treat people with dignity and respect?*" and "*How often do the police give people a chance to tell their side of the story before they decide what to do?*" and they were asked to respond on a scale of 1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Often, and 5

= Always. An additive scale was created based on seven measures, reporting a strong Cronbach's Alpha (*Police Behavior*, α = .911). The police behavior scale ranged from 8 to 33, with higher scales indicating a more positive perception of police behavior. The two most frequent scores for police behavior were 21 and 22 (10.6%, *n* = 9), with a mean of 20.20 (*SD* = 5.06).

Police legitimacy is defined as the public's acceptance of the need to behave according to the dictations of police authority, and which is dependent on their evaluations of police behavior (Sunshine & Tyler, 2003; Tyler, 2003). Perceptions of police legitimacy were measured using parts of the Attitudes Towards Police Legitimacy Scale (Reynolds et al., 2018), which asked participants to respond on a scale of 1 = Strongly Disagree, 2 = Somewhat Disagree, 3 = Neither Agree nor Disagree, 4 = Slightly Agree, and 5 = Strongly Agree to statements like "*The presence of police makes me feel safe*" and "*Police officers are held to higher standards than regular citizens*" (see Appendix B for the list of statements). Another seven-item additive scale was created, with one question reverse-coded, as it was negatively worded, whereas the others were positively worded; it reported a similarly strong Cronbach's Alpha (*Police Legitimacy*, α = .916). The police legitimacy scale ranged from 7 to 35, with higher scales indicating a stronger perception of the police as a legitimate authority. The most frequent score for police legitimacy was 25 (10.8%, *n* = 9), and had a reported mean of 21.72 (*SD* = 7.22).

Police Militarization

Police militarization, for the purposes of this study, was conceptualized as their use of training and equipment, and their response to protest. Police training was defined as including the time spent at the police academy and throughout their time as police officers, and this definition was provided in the survey for clarity. Respondents were asked how they would rate the training of officers in using equipment, in conducting raids, and in using de-escalation

techniques, and was measured on a Likert Scale of 1 = Very Under Trained, 2 = Slightly Under

Trained, 3 = Adequately Trained, 4 = Slightly Over Trained, and 5 = Very Over Trained

(Appendix C). These three measures were combined in the additive scale *Police Training*, which

reported good inter-item relatability (α = .755), and therefore justified the creation of the scale.

The range for the police training scale was 3 to 10, with higher scores indicating a belief in

police receiving more training. The most frequently reported score was 3 (20.2%, *n* = 17), with a

mean of 5.99 (*SD* = 2.15).

Police equipment was defined as vehicles, protective gear, and weapons such as guns,

batons, tasers, and flash grenades, that the police use, and the definition was once again provided

on the survey for clarity. It was assessed in four ways (Appendix C). First, participants were

asked to respond on a scale of 1 = Very Under Armed, 2 = Slightly Under Armed, 3 =

Adequately Armed, 4 = Slightly Over Armed, and 5 = Very Over Armed, how they would rate

the equipment of police officers. Most of the participants believed police officers to be

adequately armed (47.1%, *n* = 40), followed by the belief that police officers are slightly over

armed or very over armed (25.9%, *n* = 22). Second, participants were asked on a scale of 1 =

Strongly Disagree to 5 = Strongly Agree how they felt about the statement "*The police have the*

right equipment to protect the public." A majority of participants (43.5%, *n* = 37) somewhat

agreed with the statement. Third, participants were asked on a scale of 1 = Strongly Disagree to 5

= Strongly Agree how they felt about the statement "*The tactics police are trained to use protect*

the public." Most responded that they neither agreed nor disagreed (30.6%, *n* = 26), and

participants were equally likely to strongly disagree or somewhat agree (23.5%, *n* = 20). Table 2

displays the frequency distributions for these perceptions.

Table 2. *Frequency Distribution of Perceptions of Police Equipment*

	Frequency	*Valid Percent*
Rate Equipment of Police Officers		
Very Under Armed	0	0
Slightly Under Armed	1	1.2
Adequately Armed	40	47.1
Slightly Over Armed	22	25.9
Very Over Armed	22	25.9
Police Have the Right Equipment		
Strongly Disagree	8	9.4
Somewhat Disagree	11	12.9
Neither Agree nor Disagree	15	17.6
Somewhat Agree	37	43.5
Strongly Agree	14	16.5
Police Tactics Protect the Public		
Strongly Disagree	20	23.5
Somewhat Disagree	15	17.6
Neither Agree nor Disagree	26	30.6
Somewhat Agree	20	23.5
Strongly Agree	4	4.7

Fourth, participants assessed the degree to which they supported or opposed the use of specific police equipment (1 = Strongly Oppose to 5 = Strongly Support), including handguns, automatic machine guns, sniper rifles, tasers, tear gas, stun grenades, handcuffs, grenade launchers, riot shields, and armored vehicles (Wozniak et al., 2020). From these questions, an additive scale was comprised of all the specific equipment listed, achieving a high Cronbach's Alpha (*All Equipment*, α = .869). This scale ranged from 11 to 48, with higher scores indicating greater support for the use of the equipment. The most common rankings for this scale were 33 and 35 (8.2%, *n* = 7), and the mean score was 29.49 (*SD* = 8.07). In the interest of better exploring perceptions of militarization, equipment was further analyzed. Factor analysis showed

some disparities between the different equipment, and so equipment was broken down into

traditional and militaristic equipment. Traditional equipment included handguns, tasers, tear gas,

handcuffs, and riot shields, and from this another additive scale was created, which achieved a

Cronbach's Alpha greater than .7 (*Traditional Equipment*, α = .831). The traditional equipment

scale ranged from 6 to 25; higher scores indicated greater support. The most common ranking

was 20 (12.9%, *n* = 11), with a mean score of 18.48 (*SD* = 4.67). Militaristic equipment included

automatic machine guns, sniper rifles, stun grenades, grenade launchers, and armored vehicles,

also achieving a Cronbach's Alpha greater than .7 (*Militaristic Equipment*, α = .713). Its range

was 5 to 23, higher scores once again indicating greater support, with the most frequent rankings

being 5 and 9 (12.9%, *n* = 11), and reporting a mean score of 11.01 (*SD* = 4.01).

Police response was defined as the equipment police officers use, the de-escalation

techniques officers use, and the number of police officers that respond to a given incident or call.

Participants were asked to indicate on a scale of 1 = Strongly Disagree to 5 = Strongly Agree

how they felt about the following statements: "*Police response to peaceful protesters is

justified*," "*Police response to nonpeaceful protesters is justified*," "*Police response to peaceful

police protesters is justified*," and "*Police response to nonpeaceful police protesters is justified*"

(Appendix C). An additive scale was created from these four statements and reported a strong

Cronbach's Alpha (*Police Response to Protest*, α = .755). The scale ranged from 4 to 20, with

higher scores indicating a greater belief in the justification of police response. The most common

score was 12 (22.6%, *n* = 19), and its mean score was 10.08 (*SD* = 4.21).

Police Funding

Police funding measures (see Appendix D) were oriented around this study's definition of

defunding the police, which is the reallocation of police funding to other local government

agencies, with the understanding that this redirection would largely support social services aimed

at mental health, addiction, homelessness, etc. (Ray, 2020). Participants were asked how they

would rate the funding their local police department receives and the funding the American

police in general receive on a scale of 1 = Very Under Funded, 2 = Slightly Under Funded, 3 =

Adequately Funded, 4 = Slightly Over Funded, and 5 = Very Over Funded. Furthermore, they

were asked to respond on a scale of 1 = Strongly Disagree to 5 = Strongly Agree how they felt

about the statements that their local police departments and the American police in general

efficiently use their funding to prevent and address crime. For clarity, addressing crime was

defined as managing or solving crimes. Additionally, they were asked to use the same scale to

respond to statements that funding social programs is the best way to prevent crime and to

address crime. Finally, participants were asked to report on a scale of 1 = Strongly Oppose to 5 =

Strongly Support "*How strongly do you support proposals to move some money currently going*

to police budgets to better officer training, local programs for homelessness, mental health

assistance, and domestic violence?" and "*How strongly do you support the Defund the Police*

movement?" (Jackson & Silverstein, 2020; Russonello, 2020). Although both questions ask about

their perceptions of defunding the police, both were included to analyze any potential disparities

in wording and reduce bias. The frequencies for these two questions are found in Table 3.

Table 3. *Frequency Distribution for Support for the Defund the Police Movement*

Question Wording	Support Proposals		Support the Movement	
	Frequency	*Valid Percent*	*Frequency*	*Valid Percent*
Strongly Oppose	2	2.4	15	17.9
Slightly Oppose	6	7.1	11	13.1
Neutral	13	15.5	16	19.0
Slightly Support	16	19.0	15	17.9
Strongly Support	47	56.0	27	32.1

All police funding measures were combined into an additive scale to create one defunding the police scale. Statements ascertaining how participants felt about the use of their local police department and the American police in general in efficiently using their funding required reverse-coding, as they were positively coded in favor of the police (against the movement), whereas the other statements were negatively coded against the police (in favor of the movement). This scale was deemed appropriate due to its Cronbach's Alpha, which was greater than .7 (*Defunding the Police*, α = .908). The defund the police scale ranged from 20 to 60, and higher scales indicated greater support for defunding the police. The most frequent scores were 42 and 50 (7.4%, *n* = 6), and it had a mean of 42.69 (*SD* = 10.07).

Control Variables: Demographics, Police Contact, and Self-Control

In order to isolate the influence of media consumption on public perception of the Defund the Police movement, many variables were controlled for, including participants' demographics (gender, race, ethnicity, type of neighborhood where they live, and major). Race was especially relevant to control for because the movement stemmed from the racially charged law enforcement-citizen homicide of a Black man, not unlike the homicides of Black men by police in the earlier years of the decade. African Americans are more likely than Whites to attribute violent police-citizen interactions to a part of a broader social problem (Haider-Markel & Joslyn, 2017). Furthermore, Black people typically respond to police protests more positively than Whites (Reinka & Leach, 2017). Because of the statistical tests that were run, the demographics needed to be recoded as binary variables: race was recoded as 1 = White, 2 = Non-White. Gender was also recoded, 1 = Male, 2 = Female; those labeled "Other" were recoded as missing because they represent a minority, and unfortunately this points to this study's lack of intersectionality. Neighborhood was recoded, 1 = Urban, 2 = Suburban; similarly, those that responded as "Rural"

were considered outliers and recoded as missing. Major was recoded as 1 = Social Science

(Humanities and Social Sciences and Education), 2 = Non-Social Science (Business, Arts, and

Media and Natural Sciences and Allied Health). Age was not included due to the lack of

variability in a college student sample. Table 4 displays the frequency distributions of the

demographics as binary variables.

Table 4. *Frequency Distributions for Demographics as Binary Variables*

Binary Demographic	Frequency	Valid Percent
Gender		
Male	14	16.5
Female	69	81.1
Ethnicity		
Hispanic/Latinx	74	87.1
Non-Hispanic/Latinx	11	12.9
Race		
White	49	60.5
Non-White	32	39.5
Neighborhood		
Urban	27	36.0
Suburban	48	64.0
Major		
HSS and EDU	54	65.9
BAM and NSAH	28	34.1

Political affiliation was also controlled for because law enforcement and criminal justice

reform, as is the basis of the Defund the Police movement, is a highly contested political issue.

Political affiliation remains a strong influence in the perceptions of guilt and consequences of

law enforcement officers that shoot civilians (Fix & Fix, 2020; Haider-Markel & Joslyn, 2017;

Perkins & Bourgeois, 2006). Conservative or Republican political affiliations are less likely to

perceive law enforcement officers as responsible for civilian shootings, whereas liberal or

Democrat political affiliations are more likely to perceive law enforcement officers' misuse of

force (Haider-Markel & Joslyn, 2017; Perkins & Bourgeois, 2006). Political affiliation was assessed using a seven-point Likert Scale, 1 = Strongly Liberal, 7 = Strongly Conservative (Fix & Fix, 2020; Perkins & Bourgeois, 2006). A quarter of all participants identified as Moderate (25.0%, n = 21). The frequency distribution can be found in Table 5.

Table 5. *Frequency Distribution for Political Orientation*

Orientation	Frequency	Valid Percent
Extremely Liberal	16	19.0
Liberal	18	21.4
Slightly Liberal	9	10.7
Moderate	21	25.0
Slightly Conservative	12	14.3
Conservative	3	3.6
Extremely Conservative	5	6.0

Moreover, police contact has also been linked to attitudes toward the police, and it has been suggested that both the quantity and quality of citizen contact with the police may affect attitudes (Dowler & Sparks, 2008). Participants responded whether they were stopped either while walking or while driving by a police officer or officers in the past 12 months, 1 = Yes, 2 = No. Most participants had not been stopped by the police (80.0%, n = 68), compared to only 20.0% (n = 17) who had. A more exhaustive police contact question may have more accurately assessed participants' contact with the police, and this points to a limitation in this study. Furthermore, self-control, the ability to control one's impulsivity and exercise restraint, is associated with attitudes toward police legitimacy (Intravia et al., 2018) and was measured using the Brief Self-Control Scale—8 Item Version (Maloney et al., 2012). Participants were asked to respond to statements like "*I do certain things that are bad for me*" and "*I am good at resisting temptation*" on a scale 1 = Not at All Like Me to 5 = Very Much Like Me (see Appendix E for

all statements). An additive scale was created for one self-control variable, with two questions that were reverse-coded because they were positively worded in comparison to the other questions. The scale reported inter-item reliability, with a Cronbach's Alpha greater than .7 (*Self-Control*, α = .768); higher scores indicated lesser self-control. The scale ranged from 9 to 35, with the most common score being 24 (13.1%, *n* = 11), and a mean of 21.10 (*SD* = 5.83).

Table 6. *Descriptive Statistics for All Scale Variables of Interest*

Variable	N	Mean	Median	Mode	Range	SD
Engagement with Media						
Followed All Media	84	21.24	21	22	21	4.87
Followed Traditional Media	85	9.33	9	8	12	2.71
Followed Alternative Media	84	11.92	12	16	12	2.92
Minutes on Traditional	83	8.16	7	5	14	3.41
Minutes on Alternative	83	5.41	5	4	10	2.44
Support for Movement						
Police Behavior	85	20.20	21	21*	25	5.06
Police Legitimacy	83	21.72	22	22	28	7.22
Police Training	84	5.99	6	3	7	2.15
All Equipment	85	29.49	32	33*	8.07	37
Traditional Equipment	85	18.48	20	20	4.67	19
Militaristic Equipment	85	11.01	11	5*	18	4.01
Police Response to Protest	84	10.08	10	12	16	4.21
Defunding the Police	81	42.69	43	42*	40	10.07
Control Variables						
Self-Control	84	21.10	22	24	24	5.83

Note. * indicates multiple modes.

Plans for Statistical Analysis

Two Pearson correlations were conducted. The first was run in order to determine whether there was a relationship between media consumption and support for defunding the

police. The second was run to determine whether any potential relationships between the other scale variables and the support for defunding the police existed. This statistical test was most appropriate for the research question because all relevant variables of interest (see above in Table 6) were continuous variables. Following the results of the correlations, a multiple regression (which uses continuous and binary variables) was performed to predict support for defunding the police by analyzing the variables of interest and accounting for the potential influence of the aforementioned demographics and control variables.

<div align="center">

Results

</div>

Bivariate Analysis

The first Pearson correlation, which assessed the relationship between engagement with media and support for defunding the police, resulted in several significant associations and is displayed in Table 7. A moderate positive relationship was found between following all media platforms and support for defunding the police, $r(78) = .50$, $p < .001$, indicating that the more media participants consumed was correlated with greater support. Furthermore, results indicated a strong positive relationship between the number of minutes of media (traditional and alternative platforms) and support for defunding the police, $r(79) = .54$, $p < .001$. Two strong, positive correlations were found between how closely participants followed alternative media about the death and protests ($r(78) = .66$, $p < .001$) and number of minutes participants followed the alternative media ($r(77) = .60$, $p < .001$) and support for defunding the police, thus providing support for the second hypothesis, which predicted that more consumption of alternative media would be correlated with greater support for the movement. There was no significant association found between how closely participants followed alternative media and support for the defunding the police, as it only achieved significance at the $p = .1$ level ($p = .084$).

Table 7. *Pearson Correlation for Media Scales and Defunding the Police*

Variable	(1)	(2)	(3)	(4)	(5)	(6)
1. Followed All Media	—					
2. Followed Traditional Media	.85*	—				
3. Followed Alternative Media	.87*	.49*	—			
4. Minutes on Media	.52*	.33*	.56*	—		
5. Minutes on Alternative Media	.48*	.22	.60*	.95*	—	
6. Defunding the Police	**.50***	**.19**	**.66***	**.54***	**.60***	—

*Note.* * indicates significance at $p < .01$ level.

The second Pearson correlation analyzed any potential relationships between the various scale variables that contextualized the emergence of the Defund the Police movement and support for defunding the police: police behavior and legitimacy, and police militarization. Results indicated several negative associations between all variables and support for defunding the police. Police behavior ($r(79) = -.62$, $p < .001$) and police legitimacy ($r(77) = -.81$, $p < .001$) and support for defunding the police were strongly negatively related. The association between police legitimacy and support for defunding the police was the strongest of all relationships analyzed, including the relationships analyzed in the first Pearson correlation. Regarding the militarization of the police, traditional equipment and support were found to be moderately negatively associated, $r(79) = -.46$, $p < .001$. All equipment ($r(79) = -.57$, $p < .001$) and militaristic equipment ($r(79) = -.61$) and support for defunding were strongly negatively associated. Police response to protest and support for defunding the police also resulted in a strong negative association, $r(79) = -.72$, $p < .001$. These relationships support the contextualization of the Defund the Police movement that was discussed in the literature review. Table 8 below summarizes the results of this correlation. See Figure 1 for a visual display of the relationship between the strongest negative relationship, police legitimacy and support for defunding the police.

Table 8. *Pearson Correlation for Various Scale Variables and Defunding the Police*

Variable	*(1)*	*(2)*	*(3)*	*(4)*	*(5)*	*(6)*	*(7)*	*(8)*
1. Police Behavior	—							
2. Police Legitimacy	.79*	—						
3. Police Training	.45*	.41*	—					
4. All Equipment	.52*	.64*	.30*	—				
5. Traditional Equipment	.45*	.58*	.17	.94*	—			
6. Militaristic Equipment	.53*	.61*	.41*	.92*	.73*	—		
7. Response to Protest	.70*	.76*	.44*	.61*	.50*	.66*	—	
8. Defund the Police	**-.62***	**-.81***	**-.52***	**-.57***	**-.46***	**-.61***	**-.72***	—

Note. * indicates significance at p = .01 level.

Figure 1. *Scatterplot for Police Legitimacy and Defunding the Police*
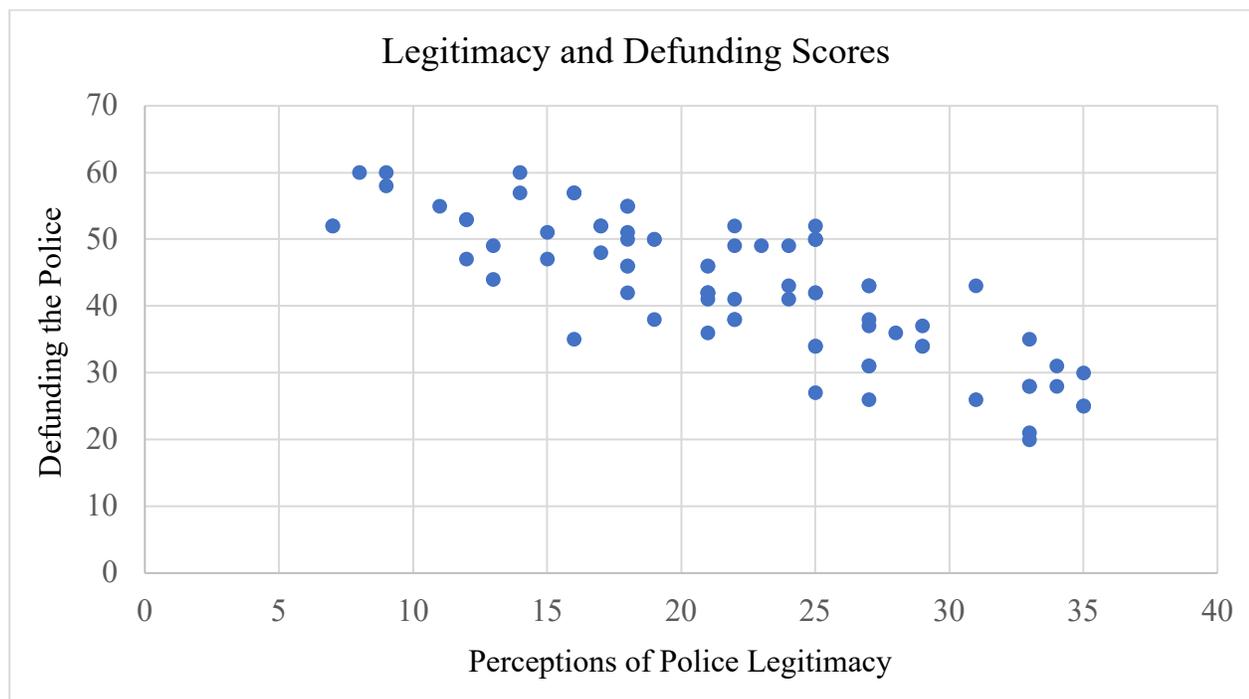
Multivariate Analysis

        The numerous significant results of the bivariate analyses justified the continuation via

multivariate analysis. A multiple regression was conducted to predict support for defunding the

police based on all five engagement with media scale variables, police behavior, legitimacy, and training, support for police use of traditional and militaristic equipment, and police response to protest. In addition to these variables, the binary demographic variables, police contact, political orientation, and self-control variables were included. The overall model was significant, $F(18, 44) = 12.419$, $p < .001$, $R^2 = .836$. Approximately 76.8% of the variance of support for the Defund the Police movement can be accounted by the linear relationship of the variables. There were five significant individual predictors of support for defunding the police, and they are reported below.

Following traditional media platforms was a significant predictor of support for defunding the police ($b = -1.049$, $p < .01$). This means that as participants followed traditional media platforms—local and national broadcast news networks and print newspapers—more closely, the less likely they are predicted to support defunding the police. More specifically, for every increase in how closely participants followed traditional media platforms, there was a predicted decrease of 1.049 in their score for defunding the police. Conversely, following alternative media platforms ($b = 1.413$, $p < .01$) increased the predicted score for defunding the police by 1.413, so those that more closely followed alternative media platforms—protest-oriented sites and social media—were more likely to support defunding the police. The dynamic of these two predictors clearly supported the second hypothesis, which stated that more consumption of alternative media would be correlated with greater support for defunding the police. Furthermore, these results offered some support for the first hypothesis, which predicted a polarity of support and dissent for the movement based on greater media engagement. To better examine whether there was significant polarity, the number of minutes participants spent was analyzed. Although how closely participants followed particular platforms was a significant

predictor, the number of minutes they spent on the platforms was not (*Minutes on Media*, b = 1.221, $p > .05$, *Minutes on Alternative Media*, b = -2.183, $p > .05$); these variables, however, were approaching significance at the p = .1 level (*Minutes on* Media, p = .143, *Minutes on Alternative Media*, p = .094). Thus, full support for the first hypothesis is undermined, and it is therefore only partially supported.

Two scale variables of interest were significant predictors in the model: police legitimacy and militaristic equipment. Perception of police legitimacy was the overall most significant predictor of support for defunding the police (b = -.981, $p < .01$), meaning that the more legitimate participants believe the police to be, the less supportive they are predicted to be of defunding the police. Interestingly, despite the strong, positive relationship between police legitimacy and police behavior ($r(81)$ = .79, $p < .01$), police behavior (b = .277, $p > .05$) was not a significant predictor. Perception of militaristic equipment (b = -.712, $p < .05$) was the only significant police militarization predictor of support for defunding the police. The more supportive participants were of the use of militaristic equipment (automatic machine guns, sniper rifles, stun grenades, grenade launchers, and armored vehicles), the lower their predicted score for defunding the police was. Examination of these two significant predictors reflects the contextualization of the Defund the Police movement in the literature review.

Political orientation (b = -1.355, $p < .01$) was the final significant predictor in this model; the more conservative the participant, the less supportive they are predicted to be of defunding the police, which aligns with the findings of previous research (Fix & Fix, 2020; Haider-Markel & Joslyn, 2017; Perkins & Bourgeois, 2006). Though political orientation was anticipated to be a necessary control and ultimately proved significantly predictive, the other control variables of interest, specifically race (b = 1.196, $p > .05$), police contact (b = -.410, $p > .05$), and self-control

($b = .038$, $p > .05$) were not. It is suspected that these results may be at least partially due to the

small sample size ($N = 85$), as well as the limitations of a binary race variable, and the lack of a

comprehensive police contact question. See Table 9 for the results of the multiple regression.

Table 9. *Multiple Regression for Defunding the Police*

Coefficients	*b*	*SE*	*Beta*
Constant	57.801*	11.530	
Followed Traditional Media	-1.059*	.346	-.303
Followed Alternative Media	1.413*	.454	.413
Minutes on Media	1.221	.820	.421
Minutes on Alternative Media	-2.183	1.276	-.525
Police Behavior	.277	.253	.144
Police Legitimacy	-.981*	.221	-.718
Police Training	-.278	.435	-.059
Traditional Equipment	.483	.279	.228
Militaristic Equipment	-.712**	.341	-.270
Police Response to Protest	.054	.344	.023
Gender	.774	2.041	.028
Ethnicity	-1.281	2.793	-.037
Race	1.196	1.934	.057
Neighborhood	1.335	1.770	.063
Major	-2.938	1.823	-.137
Political Orientation	-1.355*	.590	-.242
Police Contact	-.410	2.027	-.017
Self-Control	.038	.133	.022
Model Summary	12.419	4.916	
R-Squared		.836	
Adjusted R-Squared		.768	

Note. * $p < .01$, ** $p < .05$.

Discussion

The purpose of this research study was to analyze the relationship between the frequency

and type of media engagement and perceptions of the Defund the Police movement. Based on the

findings in previous literature on the development of the movement and the influence of modern

media on public perceptions of the police and on protest, two hypotheses were established.

Results indicated partial support for the first hypothesis because the multiple regression

concluded that how closely participants followed media platforms (both traditional and

alternative) predicted lesser or greater support for the movement, respectively. Where this

hypothesis lacks full support is the number of minutes participants followed the media platform,

which was not determined to be a significant predictor of support at the appropriate $p = .05$

significance level. This hypothesis would have most likely achieved significance at the $p = .05$

level had the sample size ($N = 85$), been larger. This small sample size is further reflected on in

this discussion under *Limitations*. In spite of only receiving partial support, Coser's (1957)

conflict functionalism, Cohen's (1972) moral panic, and Watson's (2019) militant evidence

theories are reflected in the study's results.

This study's results also demonstrated full support for the second hypothesis, as the

multiple regression predicted greater support for defunding the police based on more engagement

with alternative media. These results are aligned with the findings by Boyle and Schmierbach

(2009) regarding the role of alternative media, protest-oriented sites and social media, in citizen

activism and protest. When examining the overall support for the hypotheses, as demonstrated by

the Pearson correlations and the multiple regression, it is clear that media consumption

significantly impacted the public's perceptions of the Defund the Police movement. The

theoretical foundations for analyzing the influence of the media on perception of the movement

(Blackstone et al., 2017; Boivin et al, 2017; Boyle & Schmierbach, 2009; Chermak et al., 2006;

Dowler & Zawilski, 2007; McLeod, 1995; Parry et al., 2019) was appropriate and sufficiently

answered the research question.

Beyond media consumption, however, the results also lend credibility to the foundations of the new movement which the literature attempted to contextualize for the first time (to the researcher's knowledge). Police legitimacy (Sunshine & Tyler, 2003; Tyler, 2003), the argued framework through which to view the movement, was conclusively the most significant predictor of support for the Defund the Police movement in the regression. The results heavily suggest that those who support defunding the police are less likely to perceive the police as a legitimate authority to defer to, and they raise major implications for the response of police departments amidst public attention and scrutiny. These results are all that more relevant when considering the recent killing of the 20-year-old Black man, Daunte Wright, this past April 11, 2021, and the protests that quickly followed (*The New York Times*, 2021). Moreover, elements of police militarization, specifically the use of militaristic equipment such as automatic machine guns and armored vehicles by police, are also present in this study's findings: significantly strong negative associations were found that held even after the performance of the multiple regression. The limited previous literature into police militarization supports this finding (Lindsey-Poland, 2016; Moule et al., 2019; Steidley & Ramey, 2019), although more research into perceptions of police militarization is needed.

Political orientation was the only demographic that remained significant in the multiple regression, and the existing literature into the influence of political orientation and perceptions of law enforcement-citizen homicides (Fix & Fix, 2020; Haider-Markel & Joslyn, 2017; Perkins & Bourgeois, 2006) and perceptions of misuse of force (Haider-Markel & Joslyn, 2017; Perkins & Bourgeois, 2006) reflects this conclusion. Because more conservative ideologies were found to predict less support for defunding the police, there are several implications that should be considered if the movement and its supporters are to gain more traction and successfully

campaign for law enforcement and policing reform. The necessity of using and appealing to conservative sentiments to gain more support is one such implication that is raised. However, despite the positivity of the results and their support for the hypotheses, it is necessary to recognize this study's limitations, of which there are several.

Limitations

One of the major limitations of this study concerns the sample and data collection. Firstly, the sample was relatively small ($N = 85$), which can be attributed to the relatively small social scope of the singular researcher, attendance at a small university, and the notoriously lower response rates of electronic surveys. Secondly, the nonprobability availability sampling method is not conducive to highly generalizable results, and so the extent to which the results of this study can be generalized to the American public must not be taken lightly. Expanding on the complexity of the sampling method, particularly the selection of a probability method, would most likely yield different results. Thirdly, the time at which the data was collected occurred nearly a year after the murder of George Floyd and the summer 2020 protests and asking participants to recall the amount of media they consumed (especially the number of minutes they consumed) likely undermined the validity of participant responses. Fourthly, by the time IRB approval was granted and data collection began, Derek Chauvin's trial had begun (Bogel-Burroughs & Arango, 2021), which may have introduced bias into the responses as well.

A second major limitation of this research study concerns its measures. Most significantly, it heavily relied on measures that have not yet been rigorously tested by the larger scientific community. Although they achieved the necessary inter-item reliability by reporting Cronbach Alphas greater than .6 in the creation of the many scale variables this study required, additional review and piloting is strongly recommended. Furthermore, the measures that were

found, items from the Appropriate Police Behavior and Legitimacy Scale (Trinkner et al., 2018) and the Attitudes Towards Police Legitimacy Scale (Reynolds et al., 2018) were limited in number, and therefore did not encompass the full range of police behavior and police legitimacy; this may have impacted participants overall scores in perceptions of police behavior and police legitimacy. This may be the reason that police behavior was not a significant predictor in the regression model. Additionally, the police contact measure was very narrow in its definition of contact and should have been expanded to include other common interactions with the police to provide more valid results.

A third major limitation of this study concerns its data. A more holistic approach to the demographics would have strengthened this study. As mentioned, gender and neighborhood demographics had data that was recoded as missing to create binary variables for the multivariate analysis. This keen effect is only compounded when considering the already small sample size ($N = 85$). A stronger intersectional approach would introduce more valid results and better contribute overall to our understandings of historically scientifically underrepresented populations, like transgender and nonbinary individuals, and people from rural communities. Future research should attempt to understand the role of media consumption on perceptions of police and protest with respect to these populations.

Future Directions

In spite of its limitations, this study offers countless opportunities for further research. In regard to media engagement in particular, what influence on perceptions of the Defund the Police movement did specific platforms, newspapers, websites, social media sites, or news channels have? What tone did these platforms adopt toward the movement, and how did this influence the perceptions and misconceptions of their audiences? What themes were present in

the media on discussions about the death of George Floyd and the George Floyd protests? How did the Covid-19 pandemic affect media coverage of the events?

There are also many directions for further analysis of the Defund the Police movement in general. For example, how do people define "defunding the police" and how does that influence their support for it? How would defunding the police impact police roles and performances? Police behavior and police legitimacy in relation to support for the movement offer multiple directions for future research as well, such as determining which aspects of behavior or legitimacy positively or negatively impact perceptions of the Defund the Police movement. Lastly, this study provides important directions for the public's perception of the militarization of the police, especially because current research is extremely limited. Research topics worth examination are the types of police responses to protest and their influence on perceptions of protest, protesters, and the movement itself, why people support certain types of equipment more than others, and the public's understanding and perception of police training. Future research is critical to better understanding the foundations and goals of the Defund the Police movement because law enforcement reform has become a hotly contested political issue.

Conclusion

This study is among the first to research the Defund the Police movement. It has attempted to contextualize the movement through the lens of police funding, police militarization, the history of police brutality and the movements that have arisen in response to it, and the tenets of a procedural justice (police legitimacy) theoretical orientation. This research importantly sought to determine the relationship between media consumption and support for defunding the police and yielded positive results as to its role in public's perceptions under bivariate and multivariate analyses. Since the beginning of this study in late 2020, much related

to the death of George Floyd and the Defund the Police movement has occurred, including not only the conviction of George Floyd's murderer, Derek Chauvin (Bogel-Burroughs & Arango, 2021), but also the continued killings of young Black men by police (*The New York Times*, 2021). The Defund the Police movement has also inspired harsh legislation like the controversial anti-riot bill in Florida (Clark, 2021), which will severely impact American citizens' ability to protest against police brutality and demand accountability. These recent events only serve to highlight the importance of researching and understanding law enforcement reform like the reform championed by the Defund the Police movement this past year, and it is the sincere hope of the researcher that this study will inspire more research.

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Appendix A

Measures for assessing engagement with the media were adapted from the June 2015 Clear

Voice Survey (Haider-Markel & Joslyn, 2017) and Intravia et al. (2018).

Questions 1–8 were measured on a Likert Scale 1 = Did Not Follow, 2 = Not Too Closely, 3 =

Fairly Closely, and 4 = Very Closely (Haider-Markel & Joslyn, 2017). Questions 9–12 were

measured on a Likert Scale 1 = None, 2 = 60 minutes or less, 3 = 61-120 minutes, 4 = 121-180

minutes, 5 = 181-240 minutes, and 6 = 241 minutes or more (Intravia et al., 2018).

Scales: *Followed All Media* (questions 1–8), *Followed Traditional Media* (questions 1–2 and 5–

6), *Followed Alternative Media* (questions 3–4 and 7–8), *Minutes on Media* (questions 9 and 11–

12), and *Minutes on Alternative Media* (questions 11–12).

1. How closely did you follow the news about the death of George Floyd on <u>local and
   national broadcast news networks</u>?

2. How closely did you follow the news about the death of George Floyd in <u>print
   newspapers</u>?

3. How closely did you follow the news about the death of George Floyd on <u>protest-oriented
   sites such as Black Lives Matter</u>?

4. How closely did you follow the news about the death of George Floyd on <u>social media
   sites</u> such as Twitter, Instagram, Snapchat, TikTok and Facebook?

5. How closely did you follow the news about the George Floyd protests during the summer
   of 2020 on <u>local and national broadcast news networks</u>?

6. How closely did you follow the news about the George Floyd protests during the summer
   of 2020 in <u>print newspapers</u>

7. How closely did you follow the news about the George Floyd protests during the summer of 2020 on <u>protest-oriented sites such as Black Lives Matter</u>?

8. How closely did you follow the news about the George Floyd protests during the summer of 2020 on <u>social media sites</u> such as Twitter, Instagram, Snapchat, TikTok and Facebook?

9. In a typical week, how much time did you spend watching a <u>local or national television news broadcast</u> about George Floyd's death and the George Floyd protests?

10. In a typical week, how much time did you spend <u>reading a local newspaper</u> about George Floyd's death and the George Floyd protests?

11. In a typical week, how much time did you spend on <u>protest-oriented sites such as Black Lives Matter</u> about George Floyd's death and the George Floyd protests?

12. In a typical week, how much time did you spend on <u>social media sites</u> such as Twitter, Instagram, Snapchat, TikTok and Facebook reading about George Floyd's death and the George Floyd protests?

Appendix B

Measures for assessing perceptions of police behavior and legitimacy were adopted from the Appropriate Police Behavior and Legitimacy Scale (Trinkner et al., 2018) and the Attitudes toward Police Legitimacy Scale, or APLS (Reynolds et al., 2018).

Questions 1–7 were measured on a Likert Scale 1 = Never, 2 = Rarely, 3 = Sometimes, 4= Often, and 5 = Always. Questions 8–14 were measured on a Likert Scale 1 = Strongly Disagree, 2 = Somewhat Disagree, 3 = Neither Agree nor Disagree, 4 = Somewhat Agree, and 5 = Strongly Agree.

Scales: *Police Behavior* (questions 1–7), and *Police Legitimacy* (questions 8–14).

1. How often do the police treat people with dignity and respect?

    2. How often do the police try to do what is best for the people they are dealing with?

    3. How often do the police give people a chance to tell their side of the story before they decide what to do?

    4. How often do the police make decisions based upon the law and not their personal opinions or biases?

    5. How often do the police explain their decisions and actions in ways that people can understand?

    6. When the police deal with people they almost always behave according to the law.

    7. How often do the police respect people's rights

    8. The police often arrest people for no good reason.

    9. The presence of police makes me feel safe

    10. If I have a problem, I feel confident that the police can help me solve it.

11. I can rely on police officers to ensure my safety.

12. Police officers take their duty to protect and serve seriously.

13. Law enforcement agencies hire the best people available.

14. Police officers are held to higher standards than regular citizens.

Appendix C

Measures for assessing perceptions of police militarization. Only questions 7–16 were found in existing literature (Wozniak et al., 2020). All other measures were created and piloted.

Question 1 was measured on a scale of 1 = Very Under Armed, 2 = Slightly Under Armed, 3 = Adequately Armed, 4 = Slightly Over Armed, and 5 = Very Over Armed. Questions 2 and 6, and 17–20 were measured on a Likert Scale (1 = Strongly Disagree to 5 = Strongly Agree). Questions 3–5 were measured on a scale of 1 = Very Under Trained, 2= Slightly Under Trained, 3 = Adequately Trained, 4 = Slightly Over Trained, and 5 = Very Over Trained. Questions 7–16 were measured on a scale of 1 = Strongly Oppose to 5 = Strongly Support (Wozniak et al., 2020).

Scales: *Police Training* (questions 3–6), *All Equipment* (questions 7–16), *Traditional Equipment* (questions 7, 10–11, 13, and 15), *Militaristic Equipment* (questions 8 – 9, 12, 14, and 16), *Police Response to Protest* (questions 17–20).

1. How would you rate the equipment of police officers?
    2. The police have the right equipment to protect the public.
    3. How would you rate the training of police officers in <u>using equipment</u>? *Training includes both time spent at the police academy and throughout their time as police officers.*
    4. How would you rate the training of police officers in <u>conducting raids</u>? *Training includes both time spent at the police academy and throughout their time as police officers.*
    5. How would you rate the training of police officers in <u>de-escalation techniques</u>? *Training includes both time spent at the police academy and throughout their time as police officers*

6. The tactics police are trained to use protect the public. *For this question, tactics include the use of equipment, conducting raids, and de-escalation techniques*

7. Handguns

8. Automatic Machine Guns

9. Sniper Rifles

10. Tasers

11. Tear Gas

12. Stun Grenades

13. Handcuffs

14. Grenade Launchers

15. Riot Shields

16. Armored Vehicles

17. Police response to <u>peaceful</u> protesters is justified.

18. Police response to <u>nonpeaceful</u> protesters is justified.

19. Police response to <u>peaceful police protesters</u> is justified.

20. Police response to <u>nonpeaceful police protesters</u> is justified.

Appendix D

Measures assessing perception of police funding. Questions 11–12 were adapted from Jackson & Silverstein (2020) and Russonello (2020). All other measures were created and piloted.

Questions 1–2 were measured on a scale of 1 – Very Under Funded, 2 = Slightly Under Funded, 3 = Adequately Funded, 4 = Slightly Over Funded, and 5 = Very Over Funded. Questions 3–10 were measured on a Likert Scale of 1 = Strongly Disagree to 5 = Strongly Agree. Questions 11–12 were measured on a scale of 1 = Strongly Oppose to 5 = Strongly Support.

Scale: *Defunding the Police*, (all questions).

1. How would you rate the funding <u>your local police department</u> receives?

   2. How would you rate the funding <u>American police in general</u> receive?

   3. <u>My local police department</u> efficiently uses its funding to <u>prevent</u> crime.

   4. <u>American police departments in general</u> efficiently use their funding to <u>prevent</u> crime.

   5. <u>My local police department</u> efficiently uses its funding to <u>address</u> crime. *Addressing crime is defined as managing or solving crimes.*

   6. <u>American police departments in general</u> efficiently use their funding to <u>address</u> crime. *Addressing crime is defined as managing or solving crimes.*

   7. Funding the police is the best way to <u>prevent</u> crime.

   8. Funding the police is the best way to <u>address</u> crime. *Addressing crime is defined as managing or solving crimes.*

   9. Funding social programs (such as social services, youth services, housing, education, and healthcare, etc.) is the best way to <u>prevent</u> crime.

10. Funding social programs (such as social services, youth services, housing, education, and healthcare, etc.) is the best way to <u>address</u> crime. *Addressing crime is defined as managing or solving crimes.*

11. How strongly do you support proposals to move some money currently going to police budgets into better officer training, local programs for homelessness, mental health assistance, and domestic violence?

12. How strongly do you support the Defund the Police movement?

Appendix E

Measures assessing self-control. Questions were sourced from the Brief Self-Control Scale—8 Item Version (Maloney et al., 2012).

All questions measured used the scale 1 = Not At All Like Me, 2 = Somewhat Not Like Me, 3 = Neutral, 4 = Somewhat Like Me, and 5 = Very Much Like Me.

Scale: *Self-Control* (all questions).

1. I do certain things that are bad for me if they are fun.

    2. Pleasure and fun sometimes keep me from getting work done.

    3. Sometimes I can't stop myself from doing something, even if I know it is wrong.

    4. I often act without thinking through all of the alternatives.

    5. I am good at resisting temptation.

    6. I have a hard time breaking habits.

    7. I wish I had more self-discipline.

    8. People would say that I have iron self-discipline.

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Race and Friends: Perceptions of Ethnic Groups through Intergroup Friendships

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**Abstract**

The existing history of discrimination and ignorance in the United States has become the perfect recipe for racial tension and division among ethnic minorities. Through understanding historical and environmental factors, dominative and aversive racism, as well as race and ethnicity, this research seek to find the relationship between positive intergroup contact and its effects on perceptions on ethnic groups. The premise of Intergroup Contact Theory bores the idea that prejudice can be reduced most effectively in intergroup friendships marked by four conditions: common goal, intergroup status, intergroup cooperation, and support from authorities. Through non-probability available sampling method, surveys were administered to 119 students at Cabrini University to analyze intergroup contact and intergroup contact attitudes. Results showed multiple significant Spearman correlation coefficients that support the conditions of Intergroup Contact Theory (Contact Hypothesis).

Keywords: *intergroup friendships, ethnic groups, intergroup contact attitudes, contact hypothesis, aversive racism, dominative racism*

*Researcher's Note*: The decapitalization of whites in this research paper is to bring awareness to the hindrance of scholars of color in academia.

## Introduction

The minorities of the United States have been experiencing multitudes of hate crimes and discrimination. For Asian Americans, however, the beginning of the coronavirus pandemic, anti-Asian hate crimes has surged at an alarming rate. According to Center for the Study of Hate and Extremism (2020), anti-Asian hate crimes have risen 149 percent across the United States.

Moreover, reports from Jeung, Lim, Horse, and Popovic from Stop AAPI Hate (2020) showed that almost 40 percent of hate crimes occur in places of businesses, followed by public streets and sidewalks. While Chinese Americans are the most affected group, other Asian groups make up 60 percent of the victims to these hate crimes – hate crimes include verbal harassment, physical assault, vandalism, workplace discrimination, banned from establishments and transportations, shunned, and online (Jeung et al., 2020). The root of this discrimination is attributed to impeached President Trump's response to the pandemic in which he calls the virus "China virus" (Lucey & Parti, 2021). This racist response derived from one of two basic forms of racism: dominative racism. In contrast with aversive racism, where the racist guards themselves from the ethnic group, dominative racists choose violence and pushes the ethnic group away (Hagendoorn & Kleinpenning, 1993). President Trump's dominative racist response has essentially fueled the rise of anti-Asian hate crimes; Ruiz, Horowitz, and Tamir from Pew Research Center (2020) found that 3 in 10 Asians experience verbal harassment since the start of the pandemic. Additionally, victims of anti-Asian hate crimes are frequently targeted by white perpetrators (Jeung et al., 2020).

On March 16, 2021, eight Asians, two men and six women, were murdered in a tragic shooting in Atlanta by a 21-year-old white man who was arrested without incident (Bryson-Taylor & Hauser, 2021). Officers were sympathetic towards the shooter and provided justification for his actions, claimed the perpetrator was "having a bad day" (Chappell, Diaz, & Romo, 2021). Many perpetrators of hate crimes, whether anti-Asian or not, have predominantly been white people, and this is not of rare occurrence. The relationship between whites and Asians are ingrained in upholding the white superiority, or ethnocentrism (Hagendoorn & Kleinpenning, 1993). In educational institutions, specifically, Asian students are often

stereotyped as "honorary whites" and perceived as more favorable by whites, who usually take on authoritative positions, compared to Black and Latinx students (Bikmen, 2011). Furthermore, Asians minority status are also different than the status of Black people; Asians are voluntary minorities in which their ancestors migrated voluntarily for political and economic reasons as opposed to Black people who are involuntary minorities – where their ancestors were forced to migrate as slaves (Ogbu, 1987). The difference in minority status plays a key role in anti-Asian hate crimes. Because Asians are voluntary minorities, harassment from whites frequently consist of placing blame on Asians for the virus, particularly East Asians to "go back to where you came from" (Jeung et al., 2020).

The cause of hate crimes is embedded in dominative racism and the motives of the crimes can be associated with the absence or lack of intergroup contact, which is defined as the experience one has with diversity through friendships (Martin, Nakayama, & Trego, 2010). Studies have shown that the predominance of whites in organizations, such as Greek life in college, become forces of the normalization of whiteness, or retaining white supremacy ideals (Joyce, 2018). Conversely, Martin et al (2010) report that college students with interracial roommates are more likely to have positive racial attitudes as opposed to having intragroup contact, such as having more or strictly white friends which heightens perception of discrimination and lowers ethnic activism (Tropp, Hawi, van Laar & Levin, 2012).

To examine the factors that contribute to the formation of intergroup friendships and its influence on perceptions of ethnic groups, historical contexts and environmental factors must be considered. Historical context determines the friendships that will be formed; for instance, family beliefs can influence friendship makeup, like Asian students avoiding interactions with Black students due to cultural anti-Black beliefs (Way & Chen, 2000). Environment is also vital in

explaining how students form friendships; Black students are more likely to form friendships with whites if placed in a predominantly white setting (Ogbu, 1987; Way & Chen, 2000). Likewise, if a student is placed in a more racially diverse setting, creating friends who are more racially diverse, although historical context still affects these friendships makeup (Ogbu, 1987; Rosenbloom & Way, 2004).

Race and racism play a critical role in examining perceptions of ethnic groups as different races have different experiences, creating an asymmetrical effect between ethnic groups (Bikmen, 2011). In certain circumstances, racial groups tend to self-segregate, or balkanize, into their own homogenous friend groups in search for a sense of connectedness or avoidance of uncomfortable situations (Antonio, 2001; Thelamour, Ezeofor, & Mwangi, 2019). While the form of racism that often motivates balkanization is not explicit, it must be analyzed to understand why ethnic students retreat to their homogenous group of friends (Antonio, 2001; Hagendoorn & Kleinpenning, 1993). Moreover, these apparent factors need to be discussed to acknowledge the persistent negative attitudes and discrimination of ethnic groups in institutional settings, like college campuses. More importantly, it is critical to examine these factors to understand the rise in hate crimes and prevent it before it gets severe, like the shootings in Atlanta, Georgia.

## Literature Review

### Race and Ethnicity

While acknowledging that sometimes racial groups balkanize into their homogenous groups of friends, it is necessary to examine the reason behind this and why they retreat from intergroup friendships (Antonio, 2001; Rosenbloom & Way, 2004; Stearns et al., 2009). First and

foremost, the concept of race must be defined. Omi and Winant (1994) describe race quite ambiguously, stating that "…to interpret the meaning of race is to frame it social structurally" (p. 199). Following this definition, whites are the primary perpetrator of negative perceptions of ethnic groups, especially during the peak of cultural adversities. Consequently, Asians, Latinx, and Black people are the primary ethnic groups of this study due to the status and social identities given to these groups; however, it is crucial to understand the different status among them. Although Asians, Latinx and Black people are grouped as ethnic, they do not experience the same adversities (Tropp & Pettigrew, 2005).

The definition and historical context of race outlines the reason behind self-segregation, or balkanization, into homophilous friendships. The most common reason is the search for connectedness—a sense of belonging and cultural similarities in the environment (Hamm, 2000; Chang & Samson, 2018; Thelamour et al., 2019). In predominantly white colleges, Black students are prone to be excluded as there are fewer Black students that would be needed for belongingness. As a result, Black students would retreat to homophilous friendships and cultural clubs, like the Black Student Union to fulfill their search for connectedness (Thelamour et al., 2019). Similarly, Asians who are in intergroup friendships are more likely to experience symptoms of depression as disagreements easily arises in these friendships (Chang & Samson, 2018; Tropp & Pettigrew, 2005). While intergroup friendships may have their risks and disapproval from ethnic groups, it is the opposite for whites. According to Rivas-Drake et al. (2019), bias against ethnic groups decreased when whites maintain intergroup friendships; this indicated that intergroup friendships benefit whites more than ethnic groups. Nevertheless, intergroup friendships are necessary in order to improve intergroup contact and relations (Rivas-

Drake et al., 2019; Rosenbloom & Way, 2004; Saguy, Dovidio, & Pratto, 2008; Tropp & Pettigrew, 2006).

**Historical Context and Environmental Factors**

Historical context is important in friendship makeup as racial adversities, such as segregation of schools, are less prominent now than in the 1960s (Dovidio & Gaertner, 2004; Stearns et al., 2009). For many, college provides the first opportunity for whites to interact in a close racially diverse social setting as many adolescents tend to form homophilous – attraction to similar other – friendships (Hamm, 2000; Stearns et al., 2009). Rosenbloom and Way (2004) observed variations among a diverse student body in an urban high school and found that status of students is supplementary to formation of friendships. For instance, students who are recent immigrants are more likely to search for friends of their own race; Asian students who are recent immigrants would befriend those who are also Asian as language barriers and sociocultural differences with other non-Asian students prevent them from engaging in intergroup friendships (Antonio, 2001; Rosenbloom & Way, 2004). Comparably, Black students also search for friends who share the same ethnic identity (Hamm, 2000; Rosenbloom & Way, 2004). This is due to similar experiences and status given to Black students by authorities, such as teachers expecting Black students to perform poorly in academics and behaviors (Rosenbloom & Way, 2004). As such, homophilous friendships are formed when similar attitudes and status are shared among an ethnic group (Hamm, 2000; Stearns et al., 2009).

In association with historical context, environment is essential to the factors of creating intergroup friendships. Environment, like college campuses, provides a space for intercultural competence to grow (Joyce, 2018; Stearns et al., 2009). In historical organizations, like Greek

life fraternities and sororities, the tradition of recruiting primarily white members maintain white supremacy ideals, but it does not affect intercultural competence (Joyce, 2018). Through this instance, it implies how environment is crucial in maintaining and developing positive intergroup friendship. Therefore, lack of intergroup friendships can continue unchanging white supremacy ideals and ethnocentrism – the idea in which one's own group is the standard for reference; hence, ultimately promoting negative attitudes and behaviors toward ethnic groups (Segall, 1979; Sumner, 1906).

**Aversive and Dominative Racism**

The two basic forms of racism that is often used to explain the racism whites perpetrate are  aversive and dominative racism (Hagendoorn & Kleinpenning, 1993). The first  form, aversive racism, emerges from behaviors and/or attitudes towards ethnic groups that may contribute to increased negative perceptions (Dovidio & Gaertner, 2004). Aversive racists tend to socially distance themselves from ethnic groups, thereby, allowing negative feelings to motivate their behaviors without explicitly denying the need for ethnic equality (Hagendoorn & Kleinpenning, 1993). Specifically, whites are more likely to see race through colorblindness, such as only seeing viewing the issue of race and racism as only skin color (Hagendoorn & Kleinpenning, 1993; Martin et al., 2010; Joyce, 2018; Rosenbloom & Way, 2004; Stearns, Buchmann, & Bonneau, 2009). This further perpetuates the negative perceptions of ethnic groups as race and racism  is deeper than the color of one's skin. It is important to remember that social race categorization by skin color is almost instantaneous for whites due to sociocultural influences and historical contexts of prejudice (Omi & Winant, 1994).

The dilemma of aversive racists who view race color-blindly is that they struggle with pursuing egalitarianism while battling the social and personal forces that promote prejudice and discrimination towards ethnic groups (Myrdal, 1944; Dovidio & Gaertner, 2004). White teachers in racially diverse schools embody this dilemma well; they strive to be inclusive yet may subconsciously discriminate against Black and Latinx students by expecting them to behave differently than other students (Rosenbloom & Way, 2004). Similarly, ethnic students themselves want to idealize egalitarianism, yet stereotyping one another prevents them from doing so (Rosenbloom & Way, 2004). Essentially, by observing race as only color, aversive racists can get away from the stigma of overt racism and retain a nonprejudiced self-image (Dovidio & Gaertner, 2004).

The second form, dominative racism, contradicts aversive racism (Hagendoorn & Kleinpenning, 1993). Kovel (1970) describes dominative racism as such:

> It is real because today, the dominative racist's fantasies take the form of a need to use direct force to keep the other inferior…The major difference between these styles of racist experience can be seen in the structure of the superego. In the dominative racist (of today) the superego is incomplete and harsh, taxed with the suppression of vivid fantasies and hobbling adaptive action, whereas the superego of the aversive racist functions in a smoother and unified way. The self of the aversive racist is realized as a more socially coherent system within bourgeois culture, and such articulation may result in exceedingly principled activity (pg. 58, 60).

In the quote presented, Kovel (1970) explained that dominative racism originates from the Old South ideals, where whites expect non-whites, particularly Black people, to stay in their place

and if they step out of their place, they receive consequences. Kovel (1970) also mentioned the superego of the dominative racist; this means that dominative racists struggle with controlling their sadistic impulses which motivates their violence. This can be applied to Black people's status of involuntary minorities in which the discrimination that is faced surrounds that of historical tension during the slavery era, followed by constant torture and violence (Ogbu, 1987). One recent example is the case of Tamla Horsford, a Black woman found dead during a sleepover party with white women in Georgia. The incident was then dismissed due to lack of evidence and corrupt use of power (Pelisek & Truesdell, 2020). Aversive racists, on the other hand, can regulate their impulses more cohesively. Both forms of racism present a problem as aversive and dominative racists do not meet the conditions needed to foster positive intergroup friendships.

**Theoretical Framework**

The present study examines perceptions of ethnic groups through intergroup friendships using Intergroup Contact Theory (Pettigrew, 1998; Tropp & Pettigrew, 2005). Intergroup Contact Theory was formerly Allport's Contact Hypothesis (Allport, 1954). The premise of Intergroup Contact Theory conveyed the idea that prejudice can be reduced efficaciously in intergroup friendships in four conditions (Allport, 1954). For intergroup friendships to successfully form, first, it must hold equal group status within the situation. Secondly, it must share common goals. Thirdly, intergroup cooperation must be attained to achieve common goals, and lastly, it requires support from authorities (Allport, 1954; Pettigrew, 1998; Stearns et al., 2009). Recent empirical studies have added a condition to Allport's initial theory, intergroup friendships must be able to foster and developed, or in shorter words, have friendship potential (Pettigrew, 1998; Chang & Samson, 2018). Additional longitudinal research found that students

with more ethnic friends are more likely to have a positive perception of ethnic groups in the long run (Levin, van Laar, & Sidanius, 2003). The conditions listed provide the key needed for the research's predicted results: increased intergroup contact is associated with positive perception of ethnic groups.

**Hypothesis**

White students who are in fewer intergroup friendships have a more negative intergroup contact attitude, or a more negative perception of ethnic groups.

## Methodology

The present study was conducted using a non-experimental survey design and availability sampling. The survey was administered in the Spring semester of 2021 as part of the Research Methods II course at Cabrini University. With the approval of the Institutional Review Board (IRB), the survey was completed by N=119 students with consent through Google Forms. The researcher's independent and dependent variables were measured by 9 of the 37 questions of the survey. The data was collected through a series of approaches; survey was shared through email in a variety of classes with the instructor's permission. The survey was also completed through the researchers' network, such as clubs and sports teams.

**Materials**

The independent variable of this study is intergroup friendships. Intergroup friendship is defined as an individual racial and/or ethnic network of friends in addition to their experience with diversity through friendships (Martin et al., 2010). Of the 9 questions used for this research, the first 3 are used to measure intergroup friendships on a scale of 1 (not at all, none, never) to 6 (a lot, very often) adapted from Schmid, Hewstone, Tausch, Cairns and Hughes (2009). The first

question of intergroup friendships asks, "To what extent do you mix with, (e.g., chat with), members of ethnic communities in the area where you live?" 10.2% (n=12) participants answered 1=not at all and 18.6% (n=22) answered 6= a lot. The second question was, "About how many of your ethnic friends are from ethnic communities?" Out of the N=118 participants of this survey, 12.7% (n=15) answered 1=none and 13.6% (n=16) answered 6=a lot, followed by 28.8% (n=34) who answered 2, meaning very few. The third question used to measure intergroup friendships asks, "How often do you visit your friends who are from other ethnic communities in their home?" The answers are 1=never (21.9%, n=25) and 6=very often (9.6%, n=11), along with 29.8% (n=34) who answered 2, meaning once or twice. This question also receives the least number of responses (N=114). Detailed questions of the independent variable are provided in Appendix A.

The dependent variable measured for this research is intergroup contact attitudes. Intergroup contact attitudes, or ICA, can be defined as an individual's interest and valuing of intergroup contact experience (Rivas-Drake et al., 2019). Respondent's ICA are measured by 6 statements on a scale of 1 (strongly disagree) to 5 (strongly agree) taken from Rivas-Drake et al. (2019). The first statement of ICA was, "I like meeting and getting to know people from other ethnic groups other than my own." The responses showed about 53% (n=63) of respondents strongly agree with the statements while 1.7% (n=2) strongly disagree. Interestingly, the fourth question of the dependent variable which states, "I often spend time with people from ethnic groups other than my own" revealed that 42.2% (n=49) of respondents answered 3 on the scale, meaning neutral while only n=19 (16.4%) answered strongly agree. Of the dependent variable statements, this question receives the least responses, n=116, compared to the valid number of respondents (N=118). The full survey questions are provided in Appendix B.

**Demographics**

The sample of the survey consists of N=119 students at Cabrini University with 74.8% (n=89) females and 25.2% (n=30) males. Participants who completed the survey are predominantly majoring in School of Humanities and Social Sciences (34.6%, n=36) and School of Business, Media, and Arts (28.8%, n=30). The ages of the participants range from 18 to 23+ years old. About 34% (n=40) of the participants are 21 years old, 19.5% (n=23) are 23 years old and older, and only 8.5% (n=10) of the participants are 18 years old. The racial makeup of the survey shows that 76.1% (n=89) of the participants are white, 4.3% Asian (n=5), almost 8% (n=9) Black, 6% (n=7) Hispanic or Latinx, and only one individual identifies as American Indian or Alaskan Native. Further descriptive statistics of the sample participants is shown in Table 1.

Based on the National Center for Education Statistics (n.d.), or NCES, in Fall 2019, Cabrini University is composed of 61% female and 39% male. In racial demographics, 54% of Cabrini University students are white, 20% Black, 13% Hispanic or Latinx, and only 3% are Asian. While the sex demographics of the population and the survey sample size are close to be generalizable, the race makeup is quite disproportionate as there are an overwhelmingly higher percentage of white respondents than there are ethnic respondents.

Table 1. *Survey Demographics (N=119)*

| Variable | Percent | N |
|---|---|---|
| **Sex (as recorded at birth)** | - | 119 |
| Female | 74.8% | 89 |
| Male | 25.2% | 30 |
| **Major** | - | 104 |
| Business, Media, & Arts | 28.8% | 30 |
| Education | 14.4% | 15 |
| Humanities & Social Sciences | 34.6% | 36 |
| Natural Sciences & Allied Health | 16.3% | 17 |

|  |  |  |  |
|---|---|---|---|
|  | Other | 5.8% | 6 |
| **Age** |  | - | 118 |
|  | 18 - 21 | 68.7%31.4% | 8137 |
|  | 22+ |  |  |
| **Race** |  | - | 117 |
|  | American Indian or Alaskan Native | .9% | 1 |
|  | Asian | 4.3% | 5 |
|  | Black | 7.7% | 9 |
|  | Hispanic/Latinx | 6.0% | 7 |
|  | Multiracial | 5.1% | 6 |
|  | White | 76.1% | 89 |
| **Ethnicity** |  | - | 116 |
|  | None | 91.4% | 106 |
|  | Mexican, Mexican American, or Chicano | 2.6% | 3 |
|  | Puerto Rican | 2.6% | 3 |
|  | Other Hispanic/Latinx | 3.4% | 4 |

**Analytic Plan**

Following survey data collection, responses were exported into Statistical Package for the

Social Sciences, or SPSS into a large dataset and tests, as well as descriptive statistics were

analyzed. For this research in particular, a Spearman Correlation was conducted, given that the

measures were ordinal, to determine the relationship between the independent variable,

intergroup friendships and the dependent variable, intergroup contact attitudes (ICA).

**Results**

A Spearman Correlation was performed to examine the strength of the relationship

between intergroup friendships and ICA. The results produced multiple significant relationships

directly related to intergroup friendships and ICA. Among these significant relationships, two

correlation coefficients stand out amongst the others.

As shown on Table 2, there is a strong, positive relationship between the independent variable Mix_EthnicCom and Friends_EthnicCom, $r_s$ (116) = .641, $p$ <.01. This relationship suggests that the more a person mix, or hangout, with persons in other ethnic communities, the number of intergroup friendships will also be higher (41%). Furthermore, Friends_EthnicCom and the variable Mix_EthnicCom has a correlation coefficient of 48.7%, $r_s$ (116) = .698, $p$ <.01. This strong, positive relationship suggests that the more frequent a person mix with others from ethnic communities, the more frequent they visit an ethnic person's home as well. Although these correlation coefficients are significant, they are not related to the independent variable and the dependent variable. These results simply show and explain the relationship between the number of intergroup friendships and the social aspect of having more intergroup friendships.

The results related to intergroup friendships and ICA signifies multiple strengths of Intergroup Contact Theory . Most results show moderate to strong positive relationships, while few show weak negative relationships. Two results that supported the hypothesis more than others are variable Friends_EthnicCom and variable Time_DiffEG with a correlation coefficient of 30.7%, $r_s$ (116) = .554, $p$ <.01. This result implies that higher number of intergroup friendships positively correlate with spending more time with different ethnic groups. Additionally, variable Mix_EthnicCom and NotBefriend_EG has a 7% variance, $r_s$ (116) = -.264, $p$ <.01. This resultis particularly unique because it demonstrates that the less interaction with ethnic groups a person has, the more reserved one's friendship group become (i.e., intragroup as opposed to intergroup) (Martin et al., 2010; Tropp et al., 2012). Other results provide further support for these implications as well. Another significant result is between Mix_EthnicCom and Time_DiffEG with a correlation coefficient of 32.7%, $r_s$ (116) = .572, $p$ <.01. This result show

that the more frequent a person mix with ethnic communities in their area, the higher chance that

| Variables | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---|---|---|---|---|---|---|---|---|---|
| 1) Mix_EthnicCom | 1 | - | - | - | - | - | - | - | - |
| 2) Friends_EthnicCom | .641** | 1 | - | - | - | - | - | - | - |
| 3) Visit_EthnicCom | .698** | .655** | 1 | - | - | - | - | - | - |
| 4) MeetingDiff_EG | .238** | .409** | .370** | 1 | - | - | - | - | - |
| 5) Around_EG | .276** | .336** | .341** | .762** | 1 | - | - | - | - |
| 6) NotMixDiff_EG | -.092 | -.245** | -.181 | -.373** | -.303** | 1 | - | - | - |
| 7) Time_DiffEG | .572** | .554** | .541** | .313** | .421** | -.100 | 1 | - | - |
| 8) NotBefriend_EG | -.264** | -.298** | -.190* | -.225* | -.248** | .393** | -.179 | 1 | - |
| 9) Activities_EG | .600** | .419** | .502** | .406** | .422** | -.269** | .518** | -.130 | 1 |

they would be spending more time with other ethnic groups.

Table 2. *Spearman Correlation Results*

*p<.05 **p< .01

## Discussion and Conclusion

The objective of this research was to determine the effects and the relationships between intergroup friendships and positive intergroup contact attitudes (ICA). Based on existing literature and research, this research hypothesized that white students in fewer intergroup friendships will have a more negative ICA, or a more negative perception of ethnic groups. After performing Spearman Correlation, the results supported this hypothesis in more ways than one, that more intergroup friendships are positively associated with positive ICA. The initiative to begin this study is the need to understand what prompts hate crimes against, but not limited to,

Asians and other races. It is important to understand factors that may contribute to hate crimes and racially motivated incidents.

According to Intergroup Contact Theory, the results were significant and supported the hypothesis because of the four conditions needed to have successful intergroup friendships: first, there must be equal status within the situation. Given the study site and the population of students at Cabrini University, their status is equal, that they are college students. Second, intergroup friendships must form because of a shared goal. College students' one shared goal is to graduate with a bachelor's degree. Third, there must be intergroup cooperation to achieve said goal; in order to achieve the common goal, students must attend classes and participate. If there are no students attending, there is no class. Lastly, intergroup friendships should have support from authorities to developed. In this case, students are connected through professors, majors, roommates, sports teams, and clubs (Allport, 1954; Pettigrew, 1998; Stearns et al., 2009).

Moreover, the results signify that historical context and environmental factors are supplementary to intergroup friendship formation. Cabrini University is predominantly white (National Center for Education Statistics, n.d.) which makes it a predominantly white institution (PWI). The survey respondents were also 76.1% white. This fact is important because as stated by Rivas-Drake et al (2019), white students benefit more from intergroup friendships as it lowers their racial biases. Essentially, since Cabrini University is predominantly white, white students are more likely to benefit from befriending ethnic groups, which at the study site makes up about 24% of the sample population. This fact also implies that ethnic students are more likely to balkanize into their own ethnic groups in search for belongingness (Hamm, 2000; Chang & Samson, 2018; Thelamour et al., 2019). Additionally, PWIs have a history of attracting white students, much like Greek life primarily recruiting white members (Joyce, 2018). Likewise,

Cabrini University are likely to remain a PWI because of its white historical background. As such, ethnic students may be more likely to balkanize while white students continue to attempt diversity.

It is unclear whether whites who score low on the ICA questions are aversive racists or dominative racists, but the results stay valid – white students who are in more intergroup friendships are more likely to have positive ICA. The lack of intergroup friendships can result in negative ICA, which can provoke racially motivated incidents  (Tropp et al., 2012), much like the case of Tamla Horsford and the recent Asian spa shootings in Georgia (Bryson-Taylor & Hauser, 2021; Pelisek & Truesdell, 2020). In this research, there were no measures to test the two forms of racism  during a short period of time the study was conducted. Perhaps if this study is to be replicated, aversive and dominative racism can be measured.

Since the hypothesis focuses on white students and 76.1% of the respondents identify as white, this study is generalizable to the sample population. However, if to be replicated, other perspectives on ethnic groups through more diverse sites may be useful and beneficial to further understanding the importance of intergroup relations. As aforementioned, time constraint was also a limitation. If time permitted, the research would include other variables of interest, such as perception of ethnic groups through stereotypes and implicit racial biases, maybe through the race IAT test. The large discrepancy of sex of the respondents was also limited; almost 75% of the respondents are females, and 25.2% are males. If replicated, gender and sex of the respondents should be expanded and more equal. Ultimately, the limitations of this study did not affect the results. In fact, this study could be expanded into a mixed-methods study by adding qualitative methods to further understand racially motivated behaviors and attitudes and how it relates to lacking intergroup friendships.

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Appendix A

Survey questions used to assess independent variable "intergroup friendships."

Questions 1 to 3 are adapted from Schmid, Hewstone, Tausch, Cairns, & Hughes (2009).

1. To what extent do you mix with, (e.g., chat with), members of ethnic communities in the area where you live?

2. About how many of your friends are from ethnic communities?

3. How often do you visit your friends who are from ethnic communities in home?

Appendix B

Survey statements to assess dependent variable "intergroup contact attitudes."

Statements 4 to 9 adapted from Rivas-Drake, Saleem, Schaefer, Medina, & Jagers (2019).

4. I like meeting and getting to know people from ethnic groups other than my own.

5. I enjoy being around people from ethnic groups other than my own.

6. I sometimes feel it would be better if different ethnic groups didn't try to mix together.

7. I often spend time with people from ethnic groups other than my own.

8. I don't try to become friends with people from other ethnic groups.

9. I am involved in activities with people from other ethnic groups,

Regionality and the Political Gun Control Debate

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## Abstract

The 2012 mass shooting at Sandy Hook Elementary brought the ongoing gun control debate to its peak (Limieux, 2014). The current study seeks to gain insight into college students' opinions on gun control based on their political party affiliation and the rurality of the community they were raised in. This research defines regionality in terms of the rural/urban divide, where previous studies break the whole country into sections such as South, East, Northeast, and Midwest (Wallace, 2017). The researcher hypothesized that Republican students and those with rural backgrounds will be less likely to support stricter gun control than Democratic students and those with urban backgrounds. This is in part supported by statistics from the Pew Research Center, which determined that rural areas have higher populations of Republicans and right-leaning Independents, while urban areas have higher concentrations of Democrats (Parker et al., 2020). This study utilized quantitative research through the use of electronic surveys to collect data from Cabrini University students in the Spring 2021 semester. One-way analysis of variance tests were conducted, and results show that there is not a significant relationship between regionality and gun control opinions. The results did support the second hypothesis, in that this study found that Democratic students favor stricter gun control than Republican students and those who do not affiliate themselves with either of the two major parties.

**Introduction**

There has been a sharp positive trend in the number and frequency of mass shootings throughout the 20th century (Limieux, 2014; Vizzard, 2015). The 2012 mass shooting at Sandy Hook Elementary School brought the gun control debate to its peak with the creation of a presidential task force to identify solutions for mass shootings and gun violence (Limieux, 2014). However, no gun legislation has been passed at the federal level since the Clinton administration over two decades ago (Vizzard, 2015). Gun violence presently is a prevalent issue in the United States, but citizens are divided in their opinions on the Second Amendment which states that "a well regulated Militia, being necessary to the security of a free State, the right of the people to keep and bear Arms, shall not be infringed" (U.S. Const. amend. II). Gun control is a broad topic, but this study defines it as laws that would restrict access to firearms and decrease their prevalence in public. Gun enthusiasts support the Second Amendment and sometimes use claims such as "guns don't kill, people do." Those who align with the pro-gun control perspective argue for restrictions on gun accessibility, such as limiting the type of firearms that can be purchased as well as who can purchase and own guns, in hopes of limiting gun violence (Limieux, 2014). This division in gun control opinions is not evenly distributed throughout the country (Blocher, 2013).

Studies on gun control that examine regionality typically do so regarding the distribution of gun owners and opinions of gun control across the country with support for gun control found in southern and midwestern regions (Wallace, 2017). Blocher (2013) argues that we should push for differing legislation in rural areas and urban cities, instead of maintaining consistent gun laws state or nationwide, as violent gun crime is relatively rare in rural areas but is widespread in urban cities. There are a variety of reasons for gun ownership in the United States, and there are many arguments present for stricter gun control. Americans own guns in support of the second

amendment, as a protective measure, and for recreational uses such as hunting, among others (Stroebe, Leander, & Kruglanski, 2017). Yet, many Americans support stricter gun control regulations, due to the prevalence of violent gun crimes and mass shootings (Kleck, Gertz, & Bratton, 2009; Kruis, et al., 2020; Miller, 2019; Shepperd et al., 2018). Gun culture is more dominant and valued in certain areas of the United States, with differences not only from state-to-state, but also between cities, the suburbs, and rural areas (Blocher, 2013). The present study aims to determine how regionality and political party affiliation shape a student's opinion on gun control legislation, paying specific attention to the rural/urban divide in the gun control debate. College students are of particular interest for this study, due to the unique period of life they are encountering, with experiences including gaining more independence, stimulating their minds and furthering their education, and recently obtaining and hopefully practicing their right to vote.

## Literature Review

The second amendment to the United States Constitution states "the right of the people to keep and bear Arms, shall not be infringed" (U.S. Const. amend. II). The United States of America is one of only two countries, the other being Mexico, that define gun ownership as a right in its constitution. Other countries across the globe tolerate gun ownership but view it as a privilege rather than a right (Limieux, 2014). There have been many arguments and restrictions on who the "people" are that can bear arms and what type of "arms" they can bear (Blocher, 2013). The *Federal Assault Weapons Ban* of 1994 restricted public access to military-type weapons, but the bill subsequently expired in 2004. This bill was a subsection of the *Violent Crime Control and Law Enforcement Act,* more commonly known as the 1994 Crime Bill, which has been largely critiqued for its other policy implications, specifically concerning sentencing and the treatment of those deemed as criminals (Miller, 2019). Historically, support for gun

control was low (Squires, 2000). One scholar even stated that the relationship between gun laws and crime rates was non-existent (Murray, 1975). After reviewing FBI data, census materials, vital statistics, and Harris and Gallup surveys, Murray (1975) determined that there was not a significant effect on violent crime on a large enough proportion of the population to effectively limit access to handguns.

The American public's perception of the second amendment right had been wavering for decades, but questions about its necessity and a wide call for reform spiked following the Sandy Hook Elementary mass shooting in December of 2012. Despite this, no legislation concerning gun control has passed at the federal level since 1994 (Limieux, 2014). Miller (2019) describes a policy gridlock at the elite level that could explain the lack of federal gun legislation. The extreme difference in gun control opinions of political leaders is not an accurate reflection of the public's attitudes, as he found that most Americans favor stricter gun control, regardless of party affiliation. Additionally, federal gun laws are a hodgepodge and have exceptions that the public is often unaware of. To combat this, all 50 states have their own constitutions and laws regarding firearms and their permissibility in public spaces, such as college campuses (Birnbaum, 2013). These state laws are more stable and apply to everyone, whereas federal laws have inconsistencies such as prohibiting firearms from being carried in school zones unless the person has a concealed carry license (Nedzel, 2014). These state laws also appease the varying demographics in each state, as some states have higher concentrations of gun owners than others.

**Reasons for American Gun Ownership**

Some support gun ownership simply because they view it as their second amendment right (Stroebe, Leander, & Kruglanski, 2017), although there are additional purposes for Americans owning guns. Protection/self-defense is the number one reason Americans own guns

(Stroebe et al., 2017). A study conducted in 2017 used data from the National Crime

Victimization Survey (NCVS) to evaluate the psychology behind Americans' defensive gun

ownership habits (Stroebe et al., 2017). Their theory of defensive gun ownership states that

handgun owners maintain a Perceived Lifetime Risk of Assault (PLRA) as well as a Belief in a

Dangerous World (BDW). They specifically focused on handguns as other types of firearms

have intended purposes other than protection/self-defense, such as long guns being used for

hunting. Stroebe, et al., (2017) found that handgun ownership can be predicted by a person's

perceived risk of assault. Similarly, Dowler (2002) hypothesized that regular consumers of crime

media will develop a "mean world view" and feel that guns are logical and necessary protective

measures. The study found that crime show viewers are more likely to agree that being armed is

the best defense against criminals (Dowler, 2002). Even Americans who own guns for other

reasons can use protection/self-defense as an ulterior motive for the presence of firearms in their

household.

Hunting is the second most common reason for owning a firearm, following personal

protection (Wallace, 2017). Until the recent surge in defensive gun ownership, recreation,

including hunting, was the single most common reason for owning a gun in the United States

(Blocher, 2013). Squires (2000) describes a "frontier culture" that exists in America regarding

hunting. Hunting is becoming a dying sport, facing attacks from environmentalist, animal rights,

and anti-gun groups. Nevertheless, gun manufacturers maintain the image of cowboy culture,

and the media also promulgates this concept by recycling the idea of the Western frontier

(Squires, 2000). Kleck, Gertz, and Bratton (2009) use the self-interest perspective to explain that

gun owners will be less likely to support gun control. This would apply to Americans who own

firearms for any reason, including hunters and even those who collect guns for hobby.

Furthermore, gun hobbies and activities are more common in rural areas where there is a higher

social acceptance of firearms, so people living in rural areas are generally more likely to own

guns (Cretacci & Hendrix, 2017). College students, while unlikely to be registered gun owners

themselves due to their relatively young age, are influenced by the environment in which they

were raised, which serves as one determining factor for their opinions on the gun control debate

(Blocher, 2013).

**Guns on College Campuses**

The *Gun-Free School Zones Act* of 1995 prohibits the possession or discharge a firearm

in a school zone, specifically when the firearm violates interstate or foreign commerce (Nedzel,

2014). However, since its implementation, mass shootings have continued to increase (Nedzel,

2014). A few of the more notable shootings that occurred on college campuses in the 21$^{st}$ century

alone include Virginia Tech in 2007, Northern Illinois University in 2008, Oikos University in

2012, and Umpqua Community College in 2015. Evidence would suggest, in this case, that

current gun control measures are not only ineffective but counterproductive (Nedzel, 2014).

Nevertheless, college students have mixed and conflicting opinions about the permissibility of

guns on campus (Birnbaum, 2013; Shepperd, Losee, Lipsey & Redford, 2018). One study

surveyed faculty, staff, and students at the University of Florida and categorized respondents as

protection gun owners, non-protection gun owners, or non-gun owners (Shepperd et al., 2018).

Protection gun owners predicted a decrease in gun-related crime if guns were allowed on campus

and reported that they would feel safer if they could carry a concealed weapon, while the other

two groups predicted that these crimes would increase and reported that they would feel less safe

if guns were tolerated on campus. Additionally, all respondents reported feeling safe on campus

at the time they took the survey but also overestimated the frequency of gun crimes on campus

(Shepperd et al., 2018). Birnbaum (2013) also reports on these conflicting perspectives and examines data available from the *Clery Act*, which requires institutions to annually publicly disclose the instances of criminal activity reported to campus or local police agencies. Such data has determined that colleges, while not free from crime, are not hot spots for victimization either. These factors would help explain why the gun control debate, specifically regarding college campuses, is ongoing, with no signs of agreement between the two opposing perspectives, which is similar to the state of the gun control debate from a political perspective.

**Politics in the Gun Control Debate**

The Pew Research Center, in their analysis of the similarities and differences between rural, suburban, and urban communities, noted that rural areas tend to have a higher concentration of Republicans and right-leaning Independents, while those in urban areas tend to be or lean Democratic, and these communities' views tend to align with their political party (Parker et al., 2020). Additionally, these partisan views are strengthened in the communities of which they are the majority; rural Republicans are more radical than urban Republicans, and urban Democrats are more radical than rural Democrats (Parker et al., 2020). A 2020 study on college students' perceptions of gun control found that Democrat students, as well as students who identified as Independent or with an "other" political party, were more likely to support stricter gun control policies than Republican students, while Republican students were less likely to support general gun control policies (Kruis, Wentling, Heirigs & Ishoy, 2020). Hunting as the second most common reason for American gun ownership would explain the prevalence of guns and lack of support for gun control in rural areas, as this is predominantly where activities such as hunting and recreational shooting take place. These statements support the widely held belief that Republicans (GOP) and people living in rural areas are less likely to support gun control,

while Democrats and people living in urban areas are more likely to support stricter gun control. On the contrary, in his analysis of General Social Survey data from 1972 to 2016, Miller (2019) found that most Republicans do support gun control and rurality was negatively significant for a small percentage of gun control measures. Members of the GOP only recently started to oppose gun control during the 1994 Republican Revolution, and during the Obama Administration, as Congress was heavily Republican (Miller, 2019). This polarization at the elite level leads the public to presume that all Republicans oppose gun control, which is not at all true, as Miller's (2019) study finds that most Republicans support some subtly aggressive form of gun control, such as requiring a person to obtain a police permit before purchasing a firearm. Political parties are not the only dividing factor for opinions on gun control, as regionality is also significantly related to differences in opinion in the gun control debate.

**Regionality**

According to the Pew Research Center, majority of counties in the United States are rural, especially in the Midwest (Parker et al., 2020). The popularly held belief in the United States is that the South is a hotspot for gun ownership, probably due to its historical political leaning, but Wallace (2017) points out that people are equally as likely to come from a gun-owning household in the Midwest or Western United States. With the high percentage of rural counties in the Midwest, a connection could be made between gun ownership and rurality. These statistics coupled with the self-interest perspective researched by Kleck, Gertz, and Bratton (2009) show support for the unfavourability of gun control in rural regions. Further, Cretacci and Hendrix (2017) found that those living in rural areas of the United States were more likely to indicate living in a home with gun access.

The high prevalence of households with firearms in rural areas has its consequences. One groundbreaking 2004 study on intentional firearm deaths found that the problem was as much a public health issue in rural counties as it is in urban counties in the United States (Branas, Nance, Elliott, Richmond, & Schwab, 2004). They found that firearm suicide in rural counties was just as predominant as firearm homicide in urban counties. This study highlights the lethality of firearms, as results show that these weapons were greatly favored over the next most common means of suicide and homicide in rural and urban counties respectively (Branas et al., 2004). This topic is not nearly discussed to the same length as the violent crime rate, even regarding the gun control debate. If more people were made aware of this phenomenon, the general population in rural regions and other areas of the country with large gun culture may not be so lenient in their beliefs about gun culture and gun control.

Blocher (2013) advocates for firearm localism, arguing that state preemption laws should take into account the gun culture and violent crime differences between urban and rural cities. He states that cities should be given extra leeway in their lawmaking regarding the regulation of weapons and concealed carry (Blocher, 2013). Overall, rural areas are more heavily populated with firearm owners who consequently oppose gun control, while urban residents have a repulsive attitude towards firearms due to the higher percentage of violent gun crime that occurs in cities, and therefore they are more supportive of gun control. These patterns have been historically maintained, suggesting that tradition may play more of a factor in gun culture than concern for gun violence. Both sides of the urban versus rural gun control debate center around a core belief, with those on the rural side valuing a gun culture of honor and self-sufficiency, while those on the urban side see guns as a central issue symbolizing violence and inequality (Blocher, 2013). The current study aims to clear up confusion about the general public's opinion on gun

control by looking at college students' perspectives. Additionally, as many existing studies look at regionality across the country in terms of South, West, Northeast, and Midwest, this study looks at regionality focusing on the rural/urban divide. Thus, based on previously conducted research on the topic of the rural/urban divide and the policy gridlock in the gun control debate at the political level, the current study hypothesizes that students with rural backgrounds will be less likely to support stricter gun control, while students with urban backgrounds will be more likely to support stricter gun control. Additionally, Republican students will be less likely to support stricter gun control than Democratic students.

## Methodology

### Sample and Dataset

This study used a non-probability, availability sampling design. The data for this study was collected from 119 students (*N*=119) at Cabrini University. With approval from Cabrini University's Institutional Review Board (IRB), electronic surveys utilizing Google Forms were distributed in the spring of 2021 to participants within various classes. Various professors of numerous courses at Cabrini University were contacted by the researchers to give permission to distribute the electronic survey to their students. Professors who gave permission received the link to the Google Form and were asked to inform their students that the survey was voluntary and that their information would remain confidential. The electronic survey was omnibus with 37 questions. Additionally, before the questions were listed, an electronic consent form that listed researchers' contact information and counseling resources was provided.

One hundred and nineteen surveys were collected (*N*=119) and only a limited amount of missing data emerged. The sample consisted of 73.5% (*n*=86) female respondents, 24.8% (*n*=29) male respondents, and 1.7% (*n*=2) transgender respondents. Majority of the respondents (76.1%; *n*=89) identified as White, 7.7% (*n*=9) identified as Black, 6% (*n*=7) identified as Hispanic or

Latino, 4.3% (*n*=5) identified as Asian, 5.1% (*n*=6) identified as multiracial, and 0.9% (*n*=1)

identified as American Indian or Alaskan Native. Regarding age, 8.5% (*n*=10) were 18 years old,

11% (*n*=13) were 19 years old, 15.3% (*n*=18) were 20 years old, 33.9% (*n*=40) were 21 years

old, 11.9% (*n*=14) were 22 years old, and 19.5% (*n*=23) were 23 years old or older. The

distribution of majors consisted of 30 (28.8%) students in the School of Business, Arts, and

Media, 15 (14.4%) students in the School of Education, 36 (34.6%) students in the School of

Humanities and Social Sciences, 17. (16.3%) students in the School of Natural Sciences and

Allied Health, and 6 (5.8%) students classified as other. Most important to this research are the

variables of regionality and political party affiliation. Almost half, (49.5%, *n*=55) of the sample

identified as Democratic, 32.4% (*n*=36) identified as Republican, and 18% (*n*=20) identified with

something other than either of the two main parties. Majority of the sample (60.2%, *n*=71) grew

up in a suburban area, 24.6% (*n*=29) grew up in an urban area, and 15.3% (*n*=18) grew up in a

rural area. See Table 1 for the demographic distribution of the sample.

Table 1.
*Sample Demographics*

| *Variable* | *Frequency* | *Valid Percent* |
|---|---|---|
| *Age* | | |
| 18 | 10 | 8.5 |
| 19 | 13 | 11.0 |
| 20 | 18 | 15.3 |
| 21 | 40 | 33.9 |
| 22 | 14 | 11.9 |
| 23 or older | 23 | 19.5 |
| *Gender* | | |
| Female | 86 | 73.5 |
| Male | 29 | 24.8 |
| Transgender | 2 | 1.7 |
| *Race* | | |
| American Indian or Alaskan Native | 1 | 0.9 |
| Asian | 5 | 4.3 |
| Black | 9 | 7.7 |
| Hispanic/Latino | 7 | 6.0 |
| Multiracial | 6 | 5.1 |

| | | |
|---|---|---|
| White | 89 | 76.1 |
| *Major* | | |
| School of Business, Arts, and Media | 30 | 28.8 |
| School of Education | 15 | 14.4 |
| School of Humanities and Social Sciences | 36 | 34.6 |
| School of Natural Sciences and Allied Health | 17 | 16.3 |
| Other | 6 | 5.8 |
| *Regionality* | | |
| Rural | 18 | 15.3 |
| Urban | 29 | 24.6 |
| Suburban | 71 | 60.2 |
| *Political Party* | | |
| Republican | 36 | 32.4 |
| Democrat | 55 | 49.5 |
| Other | 20 | 18.0 |

**Independent Variables: Regionality and Political Party Affiliation**

The independent variables for this study are regionality and political party affiliation.

Regionality can be conceptualized as differences between rural, urban, and suburban regions. In

order to measure regionality, participants were asked "How would you describe the

neighborhood you grew up in?" The response options for this question were *urban*, *rural*, and

*suburban*. Political party affiliation can be conceptualized as which party in American politics a

person identifies most closely with. In order to measure political party affiliation, participants

were asked "What political party do you identify with?" The response options for this question

were *Republican Party, Democrat Party,* and *other.*

**Dependent Variable: Gun Control**

The dependent variable for this study is gun control. Gun control can be conceptualized

as measures (up for debate) that would create stricter laws regarding the sale, registration, and

carrying of firearms in the United States (Shepperd et al., 2018). In order to measure gun control,

participants were asked to rate the following questions and statements on a Likert scale from one

to seven. These questions were adapted from the Gun Rights Advocacy Measure (Shepperd et

al., 2018). The first question asked participants about their opinion on the sale of guns: "In general, do you believe the laws covering the sale of firearms should be made more strict, less strict, or kept as they are now?" The answer choices were rated on a Likert style scale ranging from *1= much less strict* to *7= much more strict.* The second question asked participants about their opinion on gun registries: "Do you support or oppose some kind of registry of all guns, at least at the state government level?" The answer choices were rated on a Likert style scale ranging from *1= strongly oppose a gun registry* to *7= strongly support a gun registry.* The third question asked participants about their opinion of gun free zones: "Do you support or oppose laws that create 'gun free zones' at schools and other public places?" The answer choices were rated on a Likert style scale rated ranging from *1= strongly oppose "gun free zones"* to *7= strongly support "gun free zones."* The last statement assessed the participants' opinion on the impact that guns have on crime: "In general, if more people had guns, there would be less crime." The answer choices were rated on a Likert style scale ranging from *1= strongly disagree* to *7= strongly agree.*

An additive scale was created to combine the four Likert-style questions to create one gun control variable. The fourth Likert-style variable was reverse coded to comply with the direction of the other three variables. The Cronbach's Alpha value was .779, which supported the reliability of the scale and concluded that using an additive scale to measure gun control was an appropriate course of action. The scale seeks to place students in an index ranging from less favorability of gun control to more strict opinions of gun control. The gun control scale ranged from 5 to 28, with 5 indicating little favorability of gun control and 28 representing a stricter gun control opinion. The most frequent score was 28 (15.4%, *n*=18). The mean score was 21.09,

which also supports the statement that the majority of students favor stricter gun control. The

median score was 22. See *Figure 1* for the distribution of gun control scores.



*Figure 1.* Distribution of gun control scores by college students.

**Plans for Analysis**

Two one-way analysis of variance tests were conducted to analyze the relationships

between the independent variables and the dependent variables. This form of analysis was most

appropriate for the research questions, because the independent variables consisted of more than

two categories and the dependent variable was continuous. The first test analyzed the

relationship between regionality (rural, urban, and suburban) and gun control, and the second test

analyzed the relationship between political party affiliation (Republican, Democrat, and other)

and gun control.

<div align="center"><strong>Results</strong></div>

**Regionality and Gun Control**

A one-way analysis of variance was conducted to evaluate whether a relationship exists

between the environment in which a person was raised and their opinions on gun control. This

test was not found to be significant, F(2, 113)=.861, p=.425. Consequently, it was concluded that

no significant difference existed between students who grew up in rural neighborhoods

(*M*=19.63, *SD*=6.71), students who grew up in urban neighborhoods (*M*=22, *SD*=5.46), and

students who grew up in suburban neighborhoods (*M*=21.04, *SD*=5.77) and their opinions on gun

control. The first hypothesis, which predicted that students with rural backgrounds would be less

likely to support stricter gun control than students with urban backgrounds, was not supported.

The distribution of scores can be viewed in Table 2.

Table 2.
*One-Way ANOVA for Regionality and Gun Control*

| Source | Sum of Squares | df | Mean Square | F |
|---|---|---|---|---|
| Between Groups | 58.515 | 2 | 29.257 | .861 |
| Within Groups | 3838.623 | 113 | 33.970 | |
| Total | 3897.138 | 115 | | |

**Political Party Affiliation and Gun Control**

Another one-way analysis of variance was conducted to evaluate whether a relationship

exists between a person's political party affiliation and their opinions on gun control. The

independent variable was political party affiliation (1= Republican, 2= Democrat, 3= other), and

the dependent variable was gun control as determined by the scores on the scale. Since the

results show that there is a significant relationship between political party affiliation and gun

control opinions F(2, 106)=14.67, p<.001, follow up tests were conducted. Levene's test was

significant, F(2, 106)=4.212, p=.017, meaning that equal variances were not assumed. Therefore,

Dunnett's C was conducted. According to the follow up tests, there is a significant difference

between students who affiliate themselves with the Democrat party (*M*=23.85, *SD*=3.99),

students who affiliate themselves with the Republican party (*M*=18.06, *SD*=5.97), and students

who do not affiliate themselves with either party or who affiliate with something else (*M*=19.55,

*SD*=6.33). This means that Democratic students are more favorable of stricter gun control than Republican students and students who identify as other. These findings support the second hypothesis that Republican students will be less likely to support stricter gun control than Democratic students. The distribution of scores can be viewed in Table 3 and the results for the analysis of variance can be found in Figure 2.

Table 3.
*One-Way ANOVA for Political Party Affiliation and Gun Control*

| Source | Sum of Squares | df | Mean Square | F |
|---|---|---|---|---|
| Between Groups | 779.909 | 2 | 389.955 | 14.670 |
| Within Groups | 2817.651 | 106 | 26.582 | |
| Total | 3597.560 | 108 | | |



*Figure 2.* Box plot for the distribution of gun control scores amongst political parties

## Discussion

The purpose of this study was to examine the relationship between college students' demographic backgrounds, particularly the neighborhood in which they grew up in and their political party affiliation, and their opinions on gun control. College students were of specific

interest, as higher education strives to prepare them for responsible stewardship of a robust

democracy (IDHE, 2021). Two hypotheses were established, based on previous literature, only

one of which was supported. The first hypothesis, which was not supported, was that students

with rural backgrounds would be less likely to support stricter gun control than students with

urban backgrounds. The results of the one-way ANOVA were directional in that students with

rural backgrounds ($M$=19.63) showed less support for gun control than students with suburban

backgrounds ($M$=21.04) and students with urban backgrounds ($M$=22). Due to the lack of

significance and minimal difference in mean scores, however, this relationship cannot be

concluded. The second hypothesis stated that Republican students would be less likely to support

stricter gun control than Democratic students, and this hypothesis was supported. These results

indicate that other factors present in regional differences between urban cities, rural areas, and

the suburbs, specifically political party affiliation, play a more significant role in a person's

opinions on gun control than the rurality of the neighborhood they were raised in.

These findings were consistent with Miller's (2019), in that most Americans favor stricter

gun control regardless of political party affiliation. Support for this is seen in comparing the

mean gun control scores of all three political party groups with the score that would signify

neutrality. A true neutral score on the gun control scale, which would be indicated by a

participant selecting '4' on all four of the Likert-style questions and statements that were used to

create the scale, is 16. The mean score for Republicans ($M$=18.06), Democrats ($M$=23.85), and

students who do not affiliate with either party ($M$=19.55) were higher than the true neutral score,

indicating that most students favor stricter gun control regardless of political party affiliation. A

graphic representation for the distribution of gun control scores between the political party

groups can be seen in Figure 2 above. Additionally, these results do not show support for

Blocher's (2013) advocacy for firearm localism, as no significant difference in gun control

scores was found between students from urban cities and students from rural cities.

**Limitations, Future Research, & Implications**

There were a few relevant limitations in this research, namely concerning

generalizability. The sampling design that was utilized, a non-probability availability sampling

design, makes the data collected difficult to generalize to a larger population. Additionally,

Cabrini University, the school that participants were sampled from, is a relatively small

institution, which contributed to the sample size ($N$=119). The utilization of electronic surveys

also contributed to the small sample size, as they are limited in their response rates. All of these

factors are a hindrance to the generalizability of the results of this research.

Additionally, in looking at the breakdown of the demographic variables, some groups

were overrepresented, which also hurts the research's generalizability. Specifically, 73.5% of the

sample were female and 76.1% were white, which is not consistent with the larger population of

Cabrini University students. Also, 60.2% of the sample reported being from the suburbs, which

made the results more difficult to analyze and contributed to the insignificance of the statistical

tests that were run. Furthermore, 49.5% of the sample identified as Democratic, while only

32.4% identified as Republican, and 18% do not affiliate themselves with either party or affiliate

with something else.

Previous research on the subject of regionality in the gun control debate look at

regionality across the country in terms of South, West, Northeast, and Midwest (Wallace, 2017),

whereas the current study defined regionality on a smaller scale in order to survey the target

population of Cabrini students. Future research seeking to explore the factors that influence

Americans' opinions on gun control should continue to examine regionality in the same way as

the current study, with additional concentration on certain variables. Specifically, future research should examine regionality and gun control, while controlling for variables that previous researchers have found to be significant, such as gun ownership and the type of firearm owned, perceived risk of assault or violent crime victimization, political party affiliation, hobbies involving firearms (hunting), and gender (Dowler, 2002; Kleck, Gertz, & Bratton, 2009; Shepperd et al., 2018; Stroebe et al., 2017; Wallace, 2017). Future researchers should also strive for a larger and more representative sample size across the demographics, specifically political party affiliation and regionality, as these were the demographics that were most important for the research while also being some of the most difficult to generalize. Additionally, while this study combined all of the gun control variables in order to create an additive scale, future researchers who have more time and resources to conduct their studies can add additional gun control variables and examine each one to determine the specific types of gun control that are supported, in order to advise policymakers. Future researchers can also be encouraged to delve further into participants reasoning for wanting more or less strict gun control laws, in order to better inform policymakers.

The results show that more research should be done on this topic before any additional policy changes are implemented. Once more research is conducted on how regionality affects people's opinions on gun control, then state's governments, as well as the federal government, can use this data to advise its decisions on whether or not to implement stricter gun control, the specific types of gun control that would become more or less strict, and if these laws would be applicable nationwide, statewide, or on a smaller scale as advocated by Blocher (2013).

**Conclusion**

Overall, this study sought to determine the relationships between regionality and political party affiliation, and students' opinions on gun control. While only the relationship between political party affiliation and gun control favorability were found to be significant in this research, future research should be conducted on regionality and gun control in order to truly determine whether or not it is a significant factor in determining a person's gun control opinions.

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Crime-Related Television Consumption and the Belief in Criminal Justice Myths

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## Abstract

With the growing popularity of crime-related television, it is important to study the influence that various crime-related shows may have on their viewers and their viewers' perceptions of the criminal justice system. This study built upon previous research that had predominately focused on the "CSI Effect", a phenomenon in which the viewing of crime and forensic based television shows affects the decisions made by jurors in a trial (Rhineberger-Dunn et al., 2017; Schweitzer & Saks, 2007). The current study sought to evaluate the relationship between the consumption of crime-related television and the belief in myths that exist within the criminal justice system. However, this examination included various other myths in addition to the "CSI Effect", including the misrepresentation of the average case length, the underestimation of cases assigned to criminal justice personnel, and the overestimate of clearance rates (Barthe et al., 2013; Guastaferro, 2013). This study used quantitative research through the use of electronic surveys to collect data from 150 Cabrini University students in the Fall 2020 semester. Moreover, the researcher hypothesized that students that watched crime-related television on a regular basis were more likely to believe in the various crime myths that exist within the criminal justice system. Results show that there is not a significant relationship between the consumption of crime-related television and one's belief in myths that exist within the criminal justice system.

## Introduction

Different types of media, including television, are often thought to be influential on people's perceptions of the criminal justice system (Guastaferro, 2013; Kadleck & Holsinger, 2018).  In 2019, the average American spent 3.5 hours a day watching television (eMarketer, 2019). The high rate of television consumption by individuals is often the "primary common source of socialization and everyday information" (Gerbner, 1998, p. 177). Moreover, for some, television is the only visual of the criminal justice system they may ever see as many do not ever come into contact with the system (Federok, 2013; Surette, 2007). According to a report of the top 100 most-watched shows in 2019 and 2020, more crime shows were featured than any other genre (Schneider, 2020). Additionally, the consumption of television has been found to affect viewers (Gerbner, 1998). George Gerbner's Cultivation Theory examines the long-term effects of television and argues that television is a centralized system of storytelling that causes individuals to believe that actual reality aligns with the reality portrayed on television (Gerbner, 1998). The distortion of reality may leave viewers with the inability to distinguish what is "actual" reality versus the reality that television portrays.

The crime-related television genre has always been popular, but after television shows like *CSI* and *Law & Order* were released, a change in the shows' plot formatting went from featuring self-reported cases to fictional stories (Guastaferro, 2013). The crime genre is one of the most popular in both television and movies. Although some crime-related television series are based on actual cases and have some accuracy, television shows are often not completely accurate causing false perceptions of different aspects of the criminal justice system (Guastaferro, 2013). Crime-related shows "leave viewers with a distorted idea about the pace of investigations and the power of science to prove culpability" (Guastaferro, 2013, p. 264). There

are many myths that stem from crime-related television shows including the misrepresentation of the average case length, the underestimation of the caseload of criminal justice personnel, overestimated clearance rates, and the overrepresentation of the use of DNA as evidence in cases (Barthe, Leone, & Lateano, 2013; Guastaferro, 2013). These myths have led to real-life impacts such as causing members of juries to be hesitant to convict those who are guilty due to dissimilarities between real trials and the fictional, inaccurate trials that are typically presented on television[1].

The myths that exist due to the consumption of crime-related television series are important to investigate due to the impact they may have on criminal cases. Previous research has found that there is a relationship between the consumption of crime-related television and the belief in myths within the criminal justice system (Federok, 2013; Hogan, 2019). This topic is important to further study in order to expand the current literature and, hopefully, confirm previous findings. Additionally, this topic is important to study to help educate individuals on how complex many aspects of the criminal justice system are rather than how television shows tend to perceive them simplistically in one-hour episodes. This study seeks to research the impact that the consumption of crime-related television has on college students' beliefs in myths that exist within the criminal justice system.

**Literature Review**

**Television and Media Consumption**

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[1] One example in which the "CSI Effect" is thought to have impacted jurors' decisions during a criminal trial was in the case of Robert Blake. Robert Blake was a well-known actor who was charged with the shooting of his wife, Bonny Lee Bakley, in 2001. Despite Blake being a prime suspect, he was acquitted due to the lack of blood evidence or gunshot residue that connected Blake to the scene of the crime (Call, Cook, Rietzel, & McDougle, 2013). Blake's case is thought to be connected to the "CSI Effect" phenomenon it is suspected that the jury needed "the hard evidence" that is typically seen within popular crime-related television shows (Heinrick, 2006, p. 59).

The consumption of various media, including television, is a reoccurring activity in many individuals' daily lives. With nearly 80% of the United States' population watching television on a typical day, many people receive a large majority of their information from television programs (Krantz-Kent, 2018). However, the information delivered from the media is not always accurate. Both fictional television shows and news broadcasting stations sometimes distort reality and as a result, people tend to be misinformed about crime (Guastaferro, 2013). Within the media, crime is typically distorted in several ways. The media tends to overdramatize crime by reporting on the topic in a large amount, creating the impression of a "crime wave" despite the United States' decline in crime rates since the 1990s (Surette, 2011). Moreover, television creates a false reality for viewers, which further distorts reality. The more time people spend "living" in the television world, the more likely they are to believe social reality aligns with the "reality" portrayed on television (Gerbner, 1998). Television is often used as a tool for viewers who do not come into contact with the criminal justice system, further shaping their perceptions of the crime and the criminal justice system (Federok, 2013).

**Evolution and Popularity of Crime-Related Television Shows**

Both the media and the public's fascination with the criminal justice system has existed for a long time and is often reflected in film and television, both as news and fiction (Kinsey, 2012). For nearly 30 years, crime-related television shows have been listed at the top of the Nielsen ratings (Neilsen, n.d.). In general, the use of "crime as entertainment has cemented a place in popular culture" making it part of many peoples' daily lives (Dowler, Fleming, & Muzzatti, 2006, p. 837). The crime genre is amongst the most popular genres on television (Neilsen, n.d.). One reason for its popularity is the variety of crime show types. These types include fictional stories such as crime dramas, police procedural, legal dramas, and inverted

detective stories and non-fiction stories that are typically reality shows or true-crime stories.

Even though most popular crime shows typically fall within the crime drama or police

procedural genres, the other genres are very popular as well. Moreover, many of the shows are

not mutually exclusive in one particular category. For example, the television series *Bones* falls

within the police procedural and crime drama.

Traditionally, crime dramas and police procedurals were episodic and self-contained

stories, such as *COPS*. A change in formatting, however, came in the 1990s, switching to stories

with characters (Guastaferro, 2013). This switch to predominately fictional stories with

characters introduced shows such as *CSI* and *Law & Order*. Additionally, the change to fictional

stories condensed the timeline of the investigation and increased the certainty and celerity of case

resolution (Guastaferro, 2013; Snauffer, 2006). The change in crime-related television show

formatting typically left viewers with a falsified idea of various aspects of the criminal justice

system and crime investigations. These distorted perceptions have led to the assumption of

various myths within the criminal justice system, including the "CSI effect".

**"CSI Effect" & Other Myths**

Since the debut of popular crime-related television shows, viewers have been introduced

to various aspects of the criminal justice system (Rhineberger-Dunn, Briggs, & Rader, 2017).

For instance, many shows now display the sequence from arrest to court to sentencing. One

major introduction that occurred was that of the forensics field. Even though forensics has

existed for nearly 900 years, prior to the 1990s, the field was relatively minimal due to the

inability to test DNA (New York State Police, n.d.). When the DNA Database Legislation was

enacted in 1994, this field began to grow (New York State Police, n.d.). When the popular fiction

crime-related television shows, including *CSI*, began to air in the early 2000s, a special

awareness was paid to forensics and crime scene investigation as a whole. However, along with the popularity of the field, came misconceptions and myths that were a product of the fictional television shows.

Due to the verisimilitude of television shows like *CSI*, viewers began to believe every detail that the hour-long series portrayed (Holmgren & Fordham, 2011; Rhineberger-Dunn et al., 2017). Within a typical hour-long episode, there are one or two homicides that are solved by the same small task force (Fedorek, 2013). Moreover, many episodes mention the use of DNA evidence or use DNA evidence in order to solve the case. The heavy mention of DNA evidence within the television shows is extremely misleading to viewers of the television series. This distortion of reality has led to what researchers call the "CSI Effect." Even though there is no one precise definition of the "CSI Effect," it focuses on how fictional crime-related television series influence the public's perception of the criminal justice system (Rhineberger-Dunn et al., 2017). Additionally, the "CSI Effect" is believed to influence jurors' decisions based on the presence or absence of DNA and forensic evidence (Weaver et al., 2012).

It has been found that *CSI*, among other fictional crime drama shows, has increased jurors' awareness of forensic procedures (Fedorek, 2013; Rhineberger-Dunn et al., 2017). Jurors believe they "know" everything about forensic and that it is a perfect science (Fedorek, 2013). Furthermore, members of a jury often believe that various forensic exams, such as determining the time of death, can be easily and quickly conducted when in actuality many factors influence the degree of difficulty it takes to run the various exams (Holmgren & Fordham, 2011). The presence of DNA, to some jurors, is a deciding factor when determining whether to convict someone of a crime, despite all the other evidence previously presented (Holmgren & Fordham,

2011). Moreover, some jurors believe that forensic and DNA evidence is needed in every trial in order for the case and investigation to be deemed as thorough (Shelton, 2008).

Although a great amount of research has been conducted on the "CSI Effect," little has been conducted on the various other myths that exist within the criminal justice system. Guastaferro (2013) reported in her study that although most fictional crime shows are technically accurate, they often leave viewers with distorted views about the pace of the investigation timeline and the case resolution. Many studies have focused directly on the "CSI Effect," ignoring the other myths that exist within the criminal justice system such as misrepresentation of the average case length, the underestimation of cases assigned to criminal justice personnel, and the overestimation of clearance rates (Barthe et al., 2013; Guastaferro, 2013).

These various other factors also play a large role in an individual's distorted perceptions of the criminal justice system. Within a singular episode of a fictional crime-related television show, criminal justice personnel are typically assigned one case in which they almost always are able to solve within the few days that are depicted within the episode (Federok, 2013). In actuality, this depiction is far from the truth. Criminal justice personnel typically have an overwhelming caseload, which is often highly underestimated by television shows (Israel, 1996). Moreover, crime-related television shows often portray the celerity of a case's resolution even though most cases are not solved within a week. Additionally, television shows are misrepresentative of the timeline of a criminal case by only focusing on one particular aspect of the system (policing, courts, corrections). Lastly, crime-related television shows often exaggerate the clearance rate of crimes. Within recent decades, the United States' clearance rates, especially homicide cases, have actually been declining (Wellford & Cronin, 2000). Although most crime-related television shows are fictional, they still distort viewers' perceptions of the criminal justice

system. Further, crime-related television not only influences the public's perceptions but can also have long-term effects on viewers as seen by Gerbner's Cultivation Theory.

**Theoretical Framework**

Media is often implemented within an individual's daily routine which exposes them to information about the world (Tsfati & Cohen, 2013). Since the media is typically one's main source of information, the role that the media possesses in society is powerful. The media is able to distort reality since the viewers are typically vulnerable as they often ensue their trust in what the media displays as the truth (Tsafti & Cohen, 2013). Even though there has been a decrease in society's trust in the media in recent decades, many still unconsciously continue to receive their information from media sources (Tsafti & Cohen 2013).

This study will examine the influence of crime-related television shows on the public's belief in myths and misconceptions of the criminal justice system. The study will utilize the lens of Cultivation Theory. Cultivation Theory was first developed in the 1970s by George Gerbner at the University of Pennsylvania. The theory examines the long-term effects that television has on individuals (Potter, 2014). Gerbner's theory claims that television is a centralized system of storytelling and causes the distortion of reality. Moreover, Cultivation Theory argues that the more time people spend "living" in the television world, the more likely they are to believe social reality aligns with the "reality" portrayed on television (Gerbner, 1998). The theory suggests that those who watch more television are more likely to develop certain beliefs about reality based on the various depictions shown on television (Coenen &Van den Bulck, 2016; Fedorek, 2013; Gerbner, 1998). Gerbner includes three core assumptions within his theory: (1) television is fundamentally different from other forms of mass media, (2) television shapes the way individuals within society think and relate to each other, and (3) television's effects are

limited (Potter, 2014). Each of these assumptions highlights a different aspect of the media: the medium, the audience, and the medium and the public's ability to react to it.

Gerbner's Cultivation Theory has been applied to a number of effects such as television exposure and perceived reality of television shows. In a more recent study, Dolliver, Kenney, Reid, and Prohaska (2018) applied Gerbner's theory to their study on media consumption, fear of crime, and controversial criminal justice policies. Gerbner's theory suggests that violent television has led to an increase in the public's fear of crime. The authors of the study found that the increase in the public's fear of crime has led to the implementation of various criminal justice policies that allow the public to protect themselves against perceived future crimes (Dolliver et al., 2018). Additionally, in a study from Korea, Kim (2007) applied Gerbner's Cultivation Theory to college students to see if the United States' crime shows distorted their perception of reality. The author found that the students who had heavily viewed U.S. crime shows were more likely to believe various misconceptions of reality such as how likely one is to get attacked at night in the United States (Kim, 2007). Moreover, a recent 2019 study attempted to understand how fictional television, including crime dramas, medical dramas, and sitcoms, shapes people's expectations of the real-world (Bilandzic, Schnell, & Sukalla, 2019). The study found a relationship between television viewing and overall moral expectations about the real-world.

Gerbner's theory has measured a number of various effects including the perception of the criminal justice system. Cultivation Theory's argument that television distorts reality aligns with the hypothesis of this study. Gerbner explains that by 'living' in the television world, people are more likely to believe that social reality aligns with reality portrayed on television. Thus, this study hypothesizes that students who indicate that they watch crime-related television on a regular basis are more likely to believe in myths that exist within the criminal justice system.

## Methodology

### Sample and Dataset

This study used a non-probability, availability sampling design. The data was collected from 150 undergraduate students at Cabrini University. The surveys, which were approved by Cabrini University's Institutional Review Board (IRB), were collected in the Fall semester of 2020. The study utilized Google Forms, an electronic survey collection system. Professors of various courses at Cabrini University were contacted by the researchers to ask for permission to distribute the survey link to their students. Professors who gave their permission received the link to the Google Form and were asked to inform their students that the survey was voluntary and that their information would remain confidential. The electronic survey was omnibus with 61 questions. Additionally, before the questions were listed, an electronic consent form that listed researchers' contact information and counseling resources was provided.

One hundred and fifty surveys were collected ($N=150$) and only a limited amount of missing data emerged. Within the sample, 75.8% ($n=113$) of the respondents were female, 23.5% ($n=35$) were male, and 0.7% ($n=1$) responded with "Other". The sample's racial demographics comprised of 71.1% ($n=106$) White respondents, 16.8% ($n=25$) Black or African American, 3.3% ($n=5$) Asian, 2% ($n=3$) Mixed, and 6.7% ($n=10$) students identified as "Other". Only 10% ($n=15$) of the respondents indicated that they were Hispanic or Latino, such as Mexican, Mexican American, Chicano, Puerto Rican, or another Hispanic/ Latino. Regarding grade level, 43.4 % ($n=65$) respondents were Juniors, 29.3% ($n=44$) indicated that they were a Senior, 14% ($n=21$) indicated that they were a Freshman, 12.7% ($n=19$) indicated they were a Sophomore, and lastly, 0.7% ($n=1$) indicated they were ungraded or another grade. The majority of the

respondents (67.4%; *n*=101) indicated that they either 20 or 21 years old. See Table 1 for

additional demographic statistics of the sample.

Table 1.

*Sample Demographics*

| Variable | Frequency | Valid Percent |
|---|---|---|
| **Age** | | |
| 18 | 14 | 9.3 |
| 19 | 4 | 12.7 |
| 20 | 49 | 32.7 |
| 21 | 52 | 34.7 |
| 22 or older | 16 | 10.7 |
| **Gender** | | |
| Male | 35 | 23.3 |
| Female | 113 | 75.3 |
| Other | 1 | .7 |
| **Race** | | |
| Asian | 1 | .7 |
| Black or African American | 25 | 16.7 |
| White | 106 | 70.7 |
| Mixed | 3 | 2.0 |
| Other | 10 | 6.7 |
| **Ethnicity** | | |
| No | 135 | 90.0 |
| Mexican, Mexican American, or Chicano | 8 | 5.3 |
| Puerto Rican | 8 | 5.3 |
| Other Hispanic/ Latino | 5 | 3.3 |
| **Grade** | | |
| Freshman | 21 | 14.0 |
| Sophomore | 19 | 12.7 |
| Junior | 65 | 43.3 |
| Senior | 44 | 29.3 |
| Ungraded | 1 | .7 |

**Independent Variable: Consumption of Crime-Related Television Shows**

The independent variable for this study is the consumption of crime-related television. Crime-related television can be defined as shows that are included in the crime genre, specifically fiction. Within the survey, respondents were asked to indicate if they watched crime-related television shows on a regular basis: Do you watch crime-related television shows on a regular basis (e.g. CSI, Law & Order, Criminal Minds, etc.)? 1=Yes 2=No (Holmgren & Fordham, 2011). In total, 47.3% (*n*=71) of the respondents indicated that they watch crime-related television shows on a regular basis. Conversely, 52.7% (*n*=79) indicated that they do not watch crime-related television shows on a regular basis.

**Dependent Variable: Belief in Myths within the Criminal Justice System**

The dependent variable for this study is the belief in myths within the criminal justice system. Myths within the criminal justice system can be conceptualized by any well-known misconceptions regarding any part of the criminal justice system. In order to measure students' belief in the myths within the criminal justice system, respondents were asked five questions. The first four questions utilized Likert-style questions that ranged from *1* to *10*. These questions required respondents to respond to statements regarding their belief in the efficiency and timeliness of various parts of the criminal justice system. Additionally, the first three questions were adapted from Hogan's study from 2019. The first question asked the respondent to indicate how quickly they believe criminal cases get solved: How quickly do you believe most criminal cases get solved, on a scale of *1 (very slowly, years)* to *10 (very quickly, within days)*? The second question addressed the respondent's perception of case resolution: Out of all the criminal cases the police receive, how many of them do you believe get solved, on a scale of *1 (none of them)* to *10 (all of them)*? The third question addressed the respondent's perception of clearance rates: On a scale of *1 (strong no)* to *10 (strong yes)*, do you believe that most people who commit

crimes are caught and brought to justice? The fourth question, which was adapted from

Holmgren and Fordham's study in 2011, addressed the use of DNA as evidence: On a scale of *1*

*(strongly disagree)* to *10 (strongly agree)*, DNA testing, according to you, is the best piece of

evidence against an accused in any type of case. An additive scale was created to combine the

four Likert-style questions to create a belief in myths variable. The creation of the additive scale

was appropriate because Cronbach's alpha was .688, which supported the reliability of the scale.

The belief in myths scale ranged from 4 to 40, with 4 indicating a low belief in myths and 40

representing a high belief in myths levels. The most frequent ranking, as well as the median, of

the belief in myths was 20 (13.3%; *n*=20). The mean for the belief in myths scale was 20.99,

which means that there is a relatively moderate belief in myths within the criminal justice

system. See *Figure 1* for the distribution of belief in myths scores.



*Figure 1*. Distribution of belief in myths scores by college students.

The fifth question, which was adapted from Federok's 2013 study, addressed the time

frame of DNA analysis: Once collected, how long on average do you think it takes for crime

laboratories to analyze DNA evidence?; 1= Hours/ Days, 2= Weeks, and 3= Months/ Years. The

majority of respondents (42%; *n*=63) believed that it takes only hours or days for laboratories to analyze DNA evidence. Moreover, more than a third of the respondents (36.7%; *n*=55) believed that it takes weeks for laboratories to analyze DNA evidence, while only 21.3% (*n*=32) believed it takes months/years. See Table 2 for the variable descriptive statistics.

Table 2.

*Variable Descriptive Statistics*

| Variable | N | Mean | Minimum | Maximum | Standard Deviation |
|---|---|---|---|---|---|
| Consumption of Crime-Related TV | 150 | 0.527 | 1 | 2 | - |
| Belief in Myth Scale | 150 | 20.99 | 9 | 32 | 5.09 |
| Time to Analyze DNA | 150 | - | 1 | 3 | - |
| Age | 150 | - | 1 | 5 | - |
| Gender | 149 | - | 1 | 3 | - |
| Grade | 150 | - | 1 | 5 | - |
| Race | 149 | - | 2 | 7 | - |
| Ethnicity | 150 | - | 1 | 5 | - |

**Plans for Analysis**

Two tests, one independent sample *t*-test and one two-way contingency table analysis, were conducted to analyze the data. The independent sample *t*-test was conducted to determine the difference in means between the independent variable, the consumption of crime-related television shows, and the dependent variable, the belief in crime myths. Independent sample *t*-

tests are used when the independent variable is nominal, and it includes at least two groups and the dependent variable is quantitative. This test is appropriate as the consumption of crime-related television is a nominal variable with two groups (those who watch crime-related television on a regular basis and those who do not) which is being compared to the Belief in Myths Scale, which is a continuous dependent variable. The second test that was conducted was a Chi-Square test; this test was conducted to evaluate whether a statistical relationship exists between the independent and dependent variables. A two-way contingency table analysis is conducted when both of the variables are categorical with at least two levels. This test is appropriate since the independent variable, consumption of crime-related television shows, had two groups (those who watch crime-related television on a regular basis and those who do not) and the dependent variable, perception of how long it takes for crime laboratories to analyze DNA evidence, had three groups (hours/days, weeks, and months/ years).

## Results

### Consumption of Crime-Related Television and Belief in Myths Scale

An independent sample *t*-test was conducted to determine the difference in means between the consumption of crime-related television and the belief in myths scale. Levene's test was not significant, thus equal variances were assumed, $F(1,148)= .030$, $p=.863$. The independent sample *t*-test was not significant at any level, $t(148)= .801$, $p =.424$. Consequently, it was concluded that no significant difference in means existed between students who consumed crime-related television on a regular basis ($M=21.34$, $SD= 5.04$) and students who do not watch television on a regular basis ($M=20.67$, $SD=5.14$) and their belief in crime myths. Therefore, this does not support the hypothesis that students who consume crime-related television are more likely to believe in myths that exist within the criminal justice system. See Figure 2 to view the

variability in standard deviation for the consumption of crime-related television and belief in myths scale.



*Figure 2.* Error bar chart represents the standard deviation between the watch crime television on a regular basis and belief in crime myths scale variables.

**Consumption of Crime-Related Television and Perception of Time Frame Analyze DNA Evidence**

A Chi-Square test was conducted to determine if there is a significant difference between the consumption of crime-related television and the perception of the time frame it takes for crime laboratories to analyze DNA evidence. Results show that there is not a significant relationship between the respondents' consumption of crime-related television and their perception of the time frame it takes for crime laboratories to analyze DNA evidence, $x^2$(2, $N$=150)= 3.286, p= .195, which does not support the hypothesis that students' who consume

crime-related television on a regular basis are more likely to believe in crime myths. Of the students who indicated that they consume crime-related television on a regular basis, the majority indicated that they believed it only takes hours/days for crime laboratories to analyze DNA evidence (47.9%; *n*= 34). Moreover, only 26 respondents (36.6%) believed that it takes weeks and 11 respondents (15.5%) believed that it only takes months/years for laboratories to analyze DNA evidence. Regarding the respondents who indicated that they do not consume crime-related television on a regular basis, the same number of respondents believed it takes crime laboratories hours/days (36.7%; *n*= 29) and weeks (36.7%; *n*= 29) to analyze DNA evidence. Additionally, only 21 respondents (26.6%) believed that it takes crime laboratories months/ years to analyze DNA evidence. Thus, students who consumed crime-related on a regular basis believed that it only takes crime laboratories hours/days to analyze DNA evidence. The bivariate Chi-Square test for perception of the time frame it takes for crime laboratories to analyze DNA evidence can be seen in Table 4.

Table 3.

*Bivariate Chi-Square Test for Consumption of Crime-Related Television and Perception of Time Frame to Analyze DNA Evidence*

| *Variable* | *$X^2$* | *df* | *Significance* |
|---|---|---|---|
| **Time to Analyze DNA** | 3.286 | 2 | .195 |

**Discussion**

This study evaluated the relationship between the consumption of crime-related television and the belief in myths within the criminal justice system amongst college students. Previous research has found a relationship between the consumption of crime-related television and the belief in various crime myths (Federok, 2013; Hogan, 2019). Based on previous literature, it was hypothesized that students who consume crime-related television on a regular basis are more

likely to believe in crime myths. Unfortunately, the results of both the independent sample $t$-test and the Chi-Square test did not support this hypothesis. Despite the lack of significance, both tests indicated that there is an association between the consumption of crime-related television and the belief in crime myths. The results of the independent sample $t$-test were directional in that students who reported that they consume crime-related television on a regular basis scored higher on the Belief in Myths scale, which indicates a higher belief in crime myths.

The results of the Chi-Square tests were also directional. Further, the Chi-Square reported that of the students who indicated that they consume crime-related on a regular basis, the majority believed that it only took hours/days for crime laboratories to analyze DNA evidence. This directional relationship, despite the lack of significance, adds to the existing literature on this topic by offering insight that it is not accurate to presume that crime laboratories only take hours/days to analyze DNA evidence.

The lack of significance in the relationship between the consumption of crime-related television and the belief in crime myths goes against the majority of previous findings. As previously mentioned, past research found a relationship between the consumption of crime-related television and the belief in various crime myths, such as the overrepresentation of the use of DNA in cases (Federok, 2013; Holmgren & Fordham, 2011). Many previous studies that have researched the "*CSI* Effect" focused on the collegiate demographic, including students who had been forensic students at the time of the study (Hogan, 2019; Weaver et. al, 2012). While the college student demographic was necessary for this study, it has been found that older individuals, specifically over the age of 65, consume the most television per day (Krantz-Kent, 2018). While younger generations, including college students, typically consume other forms of media, such as social media, more frequently than their elder counterparts, this study focused

specifically on the consumption of television. A possible explanation for the non-significant relationship may have been the lack of questions that participants were asked to test their consumption of crime-related television. While the question used was adapted from Holmgren and Fordham's (2011) study, the researchers of the 2011 study had also included various other questions that asked for participants to indicate specific crime-related shows that they watch and the amount of time they watched those crime-related television shows per week. Additionally, in the current study, the phrase "regular basis" was not conceptualized for the participants within the survey, which may have led to a misinterpretation of the question. If the phrase "regular basis" had been conceptualized, respondents may have had a different answer, thus possibly leading to a significant relationship between the variables. Additionally, a question inquiring on the specific number of hours that respondents consumed crime-related television per week could have allowed additional analyses to have been conducted. As seen by most of the existing literature on this topic, many have included more specific variables. While this study attempted to provide an overview of the consumption of crime-related television and the belief of crime myths among college students, the lack of a more targeted variable, such as gender or major, may have contributed to the lack of a relationship between the independent and dependent variables. Moreover, the reason for the lack of significance may be a result of the numerous limitations that were evident throughout the implementation of this study.

**Limitations, Future Research, & Implications**

Numerous limitations were evident in this study. The first limitation was the overall design of the study that was used. For this study, a non-probability availability design was used, which makes the data that was collected difficult to generalize to a larger population. While this study's design was convenient and efficient for the sample demographic, college students, a

different sampling method would allow for further generalizability. Additionally, the sample size of this study ($N$=150) of this study was small. Due to the size of the university that participants were sampled from, it was difficult to gain a larger sample size. Moreover, some demographics of the sample were not representative. Based on the results, female participants were overrepresented within the sample. Another limitation was the use of electronic surveys. While electronic surveys are convenient and inexpensive, they are limited in their response rates. Electronic surveys, however, were necessary to use within this study due to the majority of courses being held in an online format and the small number of students on campus. Lastly, the study was limited in the lack of previous research on the consumption of crime-related television and the belief in crime myths that do not relate to DNA. While the "CSI Effect" phenomenon has been heavily researched, research on crime myths such as the misrepresentation of the average case length, the underestimation of cases assigned to criminal justice personnel, the overestimation of clearance rates, etc., have hardly been researched. The lack of research made it challenging to build this study off of previous research or to include similar questions within the questionnaire. While numerous limitations existed, future research is needed to further investigate the relationship between the consumption the crime-related television and the belief in crime myths.

Future research on this topic should be conducted to further evaluate if there is a relationship between the consumption of crime-related television and the belief in myths. Additionally, future research should build upon this study. Regarding future research on this topic, it would be interesting to see if there is a relationship between the type of crime-related television that individual consumes (non-fiction or fiction) and their beliefs in crime myths. Moreover, it would also be interesting to see if an individual's major, social science-based

(psychology, criminology, sociology, etc.) or not, has any relationship to their belief in myths that exist within the criminal justice system.

Despite the lack of statistical association that this study presents, the findings suggest that this issue is relevant. Previous research has found that the false perception of crime-related television shows has influenced juries' verdicts in trials (Alldredge, 2015; Call et al., 2013; Fedorek, 2013; Heinrick, 2006; Rhineberger-Dunn, 2016). In order to ensure that the jury's decision is not decided mainly on what is falsely portrayed within crime-related television shows, potential jurors should be asked about their consumption of crime-related television habits and further, their belief in crime myths during the jury selection process. Additionally, by asking prospective jurors various questions on this topic, it may reduce the possibility of juror bias during a trial.

**Conclusion**

Overall, this study sought to understand the relationship between the consumption of crime-related television and the belief in myths that exist within the criminal justice system. Additionally, based on the results of this study, there is not a significant relationship between the consumption of crime-related television and crime myths.  The topic of this study, however, adds to a larger body of research that has attempted to emphasize the importance of socialization to individuals, especially children. Socialization is important to individuals as they learn from a young how to "discern between good and evil" (Pescaru, 2018, p. 18), thus being taught by society at a young age that people who commit crimes are evil. While society's perception of the criminal justice system may vary based on location and exposure to family members or friends who have been impacted directly by the system, television and other forms of media has also played a role in how people perceive the criminal justice system. As mentioned beforehand,

previous research has been found that people over the age of 65 consume more television per week in comparison to their younger counterparts (Krantz-Kent, 2018). While older generations may gather their information from television, younger generations receive their information from social media sources. With the growing popularity of racial justice movements, such as Black Lives Matter and the George Floyd protests, that have emphasized the racial injustices within the criminal justice system, it may be interesting to consider the ways that social media has begun to socialize younger generations compared to the way television may have impacted older generations. Therefore, despite the lack of significance that the study presented, future research should be conducted to further evaluate the relationship between media and belief in various myths within the criminal justice system.

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# De lo que aconteció de la mariposa monarca

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En una de esas tardes de diluvios en primavera donde el viento frío estremece el alma y el sol que entre las nubes se esconde ligeramente acaricia la piel, sentada en el salón se encontraba Lucrecia contando sus pesares una vez más a Zelma su consejera y confidente:

- ¡Oh, Zelma! Ay de mí que una vez más me encuentro viniendo a tu acudo en busca de respuestas a mis delirantes preguntas. Resulta que, en esta ocasión, una situación no está siendo de mi entero agrado y el simple hecho de que esto cruce por mi mente me quita el sueño y me deja en desvelo durante largas noches. Me avergüenza incluso en voz alta exclamarlo sin sentir cierto desprecio hacia mi propio carácter. Sin más vueltas y enteramente devota a la confianza que en ti poseo, expresaré mi pesar. Después de haber ido a la cuidad, allá en el centro, donde la belleza es de las más exquisitas y refinadas no pude evitar admirar en aquellas damas que allí se encontraban toda la belleza sobrehumana que éstas gozaban. Sé que al decir esto he de pecar, pero con toda mi alma empecé a envidiar cada una de las cualidades que ellas poseían con tanta gracia y que en mí han de faltar. Dios ha de castigarme por mis pensamientos, pero de ellos he sido esclava desde aquel día. Desde ese día, cada vez que miro mi reflejo cuestiono la grandeza de la creación de Dios y en mi reflejo no encuentro consuelo. No hay nada en mí que tan siquiera se asemeje a lo que las damas del centro con tanta gracia tienen.

-Oh mi señora -dijo Zelma-, no ha de ser fácil de lidiar lo que la atormenta pues la envidia como un malicioso huésped entra sin ser invitado y poco a poco puede irnos segando. Quiero que en algo me entiendas y ser clara para que vos comprendas. ¿Ha oído usted de lo que aconteció de la mariposa monarca en Osval?

Lucrecia negó con la cabeza.

-Pues mire señora Lucrecia- dijo Zelma- En los adentros de un inhóspito jardín en Osval, habitaban seres de todo ejemplar, pero ninguno de ellos se podía comparar con la delicada mariposa monarca. Curiosamente en esos entonces, no había ningún otro ser que a ella se asemejara. Pues está un día simplemente despertó de un largo descanso y envuelta en un manto blanco se encontró, se sacudió y de ella dos alas de un vibrante color brotaron. Desconcertada y genuinamente preocupada ya que ella era la única que con esta nueva apariencia cargaba se afligió y sus alas escondió. Las gardenias, las rosas e incluso los lirios chismoteaban sobre la belleza sin igual que esta mariposa poseía, era simplemente el ser con más gracia y belleza en abundancia de todo el jardín. Al parecer la mariposa no se percataba de estas murmuraciones pues al pasar se negaba a volar y con cierto disimulo y avergüenzo se sentía al llegar. Miraba atrás a su colonia y no se sentía perteneciente pues ya su naturaleza había cambiado, ya su torso no debía arrastrar y las hojas verdes tan apetecibles no se mostraban. Empezó un resentimiento en su

pecho a formar, ¿Acaso que había hecho ella, en qué momento se había equivocado? ¿Por qué ya como sus compañeras no se veía? Era de gran tormento para ella la manera en que lucía.

Y un día mientras se alejaba del jardín y sobrevolaba encima de un lago cristalino notó en sus aguas algo que jamás antes había visto. Sus hermosas alas de un color tan azul que casi con el mismísimo cielo podían ser confundidas. Parecían haber sido talladas por los dioses y pintadas a mano con mucha atención hasta en los más mínimos trazos. Ensimismada e intoxicada de su propia belleza jamás volvió a dudar, y ya no quería hacer otra cosa que no fuese volar.

-Y tú mi querísima, al comprender que se puede apreciar la belleza en los demás sin cuestionar la de uno mismo, no volverás a sufrir de tales males y te liberarás de la carga que tú misma has puesto sobre ti. Aquella mariposa era sin discusión el ser más bello de aquel jardín y al no poder admirar la belleza en sí, creyó que esta estaba ausente más sin embargo estuvo allí desde los comienzos. ¡Sacúdete! Y libérate tú tus alas.

Lucrecia, concordó y entendió lo que Zelma trataba de ilustrarle y pensó en lo bien que había hecho al sacarse eso del pecho.

Y porque a mi parecer este ejemplo era uno bueno lo mande a escribir en este libro.

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