

Fall 9-23-2022

The Impact of COVID-19 on Secondary Victimization and Resiliency Following Sexual Assault

Elena Cantorna
Seattle Pacific University

Follow this and additional works at: https://digitalcommons.spu.edu/cpy_etd

 Part of the [Clinical Psychology Commons](#)

Recommended Citation

Cantorna, Elena, "The Impact of COVID-19 on Secondary Victimization and Resiliency Following Sexual Assault" (2022). *Clinical Psychology Dissertations*. 84.
https://digitalcommons.spu.edu/cpy_etd/84

This Dissertation is brought to you for free and open access by the Psychology, Family, and Community, School of at Digital Commons @ SPU. It has been accepted for inclusion in Clinical Psychology Dissertations by an authorized administrator of Digital Commons @ SPU.

**The Impact of COVID-19 on Secondary Victimization and Resiliency Following
Sexual Assault**

Elena P. Cantorna, M.S.

A dissertation submitted in partial fulfillment

of the requirements for the degree of

Doctor of Philosophy

In

Clinical Psychology

Seattle Pacific University

School of Psychology, Family & Community

Approved by:

Lynette H. Bikos, Ph.D., ABPP
Professor of Clinical Psychology
Dissertation Chair

Keyne C. Law, Ph.D.
Professor of Clinical Psychology
Committee Member

Jelena Vranjin, Ph.D.
Licensed Clinical Psychologist
Committee Member

Reviewed by:

Lynette H. Bikos, Ph.D., ABPP
Chair
Department of Clinical Psychology

Keyne C. Law, Ph.D.
Director of Research
Department of Clinical Psychology

Katy Tangenberg, Ph.D.
Dean School of Psychology, Family, &
Community

CANTORNA DISSERTATION DEFENSE

DEDICATION

For Bernardo Cantorna M.D., Raffaele Bernetti Ph.D., and Joan Flynn B.S.N., R.N.; I miss you all so much. Thank you for giving me some amazing and inspiring grandparents to look up to; I hope that I am making you proud.

CANTORNA DISSERTATION DEFENSE

ACKNOWLEDGMENT

I would like to thank all of those who have had a massive impact on both my dissertation and my graduate school career. Thank you to Mom, who edited all my papers throughout graduate school and gave me a Ph.D. to look up to. Thank you to my dad, my little sisters, and extended family for the emotional support and laughs that got me through the challenging times. I am also extremely grateful to Dr. Lynette Bikos for always supporting me and my sassy comments. Lastly, I would like to thank my cohort mates and RVT members for providing an outlet for complaints, thoughts, and questions.

TABLE OF CONTENTS

DEDICATION	ii
ACKNOWLEDGMENT	iii
LIST OF TABLES	vi
LIST OF FIGURES	vii
ABSTRACT	viii
CHAPTER I- INTRODUCTION	1
Resilience as a Buffer to Negative Outcomes During Stressful Experiences	2
Negative Outcomes Related to Sexual Assault	4
Secondary Victimization	7
Negative Impact of Secondary Victimization	8
Sexual Assault Legal Advocacy as a Buffer to Negative Outcomes	10
KCSARC Legal Advocacy Services	11
COVID-19 Pandemic Negative Impact on Individuals	12
COVID-19 Impact on the Justice System	12
COVID-19 Impact on KCSARC Services	13
Purpose of Dissertation	13
CHAPTER II-METHOD	15
Participant Characteristics	15
Sampling Procedures	16
Sampling Size, Power, and Precision	16
Measures and Covariates	17
Resilience Appraisals	17
Positive Experiences with the Legal System	18
COVID-19 Metric Case and Vaccination Rates	18
Research Design	19
Analyses	19
CHAPTER III-RESULTS	20
Preliminary Analyses	20
Primary Analyses	21
CHAPTER IV-DISCUSSION	25
Limitations and Strengths	28
Implications	30

CANTORNA DISSERTATION DEFENSE

Future Directions	31
Conclusion	31
REFERENCES	33

CANTORNA DISSERTATION DEFENSE

LIST OF TABLES

Table 1: Regression analysis of Predictors of Resiliency Appraisals..... 22
Table 2: Simple Slopes analysis 24

LIST OF FIGURES

Figure 1: Hypothesized Model 15
Figure 2: Relationship between positive experiences with the Legal System (i.e., secvict) and Resiliency Appraisals 23
Figure 3: The interaction between Resiliency Appraisals and positive experiences with the Legal System (i.e., secvict) as moderated by COVID-19 Metric Cases and COVID-19 Vaccines administered rate 24

ABSTRACT

Elena P. Cantorna

324 words

Many individuals report negative experiences with the court system after experiencing a sexual assault (i.e., secondary victimization) and this leads to a belief that they are unable to cope with future stressors (i.e., resiliency). Furthermore, the COVID-19 pandemic negatively impacted individual's lives and their overall well-being. In this dissertation, I examined a model predicting resiliency appraisals from positive experiences with the legal system, mediated by COVID-19 weekly metric case rate and the number of COVID-19 vaccines administered. Participants were 18 years and older, self-identified cis females, and were clients of a local legal advocacy clinic ($N = 94$) following an experience of a sexual assault. Data was analyzed in R using the ordinary least squares (OLS) approach. Results indicated that roughly 5.5% of the variance in resilience was accounted for by the model of positive experiences with the legal system through COVID-19 metric case rate and vaccines administered. The direct effect was statistically significant between positive experiences with the legal system and resiliency ($B. = 0.191$, $p = 0.005$). There was an interesting non-significant change of directionality of the relationship between positive experiences with the legal system and resiliency appraisals when COVID-19 metric case rate was high, and vaccines administered was low or at the mean. Results suggested that COVID-19 metric cases and vaccine administration rates did not significantly impact the level of resiliency appraisals that an individual reported. However, they showed that the more positive experiences (i.e., lower levels of secondary victimization) individuals had with the legal system the higher they reported their

CANTORNA DISSERTATION DEFENSE

resilience. These results could be due to the relatively small sample size being unable to detect a small effect size. Future research would benefit from assessing these variables in a larger sample to determine if the change of directionality in the relationship or small portion of slope that was significant is replicated in a larger data set to better understand how legal advocacy centers should respond to large-scale stressful events.

Keywords: secondary victimization, resilience, COVID-19, sexual assault

CANTORNA DISSERTATION DEFENSE

CHAPTER I- INTRODUCTION

Resiliency acts as a buffer to stressful experiences and can mitigate negative impacts from stressful life events (Luthar, 2015). However, as the number and severity of stressors increase, resiliency is negatively impacted in individuals (Glass et al., 2007). My dissertation examined the impact of two stressors on resiliency appraisals (secondary victimization and COVID-19 reported case numbers) in a sample of individuals who have experienced sexual assault and are receiving legal advocacy services.

People with higher resiliency levels report fewer mental health concerns and significantly fewer suicide attempts after stressful or traumatic experiences (Johnson, Gooding, Wood, & Tarrier, 2010). People with higher resiliency find meaning and purpose related to traumatic experiences (Crete & Singh, 2015). Sexual assault is a significant stressor that impacts an individual's mental and physical health, leading to a wide array of negative outcomes (Macy et al., 2011). Research has stated that sexual assault is one of the most harmful forms of traumatic experiences because of the associated loss of control over life (R. Campbell et al., 2001).

Another stressor for individuals who experienced sexual assault is secondary victimization. Secondary victimization is best described as victim blaming at the hands of the systems (e.g., legal and medical systems) meant to help the individual (R. Campbell, 2006). Secondary victimization is connected to poorer mental and physical health outcomes for those who have experienced sexual assault (R. Campbell, 2006). Legal advocacy programs were created to buffer the negative outcomes related with sexual assault and secondary victimization, and to assist the individual through the court proceedings (Macy et al., 2011).

CANTORNA DISSERTATION DEFENSE

The final stressor included in this dissertation is COVID-19 case activity. COVID-19 has increased rates of depression and anxiety in large representative samples (Copeland et al., 2021; Shah et al., 2021; Twenge & Joiner, 2020). COVID-19 has also been connected to higher rates of sexual assault and homicides, and difficulty accessing resources like sexual assault resource centers (Boman & Gallupe, 2020). The intersectional relationship between resiliency appraisals and secondary victimization in the context of the COVID-19 pandemic has not been previously examined.

My dissertation examined resilience appraisals and positive experiences with the legal system (i.e., lower secondary victimization) within a larger program evaluation for King County Sexual Assault Resource Center's (KCSARC) legal advocacy program. The first purpose of the study is to explore the relationship between resilience appraisals and positive experiences with the legal system of individuals who have experienced sexual assault. The second purpose of the study is to determine the impact that COVID-19 has had on the relationship between resiliency appraisals and positive experiences with the legal system in the same individuals.

Resilience as a Buffer to Negative Outcomes During Stressful Experiences

Individuals who experience trauma may adapt and grow after a traumatic event; the ability to buffer against the negative impacts of stressful events is referred to as *resiliency* (Luthar, 2015). Individuals who report higher resilience levels are able to return to baseline after a stressful event more quickly (Garrido-Hernansaiz et al., 2020). Researchers use the construct of resilience in many ways and have not agreed on a universal definition (Aburn et al., 2016; Herrman et al., 2011). Auburn and colleagues (2016) uncovered five themes across the different definitions of resilience. Higher levels of resilience are related to: (a) bouncing

CANTORNA DISSERTATION DEFENSE

back after a stressful event, (b) better mental health outcomes, (c) adjusting to stress and changes more easily, (d) overcoming adversity, and (e) all people can be resilient. Therefore, when investigating resilience it is best to use the construct on a continuum across individuals with different inherent levels (Garrido-Hernansaiz et al., 2020). Resilience is demonstrated in different ways depending on the context, the stressor being overcome, the population being studied, or the type of coping strategies that are used by the individual (Garrido-Hernansaiz et al., 2020).

Resilience includes individual and environmental factors that determine if an individual can cope with a traumatic experience. Bronfenbrenner's bio-social-ecological model of human development describes the factors that interact (e.g., chronosystem, macrosystem, exosystem) to create differing degrees of resilience in individuals (Ungar et al., 2013). In addition, there are individual factors impacting resilience such as beliefs, emotion regulation strategies, and appraisals and environmental factors such as socioeconomic status and access support systems (Ressel et al., 2018). Unique internal and/or environmental factors contribute to resilience and the complexity of resilience expression makes it difficult to determine the exact definition that is applicable for research (Bogar & Hulse-Killacky, 2006).

People who perceive themselves to be resilient handle trauma more effectively. The appraisal theory of resilience demonstrates that the interpretation of a stressful life event influences the person more than the actual event (Lazarus & Folkman, 1984). Once the event is appraised as a threat and the chance of harm is implied the person reports feeling a loss of control over the experience (Ehlers & Clark, 2000). Positive self-appraisals, or a belief that the individual can handle a situation, may buffer the effects of negative or high stress life

CANTORNA DISSERTATION DEFENSE

events (Johnson, Gooding, Wood, & Tarrier, 2010). Higher resilience appraisals also appear to buffer against suicidal ideation even in those with high levels of hopelessness (Johnson, Gooding, Wood, Taylor, et al., 2010). Furthermore, individuals who have experienced sexual assault with higher resilience appraisals are more likely to have received some form of mental health counseling (Crete & Singh, 2015). Men with higher resilience appraisals are more likely to find meaning and purpose after processing the sexual assault, and often go on to help other individuals who have experienced sexual assault (Crete & Singh, 2015). Overall, if an individual believes that they are resilient then they are more likely to have more positive outcomes overall.

The environment also impacts the way that a stressful experience is experienced and impacts an individual's resiliency and resiliency appraisal (Aburn et al., 2016; Garcia-Dia et al., 2013). More robust community support networks can create a safe place for individuals to cope with stressful events by expressing their emotions outwardly (Garcia-Dia et al., 2013). Increased social support can buffer the impact of traumatic events by increasing their resiliency and reducing the likelihood of developing post-traumatic stress disorder (PTSD), even when the number of traumatic experiences increase (Glass et al., 2007). Social support is hypothesized as important due to the interpersonal nature of stressful and traumatic experiences, so that feeling supported and safe diminishes the experience of being violated (Bryant-Davis et al., 2011). Individuals who have access to a social network can buffer against the negative mental and physical health outcomes after traumatic experiences (Johnson, Gooding, Wood, & Tarrier, 2010). Thus, the presence of a supportive environment can contribute to post-traumatic recovery.

Negative Outcomes Related to Sexual Assault

CANTORNA DISSERTATION DEFENSE

One example of a significant stressor is sexual assault. Sexual assault harms an individual's mental, and physical health and continues to be a widespread problem (Macy et al., 2011). Sexual assault occurs when a "perpetrator commits sexual acts without a victim's consent, or when a victim is unable to consent (e.g., due to age, illness) or refuse (e.g., due to physical violence or threats)" Basile et al., 2014, p. 1). The National Sexual Violence Resource Center (2018) reported that within the United States, 1.4% of men and 18.3% of women experience sexual assault during their lifetime. These numbers are widely considered to be an underestimate of the true number of incidents of sexual assault because sexual assaults are known to go unreported to police (e.g., it was estimated that from 2006 to 2010 that 65% of cases went unreported; Langton et al., 2012). The cases likely go underreported due to the numerous negative consequences associated with sexual assault (i.e., feelings of guilt, distrust of others, and secondary victimization; [R. Campbell, 2006]). Sexual assault is a significant traumatic event and affects many people.

Sexual assault results in large financial costs. Included in the financial costs are medical bills, loss of productivity by the individual, criminal justice costs, and loss of property (Peterson et al., 2018). Private insurance companies in the United States report that they pay an average of \$5,780 per incident, while the patient has to pay an average of \$948 per sexual assault (Tennessee et al., 2017). The cost for sexual assault is more than any other crime; annually sexual assault costs the United States close to \$127 million, while every rape accounts for approximately \$151,423 (DeLisi et al., 2010; Miller et al., 1996). Furthermore, 91% of women who report sexual assault while in college reported significant health issues that made it more difficult to finish college and obtain their career goals (Potter et al., 2018). Adolescent sexual assault is related to reduced income levels in adulthood (Macmillan,

CANTORNA DISSERTATION DEFENSE

2000). There are short and long-term financial impacts of sexual assault that can have long-term effects on the physical and mental wellbeing of individuals.

There is a significant impact on mental health after a sexual assault. Individuals who experience sexual assault have a higher lifetime prevalence of suicidal ideation and suicide attempts compared to those who report no experience of sexual assault (Dworkin et al., 2020). Black women who report high severity sexual assault had increased PTSD symptoms, poorer physical health outcomes, and increased depressive symptoms (Pegram & Abbey, 2019). All individuals who have experienced sexual assault have a two-fold greater chance of developing clinically elevated symptoms of depression (McDougall et al., 2019). White women who reported high severity sexual assault also experienced an increase in PTSD symptoms (Pegram & Abbey, 2019). Furthermore, many individuals who have experienced sexual assault have increased and more severe psychopathology across all diagnosis with increased suicide attempts and ideation (Dworkin et al., 2017). Sexual assault increases the likelihood of depression, PTSD, and suicidal ideation over the lifetime of the victims.

Sexual assault also affects physical health. Victims of sexual assault reported increased utilization of health care during adulthood and poorer physical health outcomes (National Coalition to Prevent Child Sexual Abuse and Exploitation, 2012). Further, there is a connection between sexual assault to vaginal bleeding, chronic pelvic pain, sexually transmitted infections, vaginal and/or anal tearing, urinary tract infections, unwanted pregnancies, stillbirths, miscarriages, and sexual dysfunction (J. C. Campbell & Lewandowski, 1997; World Health Organization, 2013). Experiencing a sexual assault is also related to more migraines and headaches, chronic pain, cardiovascular conditions, broken bones, and irritable bowel syndrome (National Coalition to Prevent Child Sexual Abuse and

CANTORNA DISSERTATION DEFENSE

Exploitation, 2012; World Health Organization, 2013). The deterioration of physical health further acts as a cue or reminder of the sexual assault, which affects mental health outcomes.

Secondary Victimization

A second stressor that could impact outcomes in individuals who experience sexual assault is secondary victimization. Over 90% of individuals who have experienced sexual assault report secondary victimization during their interactions with the legal and/or medical systems (Campbell, 2013). Secondary victimization is described as the individual experiencing victim-blaming at the hands of services and service providers that are intended to provide support after a traumatic event (Campbell, 2006). Over half of the individuals who reported their sexual assault were told by the police that the case was not serious enough to prosecute (Campbell, 2006). Questions asked about the sexual assault included: (a) information about past sexual history or relationships with the perpetrator, (b) description of the clothing worn at the time of the assault, and (c) whether the individual had a sexual response to the assault (Campbell, 2006). Many women reported feeling shamed for their sexuality and blamed for the abuse during questioning by the medical and court systems (Annan, 2011). During interviews about their sexual assault women have described being threatened, with a charge of false reporting (Patterson, 2011). Women who had previously reported a sexual assault expressed a reluctance to report future crimes to avoid feeling blamed for the attacks (Patterson, 2011). The negative experiences with the legal and medical systems create a lack of trust in the systems, which contributes to the underreporting of sexual assaults (Du Mont et al., 2003; National Alliance to End Sexual Violence, 2010).

Positive court experiences result in less secondary victimization. Individuals whose cases are prosecuted, are less likely to report secondary victimization and they instead report

CANTORNA DISSERTATION DEFENSE

feeling cared for by the police (Annan, 2011; Patterson, 2011). This is troubling given that only 25% of reported sexual assault cases were prosecuted (Campbell et. al, 2001). Further, of the sexual assault cases that are prosecuted 10% resulted in the perpetrator not being convicted at trial (Campbell et al., 2001). Sexual assault cases are more likely to be prosecuted when it is reported within two hours if the woman is older, if the sexual assault was perpetrated by a stranger, and if the individual reporting the crime was credible. It is noteworthy that rates of prosecution are significantly lower for women of color (Patterson, 2011). Procedural justice, or the perceived fairness of the procedures (Wemmers, 2013) is strongly related to decreased feelings of shame, anxiety, and anger after a sexual assault (Barkworth & Murphy, 2016). Individuals who expressed feelings of procedural justice reported a lower fear of future crime and higher life satisfaction than those who experienced secondary victimization (Barkworth & Murphy, 2016). Overall, when the legal proceedings feel fair, and the crime was prosecuted results in lower rates of secondary victimization.

Negative Impact of Secondary Victimization

Secondary victimization is related to a variety of negative outcomes. Individuals that are secondarily victimized report that they are highly distressed and have worse mental health outcomes (Campbell, 2006; Campbell et al., 1999, 2001). Furthermore, secondary victimization results in negative physical health symptoms, higher risk-taking behaviors, higher psychological distress, and higher posttraumatic stress symptoms (Campbell, 2006; Campbell et al., 1999, 2001; Campbell & Raja, 2005). Depression, a lack in trust of others, increased symptoms of anxiety, and decreased help-seeking behaviors are additional attributes of those that have experienced secondary victimization (Campbell et al., 1999, 2001; Campbell & Raja, 2005). Secondary victimization also results in the high attrition

CANTORNA DISSERTATION DEFENSE

rates of sexual assault cases. Only 10 to 12% of sexual assault reports to police result in convictions (Campbell, 2006, 2013; Campbell et al., 1999, 2001). During court proceedings individuals reported lack of caring, disrespectful interrogation techniques, and victim blaming (Patterson et al., 2009). Participants further reported feeling misled by police, defense attorneys, judges, and prosecutors during the process (Logan et al., 2005). The negative experiences led to feeling a strong lack of control during their court case (Logan et al., 2005). Further research indicates that society often believes that most sexual assault allegations are false, and the legal system reflects the attitude when interacting with those reporting sexual assault (Stern, 2010). Secondary victimization contributes to poor outcomes for people who have been sexually assaulted.

The negative experiences associated with reporting a sexual assault result in people withdrawing from criminal proceedings to avoid feeling powerless and vulnerable (Patterson et al., 2009). Researchers hypothesize that the negative attitudes of law enforcement towards individuals who have experienced sexual assault leads to higher attrition rates during court proceedings (Harris & Grace, 1999; Hester, 2015; Hohl & Stanko, 2015; L. Kelly et al., 2005; Stern, 2010). The attrition rate often leads to escalation in intimate relationships where sexual violence is also present and if the pattern does not change and can result in homicide (Campbell & Lewandowski, 1997). An important consequence of law enforcement's attitudes towards people who experience sexual assault includes the disengagement from the legal proceedings, which has additional impacts on people.

Programs have been created to address secondary victimization, including additional training by police officers. When police officers were required to take further training, the percentage of individuals who reported that they were treated fairly and with sensitivity after

CANTORNA DISSERTATION DEFENSE

experiencing a sexual assault increased by 6% (Rape Crisis Network Ireland, 2015). Results connected to increasing training has led to policy focused on changing the attitude of law enforcement officers towards sexual assault, and offering advocates to support individuals throughout the legal trial (Hester & Lilley, 2017). If individuals report more positive interactions with law enforcement and report increased feelings of control over their environment, they also report increased abilities to cope with future stressors or higher resiliency (Cieslak et al., 2008). These findings have led to the creation of legal advocacy resources at sexual assault resource centers.

Sexual Assault Legal Advocacy as a Buffer to Negative Outcomes

Legal advocacy programs were created to reduce secondary victimization and increase the reporting and prosecuting of sexual assaults. However, legal advocacy programs designed by sexual assault resource centers have been underutilized (Campbell et al., 2001). The Violence Against Women Act (VAWA) was introduced to deter sexual assault, stalking, and domestic violence through prevention programs and to reduce victimization costs (Campbell, 1998; Clark et al., 2002). Even after the introduction of policies to identify sexual assault victims, only 71% of women reported being screened for sexual assault by a medical provider with 14% of women given information about sexual assault resources (Berry & Rutledge, 2016). If asked, 83% of women stated that they would disclose a sexual assault to a doctor, but only 25% of women would disclose a sexual assault without being asked directly by a doctor (Berry & Rutledge, 2016). Legal advocacy was created to improve the identification, reporting and prosecution of sexual assaults.

Legal advocacy for victims of sexual assault is critical. There are over 644 rape crisis centers within the United States, aimed at empowering individuals to report the crime, and

CANTORNA DISSERTATION DEFENSE

helping individuals navigate the legal and medical systems after experiencing a sexual assault (National Alliance to End Sexual Violence, 2010). Legal advocates have several different roles including but not limited to, preparing the individual for court, accompanying clients to court, speaking out for the client, connecting the client with resources, and helping the client to create a safety plan for times of crisis (Campbell, 2006; King County Sexual Assault Resource Center, n.d.). Individuals who have experienced sexual assault that had a legal advocate were slightly more likely to have their report accepted by the police, and less likely to experience negative interactions with the police (Campbell, 2006). Overall individuals who report feeling heard and believed report fewer mental and physical health problems and demonstrates the potential of legal advocates to mitigate the negative impacts of experiencing a sexual assault (Campbell et al., 2001). To summarize, legal advocates are important tools to improve outcomes for victims of sexual assault.

KCSARC Legal Advocacy Services

King County Sexual Assault Resource Center (KCSARC) is a 501(c) (3) nonprofit in Washington State that has a mission to support individuals who experienced sexual assault and their families by connecting them to resources across King County (KCSARC, n.d.). KCSARC mission is, “to give a voice to victims, their families, and the community; create change in beliefs, attitudes, and behaviors about violence; and instill courage for people to speak out about their sexual assault.” KCSARC provides advocacy, support, and services to individuals across the lifespan, from diverse and historically marginalized and underrepresented backgrounds, and across the gender spectrum.

KCSARC began providing legal advocacy services in 1976, and they have the largest program of its kind in the country. KCSARC has helped drive policy in Washington state and

CANTORNA DISSERTATION DEFENSE

was referenced in 57 news articles about sexual assault policy change in 2017 (KCSARC, n.d.). KCSARC aims to help clients navigate complex and ever changing legal and medical systems after an individual or family is impacted by a sexual assault and to reduce the negative impacts of secondary victimization. Legal advocates serve children, teens, adults, and their families; legal advocates aim to prepare clients for criminal justice proceedings and medical appointments to allow them to regain a sense of control after experiencing a sexual assault.

COVID-19 Pandemic Negative Impact on Individuals

The COVID-19 pandemic has been a significant stressor in the lives of individuals across the world. People across the United States have reported eight times the rate of severe mental distress in 2020 compared to 2018; with the highest increases in ratings of hopelessness and worthlessness (Twenge & Joiner, 2020). The majority of people report that COVID-19 has disrupted their daily life with lower overall moods and a reduced capacity to practice self-care activities (Copeland et al., 2021). The levels of reported distress appear to increase as the case activity increases (i.e., the number of new cases each week), which is related to higher levels of reported depression symptoms, higher rates of emotional distress, and higher reports of panic symptoms (Best et al., 2020). Resilience levels appear to protect against both depression and anxiety in individuals who were diagnosed with COVID-19 (Zhang et al., 2020). Conversely, increased time in quarantine or stricter shut down was related to higher levels of stress, anxiety, and depression (Shah et al., 2021). Thus, individual well-being has been negatively impacted by the COVID-19 pandemic.

COVID-19 Impact on the Justice System

CANTORNA DISSERTATION DEFENSE

Overall during the pandemic there was a reduction in all crimes, however, more serious offenses including homicide and intimate partner violence (including sexual assault) remained the same or even increased in some samples (Boman & Gallupe, 2020; Campedelli et al., 2020). Some researchers hypothesized that the higher rates of stress and increased duration of time spent with family members led to increased levels of violence including more incidences of sexual assault and homicides (Sharma & Borah, 2020). Furthermore, victims of crime lost access to resources including support systems, shelters, procedural justice, and legal options such as protective orders due to court shut downs (Sharma & Borah, 2020). The opportunity to report intimate partner violence was reduced because the abuser never left the home, which normally would be the only time to report the crime without fear of retaliation (Sharma & Borah, 2020). The additional negative impact of COVID-19 on the justice system makes COVID-19 an important variable to include in the research surrounding outcomes after sexual assault.

COVID-19 Impact on KCSARC Services

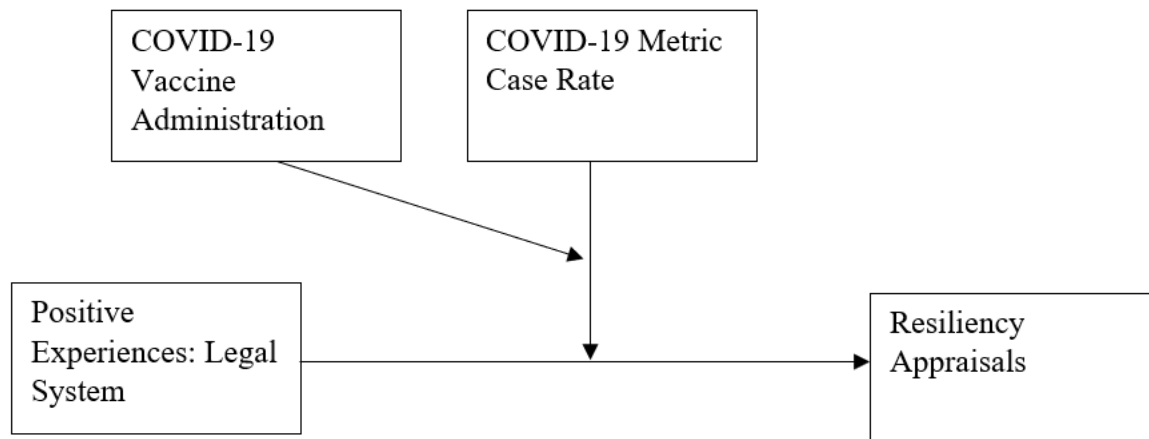
KCSARC continued to offer services during the COVID-19 pandemic with the number of individuals and families served staying relatively consistent and no pause in services due to the COVID-19 virus (KCSARC, 2020). The number of individuals and families served was 4,905 in 2019, 4,560 in 2020, and 5,059 in 2021 with a 23% increase in the number of people served over the last five years, of these clients 2,495 of them participated in legal advocacy services in 2021 (KCSARC, 2022). KCSARC quickly pivoted their services to primarily tele-services due to the pandemic, but continued to provide services both in person and online in 2021 (KCSARC, 2022).

Purpose of Dissertation

CANTORNA DISSERTATION DEFENSE

Domestic violence and sexual assault agencies provide important resources, however there is limited research on their effectiveness and the best practices to help individuals who have experienced sexual assault. Research about the process and outcomes of legal advocacy clients can directly impact the ability of legal advocates to identify and offer services that increase resilience and therefore recovery after experiencing sexual assault (Jewkes et al., 2002). The COVID-19 pandemic introduced an unexpected variable into the ability of legal advocacy services to effectively serve individuals who experienced sexual assault. To account for the pandemic, it is necessary to compare outcomes before and during COVID-19 to determine new barriers to services and potential impact on legal advocacy programs. The goal of the thesis was to identify potential new insights about how a global stressor might inform and improve services provided by legal advocacy programs to sexual assault victims.

My dissertation aims to inform the program evaluation process by investigating effects of COVID-19 metric case rates and COVID-19 vaccination administration rates and the impact these have on the relationship between positive experiences with the legal system (i.e., lower secondary victimization) and resiliency appraisals in a sample of clients in a legal advocacy program for those who have experienced sexual assault using a moderated moderation or three-way moderation (See Figure 1 below).

Figure 1: Hypothesized Model

CHAPTER II-METHOD

Participant Characteristics

The data in this dissertation is part of an ongoing partnership to evaluate the legal advocacy program at KCSARC. The evaluation is a longitudinal design with three waves of repeated measures for each participant. The first survey packet was sent once the participant began legal advocacy services, the second was received three months after the first survey, and the third survey was sent 6 months after first meeting with an advocate. Only the first wave was included in the analysis for my dissertation due to attrition common in longitudinal survey designs.

The data was collected electronically. The participants were sent a link by e-mail or text message for the survey on Qualtrics. These participants were given monetary incentives for completing the survey. The participants were given a gift card online for \$5 for Time 1, \$10 for Time 2, and \$15 for Time 3, with the possibility of receiving up to \$30 over the three time periods.

CANTORNA DISSERTATION DEFENSE

Because many of these measures have not been used or evaluated in populations under 18 and there are concerns that their developmental stage may impact the results of the study, only individuals that are 18 or older were included in the data analysis. The age of participants ranged from 18 to 61 years old with a mean of 31 years old. The reported ethnicity of participants was primarily White (56%), 13% Hispanic or Latino, 12% Asian or Asian American, 9% Black, 7% Indian or Native American, and 2% un-identified. The reported sexuality of participants was 75% straight or heterosexual, 14 % gay or lesbian, 2% bisexual, 2% preferred not to say, and 7% identified as other. Regarding gender 91.1% identified as a cis woman, 4.5% identified as cis man, 2.7% identified as other, and 0.9% identified as both transgender male-to-female or transgender female-to-male. Due to the limited sample size, because most of the sample was cis women, only cis women were used in the analysis. After removing all but cis women, the proportional representation of age, race, and sexual orientation in the final sample was the same.

Sampling Procedures

The dissertation was conducted along with a larger longitudinal project that consists of six total measures completed at three different time-points for each participant (i.e., intake, three months post-intake, and six months post-intake). Due to attrition common in longitudinal study design only the participant's first survey was included in my dissertations analysis. The survey was distributed via Qualtrics.

Sampling Size, Power, and Precision

To achieve a power of 0.80 ($\alpha = 0.05$) for a 0.30 medium effect size with five predictors, G*Power (Faul et al., 2009) was utilized to determine an appropriate a priori sample size of 43 for the study. For a small effect size of 0.10 with five predictors, an

CANTORNA DISSERTATION DEFENSE

appropriate a priori sample size of 134 would be required. Eight participants were removed because of missing data and individuals less than 18 years old or who identified as a gender other than cis female were also removed. The remaining 94 participants were included in the analysis.

Measures and Covariates

Resilience Appraisals

The Resilience Appraisals Scale (RAS; Johnson, Gooding, Wood, & Tarrier, 2010) is a self-report measure with 12 items. The scale measures the participant's appraisal of their ability to cope or be resilient to future stressors. The RAS has three, four item subscales, which are the situation coping, the emotion coping, and the social support subscale. The situation coping subscale measures the participant's perceived ability to solve a problem (i.e., "I can usually find a way of overcoming problems"). The emotion coping subscale measures the perceived ability of an individual to cope with hard emotions (i.e., "I can put up with my negative emotions"). The social support subscale measures the participant's perceived ability to find social support when needed (i.e., "I could find family or friends who listen to me if I needed them to") The scale was confirmed as a three-factor structure using confirmatory factor analysis (Johnson, Gooding, Wood, & Tarrier, 2010).

The initial intent of the measure was to assess a participant's ability to be resilient to future suicide attempts and thoughts due to stressful life events. However, more recently the RAS has been used to measure resilience of participants after exposure to a traumatic event (Panagioti et al., 2012). The measure uses a 5-point Likert scale that ranges from 1 (*strongly disagree*) to 5 (*strongly agree*) with a total resilience score being computed by summing item scores. The scale can be used for a total overall RAS score or can be used with the 3 separate

CANTORNA DISSERTATION DEFENSE

subscales separately. The analysis here only used the score for overall RAS. Higher overall RAS scores show higher levels of positive self-appraisals indicating resilience in the face of stressful events.

Positive Experiences with the Legal System

The Secondary Victimization-Subjective Effects Scale (SES; Orth, 2002) is a self-report five item measure that examines secondary victimization during court proceedings. The SES measure is part of a larger questionnaire titled Secondary Victimization of Crime Victims by Criminal Proceedings Measures that has a total of six domains. In the SES subscale, the five items measure faith in a just world, self-esteem, trust in the legal system, coping with victimization, and faith in the future. The items are scored based on a 7-point Likert scale with anchors from -3 (*very negative*) to 3 (*very positive*), with total scores being made up of an average of the item scores. Higher scores indicate higher levels of reported positive consequences related to court proceedings on the SES. A sample item includes: “What consequences did the criminal proceedings have on your self-esteem?” Orth (2002) reported an internal consistency of 0.87 for the subscale.

COVID-19 Metric Case and Vaccination Rates

The severity of COVID-19 was measured by using the weekly new cases rate or metric case rate. The COVID case rate data was accessed through (COVID Act Now, n.d.) and their online API, which was launched in the United States in April 2020 to give accessible and actionable data for use by the public and researchers. The weekly new case rate is the “number of new COVID cases per week per unit of the population (COVID Act Now, n.d.). The new cases per week was calculated by taking the total new cases for the seven-day week and dividing it by every 100,000 people in that location. Obtained from the

CANTORNA DISSERTATION DEFENSE

same dataset, the vaccine rate of COVID-19 was measured by the total cumulative number of administered vaccines in King County on the day that the survey was completed. Both variables were selected together to control for amount of time since the start of the pandemic. With both variables included those who responded at the start of the pandemic were not grouped with those at the end of the pandemic.

Research Design

The data used in this dissertation is from a larger study that was approved by the Seattle Pacific Institutional Review Board (IRB), #181908002R (expiring 2/09/2022). The data included in this dissertation was collected from August 2019 to October 2021. The larger longitudinal study looked at legal advocacy service satisfaction, sexual assault coping self-efficacy, secondary victimization, social support, resilience, and coping strategies at three different time points. My dissertation only used SES and resiliency appraisals at the first collected time point for each participant. Furthermore, my dissertation used the metric number of new weekly cases of COVID-19, and the number of total vaccines administered on the day of the data collection to determine the impact of the pandemic positive experiences with the legal system and resiliency.

Analyses

Given the high rate of attrition in longitudinal datasets and the maximum of three observations per person for the data set (which is the minimum number of observations required for multi-level modeling), our data did not meet the requirements for multi-level modeling. Therefore, I used the first observation captured per person in a cross-sectional modeling approach. Most of the data was collected during the initial wave of COVID-19 infections. However, participants were allowed to join the study at any time, and so for some

CANTORNA DISSERTATION DEFENSE

participants it could have been later waves of COVID-19 infection. With the cross-sectional design, I tested a moderated moderation or three-way moderation of COVID-19 metric case rate and COVID-19 vaccine rate on the relationship between positive experiences with the legal system and resilience. Data was analyzed using an ordinary least squares (OLS) approach (Cohen et al., 2003) with the base R function (v. 4.0.4), *lm()*. I specified a model predicting resilience appraisals from the interacting effect of COVID-19 metric weekly case rate, COVID-19 vaccine rate, and positive experiences with the legal system.

CHAPTER III-RESULTS

Preliminary Analyses

Available item analysis (AIA; Parent, 2013) is a way of managing missing data that uses data available and excludes the cases with missing data points only for analyses in which the data points would be directly involved. Parent (2013) suggested that AIA is equivalent to more complex methods (e.g., multiple imputation) across several variations of sample size, magnitude of associations among items, and degree of missingness. Thus, I utilized Parent's recommendations to guide our approach to managing missing data. Missing data analyses were conducted with tools in base R as well as the R packages, *psych* (v. 1.0.12) and *mice* (v. 3.13.0).

Across cases that were deemed eligible based on the inclusion/exclusion criteria, missingness ranged from 0% to 65%. Across the dataset, 2.65% of cells had missing data and 92.16% of cases had non-missing data. Guided by Parent's (2013) AIA approach, scales with three items were scored if at least two items were non-missing; the scale with four items was scored if it at least three non-missing items; and the scale with six items was scored if it had at least five non-missing items. Across the 102 cases for which the scoring protocol was

CANTORNA DISSERTATION DEFENSE

applied, missingness ranged from 0% to 50%. After eliminating cases with greater than 20% missing, the dataset analyzed included 94 cases. In the dataset I had 0.00% missing across the *df*; 100% of the rows had non-missing data.

Primary Analyses

I used hierarchical multiple regression to evaluate the effects of positive experiences with the legal system, COVID-19 metric case rate, and COVID-19 vaccination administered rates on resiliency appraisals. The three predictors were evaluated in Block 1. As shown in Table 1, positive experiences with the legal system had a statistically significant effect on resiliency appraisals ($B = 0.141$, $SE = 0.052$, $p = 0.009$), but the other predictors were insignificant. The model accounted for 7% percent of the variance. The two-way interactions were added in Block 2. As shown in Table two, the effect of positive experiences with the legal system remained significant ($B = 0.182$, $SE = 0.064$, $p = 0.006$), but the remaining predictors, including the two-way interactions, had non-significant effects. This model accounted for 7% of the variance. The three-way interaction of all three predictors was added in Block 3. Similarly, the effect of positive experiences with the legal system remained significant ($B = 0.191$, $SE = 0.066$, $p = 0.005$), but the remaining predictors, including the three-way interaction, had non-significant effects. This model accounted for 6% of the variance.

CANTORNA DISSERTATION DEFENSE

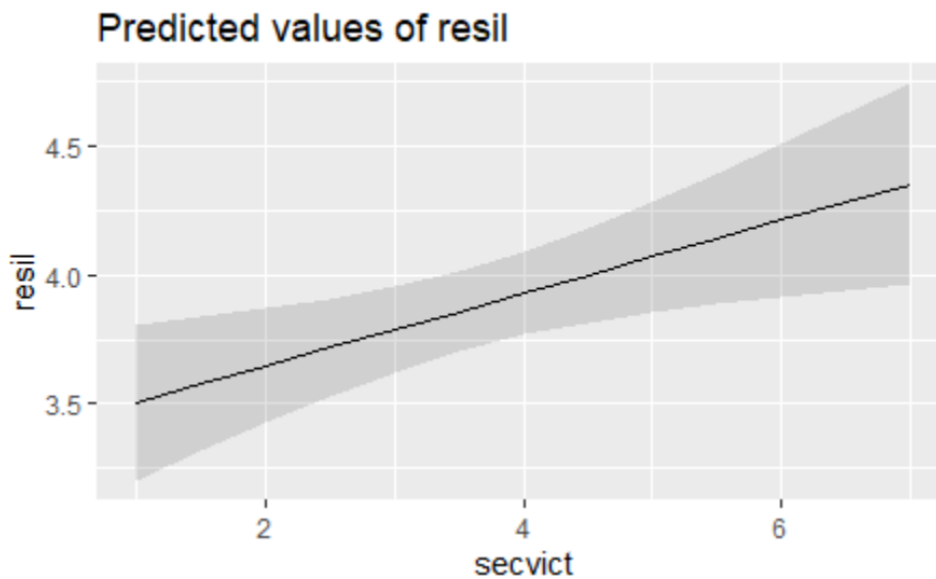
Table 1: *Regression analysis of Predictors of Resiliency Appraisals*

Predictor Variables	Block 1			Block 2			Block 3		
	<i>B</i>	Error	<i>p</i>	<i>B</i>	Error	<i>p</i>	<i>B</i>	Error	<i>p</i>
Positive Experiences with Legal System	0.141	0.052	0.009**	0.182	0.064	0.006**	0.191	0.066	0.005**
COVID-19 Metric Case Rate	0.014	0.012	0.248	0.074	0.050	0.142	0.090	0.055	0.103
COVID-19 Vaccines Administered	0.000	0.000	1.031	-0.000	0.000	0.787	0.000	0.000	0.637
Positive Experiences with Legal System: Metric Cases				-0.018	0.014	0.222	-0.022	0.015	0.162
Positive Experiences with Legal System: Vaccines Metric Cases:				0.000	0.000	0.579	-0.000	0.000	0.545
Vaccines Metric Cases:							-0.000	0.000	0.369
Positive Experiences with Legal System: Metric Cases: Vaccines							0.000	0.000	0.364
<i>R</i> ²	0.102			0.118			0.126		
Adjusted <i>R</i> ²	0.072			0.067			0.055		
<i>R</i> ² Change				0.005			0.012		
Model <i>p</i> -value	0.021*			0.048*			0.103		

*Note.***p*<0.05 ***p*<0.01

CANTORNA DISSERTATION DEFENSE

Figure 2: Relationship between positive experiences with the Legal System (i.e., *secvict*) and Resiliency Appraisals



Despite non-significant interaction effects, I completed an examination of simple slopes with the pick-a-point approach, investigating the effect of positive experiences with the legal system at all possible combinations of COVID metric case and vaccination rates at the mean, plus/minus one standard deviation. The results of these are shown in Table 2 and Figure 3. Although still non-significant ($B = 0.38$, $p = 0.11$) the relationship between positive experiences with the legal system and resiliency appraisals is sharpest when the metric cases and vaccinations are both $-1SD$; this would be the pre-pandemic context. A near-significant effect is found when metric cases are $-1SD$ and vaccines are at the mean; this would be the context of returning to a pre-pandemic state (or at least a near normal).

CANTORNA DISSERTATION DEFENSE

Figure 3: The interaction between Resiliency Appraisals and positive experiences with the Legal System (i.e., *secvict*) as moderated by COVID-19 Metric Cases and COVID-19 Vaccines administered rate

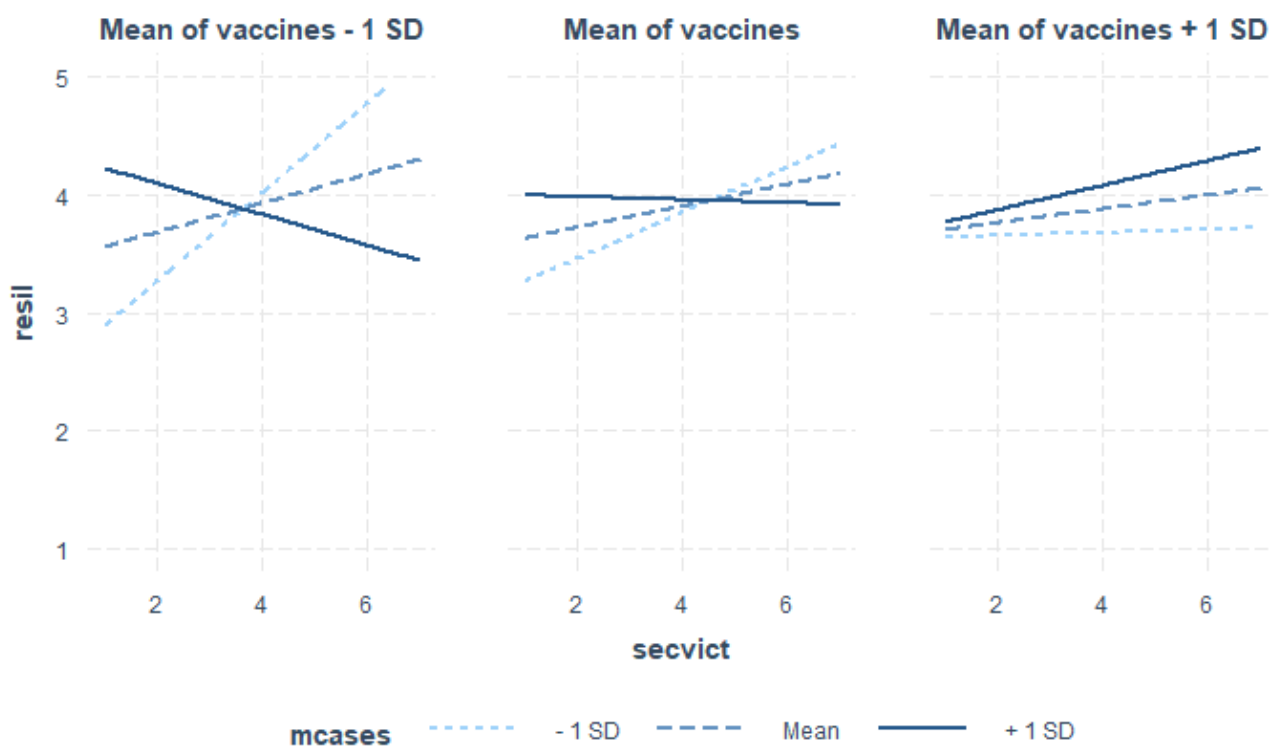


Table 2: *Simple Slopes analysis*

	Est.	S.E.	t value	p
Vaccines (-1 SD), Metric Cases (-1 SD)	0.38	0.23	1.62	0.11
Vaccines (-1 SD), Metric Cases (M)	0.12	0.12	1.04	0.30
Vaccines (-1 SD), Metric Cases (+1 SD)	-0.13	0.20	-0.66	0.51
Vaccines (M), Metric Cases (-1 SD)	0.20	0.10	1.90	0.06
Vaccines (M), Metric Cases (M)	0.09	0.06	1.42	0.16
Vaccines (M), Metric Cases (+1 SD)	-0.01	0.13	-0.10	0.92

CANTORNA DISSERTATION DEFENSE

Vaccines (+1 <i>SD</i>), Metric Cases (-1 <i>SD</i>)	0.01	0.33	0.04	0.97
Vaccines (+1 <i>SD</i>), Metric Cases (<i>M</i>)	0.06	0.16	0.38	0.71
Vaccines (+1 <i>SD</i>), Metric Cases (+1 <i>SD</i>)	0.10	0.14	0.73	0.47

CHAPTER IV-DISCUSSION

In the current study, I examined the impact of COVID-19 metric case rates and COVID-19 vaccines administered on the relationship between positive experiences with the legal system and resiliency appraisals among cis women who experienced sexual assault. The results indicated that the strongest effect on resilience was positive experiences with the legal system. The COVID-19 metric case rate and the number of vaccines administered did not affect positive experiences with the legal system. The result corresponds with previous research, which demonstrated that positive interactions with law enforcement were connected to an individual feeling more in control over their lives, and higher self-reported resiliency levels (Cieslak et al., 2008). Those who perceived their experiences with the legal justice system as more positive (i.e., a higher score on the secondary victimization scale), were more likely to perceive themselves as resilient (i.e., a higher score on the resiliency appraisals scale) even as COVID-19 was becoming a stressor. Past research emphasized the importance of environmental factors like social support in coping with a sexual assault (Bryant-Davis et al., 2011; Ullman & Relyea, 2016). The COVID-19 pandemic resulted in isolation and could have enhanced the relationship between positive experiences with the legal system and resiliency appraisals, because of the lack of social support. However, neither the COVID-19 weekly metric case rate, nor the number COVID-19 vaccinations administered, nor their

CANTORNA DISSERTATION DEFENSE

combination moderated the relationship between positive experiences with the legal system and resilience.

Albeit non-significant, there was a noteworthy difference in the direction of the relationship between positive experiences with the legal system and resilience (see the solid line in the first panel of Figure 3) when the metric COVID-19 weekly case rates were at their highest and the number of vaccines administered were at their lowest, the slope was negative. The negative slope suggests that when individuals reported more negative experiences with law enforcement (i.e., higher rates of secondary victimization) they reported higher resiliency appraisals. Chronologically, the highest metric case rates and below average vaccination rates would be relatively early in the pandemic when stress levels were highest, and courts were closed to the public. Research shows that a pandemic is an uncertain stressor meaning that the feeling or risk is constantly changing and evolving as the disease changes leading to changes in the perceptions of other life stressors (Taylor, 2022). While the result was not significant, I found the change in directionality interesting to consider since the relationship was the opposite of the described relationship between positive experiences with the legal system and resiliency. It may be that a unified community level response to a stressor draws people together and leads to increased feelings of resilience and social support, which has been reported following other large scale stressful community events (Bryant-Davis et al., 2011; Taylor, 2022; Ullman & Relyea, 2016). It is possible that individuals were so focused on the outside stress of the pandemic that there was a change in how people perceived their resiliency to stressful events. During other large scale events, a common finding is that resiliency tends to increase for the majority of individuals who are impacted by the event, in this case a pandemic (Taylor, 2022). COVID-19 was a global stressor that impacted the

CANTORNA DISSERTATION DEFENSE

entire community, therefore the unexpected increase in the perceived resilience following negative experiences with the legal system could have been due to a greater sense of social support.

Also, noteworthy is the trend towards significant simple slope that occurs when vaccinations are at the mean and the metric cases is $-1SD$ (light dashed line in the middle panel of Figure 3). That time corresponded to later stages in the pandemic as COVID-19 cases were lower, and the vaccine administration had started on a larger scale. Trending in the opposite direction of the pre-pandemic circumstance, the relationship between positive experiences with the legal system and resiliency is positive. It is possible that with lower levels of COVID-19 activity, the relationship between positive experiences with the legal system and resiliency appraisals is stronger so that those who have better experience with law enforcement (i.e., lower secondary victimization) also indicated higher resiliency appraisals.

The study confirms previous work that shows that receiving a fair trial with less secondary victimization improves outcomes following a sexual assault (Barkworth & Murphy, 2016; R. Campbell, 1998, 2006). Resiliency tends to act as a buffer that can mitigate the negative impacts of stressful life events to a point, although once the severity and number of stressors increase resiliency tends to decline (Glass et al., 2007; Luthar, 2015). While there has been limited research examining the relationship between secondary victimization and resiliency appraisals specifically, secondary victimization is a large stressor that impacts a person's mental, physical and emotional health (Harris & Grace, 1999; Hester & Lilley, 2017; Hohl & Stanko, 2015; L. Kelly et al., 2005; Patterson et al., 2009; Stern, 2010). Therefore, it would be expected that when an individual reports more negative

CANTORNA DISSERTATION DEFENSE

experiences with the legal system that they would also report lower levels of resiliency appraisals.

The COVID-19 pandemic caused the courts to close as the pandemic started and the stress of the virus and pandemic may have overshadowed other stressors leading to perceptions of higher resilience. The change of directionality at the beginning of the pandemic is noteworthy and unexpected given the negative impact of secondary victimization. There was also a segment of the slope that was positive when vaccine administration was at the mean and COVID-19 metric cases were low with a larger estimate than at other segments. One theory is that the relationship may change directionality at the start due to the novelty of the pandemic and then as it stretches on COVID-19 strengthens the relationship between positive experiences with the legal system and resiliency appraisals.

Limitations and Strengths

The dataset lends itself to self-selection bias and it is possible that only those who had a good experience with their legal advocates choose to answer the survey given the small range of reported resiliency appraisals and positive experiences with the legal system. The restricted range of responses would mean that it would be more difficult to detect an effect unless the effect size was large. It also might mean that we do not fully understand all the variables because those who had more negative experiences are not responding to the survey. There was also a screening out procedure completed by the legal advocates as they tried to select only participants whose mental health was stable so as not to be retraumatized by the survey. The screening process likely impacted the range of responses and led to getting those participants who had more positive experiences with services.

CANTORNA DISSERTATION DEFENSE

The data was also affected by the high attrition common in longitudinal samples, which lead to a cross sectional analysis instead of a more robust, longitudinal approach to data analysis. There were fewer responses to the survey as the pandemic began and a relatively small sample size.

The final limitation was the difficulties using the national data reporting COVID statistics including the API from (COVID Act Now, n.d.). The descriptions of some of the limitations of data collection by the federal reporting standards listed by (COVID Act Now, n.d.) included (a) cases not being reported if not confirmed by a PCR test (i.e., antigen tests performed at home), (b) inconsistent reported of cases depending on location of patient's home and location of the place they are receiving treatment, and (c) those who reported symptoms of COVID-19 but never got tested are not reported in case numbers. Similar limitations exist for the reporting of vaccines administered and COVID Act Now (n.d.). These include (a) missed doses administered in the data due to poor record keeping, (b) misattribution of the dose to a county that the individual does not live in due to traveling to receive a dose, and (c) health providers being slow to update data (COVID Act Now, n.d.). These and other limitations mean that there will always be an error in measurements of both COVID-19 metric weekly case rate and COVID-19 vaccines administered that may lead to difficulties interpreting the data.

The study also had several strengths. The first was that the data had been collecting for several years before the pandemic and was automatically collecting data once the pandemic began meaning a comparison group pre-pandemic was possible. Since I was able to collect data organically that overlapped with significant events (i.e., the COVID-19 pandemic), I explored the impact of a stressful event that would otherwise be difficult to

CANTORNA DISSERTATION DEFENSE

study. These trends and observations could impact the way that leaders respond to the next pandemic or large-scale event. Program evaluation research with public partners, in this case KCSARC, tends to have more influence on public policy and the ability to change and better the way that these important resource's function (Mallinckrodt et al., 2014).

Implications

Unfortunately, pandemic outbreaks and other disasters will continue to emerge and it is important to use the data we have to better the responses during the next pandemic (Taylor, 2022). If these results are replicated, then it might mean that services can be better tailored to help individuals to cope during the large-scale stressor. The data reinforces and strengthens some findings found in previous research. More positive experiences with police (i.e., reduced secondary victimization) corresponds to higher rates of resilience and the individual feeling more in control of their lives (Cieslak et al., 2008). The positive effects of community and social support on resilience is also well described (Johnson, Gooding, Wood, Taylor, et al., 2010; Ungar et al., 2013). Programs like legal advocacy should continue to focus on strategies to reduce secondary victimization. It also shows the importance of teaching any provider (both mental health and physical health) and members of the legal system how to better interact with individuals who have experienced a sexual assault to avoid harming these individuals.

While the results were not significant if they are repeated, then legal advocacy services and treatment during a large-scale stressful event like a pandemic should likely pivot their approach in the early stages. Research has showed that resiliency tends to increase for everyone right after one of these events and communities tend to come together to support each other (Taylor, 2022). Perhaps at the start of a large-scale stressor the treatment goals

CANTORNA DISSERTATION DEFENSE

should focus on realistic problem-solving for urgent issues instead of secondary victimization or trauma symptoms consistent with recommendations from mental health first aide trainings (C. M. Kelly et al., 2010). Increasing social support may be more important than focusing on secondary victimization at the hands of legal system when there are global stressors such as an emerging pandemic.

Future Directions

Future research would benefit from investigating these variables in a larger sample to confirm if these insignificant findings are an actual phenomenon that deserves attention. It is important that legal advocates and service providers can best serve their clients regardless of what is happening in the world. If these finding are replicated and significant in a larger sample, then it can help legal advocates pivot the response and services that they are giving at the start of large-scale stressors that are impacting the community that they serve. It may be that they should switch their focus to things outside of navigating the legal system until things are more certain, however more research would need to be done to confirm this finding.

Conclusion

In this study, I aimed to understand how COVID-19 metric case rate and the number of COVID-19 vaccines administered impacted the relationship between positive experiences with the legal system and resiliency after experiencing a sexual assault. Previous research showed that resiliency buffered the relationship between stressful experience and the negative physical, mental, and emotional health outcomes (Garcia-Dia et al., 2013; Herrman et al., 2011). Furthermore, the more secondary victimization an individual reports the lower they report their ability to be resilient (Cieslak et al., 2008). It was expected that individuals

CANTORNA DISSERTATION DEFENSE

who reported more negative experiences with the legal system would also report lower resiliency levels, and that COVID-19 metric case rate and vaccines administered would moderate this relationship. The results of my dissertation showed that individuals who reported more negative experiences with law enforcement (i.e., higher rates of secondary victimization) had lower resilience appraisals, and that COVID-19 metric case rate and vaccines administered had an insignificant impact on this relationship. Albeit not statistically significant, at some levels of the moderators (i.e., when vaccine administered were low or at the mean and COVID-19 metric case rate was high) the relationship between the two variables changed directionality such that more negative experiences with the legal system were related to higher resiliency appraisals. Some limitations to the study were possible self-selection bias, a relatively small sample size, COVID case and vaccine reporting difficulties, and attrition. These findings if replicated in a larger sample could change the focus of legal advocacy services when next pandemic or large-scale stressor begins. One idea is to focus services on more tangible problems at the start of another large-scale event, like connecting the client to social support instead of navigating the court system. Future research could help to address these limitations and continue to better the legal advocacy clinics response to large-scale stressful events in the future.

REFERENCES

- Aburn, G., Gott, M., & Hoare, K. (2016). What is resilience? An Integrative Review of the empirical literature. *Journal of Advanced Nursing*, 72(5), 980–1000.
<https://doi.org/10.1111/jan.12888>
- Annan, S. L. (2011). “It’s Not Just a Job. This Is Where We Live. This Is Our Backyard”:
The Experiences of Expert Legal and Advocate Providers With Sexually Assaulted
Women in Rural Areas. *Journal of the American Psychiatric Nurses Association*,
17(2), 139–147. <https://doi.org/10.1177/1078390311401024>
- Barkworth, J., & Murphy, K. (2016). System contact and procedural justice policing:
Improving quality of life outcomes for victims of crime. *International Review of
Victimology*, 22(2), 105–122. <https://doi.org/10.1177/0269758015627044>
- Basile, K., Smith, S., Breiding, M., Black, M., & Mahendra, R. (2014). *Sexual Violence
Surveillance: Uniform Definitions and Recommended Data Elements*. Centers for
Disease Control and Prevention National Center for Injury Prevention and Control.
https://www.cdc.gov/violenceprevention/pdf/sv_surveillance_definitions1-2009-a.pdf
- Berry, K. M., & Rutledge, C. M. (2016). Factors That Influence Women to Disclose Sexual
Assault History to Health Care Providers. *Journal of Obstetric, Gynecologic &
Neonatal Nursing*, 45(4), 553–564. <https://doi.org/10.1016/j.jogn.2016.04.002>
- Best, L. A., Law, M. A., Roach, S., & Wilbiks, J. M. P. (2020). The psychological impact of
COVID-19 in Canada: Effects of social isolation during the initial response.
Canadian Psychology/Psychologie Canadienne. <https://doi.org/10.1037/cap0000254>
- Bogar, C. B., & Hulse-Killacky, D. (2006). Resiliency Determinants and Resiliency
Processes Among Female Adult Survivors of Childhood Sexual Abuse. *Journal of*

CANTORNA DISSERTATION DEFENSE

- Counseling & Development*, 84(3), 318–327. <https://doi.org/10.1002/j.1556-6678.2006.tb00411.x>
- Boman, J. H., & Gallupe, O. (2020). Has COVID-19 Changed Crime? Crime Rates in the United States during the Pandemic. *American Journal of Criminal Justice*, 45(4), 537–545. <https://doi.org/10.1007/s12103-020-09551-3>
- Bryant-Davis, T., Ullman, S. E., Tsong, Y., & Gobin, R. (2011). Surviving the Storm: The Role of Social Support and Religious Coping in Sexual Assault Recovery of African American Women. *Violence Against Women*, 17(12), 1601–1618. <https://doi.org/10.1177/1077801211436138>
- Campbell, J. C., & Lewandowski, L. A. (1997). Mental and physical health effects of intimate partner violence on women and children. *Psychiatric Clinics of North America*, 20(2), 353–374. [https://doi.org/10.1016/S0193-953X\(05\)70317-8](https://doi.org/10.1016/S0193-953X(05)70317-8)
- Campbell, R. (1998). The Community Response to Rape: Victims' Experiences with the Legal, Medical, and Mental Health Systems. *American Journal of Community Psychology*, 26(3), 355–379. <https://doi.org/10.1023/A:1022155003633>
- Campbell, R. (2006). Rape Survivors' Experiences With the Legal and Medical Systems: Do Rape Victim Advocates Make a Difference? *Violence Against Women*, 12(1), 30–45. <https://doi.org/10.1177/1077801205277539>
- Campbell, R. (2013). The Psychological Impact of Rape Victims' Experiences with the Legal, Medical, and Mental Health Systems. In D. A. Sisti, A. L. Caplan, & H. Rimón-Greenspan (Eds.), *Applied Ethics in Mental Health Care* (pp. 149–178). The MIT Press. <https://doi.org/10.7551/mitpress/9780262019682.003.0011>

CANTORNA DISSERTATION DEFENSE

- Campbell, R., & Raja, S. (2005). The Sexual Assault and Secondary Victimization of Female Veterans: Help-Seeking Experiences with Military and Civilian Social Systems. *Psychology of Women Quarterly*, 29(1), 97–106. <https://doi.org/10.1111/j.1471-6402.2005.00171.x>
- Campbell, R., Sefl, T., Barnes, H. E., Ahrens, C. E., Wasco, S. M., & Zaragoza-Diesfeld, Y. (1999). *Community Services for Rape Survivors: Enhancing Psychological Well-Being or Increasing Trauma?* 12.
- Campbell, R., Wasco, S. M., Ahrens, C. E., Sefl, T., & Barnes, H. E. (2001). Preventing the “Second Rape”: Rape Survivors’ Experiences With Community Service Providers. *Journal of Interpersonal Violence*, 16(12), 1239–1259. <https://doi.org/10.1177/088626001016012002>
- Campedelli, G. M., Aziani, A., & Favarin, S. (2020). Exploring the Immediate Effects of COVID-19 Containment Policies on Crime: An Empirical Analysis of the Short-Term Aftermath in Los Angeles. *American Journal of Criminal Justice*. <https://doi.org/10.1007/s12103-020-09578-6>
- Cieslak, R., Benight, C. C., & Caden Lehman, V. (2008). Coping self-efficacy mediates the effects of negative cognitions on posttraumatic distress. *Behaviour Research and Therapy*, 46(7), 788–798. <https://doi.org/10.1016/j.brat.2008.03.007>
- Clark, K. A., Biddle, A. K., & Martin, S. L. (2002). A Cost-Benefit Analysis of the Violence Against Women Act of 1994. *Violence Against Women*, 8(4), 417–428. <https://doi.org/10.1177/10778010222183143>

CANTORNA DISSERTATION DEFENSE

- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2003). *Applied multiple regression/correlation analysis for the behavioral sciences, 3rd ed.* (pp. xxviii, 703). Lawrence Erlbaum Associates Publishers.
- Copeland, W. E., McGinnis, E., Bai, Y., Adams, Z., Nardone, H., Devadanam, V., Rettew, J., & Hudziak, J. J. (2021). Impact of COVID-19 Pandemic on College Student Mental Health and Wellness. *Journal of the American Academy of Child & Adolescent Psychiatry, 60*(1), 134-141.e2. <https://doi.org/10.1016/j.jaac.2020.08.466>
- COVID Act Now. (n.d.). *API*. <https://apidocs.covidactnow.org/>
- Crete, G. K., & Singh, A. A. (2015). Resilience Strategies of Male Survivors of Childhood Sexual Abuse and their Female Partners: A Phenomenological Inquiry. *Journal of Mental Health Counseling, 37*(4), 341–354. <https://doi.org/10.17744/mehc.37.4.05>
- DeLisi, M., Kosloski, A., Sween, M., Hachmeister, E., Moore, M., & Drury, A. (2010). Murder by numbers: Monetary costs imposed by a sample of homicide offenders. *Journal of Forensic Psychiatry & Psychology, 21*(4), 501–513. <https://doi.org/10.1080/14789940903564388>
- Du Mont, J., Miller, K.-L., & Myhr, T. L. (2003). The Role of “Real Rape” and “Real Victim” Stereotypes in the Police Reporting Practices of Sexually Assaulted Women. *Violence Against Women, 9*(4), 466–486. <https://doi.org/10.1177/1077801202250960>
- Dworkin, E. R., DeCou, C. R., & Fitzpatrick, S. (2020). Associations between sexual assault and suicidal thoughts and behavior: A meta-analysis. *Psychological Trauma: Theory, Research, Practice, and Policy*. <https://doi.org/10.1037/tra0000570>

CANTORNA DISSERTATION DEFENSE

- Dworkin, E. R., Menon, S. V., Bystrynski, J., & Allen, N. E. (2017). Sexual assault victimization and psychopathology: A review and meta-analysis. *Clinical Psychology Review, 56*, 65–81. <https://doi.org/10.1016/j.cpr.2017.06.002>
- Ehlers, A., & Clark, D. M. (2000). A cognitive model of posttraumatic stress disorder. *Behaviour Research and Therapy, 38*(4), 319–345. [https://doi.org/10.1016/S0005-7967\(99\)00123-0](https://doi.org/10.1016/S0005-7967(99)00123-0)
- Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods, 41*(4), 1149–1160. <https://doi.org/10.3758/BRM.41.4.1149>
- Garcia-Dia, M. J., DiNapoli, J. M., Garcia-Ona, L., Jakubowski, R., & O’Flaherty, D. (2013). Concept Analysis: Resilience. *Archives of Psychiatric Nursing, 27*(6), 264–270. <https://doi.org/10.1016/j.apnu.2013.07.003>
- Garrido-Hernansaiz, H., Rodríguez-Rey, R., & Alonso-Tapia, J. (2020). Coping and resilience are differently related depending on the population: A comparison between three clinical samples and the general population. *International Journal of Stress Management, 27*(3), 304–309. <https://doi.org/10.1037/str0000156>
- Glass, N., Perrin, N., Campbell, J. C., & Soeken, K. (2007). The protective role of tangible support on post-traumatic stress disorder symptoms in urban women survivors of violence. *Research in Nursing & Health, 30*(5), 558–568. <https://doi.org/10.1002/nur.20207>
- Harris, J., & Grace, S. (1999). *A question of evidence? Investigating and prosecuting rape in the 1990s*. Home Office.

CANTORNA DISSERTATION DEFENSE

Herrman, H., Stewart, D. E., Diaz-Granados, N., Berger, E. L., Jackson, B., & Yuen, T.

(2011). What is Resilience? *The Canadian Journal of Psychiatry*, *56*(5), 258–265.

<https://doi.org/10.1177/0706743711105600504>

Hester, M. (2015). *Reflections on criminal (in)justice in cases of rape*. Papers from the British Criminology Conference.

http://britsoccrim.org/new/sites/default/files/pbcc_2015_hester.pdf

Hester, M., & Lilley, S.-J. (2017). Rape investigation and attrition in acquaintance, domestic violence and historical rape cases: Attrition in acquaintance, domestic violence and historical rape cases. *Journal of Investigative Psychology and Offender Profiling*, *14*(2), 175–188. <https://doi.org/10.1002/jip.1469>

Hohl, K., & Stanko, E. A. (2015). Complaints of rape and the criminal justice system: Fresh evidence on the attrition problem in England and Wales. *European Journal of Criminology*, *12*(3), 324–341. <https://doi.org/10.1177/1477370815571949>

Jewkes, R., Sen, P., & Garcia-Moreno, C. (2002). Sexual violence. In Etienne G. Krug, Linda L. Dahlberg, James A. Mercy, Anthony B. Zwi, & Rafael Lozano (Eds.), *World Report on Violence and Health* (pp. 147–181). World Health Organization.

Johnson, J., Gooding, P. A., Wood, A. M., & Tarrier, N. (2010). Resilience as positive coping appraisals: Testing the schematic appraisals model of suicide (SAMS). *Behaviour Research and Therapy*, *48*(3), 179–186.

<https://doi.org/10.1016/j.brat.2009.10.007>

Johnson, J., Gooding, P. A., Wood, A. M., Taylor, P. J., Pratt, D., & Tarrier, N. (2010).

Resilience to suicidal ideation in psychosis: Positive self-appraisals buffer the impact

CANTORNA DISSERTATION DEFENSE

- of hopelessness. *Behaviour Research and Therapy*, 48(9), 883–889.
<https://doi.org/10.1016/j.brat.2010.05.013>
- KCSARC. (2020). *2019 Annual Report*. www.kcsarc.org
- KCSARC. (2022). *Fact Sheet 2021*. www.kcsarc.org
- Kelly, C. M., Jorm, A. F., & Kitchener, B. A. (2010). Development of mental health first aid guidelines on how a member of the public can support a person affected by a traumatic event: A Delphi study. *BMC Psychiatry*, 10(1), 49.
<https://doi.org/10.1186/1471-244X-10-49>
- Kelly, L., Lovett, J., & Regan, L. (2005). *A gap or a chasm? Attrition in reported rape cases*. Home Office.
- King County Sexual Assault Resource Center. (n.d.). *Legal advocacy*. KCSARC.
<https://www.kcsarc.org/legal>
- Langton, L., Berzofsky, M., Krebs, C. P., & Smiley-McDonald, H. (2012). *Victimizations not reported to the police, 2006-2010*. US Department of Justice, Office of Justice Programs, Bureau of Justice Statistics. https://dgpfi.de/tl_files/medien/2012-08-20_NCVS_USA_Victimizations-not-reported-dot-Police_2006-2010.pdf
- Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.
- Logan, T., Evans, L., Stevenson, E., & Jordan, C. E. (2005). Barriers to Services for Rural and Urban Survivors of Rape. *Journal of Interpersonal Violence*, 20(5), 591–616.
<https://doi.org/10.1177/0886260504272899>
- Luthar, S. S. (2015). Resilience in Development: A Synthesis of Research across Five Decades. In D. Cicchetti & D. J. Cohen (Eds.), *Developmental Psychopathology* (pp. 739–795). John Wiley & Sons, Inc. <https://doi.org/10.1002/9780470939406.ch20>

CANTORNA DISSERTATION DEFENSE

- Macmillan, R. (2000). Adolescent victimization and income deficits in adulthood: Rethinking the costs of criminal violence from a life-course perspective. *Criminology*, 38(2), 553–588. <https://doi.org/10.1111/j.1745-9125.2000.tb00899.x>
- Macy, R. J., Johns, N., Rizo, C. F., Martin, S. L., & Giattina, M. (2011). Domestic Violence and Sexual Assault Service Goal Priorities. *Journal of Interpersonal Violence*, 26(16), 3361–3382. <https://doi.org/10.1177/0886260510393003>
- Mallinckrodt, B., Miles, J. R., & Levy, J. J. (2014). The scientist-practitioner-advocate model: Addressing contemporary training needs for social justice advocacy. *Training and Education in Professional Psychology*, 8(4), 303–311. <https://doi.org/10.1037/tep0000045>
- McDougall, E. E., Langille, D. B., Steenbeek, A. A., Asbridge, M., & Andreou, P. (2019). The Relationship Between Non-Consensual Sex and Risk of Depression in Female Undergraduates at Universities in Maritime Canada. *Journal of Interpersonal Violence*, 34(21–22), 4597–4619. <https://doi.org/10.1177/0886260516675468>
- Miller, T. R., Cohen, M. A., & Wiersema, B. (1996). *Victim costs and consequences: A new look (NCJ 155282)*. U.S. Department of Justice, Office of Justice Programs, National Institute of Justice. <https://www.ncjrs.gov/pdffiles/victcost.pdf>
- National Alliance to End Sexual Violence. (2010). *2010 survey of rape crisis centers*. National Alliance to End Sexual Violence. http://naesv.org/?page_id=212
- National Coalition to Prevent Child Sexual Abuse and Exploitation. (2012). *National Plan to Prevent the Sexual Abuse and Exploitation of Children*. National Coalition to Prevent Child Sexual Abuse and Exploitation.

CANTORNA DISSERTATION DEFENSE

National Sexual Violence Resource Center. (2018). *Statistics*.

<https://www.nsvrc.org/statistics>

Orth, U. (2002). Secondary Victimization of Crime Victims by Criminal Proceedings. *Social Justice Research*, 15.

Panagioti, M., Gooding, P., Taylor, P. J., & Tarrier, N. (2012). Negative self-appraisals and suicidal behavior among trauma victims experiencing PTSD symptoms: The mediating role of defeat and entrapment: Self-Appraisals and Suicidal Behavior in PTSD. *Depression and Anxiety*, 29(3), 187–194. <https://doi.org/10.1002/da.21917>

Parent, M. C. (2013). Handling Item-Level Missing Data: Simpler Is Just as Good. *The Counseling Psychologist*, 41(4), 568–600.

<https://doi.org/10.1177/0011000012445176>

Patterson, D. (2011). The Linkage Between Secondary Victimization by Law Enforcement and Rape Case Outcomes. *Journal of Interpersonal Violence*, 26(2), 328–347.

<https://doi.org/10.1177/0886260510362889>

Patterson, D., Greeson, M., & Campbell, R. (2009). Understanding Rape Survivors' Decisions Not to Seek Help from Formal Social Systems. *Health & Social Work*, 34(2), 127–136. <https://doi.org/10.1093/hsw/34.2.127>

Pegram, S. E., & Abbey, A. (2019). Associations Between Sexual Assault Severity and Psychological and Physical Health Outcomes: Similarities and Differences Among African American and Caucasian Survivors. *Journal of Interpersonal Violence*, 34(19), 4020–4040. <https://doi.org/10.1177/0886260516673626>

Peterson, C., Kearns, M. C., McIntosh, W. L., Estefan, L. F., Nicolaidis, C., McCollister, K.

E., Gordon, A., & Florence, C. (2018). Lifetime Economic Burden of Intimate Partner

CANTORNA DISSERTATION DEFENSE

- Violence Among U.S. Adults. *American Journal of Preventive Medicine*, 55(4), 433–444. <https://doi.org/10.1016/j.amepre.2018.04.049>
- Potter, S., Howard, R., Murphy, S., & Moynihan, M. M. (2018). Long-term impacts of college sexual assaults on women survivors' educational and career attainments. *Journal of American College Health*, 66(6), 496–507. <https://doi.org/10.1080/07448481.2018.1440574>
- Rape Crisis Network Ireland. (2015). *RCNI National Rape Crisis Statistics 2015*. Rape Crisis Network Ireland. <https://www.rcni.ie/wp-content/uploads/RCNI-RCC-StatsAR-2015-1.pdf>
- Ressel, M., Lyons, J., & Romano, E. (2018). Abuse Characteristics, Multiple Victimization and Resilience among Young Adult Males with Histories of Childhood Sexual Abuse: Resilience and Male Childhood Sexual Abuse. *Child Abuse Review*, 27(3), 239–253. <https://doi.org/10.1002/car.2508>
- Shah, S. M. A., Mohammad, D., Qureshi, M. F. H., Abbas, M. Z., & Aleem, S. (2021). Prevalence, Psychological Responses and Associated Correlates of Depression, Anxiety and Stress in a Global Population, During the Coronavirus Disease (COVID-19) Pandemic. *Community Mental Health Journal*, 57(1), 101–110. <https://doi.org/10.1007/s10597-020-00728-y>
- Sharma, A., & Borah, S. B. (2020). Covid-19 and Domestic Violence: An Indirect Path to Social and Economic Crisis. *Journal of Family Violence*. <https://doi.org/10.1007/s10896-020-00188-8>
- Stern, V. (2010). *A report by Baroness Vivien Stern CBE of an independent review into how rape complaints are handled by public authorities in England and Wales*. Home

CANTORNA DISSERTATION DEFENSE

- Office.
- <https://static1.squarespace.com/static/5aa98420f2e6b1ba0c874e42/t/5efa0207f7412d291a848544/1593442847404/7.117+SG%3A40+The+Stern+Review+-+Report+by+Baroness+Vivien+Stern+CBE+into+handling+of+rape+complaints+by+public+authorities+in+England+%26+Wales+a.pdf>
- Taylor, S. (2022). The psychology of pandemics: Lessons learned for the future. *Canadian Psychology / Psychologie Canadienne*, 63(2), 233–246.
- <https://doi.org/10.1037/cap0000303>
- Tennessee, A. M., Bradham, T. S., White, B. M., & Simpson, K. N. (2017). The Monetary Cost of Sexual Assault to Privately Insured US Women in 2013. *American Journal of Public Health*, 107(6), 983–988. <https://doi.org/10.2105/AJPH.2017.303742>
- Twenge, J. M., & Joiner, T. E. (2020). Mental distress among U.S. adults during the COVID-19 pandemic. *Journal of Clinical Psychology*, 76(12), 2170–2182.
- <https://doi.org/10.1002/jclp.23064>
- Ullman, S. E., & Relyea, M. (2016). Social Support, Coping, and Posttraumatic Stress Symptoms in Female Sexual Assault Survivors: A Longitudinal Analysis: Support, Coping, and Posttraumatic Stress Symptoms. *Journal of Traumatic Stress*, 29(6), 500–506. <https://doi.org/10.1002/jts.22143>
- Ungar, M., Ghazinour, M., & Richter, J. (2013). Annual Research Review: What is resilience within the social ecology of human development?: Resilience in the social ecology of human development. *Journal of Child Psychology and Psychiatry*, 54(4), 348–366.
- <https://doi.org/10.1111/jcpp.12025>

CANTORNA DISSERTATION DEFENSE

Wemmers, J.-A. (2013). Victims' experiences in the criminal justice system and their recovery from crime. *International Review of Victimology*, 19(3), 221–233.

<https://doi.org/10.1177/0269758013492755>

World Health Organization. (2013). *Global and regional estimates of violence against women: Prevalence and health effects of intimate partner violence and non-partner sexual violence*. World Health Organization.

http://apps.who.int/iris/bitstream/handle/10665/85239/9789241564625_eng.pdf;jsessionid=E201760A6809A75C751CF609A926AE49?sequence=1

Zacher, H., & Rudolph, C. W. (2021). Individual differences and changes in subjective wellbeing during the early stages of the COVID-19 pandemic. *American Psychologist*, 76(1), 50–62. <https://doi.org/10.1037/amp0000702>

Zhang, J., Yang, Z., Wang, X., Li, J., Dong, L., Wang, F., Li, Y., Wei, R., & Zhang, J. (2020). The relationship between resilience, anxiety and depression among patients with mild symptoms of COVID-19 in China: A cross-sectional study. *Journal of Clinical Nursing*, 29(21–22), 4020–4029. <https://doi.org/10.1111/jocn.15425>