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Examining the Factors that Mediate the Relationship from Legal Advocacy Satisfaction to Resilience

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Satisfaction to Resilience

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Dedication Page

I dedicate this dissertation to my parents because of their sacrifice, love, and

understanding; without them, I could have never reached this level of academic success. I

also want to recognize my friends, cohort mates, colleagues, Mahaber members, and Jack

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Preface

My experience with the legal system inspired me to embark on this dissertation. I have experienced stalking and harassment, and I had to work closely with law enforcement to help my case progress. Unfortunately, secondary victimization from the legal system is all too real, and I almost dropped my case prematurely. Fortunately, I continued and was satisfied with how my situation was resolved. But, I owe all my gratitude to the legal advocate that was assigned to my case. Just know that this dissertation means the world to me and others who have been in a similar situation. I hope my dissertation can address the gap in the literature about the legal advocacy programs' effectiveness and give back to a profession that personally supported me.

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Abstract

Sexual assault is a public health issue that can impact one's resilience. Using a multisystemic approach to resilience, there may be person-level and environment-level factors that can affect one's resilience, such as one's coping self-efficacy, satisfaction with the court process, and negative effects associated with court process. Legal advocacy programs, such as those offered by the King County Sexual Assault Resource Center (KCSARC), support clients during the court proceedings. In order to better serve KCSARC's clientele, it is helpful to understand how the legal advocacy program impacts post-trauma resilience. This dissertation had three phases: (a) evaluating the structural validity of secondary victimization, resilience, and psychological stress measures; (b) conducting a serial mediation to see if court outcome satisfaction, secondary victimization, and sexual assault coping self-efficacy mediated the relationship between legal advocacy satisfaction on resilience; and (c) determining if race/ethnicity moderated the serial mediation. Participants were at least 13 years old, cis-women clients in the KCSARC legal advocacy program who spoke English ($N = 87$). Although the design of the program evaluation is longitudinal, data was taken from only one of the waves that the participant completed. The psychometric evaluation of the secondary victimization, resilience, and psychological stress measures in this dissertation supported their use in similar settings. Results suggested a significant indirect effect from legal advocacy satisfaction to resilience, through court outcome satisfaction, secondary victimization, and resilience. Even though the moderated serial mediation was statistically non-

significant, results indicated that the mechanism was statistically significant for White/Caucasian participants, but not for Racial/Ethnic Minorities. Legal advocates may better serve their clients by having information specifically related to court outcomes and psychoeducation on secondary victimization; and by improving their relationship with their clients to notice the signs of secondary victimization and highlight their client's coping self-efficacy and resilience. Limitations include self-selection bias, completion rates, artificially inflated fit indices associated with allowing errors to covary, and confounding variables associated COVID-19 pandemic. Future research should focus on validating the measures used across demographic factors and analyzing changes in variables over time.

Keywords: secondary victimization, coping self-efficacy, legal advocacy, resilience, sexual assault

CHAPTER I

Introduction and Chapter Review

Sexual violence is 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). Unfortunately, sexual violence is a pervasive public health concern that affects millions of people; approximately one in four women and one in nine men in the United States have experienced sexual violence (Breiding et al., 2014). However, researchers have suggested that national statistics are underestimated because rape is often not reported to law enforcement (Basile et al., 2014). Even though sexual assault is pervasive, there is wide variability in an individual's posttraumatic response after an intentionally inflicted traumatic experience like sexual assault or intimate partner violence (Santiago et al., 2013). In comparison to non-intentional traumatic events (i.e., car accidents and chronic health conditions), posttraumatic stress symptom prevalence is higher in individuals who experienced intentional traumatic events (i.e., sexual assault and intimate partner violence; Santiago et al., 2013). Additionally, sexual and racial minorities have continued to experience greater distress and negative impact after a sexual assault (Sigurvinsdottir & Ullman, 2015).

When I refer to posttraumatic recovery, I refer to the alleviation of all mental health concerns that arose post-sexual assault, which is associated with being more resilient and willing to overcome future stressors (Meichenbaum, 2009b; Newman, 2005; Tugade & Fredrickson, 2004). Using a multisystemic theory, there are many personal-level factors and environmental factors that impact resilience (Aburn et al., 2016;

Brofenbrenner & Morris, 2007; Windle, 2010). Person-level factors, like coping self-efficacy, may buffer against posttraumatic stress disorder (PTSD) and may assist in posttraumatic recovery (Benight & Bandura, 2004; Cieslak et al, 2008). On the contrary, researchers have explained that some variables, such as secondary victimization, can exacerbate psychological distress; especially in individuals who experienced sexual assault (Campbell, 2006). Therefore, reducing the prevalence of secondary victimization that an individual may face during their court proceedings can have long-term benefits and assist in posttraumatic recovery. Environmental-level factors, like intimate partner violence and sexual assault agencies, exist to hopefully reduce secondary victimizations throughout the medical and legal systems. These agencies offer necessary resources and services, such as preparing victims for testimonies in court, walking them through their court process, and supporting them during police interviews. Despite the importance of these programs, there is a lack of research on these agencies' effectiveness in impacting their clientele (Macy et al., 2011).

My dissertation focused on two of the suites of measures being used in the program evaluation of King County Sexual Assault Resource Center's (KCSARC) legal advocacy program. To effectively contribute to the ongoing program evaluation for legal advocacy services, the measures used must have acceptable psychometric properties. Consequently, the primary purpose of my dissertation is to analyze if the measures who have not previously been psychometrically evaluated with this population demonstrate satisfactory psychometric properties individually (Phase I). The second purpose of the dissertation is to evaluate the relationship between secondary victimization and resilience, mediated by coping self-efficacy (Phase II). Finally, the third purpose of this

dissertation was to analyze ancillary effects of demographic factors (e.g., race/ethnicity), legal advocacy satisfaction, and court outcome satisfaction on this relationship (Phase III). The selection of measures for evaluating legal advocacy services requires an understanding of the consequences of sexual assault and the factors that influence posttraumatic recovery. Therefore, my introduction briefly reviews (a) the financial, physical health, and mental health consequences of sexual assault, (b) resilience as a factor that determines how one responds to stress, (c) secondary victimization during the court proceedings, (d) coping self-efficacy that impacts one's perseverance to cope, (e) legal advocacy services available to individuals after a sexual assault, and (e) minority-specific reactions to trauma and differences in posttraumatic recovery across various demographic factors.

Negative Consequences following a Sexual Assault

Following a sexual assault, there are consequences with which the individual and the community are faced. Financially, each rape costs the United States approximately $151,423; annually, sexual assault costs the United States about $127 million (Delisi et al., 2010; Miller et al., 1996). This cost is more than any other crime (Miller et al., 1996). These costs include medical bills, lost productivity, criminal justice activities, and property loss or damage (Peterson et al., 2018). Occupationally, individuals who have experienced sexual violence in adolescence have reduced incomes as adults (MacMillan, 2000). Also, sexual violence in adulthood has a negative impact on job performance, educational attainment, and earnings (Anda et al., 2004; MacMillan, 2000). Researchers suggested that these financial and vocational consequences make sexual assault a public

health and systemic concern, which can exacerbate physical and mental health consequences (MacMillan, 2000; Miller et al., 1996; Peterson et al., 2018).

Individuals who have been sexually assaulted as children are more likely to utilize health care as adults (National Coalition to Prevent Child Sexual Abuse and Exploitation, 2012). There are countless physical health concerns that result from sexual assault, including broken bones, cardiovascular conditions, irritable bowel syndromes, chronic pain syndromes, and migraines and headaches (Campbell & Lewandowski, 1997; National Coalition to Prevent Child Sexual Abuse and Exploitation, 2012; World Health Organization [WHO], 2013). After a forced sexual experience, many individuals experience sexual complications, including vaginal bleedings, chronic pelvic pain, STIs (i.e., HIV), vaginal and anal tearing, sexual dysfunction, urinary tract infections, unwanted pregnancies, miscarriages, and stillbirths (Campbell & Lewandowski, 1997; Jewkes et al., 2002; WHO, 2013). Many of the physical health concerns act as reminders of the traumatic experience, which can trigger, maintain, or exacerbate posttraumatic distress.

Many individuals who have been sexually assaulted face mental health consequences. The prevalence of a psychiatric disorder is higher in women with a history of sexual abuse or intimate partner violence compared to non-victimized women (Jewkes et al., 2002). These symptoms may include an increase in PTSD symptoms, depressive symptoms, substance use, suicidal thoughts and attempts, completed suicides, aggressive behavior, sleep disturbances, flashbacks, and lack of trust in relationships (Black et al., 2011; Campbell et al., 2004; Jewkes et al., 2002; WHO, 2013). When it comes to future sexual experiences, researchers noticed that individuals that were sexually assaulted are

less likely to use condoms or other forms of contraception, more likely to have an

unwanted pregnancy, and more likely to engage in risky sexual behaviors (Campbell et

al., 2004; Jewkes et al., 2002; WHO, 2013). Further, Amstadter and colleagues (2008)

reported that psychiatric disorders, like PTSD and depression, were predictive of

individuals who were raped seeking medical, mental health, and other services. Even

though research has primarily focused on negative consequences following traumatic

events, researchers are showing more interest in evaluating recovery outcomes that have

been found following adverse events.

Resilience as a form of Posttraumatic Recovery

Factors from before the trauma, during the trauma, and after the trauma can

impact psychological recovery, and in turn, one's resilience (Meichenbaum, 2009b;

Tugade & Fredrickson, 2004). Researchers disagree on the construct of resilience

because there is no universal definition (Aburn et al., 2016; Herrman et al., 2011). Aburn

and colleagues (2016) conducted an integrative review to explore different definitions of

resilience. They found five key themes in the researchers' definitions of resilience:

overcoming adversity, adapting and adjusting, inherent in all people, related to good

mental health, and the ability to bounce back. Generally, the construct of resilience has

been described as the ability to "bend, but not break" when experiencing stress (Aburn et

al., 2016). The definition of resilience I've chosen to use for this dissertation is described

as a post-traumatic outcome where the "the human ability to adapt in the face of tragedy,

trauma, adversity, hardship, and ongoing significant life stressors" (Newman, 2005, p.

227).

Resilience develops dynamically and gradually; it varies across domains and contexts (Gartland et al., 2011). Researchers agree that resilience interacts with everyday life (Benight & Cieslak, 2011; Windle, 2010). For example, Bronfenbrenner's bio-social-ecological systems model of human development can be used to understand the theory of resilience, focusing on the multisystemic factors that interact with each other (Ungar et al., 2012). This theory looks at layers of systems (e.g., microsystem, meso system, exosystem, macrosystem, and chonosystem) that surround an individual (Aburn et al., 2016; Brofenbrenner & Morris, 2007). Specifically, with resilience, this theory is used to identify person-level and environmental-level factors that impact resilience (Windle, 2010).

There are many person-level factors that are associated with resilience, such as how information is processed. Appraisal theory suggests that the person's interpretation of a stressful event affects them more than the event itself (Lazarus & Folkman, 1984). Stressors appraised as threatening imply that there may be a possibility of harm similar to their original trauma, which results in the individual feeling less control over the situation (Ehlers & Clark, 2000). However, challenging appraisals have been linked with fast cortisol responses with quick recovery (McNally, 2003). Victims who perceive a stressful situation as challenging have lower anxiety, depression, and PTSD (Olff et al., 2005). There are factors that affect appraisals, like one's personal attributes and availability of social resources to help them overcome stressors (Johnson et al., 2008).

In the environment, resilience is being considered in the development of policy, with the goal of improving community support (Aburn et al., 2016; Garcia-Dia et al., 2013). Researchers are looking at the spectrum from vulnerability to resilience, and

which factors push a person towards one side of the spectrum (Scottish Government,

2012). Understanding people's needs can help the community develop policies or

programs to address them; hopefully, these changes work to influence a person's

resilience (Jenson & Fraser, 2015). Having support in the community can be an important

factor that influences resilience; a community can create a safe place for people to

express their feelings to help them cope with stressors (Garcia-Dia et al., 2013). In

summary, empirical research has emphasized that resilience following a trauma requires a

multisystemic approach looking at individual differences and environment that can help

address victimized individual's needs to reduce exposure to risk factors and reduce the

chances of multiple victimizations (Meichenbaum, 2017).

Secondary Victimization Results in a Variety of Negative Consequences

Secondary victimization is when an individual experiences victim-blaming from

systems that should be providing support after a traumatic event (Campbell, 2006).

Campbell (2012) indicated that 90% of individuals experience insensitive treatment, such

as secondary victimization, in their first encounter with law enforcement. The legal

process can be particularly re-victimizing, especially in times when the individual must

retell the details of their sexual assault resulting in feeling a lack of control over the

situation (Logan et al., 2005). This results in a lack of trust in the criminal justice system,

and in turn, contributes to the under reporting of assaults (Du Mont et al., 2003; National

Institute of Justice, 2010). In fact, approximately 63% of rape cases are not reported to

police (Rennison, 2002). Unfortunately, secondary victimization can result in numerous

consequences that can impact victimized individual's mental health and their court

proceedings.

Secondary Victimization Impacts Victimized Individual's Health

Individuals who have experienced secondary victimization have described the experience as highly distressing (Campbell, et al., 1999; Campbell, 2006; Campbell & Raja, 1999, 2005). Secondary victimization has been linked to an increase in psychological distress, physical health symptoms, posttraumatic stress symptoms, and risk-taking behaviors (Campbell, 2006; Campbell & Raja, 2005; Campbell et al., 1999, 2001, 2004). Additional symptoms include, depression, anxiety, lack of trust in others, and less help-seeking behaviors (Campbell & Raja, 1999; Campbell & Raja, 2005; Campbell et al., 1999, 2001). Orth (2002) found that an individual's experience during the court procedures and satisfaction with the trial outcome are directly related to the subjective effects of secondary victimization, such as coping with the future, self-esteem, faith in the future, trust in the legal system, and faith in the world. After experiencing secondary victimization, individuals described themselves as unworthy of legal services and believed that the legal system does not care about them (Logan et al., 2005; Patterson et al., 2009).

Some individuals have described court proceedings as being more damaging than the sexual assault itself (Orth, 2002). Researchers have hypothesized that court proceedings can be re-traumatizing to victimized individuals when law enforcement asks insensitive questions about prior sexual history, how the victimized individual was dressed and behaved during the assault, and if the victimized individual was drinking or using substances before the assault. In addition to insensitive questioning, it can be re-traumatizing if the victimized individuals feels as if law enforcement does not believe them when they report the assault (Campbell, 2006). Unfortunately, Logan and

colleagues (2005) have noted, "Several women mentioned that if they had known what they were going to have to go through, they would never have come forward" (p. 606). However, there is mixed research on the impact of court proceedings. Orth and Maercker (2004) found that individuals in their study were not re-traumatized during their court proceedings; but the researchers identified multiple limitations in their study, including sample characteristics, sample selection, measurement of variables, lack of control group, and that participants were only from one country. These drastic consequences are not only seen in the victimized individual's mental health, but secondary victimization also affects attrition rate of sexual assault court proceedings.

Victimization Contributes to the Attrition Rate of Sexual Assault Convictions

Researchers have noted that sexual assault cases are less likely, than other types of offenses, to advance from a police report to conviction (Hester & Lilley, 2017; Kelley et al., 2005). In fact, only 10-12% of police reports result in conviction (Campbell, 1998, 2001, 2006). Reflecting on their court proceedings, individuals have recalled victim-blaming, lack of caring, and disrespectful interrogation tactics (Patterson et al., 2009). Additionally, victimized individuals have felt misled by the prosecutors, judges, police, and defense attorneys (Logan et al., 2005). In turn, these have contributed to feeling a lack of control regarding their court case (Logan et al., 2005). Stern (2010) hypothesized that society has a belief that most sexual assault allegations are false, and this societal belief affects how law enforcement, juries, and lawyers handle sexual assault cases during the court proceedings.

Therefore, many individuals prematurely *drop out* to protect themselves, to avoid feeling vulnerable and powerless, and to maintain control (Patterson et al., 2009).

Researchers have noted high rates of attrition in sexual assault and intimate partner

violence court proceedings, which has been defined as the "justice gap" (Stern, 2010, p.

9). Specifically, researchers have hypothesized that law enforcement's attitudes towards

sexual assault (e.g., their beliefs about the relationship between the abuser and the

victimized individual, degree of violence, societal rape myths [e.g., "women are in some

way to blame for being raped if they go out wearing revealing clothes and have too much

to drink"], individual's mental health and disabilities, discrepancies in individual's

statements, other law enforcement's doubt in allegation of assault, and the age of the

victimized individual) increase attrition during sexual assault court cases (Harris &

Grace, 1999; Hester, 2015; Hohl & Stanko, 2015; Kelly et al., 2005; Stern, 2010, p. 33).

The public health concern is that repeated sexual violence within a relationship is more

likely to result in an increase in severity and frequency of violence over time. If the

individual does not leave the abuser or if the abuser does not receive treatment or

incarceration, then the sexual violence may escalate to homicide (Campbell &

Lewandowski, 1997).

To reduce attrition, researchers found that the percentage of victimized

individuals who felt that the police had treated them sensitively and fairly after reporting

their sexual assault rose by 6% after improving training for their police officers (Rape

Crisis Network Ireland, 2015). Therefore, policy has focused on changing law

enforcement's attitudes towards sexual assault while offering individuals who have

experienced a sexual assault an advocate to help individuals gain a sense of control and to

feel less vulnerable during their legal trial (Hester & Lilley, 2017). When individuals

have positive interactions with law enforcement and successfully gain more control of

their environment, they improve their ability to cope with future stressors (Cieslak et al., 2008).

Coping Self-Efficacy Contributes to Posttraumatic Resilience

Coping self-efficacy is defined as the "perceived capability to manage one's personal functioning and the myriad environmental demands of the aftermath occasioned by a traumatic event" (Benight & Bandura, 2004, p. 1130). Understanding coping self-efficacy may be facilitated by reviewing it in its larger context of social cognitive theory. Social cognitive theory suggests that internal and external factors interact and influence an individual's motivations (Crothers et al., 2008). The triadic reciprocation model used by social cognitive theory proposes that future motivations are impacted by three components; past overt behavioral factors, personal factors, and environmental factors that interact and influence each other (Bandura, 1986).

Building on this model, Wood and Bandura (1989) hypothesized that behavioral, personal, and environmental factors bidirectionally affect one another at varying strengths. These three components act as a learning experience and impact an individual's motivation to complete a task and their outcome expectation. For example, an individual's motivation to follow up with their legal advocate (motivation) is influenced by the act of contacting their legal advocate in the past (*behavioral factor*), the support offered in-person and over-the-phone by the legal advocate (*environmental factor*), and the belief that the follow-up appointment may result in posttraumatic relief (*personal factors*). Therefore, this person-situation interaction is a dynamic process that can affect different aspects of the self, like an individual's self-efficacy (Bandura, 1986).

Self-efficacy determines how confident an individual is in their ability to perform a specific task (Bandura, 1995; 1997). Bandura (1997) explained that self-efficacy can interact with the environment to create four scenarios. Firstly, when an individual has high self-efficacy in a responsive environment, then the individual have increased motivation and will be successful. Secondly, when an individual has low self-efficacy in a responsive environment, then the individual may feel dejected. Thirdly, when an individual has low self-efficacy in an unresponsive environment, then an individual will feel helpless and powerless. Lastly, when an individual has high self-efficacy in an unresponsive environment, then a person will work harder to change their goal to become successful. After a sexual assault, the responsiveness of an individual's environment, specifically the responsiveness of the legal system, can interact with a person's self-efficacy to influence an individual's posttraumatic recovery.

Self-efficacy, specifically coping self-efficacy, is directly impacted by a traumatic experience (Bandura, 1997). After a sexual assault, coping self-efficacy is often task specific in nature and can include coping with future stressors, such as managing housing, food, clothes and medical needs, controlling feelings of anxiety and panic, and dealing with feeling completely overwhelmed. The traumatic experience can impact an individual's beliefs about control in all areas of their life, which in turn negatively impacts their posttraumatic recovery (Benight & Bandura, 2004; Kushner et al., 1993). After the incident, the individual will likely experience multiple secondary incidents and prolonged stressors (Benight & Bandura, 2004). Researchers have noticed that post-sexual assault interactions with governmental and legal agencies are an additional source of strain that are more difficult to endure in the face of prolonged stress (Benight &

Bandura, 2004; Bolin, 1982). High coping self-efficacy has been associated with decreases in PTSD symptoms, rumination and avoidance coping, depressive symptoms, and increases in self-esteem (Benight & Bandura, 2004).

Coping Self-Efficacy as a Motivator to Persist

Additionally, an individual's coping self-efficacy influences how they view themselves, others, and the world. A person's coping self-efficacy is their beliefs in their ability to cope and control their environment in the face of a threat (Benight & Bandura, 2004; Cieslak et al., 2008). Situations that are labeled as threatening when the situation's demands are not within perceived coping abilities (Olff et al., 2005; Benight & Bandura, 2004). Therefore, having confidence in one's abilities to cope to exert some control over their environment (e.g., self-efficacy) can help people to re-appraise situations to promote adaptive emotion regulation (Troy & Mauss, 2011). Researchers have hypothesized that "perceived coping self-efficacy is a focal mediator of posttraumatic recovery" (Benight & Bandura, 2004, p. 1144).

Coping self-efficacy can exist before post-trauma stressors occur; however, resilience is specifically when someone can cope and adapt in the face a new stressor (Newman, 2005). Self-efficacy can motivate an individual to use more effort in the face of challenging and stressful tasks, which increases an individual's engagement and the chance that the task will be completed (Barling & Beattie, 1983). When facing stressful events head on, individuals who retain the belief that they will be able to control the situation and their emotions are more likely to put forth more effort to cope and persist when a situation is difficult.

Coping Self-Efficacy Negatively Impacted By The Environment

Coping self-efficacy beliefs are theorized to develop following a traumatic experience but are malleable in the post-trauma environment (Bandura, 1997; Benight & Bandura, 2004). Researchers have hypothesized that facing the legal system may exacerbate distress beyond an individual's available coping skills (Patterson et al., 2009). Additionally, the court case may increase the individual's distress so much that the individual may feel that their emotions are unmanageable or uncontrollable (Patterson et al., 2009). Experiencing blame from others, especially by the court system, may impact an individual's coping-self efficacy and deplete any potential protective factors (Singh & Bussey, 2011). When individuals feel that they are in an unmanageable or uncontrollable situation, individuals who have experienced a sexual assault see the world as threatening, focus on their lack of coping skills, and worry about potential dangers (Benight & Bandura, 2004). Therefore, experiencing secondary victimization may negatively impact an individual's coping self-efficacy.

Working with a legal advocate, however, can buffer against those negative consequences. From the frame of the model of triadic reciprocation, the increased sense of coping self-efficacy (*personal factor*) can be influenced by the behaviors of following up with information provided by the advocate (*behavioral factor*) as well as having positive interactions with law enforcement during their court proceedings due to the presence of their legal advocate (*environmental factor*). Because this dissertation focuses on the program evaluation of KCSARC's legal advocacy services, the remainder of the introduction focuses on the importance of sexual assault advocacy services to reduce

secondary victimization and promote coping self-efficacy to increase posttraumatic resilience.

Legal Advocacy Services Promote Recovery after a Sexual Assault

In 1994, the Violence Against Women Act (VAWA) was passed to implement domestic violence, stalker, and sexual assault prevention programs and to avert victimization costs (Campbell, 1996; Clark et al., 2002). Currently, there are 644 rape crisis centers within the United States (National Alliance to End Sexual Violence, 2010). These centers are intended to empower their clients to report their sexual assaults, as well as, navigate legal and medical systems (Jewkes et al., 2002). Some of these domestic violence and sexual assault agencies provide legal advocacy services, where a legal advocate is assigned to a client to provide a safe environment and help their clients maneuver the complex legal system (Macy et al., 2015). Legal advocates provide support including, but not limited to, helping clients create safety plans, prepare for court, connecting them with resources, as well as accompanying clients to court hearings and speaking on their clients' behalf (Campbell, 2006; King County Sexual Assault Resource Center [KCSARC], n.d.-c).

With legal advocates, individuals are 59% more likely to report their experiences of sexual assault and domestic violence; this decreases the chance of homicide in intimate partner relationships (Campbell, 2006; Catalano, 2009; Petrosky et al., 2017). Research of legal advocacy services has suggested that individuals have more positive interactions with the legal system, less distress after interacting with law enforcement, and increased rate of accepted police reports (Catalano, 2009). Further, individuals who worked with a rape victim advocate were less likely (than those who did not work with a rape victim

advocate) to be told by police officers that their sexual assault cases were not serious enough to progress to conviction (29% vs. 57%, respectively; Campbell, 2006).

After utilizing sexual assault advocacy services individuals reported receiving more services from the legal and medical systems (Campbell, 2006). With resources from shelters and crisis centers, individuals can face future stressors and protect themselves and their children more effectively (Lyon & Lane, 2009). Finally, compared to individuals who did not receive advocacy services, individuals reported less secondary victimization and distress after navigating the legal and medical systems (Campbell, 2006). In summary, when individuals felt heard and believed about their account of the traumatic event, they reported fewer mental and physical health concerns (Campbell et al., 2001).

System- And Person-Level Barriers Prevent Access to Agency Services

Even though there is an overall benefit from advocacy services, there are system-level factors that act as barriers and prevent victimized individuals from receiving important services (Campbell, 2006; National Alliance to End Sexual Violence, 2010). Financially, many advocacy centers and services have had to reduce their staff, have a waiting list for services, and have lost funding (National Alliance to End Sexual Violence, 2010). Within the agencies and centers, researchers have noted that individuals have experienced insensitive treatment from social system personnel and have reported discriminatory or racist practices within domestic violence and sexual assault services (Campbell, 2006; Fitzgerald et al., 2017; Ullman & Townsend, 2007). At the person-level, social and geographic isolation, feelings of guilt and shame, language and cultural barriers, embarrassment and humiliation, and fear of not being believed are barriers to

services (Du Mont et al., 2003; Fitzgerald et al., 2017; National Institute of Justice, 2010; Pathways to Safety International, 2017). Consequently, these factors further serve as barriers to legal, medical, and social services, which can negatively affect one's posttraumatic recovery.

KCSARC Provides Services for a Diverse Population

In Washington state, King County Sexual Assault Resource Center (KCSARC) is a 501(c) (3) nonprofit that helps support individuals of sexual assault and their families across King County (KCSARC, n.d.-c). Their mission statement is, "to give 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 sexual assault." (KCSARC, 2017-a; KCSARC; n.d.-c). KCSARC receives about $5.5 million in funding from local, county, state, and federal funding. KCSARC provides advocacy, support, and services to children, teens, men and women who have experienced sexual assault. They work with clients across the lifespan and from all cultural backgrounds. KCSARC understands the additional obstacles faced by minorities, and KCSARC created the Dando Voz (*Giving Voice*) program to provide additional resources, education tools, and therapy in Spanish to ensure that they are helping the diverse King County community (KCSARC, n.d.-b).

KCSARC has been providing legal advocacy services since 1976, and they have the largest sexual assault legal advocacy program in the country (KCSARC, n.d.-d). In 1998, KCSARC started providing legal advocacy services in Spanish to Spanish-speaking clients (KCSARC, n.d.-a). In 2017, KCSARC legal advocates helped 2,033 individuals and their families navigate through the legal system. KCSARC has led the

change in sexual assault program policy. In 2017, KCSARC was referenced as an expert

in 57 news articles. KCSARC understands that the legal system is difficult to navigate,

likely adding unnecessary stress to individuals who have experienced a sexual assault.

KCSARC provides legal advocacy services for children, teens, adults, and their families;

legal advocates help clients prepare for the criminal justice proceedings and, therefore,

regain some sense of control during their trial.

Regarding agency-wide client characteristics, there is nearly an even split 50/50

between adults (51%) and children and adolescents (49%; KCSARC, 2015). Clientele are

primarily Caucasian (55.5%), followed by Hispanic/Latino (19.5%), African American

(9%), Multi-Racial/Other (9%), Asian/Pacific Islander (5%), and Native

American/Alaskan Native (2%). While clients are primarily female (79%), KCSARC also

provides services to males (20.8%) and individuals that identify as transgender or "other"

(.2%). Regarding income, clients mainly identify as very low (35%) and low income

(33%), followed by moderate income (24%), and above moderate income (8%).

Therefore, it's important to understand the specific experiences of KCSARC's diverse

population and identify differences in post-trauma experiences.

Research Needs to Listen to the Voice of Diverse Populations

Henrich and colleagues (2010) described the 'typical' subjects used in

psychological research as "WEIRD" (e.g., Western, Educated, Industrialized, Rich, and

Democratic). Surprisingly, people who identify as 'WEIRD' represent 80% of study

participants, but only 12% of the world's population (Henrich et al., 2010). In the absence

of subgroup evaluation, results may be systematically biased (Beaton et al., 2000). When

policy and funding decisions are based on incomplete or biased research, the

consequences are multiplied. This highlights the importance of understanding the diverse experiences. Only then can researchers draw comparisons and understand the differences across cultures, identities, and languages (Gjersing et al., 2010).

To address this problem, it's up to researchers to seek more diverse study participants that represent the community around them (Henrich et al., 2010). In Washington State, racial/ethnic minority groups represent approximately 21% of Washington's population in 2019 (Office of Financial Management, 2019b). Specifically, Asia/Asian-Americans make up the largest minority racial group in 2019 with 9.0 percent of Washington's total population, followed by individuals who identify as biracial/multiracial and then Black/African American. Hispanic/Latinx populations are the fastest growing minority group in the Puget Sound region; the population of Hispanic and Latino individuals almost doubled from 2000 to 2018 in Washington State (7.5% to 13.3%, respectively; Office of Financial Management, 2019a). Therefore, more research is needed to assess the experiences of the rapidly diversifying populations, especially with how they differ compared to majority group members.

General Racial/Ethnic Differences in Stress and Resilience

Racial disparities can be seen in life expectancy, environmental exposures, behavioral risk factors, and life years lost associated with chronic conditions (Centers for Disease Control and Prevention [CDC], 2016; Chang et al., 2017). These health disparities may be explained by the fact that racial and ethnic minorities experience greater levels of stress compared to White or Caucasian people (Duru et al., 2012). Stress can be a result from discrimination, microaggressions, and an increase risk of experiencing violence, which in turn affect one's health behaviors (e.g., smoking,

drinking, weight; Brondolo et al., 2017; Duru et al., 2012). Public health professionals stressed the importance of having programs designed to reduce the health disparities to promote health equity (CDC, 2016).

Being resilient to stress is context and stressor specific; specifically, an individual can be resilient when faced with a specific stressor or in a specific context, but not with different stressors or in different contexts (Mancini & Bonanno, 2010; Meichenbaum, 2009a). Even though research shows that racial/ethnic minorities are more "resilient" compared to White/Caucasians, this is usually in terms of hardships that are associated with their racial/ethnic identity. Resilience is described as an outcome variable that depends on different adverse events, specifically that one can show a degree of resilience in the face of one kind of adversity and a different degree of resilience in the degree in the face of others (Luthar, 2006). For example, racial/ethnic minorities may be more resilient for stressors that they've experienced multiple times (e.g., racial microaggressions) or consistently experienced throughout their lifetime (e.g., poverty, lack of education); however, resilience may look different when the traumatic event or stressor is different. Therefore, this highlights the importance of looking at racial and ethnic disparities in prevalence and recovery following sexual assault.

Disparities in Sexual Assault Prevalence, Victimization, and Utilization

Researchers indicated that racial and ethnic minorities, sexual and gender minorities, and those from a low socioeconomic background have higher rates of sexual assault (Abbey et al, 2010; Black et al., 2011; Gentlewarrior & Fountain, 2009; Jewkes et al, 2002; Sigurvinsdottir & Ullman, 2015). Additionally, lifetime prevalence of PTSD was highest among some racial and ethnic minority groups compared to Caucasians

(Roberts et al., 2011). Minority group members also have different manifestations of PTSD symptoms when compared to majority group members. For example, Hispanics tend to report higher levels of intrusive symptoms (e.g., hypervigilance and flashbacks) compared to non-Hispanic Caucasians (Marshall et al., 2009; Postmus, 2015).

Recovery outcomes vary depending on demographic factors. Researchers have suggested that sexual minorities and racial minorities experience more negative consequences post-sexual assault, specifically that bisexual women and Black women reported greater recovery problems (Sigurvinsdottir & Ullman, 2015). One factor that affects recovery is prevalence of post-trauma victimization inflicted by the legal system (Marshall et al., 2009; Postmus, 2015). Minority group members are also reluctant to report crimes that happened to them to the police because of the history of prejudice, unjust treatment, and distrust between the community and police (Hetey & Eberhardt, 2018; James et al., 2016). Differences in recovery outcomes can also be caused by a variety of institutional factors, such as less access to treatment/healthcare and less service utilization (CDC, 2016). For example, immigrants, refugees, and people from a low socioeconomic background may not be able to access affordable advocacy services (Pathways to Safety International, 2017). As a result, minorities are less likely to seek help from legal services, which results in significant disparities between races and ethnicities (Amstadter et al., 2008).

In addition, minorities are less likely to utilize therapeutic treatment for PTSD when compared to Caucasians (Marshall et al., 2009; Postmus, 2015; Roberts et al., 2011). However, researchers still found that black women were less likely to engage in mental health treatment in the year following their sexual assault when differences in

access was controlled for, which suggested that there are other factors that may affect

differences in help seeking and treatment retention (Alvidrez et al., 2011). Health

disparities between racial/ethnic minorities and White/Caucasian individuals are

especially important to research because racial/ethnic minorities are more likely to be

victims of sexual assault. Consequently, sexual assault agencies need to be readily

available to provide culturally sensitive resources to reduce the possible disparities

between majority and minority populations.

Purpose of this Dissertation

Even though domestic violence and sexual assault agencies provide important and

necessary resources, there is a gap in the literature about the legal advocacy programs'

effectiveness and how they help individuals who have experienced a sexual assault. The

results from program evaluations can be integrated into practice for legal advocates so

that they can provide better informed care and specific services to promote posttraumatic

recovery (e.g., resilience) after an individual's sexual assault (Jewkes et al., 2002).

Additionally, it is important to determine how mechanisms that lead to posttraumatic

experiences and recovery may vary depending on client's demographic factors, like race

and ethnicity (Macy et al., 2011). To do that, it is necessary to compare outcomes across

racial/ethnic backgrounds in program evaluations since sexual assault prevalence and

barriers to services is higher in minority populations.

Because the secondary victimization, resilience, and psychological stress

measures were recently added to the existing program evaluation, the preliminary

analyses of my dissertation focused on psychometric evaluation of the secondary

victimization, resilience, and psychological stress measures that are used in the suite of

measures that serve as the basis of the program evaluation for KCSARC's legal advocacy

services (Phase I; Figure 1, Figure 2, & Figure 3). Second, the primary analyses evaluated

the relationship between legal advocacy satisfaction and resilience through outcome

satisfaction, secondary victimization, and coping self-efficacy (Phase II; Figure 4).

Finally, ancillary analyses were conducted to determine if demographic factors (e.g.,

race/ethnicity) effect the relationship of legal advocacy satisfaction and resilience through

multiple mediators (Phase III; Figure 5).

My dissertation will assist the program's evaluation by establishing the credibility

and appropriateness of using these measures to evaluate KCSARC's legal advocacy

services. Additionally, my results will contribute theoretically by establishing the

mechanism from legal advocacy satisfaction to resilience through court outcome

satisfaction, secondary victimization, and coping self-efficacy, and how race possibly

affects this mechanism. Finally, a practical implication of my results can help those in the

legal system understand how individual factors (e.g., race, coping self-efficacy) and

context-specific factors (e.g., legal advocacy satisfaction, court outcome satisfaction, and

secondary victimization) can impact an individuals' psychological recovery after sexual

assault, specifically their resilience.

Figure 1

Hypothesized measurement model of Secondary Victimization-Subjective Effects Subscale (SES)
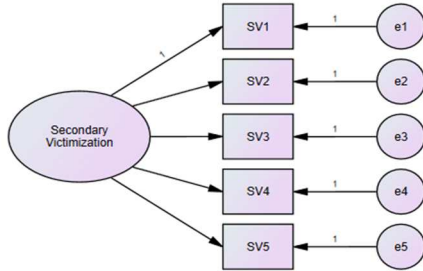
Figure 2

Hypothesized measurement model of Resilience Appraisals Survey (RAS)
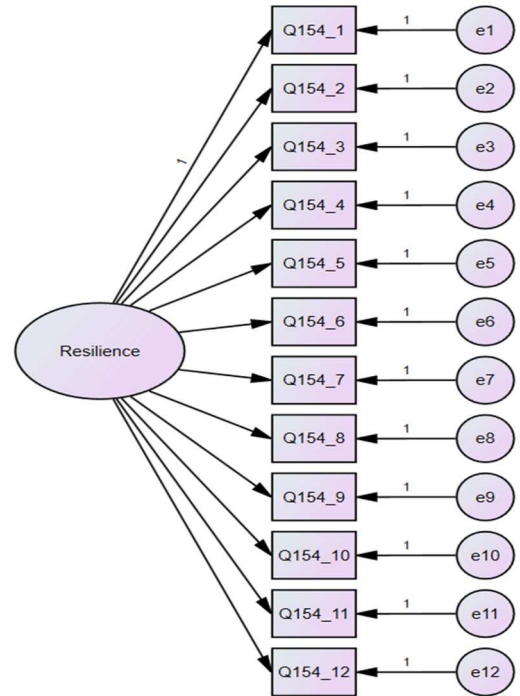
Figure 3

Hypothesized measurement model of Secondary Victimization-Psychological Stress Subscale (PSY)
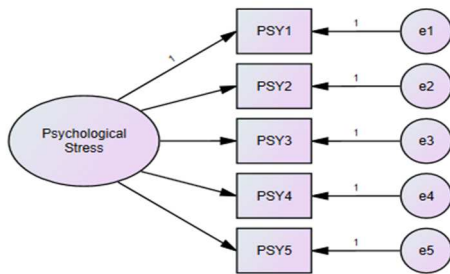
Figure 4

Hypothesized relationship between legal advocacy satisfaction and resilience, mediated by outcome satisfaction, secondary victimization, and coping self-efficacy
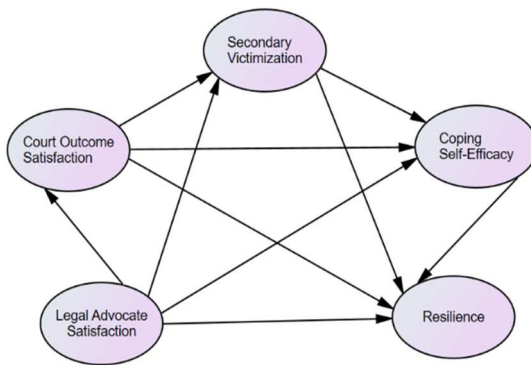
Figure 5

Hypothesized effect of race/ethnicity on the relationship between legal advocacy satisfaction and resilience through multiple mediators
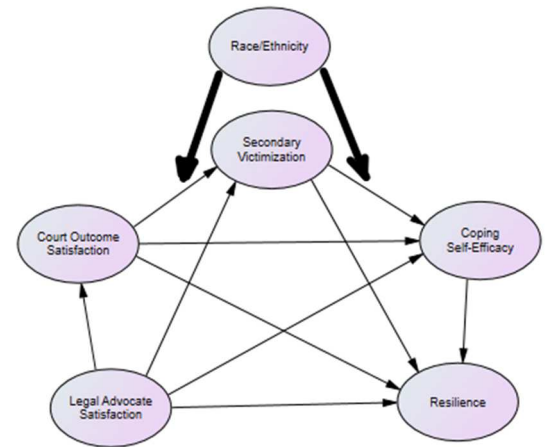
CHAPTER II

Method

Participant Characteristics

Participants ($N = 87$) were clients who received KCSARC legal advocacy services collected from 2019 forward. Participants were included in the data analyses if they were identified as a cis woman, were over the age of 13, and spoke English. Those who were under the age of 13, males, and those who identified as transgender were not included in the analyses because of the low sample sizes that may result in inaccurate statistical comparisons. Of the 87 clients that provided demographic information, clients ranged in age from 13 to 67 years old ($M = 29.11$, $SD =12.39$). Using the participants that provided demographic information, a majority identified as White or Caucasian (56.3 %) followed by Hispanic or Latinx (11.5 %), Biracial or Multiracial (10.3 %), Asian or Asian American (8.0 %), Black or African American (8.0 %), Other (4.6 %), and American Indian or Native American (1.1 %). A majority of the participants identified as heterosexual (70.1 %), but other sexual identities were present.

Sampling Procedures

Participants were recruited by KCSARC administrative staff and legal advocates. The program evaluation is a longitudinal design with three waves of repeated measures for each participant. For each wave, participants received up to one survey packets total that contained 6 separate measures and a few questions that asked for their demographic information (e.g., three survey packets total). The client received a survey packet once they start receiving legal advocacy services, after their last meeting with their legal advocate, and 3-months following their last meeting with their legal advocate. Although

the design of the program evaluation is longitudinal, only one assessment (i.e., the first) from each client was used in my evaluation. Typically, this was from the first wave. However, if a client skipped the earlier waves but participated in the second or third wave, their data from that wave was used.

The data was collected either via electronic or paper surveys. If the client chose to complete the paper survey, they could either complete paper survey onsite with a KCSARC staff member or was given the paper survey and a pre-addressed envelope with postage included to return to KCSARC. The completed paper surveys were de-identified by KCSARC staff and sent to the researchers. If the client chose to participate with the online version, then the client received a link via email or text to the online survey on Qualtrics. Finally, participants were offered monetary incentives for their participation in the study. The participants were given an online gift card for $5 for Time 1, $10 for Time 2, and $15 for Time 3, with an opportunity to receive up to $30 total.

Sampling Size, Power, and Precision

Conducting power analysis for structural equation modeling is a complex and complicated process because there are many ways to calculate an adequate sample size. Researchers used Monte Carlo data simulation techniques to evaluate the sample size requirements for SEM; however, results indicated a large range of sample size requirements from 30 to 460 participants (Wolf et al., 2013). Some researchers have suggested 10 participants per item; however, more recent literature identified this commonly cited sample size "rule-of-thumb" may result in a too large of a sample size and falsely inflated fit indices (Wolf et al., 2013).

Westland (2010) created an approach to structure equation modeling power analysis, and Soper (2018) created the Structural Equation Model Sample Size Calculator to calculate the adequate sample size. Using Soper's (2018) Structural Equation Model Sample Size Calculator, I input the estimated effect size at 0.1, desired statistical power level at 0.8, probability level at 0.05, and the number of latent variables and observed variables (i.e., items) for each measure. Results indicated an adequate sample size of 87 participants were required for the SES (e.g., 1 latent variable, 5 observed variables), RAS (e.g., 1 latent variable, 12 observed variables), and PSY (e.g., 1 latent variable, 5 observed variables) to detect an effect.

G*Power 3.1.9.7 (Faul et al., 2007, 2009, 2020) was used to calculate the necessary effect size for the mediation (path) analyses. In order to determine the sample size for a mediation analysis, I input the estimated effect size at 0.35, desired statistical power level at 0.8, probability level at 0.05, and a total of 9 predictors. Results of the power analysis suggested that that a total sample size of 54 participants would be required to achieve an appropriate power.

Measures and Covariates

Legal Advocacy Satisfaction

The Legal Advocacy Services Satisfaction Survey (LAS; Gibbs et al., 2011) is an author-constructed, self-report, 9-item measure that assesses two factors: client satisfaction with the information provided by the advocate (4 items) and the quality of the relationship between advocate and client (5 items). The items use a 5-point Likert scale, ranging from 1 (*not at all*) to 5 (*to a very great extent*). An increase or decrease in scores over time is interpreted as change in the quality of one or both elements of client

satisfaction as opposed to instability of the measure. High scores suggest that the client

feels satisfied with the services being provided and that the advocate is doing their job

well. Sample items included: "Did the advocate explain the legal process effectively?"

(Quality of information) and "Did your advocate maintain contact with you that met your

needs?" (Quality of relationship).

Using our archival data, psychometric evaluation was conducted for the LAS; the

9-item measure had adequate fit statistics (CFI = 0.93, RMSEA = 0.16). Additionally, the

internal consistency coefficients ranged from 0.95-0.96 (between test and retest),

suggesting satisfactory internal consistency. The temporal stability coefficient was 0.80

for the 9-item measures, suggesting a strong test-retest reliability. For my dissertation, the

internal consistency coefficients for the LASSS was 0.96, which suggested satisfactory

internal consistency.

Court Outcome Satisfaction

The Secondary Victimization-Outcome Satisfaction Subscale (COS; Orth, 2002)

is a self-report single item that assess outcome satisfaction during the criminal

proceedings (e.g., decision to prosecute, timeline of the trial, etc.). This is a part of a

larger questionnaire Secondary Victimization of Crime Victims by Criminal Proceedings

Measure that has a total of six domains: one effect subscale (e.g., subjective effects), two

trial outcome subscales (e.g., outcome satisfaction and punishment severity), and three

procedural subscales (e.g., procedural justice, interactional justice, and psychological

stress). Participants ($N = 137$) who experienced a variety of violent crimes (e.g., 35%

experienced a sexual assault) completed the measures; researchers hypothesized that trial

outcome variables and procedure outcomes were potential causes of secondary

victimization. The single item was: "How satisfied are you with the outcome of the criminal proceedings?" Answers were assed with a 7-point Likert scale with anchors from -3 to 3, with -3 (*very dissatisfied*) to 3 (*very satisfied*). Higher scores on the COS indicate more satisfaction with the outcomes during their court proceedings.

Secondary Victimization

The Secondary Victimization-Subjective Effects Subscale (SES; Orth, 2002) is a self-report 5 item measure which assesses secondary victimization during court proceedings. Like the Outcome Satisfaction Question, this is a part of a larger questionnaire Secondary Victimization of Crime Victims by Criminal Proceedings Measure that has a total of six domains. Within the SES subscale, there are 5 items that assess coping with victimization, self-esteem, faith in the future, trust in the legal system, and faith in a just world. Items are scored on a 7-point Likert with anchors from -3 to 3, with -3 (*very negative*) to 3 (*very positive*), and total scores are gained by averaging item scores. Higher scores on the SES indicate increased levels of positive consequences associated with their court proceedings. Sample items include, "What consequences did the criminal proceedings have on your ability to cope with the crime?" Orth (2002) found that the internal consistency was 0.87 for this subscale. For my dissertation, the internal consistency coefficients for the SES was 0.95, which suggested adequate internal consistency.

Sexual Assault Coping Self-Efficacy

The Sexual Assault Coping Self-Efficacy Measure (CSE; Benight et al., 2004; Gibbs et al., 2011) was developed in collaboration with KCSARC to effectively evaluate their legal advocacy program. Along with KCSARC, Gibbs and colleagues (2011)

modified the Domestic Violence Coping Self-Efficacy Measure (DV-CSE; Benight et al., 2004) to reflect the clients that receive KCSARC services. The DV-CSE is a 30-item measure that assesses a person's coping self-efficacy associated with their domestic violence recovery. The responses are on a 100-point Likert scale, ranging from 0 (*not at all capable*) to 100 (*totally capable*), and then the total score is calculated by summing up the ratings. Sample items included, "Dealing with feelings of sadness," and "Being strong emotionally for my family and friends."

Because KCSARC legal advocacy helps clients that have experienced sexual assault, Gibbs and colleagues (2011) modified the original items from the DV-CSE to reflect the population serviced by KCSARC. For the CSE, 19 of the 30 original items were chosen, and 12 of the 19 items were modified. These items were modified by (a) replacing *domestic violence* with *sexual assault*, (b) replacing *abuser* or *abuse* with *assailant* or *assault*, and (c) replacing the phrase *since the most recent attack* with *since the latest assault* (Gibbs et al., 2011). The CSE is a self-report measure that assesses a person's confidence in their ability to cope after their sexual assault. The Likert rating scale was also modified. The items are rated on a 5-point Likert scale, ranging from 1 (*completely incapable*) to 5 (*completely capable*), and total scores are gained by averaging item scores. Higher scores on the CSE indicate increased levels of confidence in their ability to cope with future stressors. Sample items include, "Dealing with feelings of shame concerning the assault."

Using our archival data, psychometric evaluation was conducted for the CSE; the 19-item measure had adequate fit statistics (CFI = .92, RMSEA = .10). Additionally, the internal consistency coefficients ranged from 0.96-0.97 (between test and retest),

suggesting excellent internal consistency. The temporal stability coefficient was 0.86 for the 19-item measures, suggesting a strong test-retest reliability. For my dissertation, the internal consistency coefficients for the CSE was 0.97, which suggested excellent internal consistency.

Resilience

The Resilience Appraisals Scale (RAS; Johnson et al., 2010) is a self-report 12-item measure which assesses individual's appraisal of their ability to be resilient against future stressors. The RAS comprises three, four☐item subscales, namely, the emotion coping, situation coping, and the social support subscale. The emotion coping subscale assesses the individual's perceived ability to cope with difficult emotions (e.g. "In difficult situations, I can manage my emotions"). The situation coping subscale assesses the individual's ability to solve a problem (e.g. "If faced with a set-back, I could probably find a way around the problem"). The social support subscale assesses the individual's perceived ability to access social support (i.e. "If I were in trouble, I know of others who would be able to help me"). Johnson and colleagues (2010) confirmed the proposed three-factor structure of the scale using confirmatory factor analysis.

The measure was originally created to assess an individual's ability to be resilient against future suicidal thoughts as a result of stressful life events. However, Panagioti and colleagues (2012) used the RAS to measure resilience in individuals who have previously been exposed to a traumatic event. The items are rated on a 5-point Likert scale, ranging from 1 (*strongly disagree*) to 5 (*strongly agree*), and total scores are gained by summing item scores. The scale can produce a total score for the overall RAS or three separate subscales for emotion coping, situation coping, and social support. However, only the

score for the overall RAS was used for these analyses. Higher scores for the overall RAS indicate increased levels of positive self-appraisals of their ability to be resilient. The internal consistency coefficients were 0.88 for the overall scale. For my dissertation, the internal consistency coefficients were 0.94 for both the 12-item RAS scale and the 7-item RAS scale.

Race and Age

Demographic information was collected with multiple choice and text entry questions at the end of the survey packet. These questions were author constructed and collected at each wave of administration. Participants were asked to report their age and self-identify into one of these racial/ethnic categories: Asian or Asian American, Black or African decent, Hispanic or Latino, White, American Indian/Native American, Mixed or Biracial, or other. Age was kept as a continuous variable; however, race was transformed into a dichotomous variable by combining multiple racial/ethnic minority identities and comparing them to White/Caucasian group.

Time in Quarantine

Given that the COVID-19 pandemic and the stay at home order happened in the middle of the data collection, I wanted to account for any changes that may have happened due to the stay-at-home order that was placed on March 23rd, 2020 in Washington state. Therefore, I calculated a continuous time variable based on the amount of time between when respondents completed their survey compared to when the stay-at-home order was placed ($M = -23.76$, $SD = 89.33$). Negative values indicated that the participant completed the survey prior to the stay-at-home order, and positive values

indicated that that the participant completed the survey after the stay-at-home order was placed.

Psychological Stress

The Secondary Victimization-Psychological Stress (PSY; Orth, 2002) is a self-report 5 item measure which assesses stress experienced during court proceedings. Like the Outcome Satisfaction Question and Subjective Effects Subscale, this is a part of a larger questionnaire Secondary Victimization of Crime Victims by Criminal Proceedings Measure that has a total of six domains. Within the PSY subscale, the 5-items assess how much stress was experienced by different factors (e.g., perpetrator, defense attorney, length of trial) during the criminal proceedings. Items are scored on a 6-point Likert with anchors from 0 to 5, with 0 (*not at all right*) to 5 (*completely right*), and total scores are gained by averaging item scores. Higher scores on the PSY indicate increased levels of stress experienced during the court proceedings. Participants were given a prompt to respond to the statements: "Please rate how right these statements are for you." Sample statements include, "The presence of the perpetrator was stressful to me." Orth (2002) found that the internal consistency was 0.60 for this subscale. For my dissertation, the internal consistency coefficients for the SES was 0.84, which suggested adequate internal consistency.

Research Design

The IRB (# 181908002R) was approved for my dissertation in February 2019 and was renewed in February 2020. The data used in this dissertation was collected from 2019-2020. My dissertation addressed a gap in the literature by evaluating the structural validity of secondary victimization, resilience, and psychological stress measures used to

evaluate KCSARC's legal advocacy program (Phase I); analyzing the relationship

between legal advocacy satisfaction and resilience, as outcome satisfaction, secondary

victimization, and coping self-efficacy mediates that relationship (Phase II); and

determining if other ancillary factors, like race/ethnicity, affect this mechanism (Phase

III). For Phase I, II, and III, the data was analyzed using SPSS Statistics and SPSS

AMOS.

CHAPTER III

Results

Data Analytic Plan

Because the SES and RAS have not been validated with the KCSARC clientele population, structural validity and calculated internal consistency were analyzed using SPSS Statistics and SPSS AMOS. My primary analyses utilized a model-generating approach (Jöreskog, 1993; Jöreskog & Sörbom, 1985) where confirmatory factor analysis was used to separately evaluate the 5-items used to calculate the Secondary Victimization-Subjective Effects Subscale (SES) and the 12-item items used to calculate the Resilience Appraisals Scale (RAS). I used a model-generating approach because I expected that the initial model would have less than adequate fit, and I anticipated making modifications to each model. Confirmatory factor analysis procedures were first used to test for the hypothesized factor structure underlying the measures and evaluating the model fit. Specifically, I followed Kline's (2015) recommendation to include the model test statistic (chi-square) and three approximate fit indices (i.e., CFI, RMSEA, SRMR). Structural equation modeling texts (Byrne, 2016; Kline, 2015) have documented that researchers disagree on standards for fit criteria and that multiple characteristics such as sample size and model complexity should be considered when evaluating the fit of the models. Thus, in our description of each of the fit statistics, I note the general boundaries of the recommendations.

The chi-square goodness of fit test evaluates the discrepancy between the unrestricted sample matrix and the restricted covariance matrix. Even though non-significant p-value indicates adequate fit, a large sample size can result in a statistically

significant p value (Byrne, 2016). To supplement the chi-square statistic, other statistical indices have been recommended to assess model fit. The comparative fit index (CFI) became the endorsed statistic for evaluating model fit; therefore, range of acceptable fit begins at 0.90 with an upper bound of 0.95 (Byrne, 2016; Kline, 2015). The root mean square error of approximation (RMSEA) takes into account the error of approximation in the population and expresses it per degree of freedom. RMSEA considers the complexity of the model; consequently, scores close to 0.00 are more desirable. There appears to be some consensus around values of 0.05 or less being good fit, values as high as 0.08 representing reasonable errors of approximation in the population, with 0.10 as the upper boundary for acceptability of fit (Byrne, 2016; Kline, 2015). The SRMR (standardized root mean square residual) represents the average value across all standardized residuals. Research suggests that SRMR should be 0.10 or lower for a well-fitting model (Byrne, 2016; Kline, 2015).

Then, a principal component analysis was used to identify the cause of misfit and to specify an alternative model of factorial structure. Before interpreted principal components analysis, data screening was conducted to ensure the appropriateness of our data for these analyses (Field, 2005). The Kaiser-Meyer-Olkin (KMO; Kaiser, 1960) measures sampling adequacy. KMO values range between 0 and 1; the higher the value of the KMO, the more appropriate it is for PCA. Barlett's test of sphericity tests to see if the original correlation matrix is like the identify matrix (Field, 2005); a statistically significant p value (less than 0.05) indicates that a factor analysis may be appropriate for PCA. I started the principal components analysis process with an unrotated factor solution because this helps assess the improvement due to rotation. To determine the

number of factors to rotate, four criteria guided my extraction: a priori theory, the scree

test, the Eigenvalue-greater-than-one criteria, and the interpretability of the factor

solution. The scree plot suggests the number of factors that can be extracted (Stevens,

1992), and eigenvalues-greater-than-one suggest the number of factors that explain the

most variance (Kaiser, 1960). In the matrices, factor loadings describe the correlation

between items and the factors. Stevens (1992) suggested that .4 is an appropriate cut-off

for interpreting factor loadings. Researchers indicated that cross-loadings (e.g., when

items load onto multiple factors) can impact model fit. To address the issue of cross-

loading, Howard (2016) suggested a ".40–.30–.20 rule," where items that are cross-

loaded can be retained if the item loads onto the highest factor above 0.40, the item loads

onto second highest factor below 0.30, and (c) the discrepancy between the highest factor

and the second highest factor is more than 0.20. If the item does not meet all three of

these criteria, then this suggests that the item is poor/unreliable and may need to be

deleted from future analyses, unless there is theoretical rationale to retain the item

(Howard, 2016).

Next, confirmatory factor analyses were used to build upon the information

provided by the principal component analyses and to propose a final model of the

measures. Additionally, modification indices (MIs) were used to re-specify the model to

hopefully improve the model fit. MIs were evaluated to determine and locate if

parameters were freed to covary (Byrne, 2001). These errors were only allowed to covary

if it was suspected that something besides the proposed theoretical relationship accounted

for the relationship between these two items. The scales were then totaled based on the

results from the principal component analysis and confirmatory factor analysis. To

finalize the preliminary analyses, bivariate correlations were calculated to assess the

strength of association between the measures and determine the direction of the

relationship; then, independent T-tests were conducted to compare the means for different

racial/ethnic groups across the various measures.

For the primary analyses, PROCESS macro Version 3.4 (Hayes, 2015, 2018a)

was used to conduct a serial mediation to test the influence of legal advocacy satisfaction

on resilience, both directly and indirectly, through the multiple mediators because there is

theoretical rationale that variables that are causally earlier in the model affect all

variables later in the sequence (Model 6). Specifically, I utilized serial multiple mediation

analysis to test the influence of legal advocacy satisfaction (X, LAS) on resilience (Y,

RAS) directly as well as indirectly through the mediators court outcome satisfaction (M1,

COS), secondary victimization subjective effects (M2, SES), and sexual assault coping

self-efficacy (M3, CSE). I followed the procedures outlined in Hayes (2018a) by

analyzing the strength and significance of four sets of effects: specific indirect, the total

indirect, the direct, and total. The specific indirect effects were calculated by multiplying

the regression weights that corresponded to each step in an indirect pathway. The total

indirect effect of LAS was calculated by totaling all the specific indirect effects. The

direct effect (c') is the estimated difference in RAS when LAS changes by one unit and

all of the mediators in the model are controlled for. The total effect of LAS was

calculated by adding the total indirect effect of LAS to the direct effect of LAS, which

can also be estimated by regressing RAS from LAS only. The expectation is that the

direct effect is smaller than the total effect because of the addition of the mediator into

the model. Hayes (2018a) recommended this strategy over simple mediation models

because it allows for all mediators to be examined, simultaneously and allows the testing of the seriated effect of prior mediators onto subsequent ones.

For the ancillary analyses, I used the PROCESS macro Version 3.4 (Hayes, 2015, 2018a; Preacher et al., 2007) to conduct a moderated serial mediation to determine if race/ethnicity (0 = White/Caucasian; 1 = Racial/Ethnic Minority) moderated the indirect effect of legal advocacy satisfaction (X, LAS) to resilience (Y, RAS) through multiple mediators (Model 91). Specifically, I analyzed to see if race moderated the relationship between court outcome satisfaction (M1, COS) and secondary victimization (M2, SES) and secondary victimization subjective effects (M2, SES) and sexual assault coping self-efficacy (M3, CSE). For both the moderated serial mediation and serial mediation, the analyses used 5,000 bootstrap samples to create a bias-corrected 95% confidence interval to evaluate the statistical significance of indirect and direct effects.

Addressing Missing Data

Neither structural equation modeling (or the confirmatory analysis) nor internal consistency analyses can accommodate cases with missing data. Missing data was assessed using the patterns described by Enders (2010). The missing values created a general or haphazard pattern. With regard to managing missing data prior to analyzing the structural validity, I approached the preparation following Parent's (2013) recommendations. For the principal component analyses, confirmatory factor analysis, and internal consistency coefficients analyses, I began by deleting cases who had missingness of 20% or more for the SES, RAS, and PSY. For the initial data sample, 87 participants attempted to complete the survey. I removed 10 cases for SES, 4 cases for RAS, and 19 cases for PSY because responses on 20% or more of the items were missing

for each scale. Of the remaining sample for SES ($N = 77$), 100% had complete data. Of

the remaining sample RAS ($N = 83$), 100 % had complete data. Of the remaining sample

for PSY ($N = 68$), 100 % had complete data.

Preliminary Analyses

Psychometric Properties of SES

Because the SES is a subscale from a multidimensional measure, I assessed the

hypothesized unidimensional the SES. The initial model was rejected because of the poor

fit (e.g., RMSEA exceeded the cutoff of 0.10) from the statistical perspective ($X^2 = 22.39$

[$p < 0.001$], CFI = 0.96, RMSEA = 0.21 [0.13, 0.31], SRMR = 0.03). I conducted a

principal component analysis to identify the reason of the misfit and specify an

alternative model for the SES. The KMO value was 0.88 and the Bartlett's test of

sphericity was significant ($p < .001$). The scree plot suggested 1 factor, and there was 1

eigenvalue greater-than-one (accounting for 84.39% of variance). The component matrix

(shown in Table 1) suggested 1 factor, and all the items were reliably loaded onto the

factor (loadings > 0.40). Therefore, I specified a single factor for the SES.

Even though the principal component analysis didn't specify an alternative model

for the SES, I re-ran the original confirmatory factor analysis to determine which MIs

could be allowed to covary to improve the model fit. In the first step, I allowed a

covariance between error 4 and error 5 (items regarding views of their environment). The

fit statistics perspective ($X^2 = 5.94$ [$p = 0.20$], CFI = 0.99, RMSEA = 0.08 [0.00, 0.20],

SRMR = 0.02) were above the desired standards and did not believe I could justify

freeing additional parameters. Thus, I recommend the unidimensional structural model of

the 5-item SES. The results of the initial confirmatory factor analyses and subsequent

modifications for the SES are presented in Table 2. The final unidimensional model for

the 5-item SES is depicted in Figure 6.

Table 1
Correlation between SES Items and the SES Factor

Items	Factor 1
Q1 What consequences did the criminal proceedings have on your ability to cope with the crime?	**0.91**
Q2 What consequences did the criminal proceedings have on your self-esteem?	**0.93**
Q3 What consequences did the criminal proceedings have on how optimistically you view the future?	**0.92**
Q4 What consequences did the criminal proceedings have on your trust in the legal system?	**0.92**
Q5 What consequences did the criminal proceedings have on your faith in a just world?	**0.92**

Note: Bolded font shows significant factor loadings (factor loadings > .4). All of the items were reliably loaded onto the first factor (factor loadings > 0.40); therefore, I specified a single factor for the SES.

Table 2
Confirmatory Factor Analyses for SES

Models	X^2	df	Model Comparison	ΔX^2	Δdf	CFI	RMSEA	SRMR
M1 (Initial)	22.39	5	--	--	--	0.96	0.21	0.03
M2 e4<->e5	5.94	4	1 vs. 2	16.45*	1	0.99	0.08	0.02

Note. Initial model and Re-specifications for the model. M1 is the code for the initial model. M2 is code for the first re-specified model. 'X2' is code for chi-square values; 'df' is an acronym for degrees of freedom. 'Δ' is the capital Greek letter, Delta, which represents change. 'CFI' is the acronym for Comparative Fit Index. 'RMSEA' is the acronym for Root Mean Square Error of Approximation. '<->' is code for allowing the errors to co-vary in the model
*denotes p < .05

Figure *6*

Final unidimensional measurement model of SES
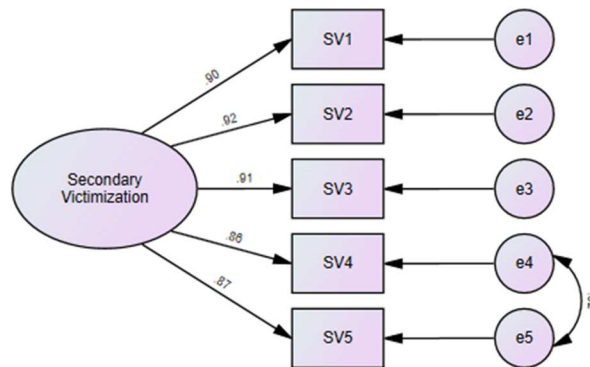
Note. This figure demonstrates the final unidimensional model of the 5-item Secondary

Victimization-Subjective Effects Subscale (SES).

*Items are numbered in the order presented in Table 1. All path coefficients are

significant ($p < 0.05$).

Psychometric Properties of RAS

The RAS has three first-order factors (e.g., emotion coping, situation coping, and

social support). However, all the first-order factors contribute to a second-order factor of

general resilience; therefore, I analyzed the hypothesized unidimensional structure of the

RAS. The initial model was rejected because of the poor fit (e.g., CFI failed to meet the

cutoff of 0.90, RMSEA exceeded the cutoff of 0.10, and SRMR exceeded the cutoff of

0.10) from the statistical perspective ($X^2 = 254.18$ [$p < 0.001$], CFI $= 0.75$, RMSEA $=$

0.21 [0.19, 0.43], SRMR $= 0.11$). I conducted a principal components analysis to identify

the reason of the misfit and specify an alternative model for the RAS, and I specified the

three factors. The KMO value was 0.88 and the Bartlett's test of sphericity was

significant ($p < .001$). The scree plot suggested 1-2 factor, and there was 2 eigenvalue-

greater-than-one (accounting for 72.74% of variance). The component matrix suggested

that all the items were reliably loaded onto factor 1 (loadings > 0.40). However, our items

(2, 4, 6, and 10) cross-loaded onto factor 1 and factor 2, and all 4 items were deleted

because they violated the a ".40–.30–.20 rule." (Howard, 2016, p. 55). Items 2, 6, and 10

belonged to the same subscale (e.g., social support); because there are only 4 items in

each subscale, the remaining item in social support subscale (item 1) was deleted for the

second principal component analysis. A second principal component analysis was

conducted to analyze the re-specified structure. The KMO value was 0.89 and the

Bartlett's test of sphericity was significant ($p < .001$). The scree plot suggested 1 factor,

and there was 1 eigenvalue-greater-than-one (accounting for 71.04 % of variance). The

component matrix suggested that all the items were reliably loaded onto the factor

(loadings > 0.40). Therefore, these items were deleted, and I specified a single factor for

the 7-item RAS. A summary of the two component matrices are presented in Table 3.

Since the principal component analysis did specify an alternative model for the

RAS, I analyzed the confirmatory factor analysis for unidimensional structure of the 7-

item RAS ($X^2 = 31.22$ [$p = 0.01$], CFI = 0.96, RMSEA = 0.12 [0.06, 0.18], SRMR =

0.04). Because the alternative model indicated less than adequate fit (e.g., RMSEA

exceeded the cutoff of 0.10), I re-ran the confirmatory factor analysis and evaluated MIs

to improve the model fit. In the first step, I allowed a covariance between error 8 and

error 12 (items regarding overcoming negative emotions). The fit statistics ($X^2 = 22.67$ [p

= 0.05], CFI = 0.98, RMSEA = 0.09 [0.01, 0.16], SRMR = 0.04) were above the desired

standards and did not believe I could justify freeing additional parameters. Thus, I

recommend the unidimensional structural model of the 7-item RAS. The results of our

initial confirmatory factor analyses and subsequent modifications for the RAS are

presented in Table 4. Figure 7 depicts the final unidimensional model for the 7-item RAS.

For the subsequent analyses, the RAS total score was calculated using the 7-item revised

version.

Table 3
Correlation between RAS Items and the RAS Factors

Items	12-item RAS		7-item RAS
	Factor 1	Factor 2	Factor 1
*Q1 If I were to have problems, I have people I could turn to	**0.76**	--	--
*Q2 My family or friends are very supportive of me	**0.69**	**0.58**	--
Q3 In difficult situations, I can manage my emotions	**0.76**	--	**0.79**
*Q4 I can put up with my negative emotions	**0.69**	**-0.43**	--
Q5 When faced with a problem I can usually find a solution	**0.79**	--	**0.83**
*Q6 If I were in trouble, I know of others who would be able to help me	**0.71**	**0.46**	--
Q7 I can generally solve problems that occur	**0.83**	--	**0.86**
Q8 I can control my emotions	**0.83**	--	**0.87**
Q9 I can usually find a way of overcoming problems	**0.89**	--	**0.93**
*Q10 I could find family of friends who listen to me if I needed them to	**0.71**	**0.54**	--
Q11 If faced with a set-back, I could probably find a way round the problem	**0.79**	--	**0.78**
Q12 I can handle my emotions	**0.80**	--	**0.84**

Note: Bolded font shows significant factor loadings (factor loadings > 0.40). The asterisk (*) shows the items that were deleted. Since the remaining items were reliably loaded onto the first factor (factor loadings > 0.40), we specified a single factor for the 7-item RAS.

Table 4

Confirmatory Factor Analyses for RAS

Models	X^2	df	Model Comparison	ΔX^2	Δdf	CFI	RMSEA	SRMR
M1 (Initial)	254.18	54	--	--	--	0.75	0.21	0.11
M2 (EFA specification)	31.22	14	1 vs. 2	222.96*	40	0.96	0.12	0.04
M3 8 <->12	22.67	13	2 vs. 3	8.55*	1	0.98	0.09	0.04

Note. Initial model and re-specifications for the model. M1 is the code for the initial model. M2 is code for the first re-specified model building upon suggested EFA specifications. M3 is code for the second re-specified model. 'X2' is code for chi-square values; 'df' is an acronym for degrees of freedom. 'Δ' is the capital Greek letter, Delta, which represents change. 'CFI' is the acronym for Comparative Fit Index. 'RMSEA' is the acronym for Root Mean Square Error of Approximation. '<->' is code for allowing the errors to co-vary in the model
*denotes $p < .05$

Figure 7

Final unidimensional measurement model of RAS
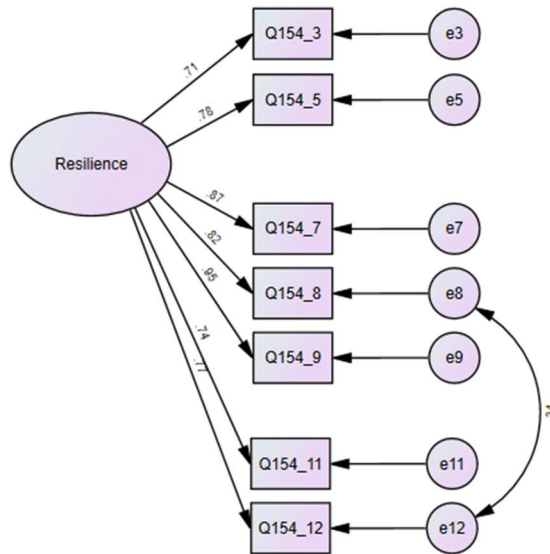
Note. This figure demonstrates the final unidimensional model of the 7-item revised

Resilience Appraisals Scale (RAS).

*Items are numbered in the order presented in Table 3. All path coefficients are

significant ($p < 0.05$).

Psychometric Properties of PSY.

Because the PSY is a subscale from a multidimensional measure, I specified the

PSY as unidimensional.. Even though initial model had adequate fit from the statistical

perspective (X^2 = 1.12 [p = 0.95], CFI = 1.00, RMSEA = 0.00 [0.00, 0.03], SRMR =

0.02), I conducted a principal component analysis to confirm the structural model of the

PSY. The KMO value was 0.84 and the Bartlett's test of sphericity was significant (p <

.001). The scree plot suggested 1 factor, and there was 1 eigenvalue greater-than-one

(accounting for 62.63% of variance). The component matrix (shown in Table 5)

suggested 1 factor, and all the items were reliably loaded onto the factor (loadings >

0.40). Therefore, I retained the unidimensional structure without further modification.

The results of our initial confirmatory factor analyses for the PSY are presented in Table

6.

Table 5
Correlation between PSY Items and the PSY Factor

Items	Factor 1
Q1 The presence of the perpetrator was stressful to me.	**0.90**
Q2 The presence of spectators was stressful to me.	**0.90**
Q3 Giving testimony was stressful to me.	**0.87**
Q4 The perpetrator or defender insinuated that I was partially to blame for the crime.	**0.65**
Q5 It was stressful to me, that it took such a long time before the case came to trial.	**0.58**

Note: Bolded font shows significant factor loadings (factor loadings > .4). All of the
items were reliably loaded onto the first factor (factor loadings > 0.40); therefore, I
specified a single factor for the PSY.

Table 6

Confirmatory Factor Analyses for PSY

Model	X²	df	Model Comparison	ΔX²	Δdf	CFI	RMSEA	SRMR
M1 (Initial)	1.12	5	--	--	--	1.00	0.00	0.02

Note. Initial model and Re-specifications for the). M1 is the code for the initial model. 'X2' is code for chi-square values; 'df' is an acronym for degrees of freedom. 'Δ' is the capital Greek letter, Delta, which represents change. 'CFI' is the acronym for Comparative Fit Index. 'RMSEA' is the acronym for Root Mean Square Error of Approximation. '<->' is code for allowing the errors to co-vary in the model
*denotes p < .05

Figure 8

Final unidimensional measurement model of PSY
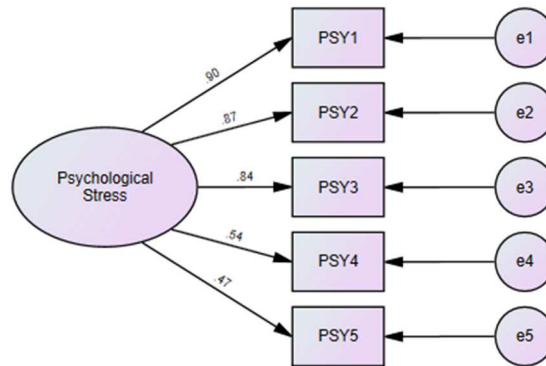
Note. This figure demonstrates the final unidimensional model of the 5-item Secondary

Victimization-Psychological Stress Subscale (PSY)

*Items are numbered in the order presented in Table 5. All path coefficients are

significant ($p < 0.05$).

Interrelationships of the Measures

A summary of descriptive statistics and a correlation matrix for PSY, LAS, COS,

SES, CSE, and RAS is provided in Table 7. Looking at the descriptive statistics,

participant's negative mean COS, and SES scores demonstrates that participants, on

average, were less satisfied were the court outcome and reported more negative

consequences associated with their court proceedings, respectively. Additionally, the

overall Pearson's correlation coefficients had medium to large effect sizes between the measures. The pattern of relations supports convergence amongst measures that measure similar constructs and discrimination with other measures. Additionally, these bivariate relations provide evidence to support the test of mediation analysis.

Table 7
Bivariate Correlation and Descriptive Statistics among PSY, LAS, COS, SES, CSE, and RAS and their Internal Consistency Alpha Coefficients

	M	SD	Min, Max	PSY	LAS	COS	SES	CSE	RAS
Time	-23.76	89.33	-216.53, 67.61	--	--	--	--	--	--
PSY	2.04	1.62	0.00, 5.00	0.84	--	--	--	--	--
LAS	3.93	1.10	1.00, 5.00	0.30*	0.96	--	--	--	--
COS	-0.23	1.95	-3.00, 3.00	0.13	0.42**	--	--	--	--
SES	-0.23	1.57	-3.00, 3.00	0.02	0.37**	0.79**	0.95	--	--
CSE	3.37	0.93	1.00,5.00	-0.06	0.27*	0.20	0.36**	0.97	--
RAS	25.91	5.84	7.00, 35.00	0.12	0.41**	0.15	0.27*	0.65**	0.94

Note. Descriptive statistics and bivariate correlations were analyzed for 5-items used to calculate the Secondary Victimization-Psychological Stress (PSY); 9-items used to calculate the Legal Advocate Satisfaction (LAS); 1-item used to calculate the Secondary Victimization-Outcome Satisfaction (COS); 5-items used to calculate the Secondary Victimization-Subjective Effects Subscale (SES); 19-items used to calculate the Sexual Assault Coping Self-Efficacy Measure (CSE); 7-item items used to calculate the Resilience Appraisals Scale (RAS). On the diagonal, the internal consistency alpha coefficients are listed for the PSY, LAS, SES, CSE, and RAS.
*denotes $p < 0.05$
**denotes $p < 0.01$

Group Mean Differences

Additionally, there were marginally significant ($p < 0.10$) racial/ethnic group differences in the scores for PSY, LAS, COS, CSE, and RAS; specifically, racial/ethnic minorities reported significantly less coping self-efficacy and resilience. A summary of

the descriptive statistics for each racial/ethnic group and t-test mean comparisons for the

PSY, LAS, COS, SES, CSE, and RAS were provided in Table 8.

Table 8
Racial/ethnic group mean comparisons for the PSY, LAS, COS, SES, CSE, and RAS

	White/Caucasian		Racial/Ethnic Minorities		Levene's Test		T-test	df	*p* value
	M	*SD*	*M*	*SD*	F-stat	Sig.			
PSY	1.94	1.60	2.17	1.66	0.43	0.84	0.58	69.00	0.57
LAS	4.10	1.02	3.71	1.17	3.08	0.08	-1.60	80.00	0.11
COS	-0.22	1.83	-0.25	2.13	3.49	0.07	-0.06	75.00	0.95
SES	-0.24	1.43	-0.21	1.77	3.02	0.09	0.08	76.00	0.94
CSE	3.53	0.88	3.15	0.97	0.59	0.44	-1.92	83.00	0.06
RAS	26.86	5.22	24.61	6.46	2.94	0.09	-1.76	82.00	0.08

Note. Group mean comparisons for Race (0=White/Caucasian, 1=Racial/Ethnic Minority) were done for across these measures: 5-items used to calculate the Secondary Victimization-Psychological Stress (PSY); 9-items used to calculate the Legal Advocate Satisfaction (LAS); 1-item used to calculate the Secondary Victimization-Outcome Satisfaction (COS); 5-items used to calculate the Secondary Victimization-Subjective Effects Subscale (SES); 19-items used to calculate the Sexual Assault Coping Self-Efficacy Measure (CSE); 7-item items used to calculate the Resilience Appraisals Scale (RAS).

Primary Analyses

After evaluating and revising the measurement model of the SES, RAS, and PSY,

a serial multiple mediation (Hayes, 2018a; Model 6) examined the degree to which court

outcome satisfaction, secondary victimization, and sexual assault coping self-efficacy

mediated the relation of legal advocacy satisfaction on resilience. For this analysis, age,

race, psychological stress experienced during the court proceedings, and the amount of

time between when respondents completed their survey compared to when the COVID-

19 stay-at-home order was placed were defined as covariates for this analysis. A key of

the indirect effect mechanisms are summarized in Table 9.

Results suggested that only one of specific indirect effects (Ind7) from legal

advocacy satisfaction to resilience was statistically significant: that legal advocacy

satisfaction was a significant positive predictor of court outcome satisfaction; court

outcome satisfaction was a significant positive predictor of secondary victimization;

secondary victimization was a significant positive predictor of coping self-efficacy; and

coping self-efficacy was a significant positive predictor of resilience ($B = 0.10$, $p < 0.05$).

The total effect and direct effect of legal advocacy satisfaction on resilience was

significant; however, the direct effect was smaller compared to the total effect after the

mediators were accounted for. Approximately 64% of the variance in resilience was

accounted for by the predictors and covariates. Total, direct, and indirect effects for

Model 6 are reported in Table 10 and shown in Figure 9.

Table 9

Indirect effect mechanism key for the various combinations of LAS on RAS, through
COS, SES, and CSE

Code	Mechanism
Ind1	LAS → COS → RAS
Ind2	LAS → SES → RAS
Ind3	LAS → CSE → RAS
Ind4	LAS → COS → SES → RAS
Ind5	LAS → COS → CSE → RAS
Ind6	LAS → SES → CSE → RAS
Ind7	LAS → COS → SES → CSE → RAS

Note. Various combinations of 9-items used to calculate the Legal Advocate
Satisfaction (LAS) on 7-item items used to calculate the Resilience Appraisals Scale
(RAS), through 1-item used to calculate the Secondary Victimization-Outcome
Satisfaction (COS); 5-items used to calculate the Secondary Victimization-Subjective
Effects Subscale (SES); 19-items used to calculate the Sexual Assault Coping Self-
Efficacy Measure (CSE).

Table 10

Direct, Indirect, and Total Effects of LAS on RAS, through COS, SES, and CSE (Model 6)

	Unstandardized Path Coefficient	SE	p value	95% CI Lower	Upper
Ind1	-0.05	0.05	--	-0.17	0.04
Ind2	0.01	0.02	--	-0.04	0.02
Ind3	0.14	0.09	--	-0.04	0.31
Ind4	0.02	0.04	--	-0.06	0.10
Ind5	-0.07	0.06	--	-0.20	0.03
Ind6	-0.01	0.03	--	-0.05	0.10
Ind7	0.10*	0.06	--	0.02	0.25

R-squared = 0.64
$F(8, 60)=13.06*$

	Unstandardized Path Coefficient	SE	p value	95% CI Lower	Upper
Total effect of X on Y	0.33*	0.10	0.001	0.14	0.53
Direct effect of X on Y	0.19*	0.07	0.014	0.04	0.34
Total indirect effect	0.13	0.10	--	-0.05	0.35

Note. Serial mediation of 9-items used to calculate the Legal Advocate Satisfaction (LAS) on 7-item items used to calculate the Resilience Appraisals Scale (RAS), through 1-item used to calculate the Secondary Victimization-Outcome Satisfaction (COS); 5-items used to calculate the Secondary Victimization-Subjective Effects Subscale (SES); 19-items used to calculate the Sexual Assault Coping Self-Efficacy Measure (CSE).

*denotes $p < 0.05$

Figure 9

Regression coefficients for the relationship legal advocacy satisfaction on resilience through court outcome satisfaction, secondary victimization, and coping-self-efficacy
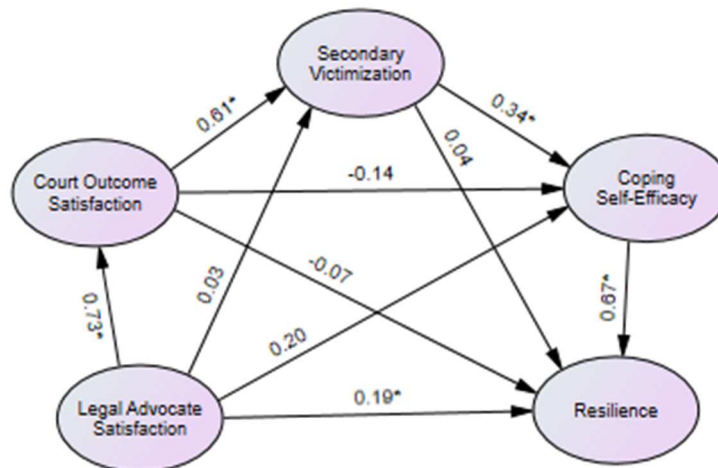
Note. This figure demonstrates the indirect effect from legal advocacy satisfaction to

resilience through court outcome satisfaction, secondary victimization, and sexual assault

coping self-efficacy mediated the relation of

* denotes all regression coefficients that are significant ($p < 0.05$).

Ancillary Analyses

Finally, moderated serial mediation analysis (Model 91) was used to determine if

the indirect effect of legal advocacy satisfaction (X, LAS) to resilience (Y, RAS) through

the previously identified multiple mediators was conditional on racial/ethnic group (0 =

White/Caucasian; 1 = Racial/Ethnic Minority) via the path from court outcome

satisfaction (M1, COS) to secondary victimization (M2, SES) and the path from

secondary victimization subjective effects (M2, SES) to sexual assault coping self-

efficacy (M3, CSE). For this analysis, age, psychological stress experienced during the

court proceedings, and the amount of time between when respondents completed their

survey compared to when the COVID-19 stay-at-home order was placed were defined as

covariates for this analysis.

Results indicated that the path from court outcome satisfaction to secondary

victimization was statistically significant ($B = 0.55$, $p < 0.001$); however, the interaction

(race*court outcome satisfaction) was not ($B = 0.14$, $p = 0.25$). Further, the path from

secondary victimization to coping self-efficacy was statistically significant ($B = 0.30$, $p =$

0.04); however, the interaction (race*secondary victimization) was not ($B = 0.08$, $p =$

0.73). Even though the mechanism was significant for White/Caucasian group and not for

the Racial/Ethnic group, the difference between the conditional indirect effects was not

significantly different from 0 (e.g., index of moderated mediation). Approximately 64%

of the variance in resilience was accounted for by the predictors, moderator, and

covariates. Direct and index of moderated mediation for Model 91 are reported in Table

11.

Table 11

Direct and indirect effects of LAS on RAS through Multiple Mediators and Moderated by Race (Model 91)

	Unstandardized Path Coefficient	SE	95% CI Lower	Upper
Direct Effect	0.19*	0.07	0.04	0.34
Index of Mod-Med	0.05	0.12	-0.17	0.30
White/Caucasian	0.08*	0.06	0.01	0.23
Racial/Ethnic Minority	0.13	0.11	-0.04	0.40
	R-squared = 0.64			
	$F(7, 61)=15.08$*			

Note. Indirect effect of 9-items used to calculate the Legal Advocate Satisfaction (LAS) on 7-item items used to calculate the Resilience Appraisals Scale (RAS) through multiple mediators and moderated by Race (0=White/Caucasian, 1=Racial/Ethnic Minority).
*denotes $p < 0.05$

CHAPTER IV

Discussion

Sexual assault is a public health issue that has serious and lasting consequences. Organizations like KCSARC have tried to minimize those consequences through legal advocacy programs, which provides clients with valuable information and support during the court proceedings. In order to better serve KCSARC's clientele, it is helpful to understand how the legal advocacy program impacts post trauma resilience. Both person-level and environment-level factors that can affect one's resilience, such as one's coping self-efficacy, satisfaction with the court process, and negative subjective effects of the court process. As such, the purpose of this dissertation was to (a) evaluate the structural validity of secondary victimization, resilience, and psychological stress measures; (b) conduct a serial mediation to see if court outcome satisfaction, secondary victimization, and sexual assault coping self-efficacy mediated the relationship between legal advocacy satisfaction on resilience; and (c) determine if race/ethnicity moderates the serial mediation. This study was intended to address the gap in the literature about the legal advocacy programs' effectiveness on posttraumatic outcomes, like resilience.

Summary of Findings

In my dissertation, I added to the existing literature by conducting a psychometric evaluation on the new measures that were recently added to the program evaluation. The psychometric evaluation of the SES, RAS, and PSY in this dissertation supports their use in similar settings. Results did not suggest an alternative structure for the SES or PSY; however, the psychometric evaluation suggested an alternative 7-item RAS to better represent this sample. Even though Panagioti and colleagues (2012) used the 12-item

RAS to measure resilience in individuals who have PTSD symptoms, the 12-item assessment does not appear to have been validated with individuals who have experienced a sexual assault. The alternative 7-item version of the RAS can possibly serve as a valid operationalization of the construct of resilience in individuals with sexual assault exposure. The Social Support subscale was deleted during the preliminary analyses, suggesting that resilience appraisals of one's emotional coping and situational coping may be more salient for individuals who have experienced sexual assault (compared to resilience appraisals of social support). The fifth item that was deleted ("I can put up with my negative emotions") suggested passive voice rather than active voice. Because resilience has been described as a dynamic process, this requires the person to take an active role to adapt to stress and overcome adversity by making use of one's resources (Aburn et al., 2016; Garcia-Dia et al., 2013). Further, the phrase "put up" indicates that one is merely tolerating their negative emotions, but not necessarily coping with or overcoming them. Finally, some items did appear repetitive; however, I did not want to delete items without statistical rational, and I wanted to retain as much of the original scale as possible.

Results from the serial mediation analyses also indicated that when an individual was more satisfied with their legal advocate, this triggered a domino effect. Their satisfaction with the court proceedings increased, then the positive consequences following their court proceedings increased, then coping self-efficacy increased, and finally their resilience increased. The mechanism from legal advocacy to resilience through the multiple mediators was significant even after controlling for age, race, psychological stress experienced during the court proceedings, and the amount of time

between when respondents completed their survey compared to when the COVID-19 stay-at-home order was placed.

These results add to the existing multisystemic theory of resilience literature, specifically that environmental-level and person-level factors impact resilience (Windle, 2010). Starting with the environmental-level factors, having a legal advocate can address one's needs by providing accurate information and be either the only or another form of support in their client's life. When the clients are satisfied, their needs are met because of the safe place the legal advocate created for the client to express their feelings and help them cope with stressors (Garcia-Dia et al., 2013). Having an advocate and having positive experiences with the legal system may be two environmental-level factors that may push a person towards one side of the vulnerability-resilience spectrum (Scottish Government, 2012). With the person-level factors, coping self-efficacy affects how one sees themselves and how one sees their available resources (Johnson et al., 2008). Different types of stressors can lead to different types of causal attributions of the situation, which can impact one's ability to exert control and motivation cognitions and coping behaviors (Roesch & Weiner, 2001). With increased coping self-efficacy, an individual may be more motivated to use more effort in the face of challenging and stressful tasks because they are more confident in their ability to cope or overcome barriers (Barling & Beattie, 1983). The indirect mechanism from legal advocacy satisfaction to resilience highlights the importance of how the person-environment interaction during an individual's court case can affect their resilience.

Even though the index of moderated mediation was not statistically significant (e.g., difference between the conditional indirect effects is not significantly different from

zero), Fairchild and MacKinnon (2009) discuss the importance of comparing the indirect

effect for each group separately (Hayes, 2015, 2018a). Results for the moderated serial

mediation indicated that the conditional indirect effect from legal advocacy satisfaction to

resilience through multiple mediators was significant for White/Caucasian participants,

but not for Racial/Ethnic Minority participants. Hayes (2018b) stated that the limitation

of an index of moderated mediation is that it assumes a single moderator. Multiple

moderators may be needed to determine if they interact with the race/ethnicity variable

and to add additional complexity to the model (Hayes, 2018ab). These results suggested

that there may be other factors that can account for these differences. For example,

environment-level factors (e.g., institutional racism, lack of access to resources,

socioeconomic disparities) can be associated with recovery disparities in minority

populations (Amstadter et al., 2008; Pathways to Safety International, 2017).

Additionally, person-level (e.g., personal history of unpleasant experiences with law

enforcement, community distrust between the community and police) can also affect

minorities current experiences with the legal system, which may account for these

differences (Alvidrez et al., 2011; Hetey & Eberhardt, 2018; James et al., 2016).

Possible Implications for Legal Advocates

The current findings have implications to identify areas of growth to improve

their legal advocacy program. Both domains of the legal advocacy satisfaction measure

(e.g., information and relationship) need to be considered when addressing how to

influence this mechanism. The legal advocacy program can tailor the information given

out to explain the variety of court outcomes possible based on their case and proactive

information about possible secondary victimization that clients can experience. The

relationship with the legal advocate is extremely important, starting with improving the

quality of communication between clients and their providers (Brondolo et al., 2017).

Additionally, the advocate can recommend additional services if they notice signs of

secondary victimization during the court proceedings, highlight their client's strengths

and areas of growth when it comes to coping with future stressors, and processing client's

appraisals of managing negative emotions and difficult situations when times are stressful

during their court proceedings. Because resilience can gradually increase over time,

additional legal advocacy support may need to be implemented after the court process has

concluded to address the unique stressors that may arise following court.

        In addition to the above recommendations, public health professionals encourage

the use of specific strategies that are tailored to reach more minority communities (CDC,

2016). KCSARC has already taken steps to provide culturally competent resources,

specifically with their Dando Voz program, Hispanic and Latinx advocates, and resources

translated into Spanish for their Spanish-speaking clientele. However, there is always

room for growth. To address this, legal advocacy programs could address health

disparities by providing psycho-education on health and resilience disparities for

minorities and providing more culturally sensitive resources (e.g., resources translated

into different languages, resources that cover topics/issues specific to racial/ethnic

minorities, provide examples that are relevant to racial/ethnic minorities' experiences) to

improve the information given by legal advocates. To improve legal advocate-client

relationship, the legal advocacy program can provide additional cultural competency

training (e.g., history of cultural mistrust and minority communities), create a physically

and culturally inviting learning environment, offer telehealth services to increase access,

and possibly hire more racial/ethnic minorities as legal advocacy so that their staff

mirrors the diversity of Washington State.

Finally, findings provide insight into the potential public health and policy

implications to increase access to legal advocacy services across the United States. Prior

research indicated that individuals with legal advocates have more positive interactions

with the legal system, receive more services from the legal and medical systems, and

experience less overall distress (Campbell, 2006; Campbell et al., 2001; Lyon & Lane,

2009). Findings from my dissertation explain how these services also affect individual's

posttraumatic resilience, suggesting that legal advocates help with more than just an

individuals' legal case. However, cuts to federal spending (i.e., for the Legal Services

Corporation and the Crime Victims Fund) may result in many advocacy centers and

services having to reduce their staff and a longer waiting list for services, which means

that less people may receive less support or services in the community (National Alliance

to End Sexual Violence, 2010). To improve access to legal advocacy services, these

programs and services need to be financially protected to prevent lack of access and

promote positive posttraumatic outcomes (KCSARC, 2017-b). Additionally, extra

funding should be given to programs and centers across the United States that provide

specific services, interventions or strategies that are tailored to support minority

communities (CDC, 2016).

Strengths and Limitations

Fortunately, even though the sample was predominately Caucasian, cis-gendered,

and heterosexual, the sample size characteristics mirrored the clientele that are served by

KCSARC's legal advocacy program. However, the results from my dissertation should

be interpreted alongside the program evaluation's limitations. First, self-selection bias

may have affected the results; the results may not capture client's that are outliers for

these variables. Additionally, participants may have chosen not to finish the surveys risk

of retriggering painful and/or traumatic memories (Scott et al., 2006). Second, even

though allowing errors to covary can lead to artificially inflated fit indices (Byrne, 2016),

I allowed these errors to covary if I thought that a similarity accounted for a systematic

relationship between two items, above and beyond from the proposed theoretical

relationship. Lastly, even though I attempted to control for the effects of the COVID-19

stay-at-home orders, I acknowledge that other confounding variables associated with the

COVID-19 pandemic may have also impacted the client's responses to the survey in a

variety of ways (e.g., lost income or job, postponed court proceedings, increased contact

with legal advocates, etc.).

Future Research

More research into the effectiveness of these legal advocacy programs is needed

to help these services secure more funding. The program evaluation for KCSARC's legal

advocacy services will continue to assess their strengths and areas of growth. As the

program adapts and changes, the program evaluation will also have to be refined to best

capture their programmatic needs. Research could focus on identifying person-level and

environment-level barriers that impact minorities posttraumatic outcomes and service

utilization; this research would help advocacy programs identify areas of growth and

refine their program to reduce barriers for minorities seeking services (Macy et al., 2011).

Additionally, as more participants take part in the program evaluation, the

program evaluation can continue to evaluate how well the measures work well across the

demographic variables, like age, gender identity, sexual orientation, race/ethnicity, and language. Finally, the program evaluation is longitudinal in nature and monitors clients throughout and after their court proceedings. As more participants complete the survey over time, then future research should focus on how these variables change over time as they progress through their court case and spend more time with their legal advocate. More research will continue to hopefully provide valuable information regarding the needs of KCSARC's diverse clientele and how effective the legal advocacy services are at addressing these needs.

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