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Sexual Assault Coping Self-efficacy as Moderated by Legal Advocacy Social Support

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Abstract

Sexual assault is a pervasive issue with the potential to impart serious and lasting consequences. Of the many possible factors that may influence outcomes, coping self-efficacy (CSE) and social support (SS) may play a role. Specifically, higher levels of SS appears to predict higher CSE following trauma (Hohl et al., 2015). SS also appears to be impacted by age, such that older individuals are often more negatively impacted by low SS (Matt & Dean, 1993; Schnittker, 2007). This study examined if the SS provided by a legal advocate (LASS) produced similar effects on CSE, with age as a moderator. Participants were female clients in the KCSARC legal advocacy program who were over the age of 18 (N = 87, M = 30.16 , SD = 12.36). Participants were administered up to three survey sets: (a) modified inventory of socially supportive behaviors (Barrera et al., 1981; Gibbs, Agatonovic, & Bikos, 2011), and (b) modified domestic violence coping self-efficacy measure (Benight, Harding-Taylor, Midboe, & Durnham, 2004; Gibbs et al., 2011). Data were prepared via multiple imputation and analyzed using hierarchical linear modeling. Results did not suggest a significant change over time for CSE, and did not suggest a significant relationship between LASS, CSE, and age. Additional ancillary analyses were also performed via the PROCESS macro for SPSS; results did not suggest age as a significant moderator between LASS and CSE, nor were there significant direct effects (b_1 = 0.073, p = .48; b_2 = 0.004, p = .68; b_3 = -0.013, p = .22). Given the high rates of attrition and low repeated measures, these results should be interpreted with caution. The lack of observed relationship between LASS and CSE could suggest that the social support received by a legal advocate is not the same as the SS observed in naturally

occurring networks. Legal advocates may better serve their clients with low SS by referring to outside resources, such as support groups. However, mental health providers should still recommend an LA service when available and appropriate, given the existing research suggesting the benefits to psychological health and legal success (Campbell, 2006).

CHAPTER I

Literature Review

Introduction

Sexual assault is a pervasive and global issue with profound and lasting consequences for those who are victimized. Within the United States alone, it is estimated that approximately one out of every six women in the U.S. have been sexually assaulted at some point during their life (Kilpatrick, Resnick, Ruggiero, Conoscenti, & McCauley, 2007). With such a ubiquitous issue, it is important to comprehend the intervening psychological variables that may affect post-trauma mental health outcomes. Some trauma-exposed individuals[1] may return to their previous baselines, while others may experience lasting consequences. There are likely a number of variables that influence how sexual assault exposed individuals may progress through the period of time following their trauma, which cannot be explored within the confines of a single dissertation. Of the many possible contributing factors to mental health outcomes following a sexual assault, social support and coping self-efficacy likely play a part in how trauma-exposed individuals recover.

Given the difficulties that trauma-exposed individuals face following an assault, there are community-led initiatives that can provide post-assault support. One such service is sexual assault legal advocacy. Those who are the recipient of sexual assault often face a lengthy and difficult legal process if they attempt to pursue justice for the

[1] For the sake of scientific objectivity, the terms "victim" or "survivor" have not been used when referring to those who have been exposed to sexual assault, as these phrases can carry different subjective interpretations

crimes that have been committed against them. Legal advocacy programs, such as those offered by the King County Sexual Assault Resource Center (KCSARC), provide trauma-exposed individuals with a designated legal advocate who guides clients through the complexities of the legal system. The organization strives to help their clients by working with them at any point during the criminal justice process until the end. Advocates are available to answer questions, provide information, and navigate clients through the legal system. In order to provide the best services, programs like KCSARC need to understand the psychological components that aid in recovery. In keeping with the local clinical scientist model (Stricker & Trierweiler, 1995), this dissertation is part of a larger, on-going program evaluation designed to assess the intricacies of legal advocacy services in order to better serve trauma-exposed individuals.

Traumas generally tend to reduce an individual's overall ability to cope with general life stressors (Benight et al., 2000; Kushner, Riggs, Foa, & Miller, 1993). Due to the reduction in coping ability that often follows a trauma, it may be desirable to increase coping self-efficacy following a sexual assault. Social support is another important factor in general psychological health and it has been found to produce a number of positive psychological outcomes (Newcomb & Keefe, 1997; Sarason, Sarason, & Gurung, 2001; Seeman, 1996). It is possible that received socially supportive behaviors may improve an individual's coping ability. Conversely, individuals who tend to have higher levels of coping-self efficacy may be more likely to *seek out* and utilize social support as a method of coping. The nature of the relationship between these two variables is likely complicated and interdependent. Consequently, the primary question associated with my dissertation is, does perceived social support from a legal advocate produce changes in

coping self-efficacy over time? Coping self-efficacy may be an important aspect of sexual assault trauma recovery. Social support, such as the services provided by a legal advocate, may increase coping self-efficacy. Should the perceived social support provided by KCSARC's legal advocates show significant changes in coping self-efficacy, the results would support the program's efficacy and provide evidence about the importance of social support received from such helping professionals.

Psychological Impact of Sexual Assault

Sexual assault is typically a form of both physical and psychological trauma, which can have profound and lasting consequences for those who have been victimized. When trauma-exposed individuals recover from their physical injuries, they are left with the invisible scars of psychological distress. Any psychological trauma is defined as an exposure to actual or threatened death, serious injury, or sexual violation (American Psychiatric Association, 2013). Traumas can be defined as either interpersonal or non-interpersonal (e.g., exposure to a sexual assault vs natural disaster) with each having unique psychological consequences.

Because sexual assault is an interpersonal trauma, individuals may experience an increase in trauma-related triggers that may exacerbate symptoms and recovery. Re-experiencing symptoms seen in PTSD may be triggered when an individual is exposed to a trauma-related cue (American Psychiatric Association, 2013). "Unlike a natural disaster, which is a one-time event, interpersonal traumas, such as criminal victimization, pose continuing threats that can reactivate stress reactions" (Benight & Bandura, 2004, p. 1140-1141). That is to say, when those who have experienced sexual assault encounter someone who looks similar to the assailant, certain areas, or even certain smells, they

may experience a severe emotional or physical reaction. When compared to the recipients of non-interpersonal traumas, those who are the recipients of interpersonal traumas, appear to experience greater levels of PTSD symptoms severity following exposure, (Green et al., 2000). Furthermore, sexual interpersonal violence, as opposed to physical interpersonal violence, explains a greater degree of variance in PTSD symptoms such as rate of recovery and symptom severity (Bennice, Resick, Mechanic, & Astin, 2003).

While PTSD is can be thought of as being synonymous with trauma, there may be subtle alterations in psychological health that may also occur. Recipients of interpersonal trauma are at increased risk of poor physical health following the trauma, depressive symptoms, anxiety, abuse of illicit substances, developing a chronic disease, chronic mental illness, and physically injuring oneself (Coker et al., 2002). These risks are by no means exhaustive nor mutually exclusive of one another. Given the negative repercussions to psychological and physical health following sexual assault, it is important to understand the mechanisms associated with positive recovery trajectories to better serve trauma-exposed individuals. To narrow the scope, this dissertation will explore social support received from professional, legal advocates as it predicts coping self-efficacy, with the possible moderating effect of age.

Coping Self-efficacy

Within the context of sexual assault, coping self-efficacy (CSE) may be a valuable trait to foster in survivors, in order to achieve a new sense of normalcy. Coping refers to the capacity to utilize cognitive and behavioral processes to adapt to both internal and external pressures that are seen as stressful to an individual (Lazarus, 1966).Therefore, an individual's coping skills would involve the repertoire of adaptive

mechanisms that someone employs to regulate their thoughts and emotions. There is a distinction, however, between the presence of coping skills in an individual, and the confidence an individual has in their ability to utilize those skills effectively.

While the presence of coping skills can be made through objective observation, coping self-efficacy is the subjective confidence an individual has in their coping skills (Bandura, 1993). It is possible for an individual to have a repertoire of positive coping skills, but if they do not have confidence in their abilities, they may fall back on less healthy coping mechanisms. Similarly, someone may possess less effective coping skills but they are confident in their ability to handle obstacles, so they might report lower levels of cognitive distress when faced with adversity. Coping self-efficacy plays an important role in altering both the type and quality of coping mechanisms used to handle the aftermath of a traumatic incident (Bandura, 1997).

An individual's belief in their own ability to cope with stressful situations will determine how they respond under apparent threats. Four primary domains are theorized to affect coping self-efficacy: attentional changes, construal processes, transformative actions, and thought control efficacy (Benight & Bandura, 2004). Attentional change refers to the tendency to remain more or less vigilant to threats. Those who have higher confidence in their ability to cope with stressful situations, tend to be less vigilant of threats (Lazarus & Folkman, 1984). That is not to say that that individuals with higher coping self-efficacy are less aware of their surroundings, but they tend to identify truly dangerous situations more effectively while ignoring situations that do not pose a threat. Construal processes refer to the interpretation of situations as being harmful or benign. Individuals with lower confidence in coping skills, tend to misinterpret harmless

situations as being unsafe to them (Benight & Bandura, 2004). This misinterpretation can result in hypervigilance and a tendency to dwell on the inability to manage stressful situations. (Jerusalem & Mittag, 1995). Transformative actions refer to the tendency to place oneself in different kinds of situations. Individuals are not simply passive to situations that are thrust upon them, rather, there is some degree of control over the responses to the different situations. Those with higher coping self-efficacy tend to tackle their stressful situations head-on, thus reducing the overall threat of the situation (Bandura, Blanchard, & Ritter, 1969). Individuals who have lower confidence in their coping abilities will tend to remain passive in stressful situations and will often not attempt to alter the trajectory of the event. Lastly, thought control efficacy is the ability to control negative and undesirable cognitions. While people may not be able to control all of the events that happen to them, they may have some control of their thoughts in relation to the incident. After distressing events, many people find it difficult to control the memories and negative thoughts associated with the event. The ability to control those thoughts from consciousness requires the skill and confidence to do so (Kent & Gibbons, 1987). There are clearly a number of factors that comprise coping self-efficacy. These skills become more important when someone is forced to draw upon them in highly distressing times, such as the period of recovery following a sexual assault or other psychological trauma.

Coping self-efficacy during trauma recovery. Sexual assault is a seemingly indiscriminate and unpredictable event in someone's life. Typical methods of coping with sexual assault, such as blame attribution or disengagement, may not be robust enough to handle such adversity and lack of control (Arata, 1999; Gibson & Leitenberg, 2001). In

instances of sexual assault, perceived control is directly related to the development of adverse psychological outcomes. The perceived ability to control emotional reactions to stimuli related to the sexual assault, and the perceived ability to tolerate future stressful events, will strongly predict the development of post-traumatic stress disorder (Kushner et al., 1993). While not every individual who is assaulted may develop PTSD, there are subtle changes in recovery that appear to be impacted by coping self-efficacy. CSE appears to mediate the effect of negative cognitions about the self and world for recipients of childhood sexual abuse, such that those with higher CSE were more likely to have higher self-esteem and feelings of security (Cieslak, Benight, & Lehman, 2008). Even when controlling for certain demographic differences, coping self-efficacy still appears to play a significant role in trauma recovery. For example, measures of coping self-efficacy taken several months after a trauma incident can significantly explain trauma symptoms, even after controlling for factors such as income, social support, actual threat of death, or a loss of personal belongings (Benight et al., 2000).

Particularly relevant to the content of this dissertation, current research suggests that individuals who possess higher confidence in themselves are more likely to pursue legal action. This again highlights the importance of coping self-efficacy in the context of trauma recovery and the legal process (Cluss, Boughton, Frank, Stewart, & West, 1983). Coping self-efficacy clearly affects the recovery of those exposed to sexual assault, as well as reduces incidences of PTSD development for those individuals. Because coping self-efficacy appears to produce a number of positive outcomes for assault survivors, it is therefore a desirable trait to foster in those recovering from their trauma.

The effects of personal characteristics on coping self-efficacy. As with any psychological construct, there are likely a number of possible demographic differences that contribute to varying levels of coping self-efficacy. For example, ethnic minorities tend to exhibit lower levels of coping self-efficacy than those of European descent (Luzzo & McWhirter, 2001). Gender is another personal variable that may impact trends in coping self-efficacy. Men generally report higher levels of coping self-efficacy than do women (Jackson, Iezzi, Gunderson, Nagasaka, & Fritch, 2002). Due to the small percentage of males within the dataset, only females' information was used in this dissertation. There are clearly a number of demographic factors that appear to influence CSE in a predictable way, however, age does not appear to be one of those factors. Age was specified as a covariate for its effect on social support, not CSE. Unfortunately, this dissertation is limited in its scope of understanding personality characteristics, from a lack of demographic identifying information for the participants due to protecting anonymity.

While social support appears to be more heavily impacted by age (discussed below), coping self-efficacy does not appear to have any sort of consistent patterns of change across an individual's lifetime. In understanding the possible changes in coping self-efficacy with age, it is important to remember the distinction between coping skills and coping self-efficacy. As previously mentioned, coping skills are the objective behaviors and processes that individuals employ to adapt to obstacles. Coping self-efficacy, however, refers to an individual's confidence in their ability to utilize the behaviors and adaptive processes in order to adapt to those obstacles. While there is evidence that there are patterns of change associated with coping skills from birth to

adulthood, there appears to be little change in coping skills across an adult's lifetime (McCrae, 1989). Similarly, there does not appear to be any distinguishable and consistent patterns of change in an individual's coping self-efficacy, once they reach adulthood. Some literature suggests that coping self-efficacy increases with older age, other research has found that it remains constant, while others have found that it may increase with time.

Given the apparent controversy surrounding age related changes to coping-self efficacy, it is undesirable to use age as a predictor for self-efficacy. Rather, it is more likely than age plays a moderating role in the relationship between coping self-efficacy and social support. Some research has found that throughout adulthood, age does not appear to have any effect on the confidence in coping behaviors and appears to be a stable personality trait that remains constant throughout adult life (Hamarat, Thompson, Steele, Matheny, & Simons, 2002). Conversely, others have concluded that the perceived importance of coping self-efficacy actually increases with age (Schwarzer & Renner, 2000). However, further research has found that younger individuals report higher coping self-efficacy following a major stressor when compared to older individuals (Boehmer, 2007). At this point in time, there is clearly no real consensus on the impact that age has on any changes in self-efficacy. While age does not appear to influence CSE in a predictable manner, it may influence social support in a meaningful way.

Socially Supportive Behaviors

As coping self-efficacy appears to produce positive psychological outcomes for those exposed to sexual assault, it is therefore important to understand how to promote CSE in order to better serve those individuals. One factor that may predict coping self-efficacy is socially supportive behaviors received from others. In the case of this

dissertation, I am specifically investigating the effects of social support received from professional legal advocates. According to Maslow's (1943) hierarchy of human needs, people cannot achieve the highest level of intellectual achievements, such as self-esteem and self-actualization, without first meeting basic social needs (Koltko-Rivera, 2006). Relationships are a fundamental desire and goal for the majority of social species (Dunbar & Schultz, 2007; Harlow, 1953). Social support (SS) can be conceptualized according to a number of different parameters and definitions. Broadly defined, social support is considered to be tangible forms of help, such as providing goods or services, as well as intangible forms, such as advice or showings of validation (Barrera, Sandler, & Ramsay, 1981).

In order for someone to benefit from the socially supportive behavior, the recipient must perceive the act as being useful to him or her. This subjective judgment of perceived support has been linked to lower rates of stress and psychological disorders (Barrera, 1986). Therefore, in order for an individual to benefit from social interactions, the interactions must be supportive in nature and must also be perceived as being helpful by the recipient. It is not enough to simply provide support to another individual and expect the typical positive outcomes, but the support must be tailored to the recipient and delivered in a way that the recipient feels they are being adequately assisted.

Social support during trauma recovery. Positive social behaviors lead to a multitude of valuable health benefits such as reduced mortality and improved overall psychological health (Seeman, 1996). Individuals who do not feel enough social support in their lives tend to experience higher rates of psychological disorders than those who perceive support through a number of relationships. Symptoms linked to social isolation

include depression, anxiety, negative affect, and low self-esteem (Newcomb & Keefe, 1997; Sarason et al., 2001). Therefore, the benefits of social support should become even more important when an individual is recovering from a trauma.

Low social support both before and after a trauma has been linked to PTSD (Brewin, Andrews, & Valentine, 2000). Specifically, individuals who receive support from friends, peers, and coworkers show lower levels of PTSD development after chronic trauma exposure. Social support plays a significant part in predicting psychological outcomes for those who have experienced a trauma (Schweitzer, Melville, Steel, & Lacherez, 2006). Traumatized individuals clearly benefit from socially supportive behaviors and it is an important feature of their recovery period.

As with most social support behaviors, the important factor is the perceived quality of the support for those exposed to sexual assault. Negative social responses from family and friends following a sexual assault are highly predictive of PTSD symptoms. Individuals who are met with responses like blame or dismissal are more greatly affected by their trauma. Interestingly, yet unfortunately, women are more likely to be met with negative comments and judgements of blame, than are men. For example, the higher rates of negatively perceived social support, may help to explain why rates of PTSD are higher among women than men who experience sexual trauma (Andrew, Brewin, & Rose, 2003). Skepticism of the assault survivor's story or the perception that the individual somehow provoked the attacker, are all too common occurrences in the media and popular culture. The negative consequences of such social perceptions are clearly devastating for trauma-exposed individuals. In light of this, not only is positive social

support highly beneficial, but negative social input can hinder recovery and be detrimental to traumatic psychological outcomes.

It is crucial to recognize that high levels of perceived support have been significantly correlated to positive psychological outcomes, regardless of current levels of stress (Finch, Okun, Pool, & Ruehlman, 1999). That is to say, even in periods of high distress and anxiety, social support has similar positive consequences as it does in less stressful situations. The consistency of benefits across situations is an important factor to note in the instances of sexual assault. Individuals who have been victimized can still benefit from support behaviors.

Perceived social support received from a legal advocate. While those exposed to sexual assault can receive social support from friends, family, or acquaintances, support can also be received within the context of professional services rendered. For example, support received through a legal advocate that assists clients through the lengthy legal process, might also have important implications for recovery. Assault clients not only have to work through their own physical and psychological recovery, but they also have to engage in an often times lengthy and difficult legal process in order to receive their justice. Of the individuals who are assaulted, only 14% report the crime to police. Of those assaults that are reported, only 30% proceed to prosecution and only 12.5% result in conviction of a sexual offense (Daly & Bouhours, 2010).

Given the perceived miscarriage of justice experienced by trauma-exposed individuals, some mental health researchers have even coined the phrase *secondary victimization* or *second assault* to describe the immense strain that those exposed to sexual assault undergo during the course of the prosecution of their assailants (Campbell

& Raja, 1999; Martin & Powell, 1994). While reform in the prosecution of sex crimes is likely needed, current clients need help to navigate the legal process to prevent attrition and promote justice. It is important to understand the factors that increase an individual's psychological health during the legal process to reduce attrition and the impact of secondary victimization. Currently, legal advocacy programs, such as those offered by KCSARC, provide clients with formal guidance and information, while also offering socially supportive behaviors. Therefore, in this dissertation I will assess the effect of social support provided by a legal advocacy professional on coping self-efficacy.

The effects of personal characteristics on social support. Social support is likely an important component of overall psychological well-being, in addition to being an integral aspect of overcoming significant life stressors. Given the importance that social support likely plays in trauma recovery, it is useful to understand the possible variables that may affect the individual differences in receiving support from others. Variables such as gender, ethnicity, and age may influence the importance that support plays for individuals, the types of support that are most beneficial, and the negative consequences associated with a lack of social support on general psychological functioning. I have chosen to focus on age as the demographic moderator of interest, because there are only several males within the sample and no other identifying demographic information is available for analysis.

In terms of ethnicity differences, some research suggests that Latinos are more likely to request and receive support in nonemergency situations, when compared to Caucasians and African Americans (Kaniasty & Norris, 2000). Gender differences are also likely an influencing factor on the individual differences in social support. For

example, young women report higher perceived social support than men and older women. Women also appear to be more negatively impacted by a lack of social support; those who report lower support also report greater negative affect when compared to men with similar levels of support (Knoll & Schwarzer, 2002). Men appear to decline in their social networks with age, while women tend to remain more stable over time (Field & Minkler, 1988). While there are likely a number of demographic variables that influence CSE, in this dissertation, I examine the influence of age on perceived social support received by a legal advocate.

Current literature suggests that as an individual ages, the type of preferred social support sources also changes. Older individuals seem to have a higher degree of blood and marriage relationships, whereas younger people tend to have social networks consisting of greater number of non-related friends (Field & Minkler, 1988; Olsen, Iversen, & Sabroa, 1991; Van Tilburg, 1998). Of those relationships that are from family sources, romantic partners appear to be the predominant origin. Support received from romantic figures increases steadily with age, and the positive impact that a partner has on overall psychological well-being appears to be most profound between the ages of 30-50 (Olsen et al., 1991). Therefore, for the average individual, social support gradually decreases from non-related friends to immediate family and romantic partners with age. Interestingly, the likelihood of having no forms of social support actually increases with age (Schnittker, 2007). People also tend to decrease the frequency of interactions with friends, beginning in early adulthood (Carstensen, 1992; Fredrickson & Carstensen, 1990). This decrease in friends and interactions with those friends may be due a tendency to weed out relationships over time, until one is left with a smaller, yet more intimate,

social support system. It is possible that individuals engage less with their friends as they become older, because each interaction is more meaningful and those relationships are deeper and may require less maintenance. The subjectively reported emotional closeness of relationships tends to increase beginning with early adulthood (Carstensen, 1992).

In addition to changes in social support structure across a lifetime, the negative impact of a lack of social support also appears to change with age. For those who are dealing with high levels of stress, social support appears to be beneficial for individuals, regardless of their age. However, low levels of social support are likely more damaging on health outcomes for older individuals as compared to younger individuals (Matt & Dean, 1993; Sherbourne, Meredith, Rogers, & Ware, 1992). Individuals who receive higher levels of social support are actually more likely to survive some types of potentially fatal illnesses and even report lower levels of stress throughout their recovery periods (Funch & Marshall, 1983). Paradoxically, while elderly individuals appear to be most negatively impacted by low social support, they are also less likely to receive support from their social network if they are over the age of around 70 (Matt & Dean, 1993).

In summary, findings that assess the relationship between social support and age seem to indicate that there are indeed significant changes in social support over an individual's lifetime. Beginning with early adulthood, people begin to limit their interactions with non-related friends and rely more heavily on familial relationships and romantic partners. In general, social support networks tend to shrink with time and interactions become less frequent. Among other factors, this reduction in social networks size and interaction frequency is likely due to relationships becoming more intimate and

meaningful. Lower levels of perceived social support also appear to more negatively impact older individuals than younger. Therefore, in terms of trauma outcomes, one would expect that social support will have a greater impact on overall wellbeing for older individuals than their younger counterparts. In terms of perceived legal advocacy social support, one could also hypothesize that the relationship between age and social support might also be present. Such that, older clients of KCSARC's legal advocacy program may be more adversely impacted by lower perceived social support from their legal advocate than younger clients. However, because the legal advocacy support is from a specific source that is not within a typical family/friends social network, the same trends may not be observed.

The Interrelatedness of Coping Self-Efficacy and Social Support

Independently, coping self-efficacy and social support play some role in the outcome trajectories for individuals who have survived some form of psychological trauma. Interestingly, there also appears to be some sort of relationship between social support and coping self-efficacy as well. Researcher has suggested that social support may predict an individual's level of perceived coping ability. Generally speaking, it is plausible that when an individual feels more supported by others, they will also feel more confident in their ability to cope. Luckily, the KCSARC data-set will allow such a hypothesis to be tested.

Regardless of any possible relationship between coping self-efficacy and social support, the two variables are frequently correlated with general positive outcomes. In general, those who have reported higher levels of support and self-efficacy, tended to report higher levels of overall well-being (Penninx et al., 1997). In addition to feelings of

well-being, healthy people also reported higher levels of life satisfaction and lower perceived stress (Coffman & Gilligan, 2002). So for psychologically healthy individuals, there appear to be clear benefits. The benefits of CSE and SS also appear to extend to those who are experiencing some sort of mental turmoil. For individuals suffering from a serious mental illness, those with higher coping self-efficacy and social support reported decreased levels of stress associated with their illness (Macdonald, Pica, Mcdonald, Hayes, & Baglioni 1998). However, the benefits of CSE do not end at just stress reduction. In addition to the alleviation of stress, higher coping self-efficacy and social support has also led to a reduction in the severity of mental illness symptoms (Holahan & Holahan, 1987; Saltzman & Holahan, 2002; Riemsma et al., 1998). More specific to the scope of this dissertation, there also appear to be benefits associated with CSE and SS for individuals who have undergone a trauma. There are also strong correlations between the two variables within individuals who have trauma exposure (Cieslak et al., 2009). Additionally, when individuals have been the recipients of abuse, those who had higher CSE and support reported lower levels of psychological distress during their recovery periods (Comijs, Penninx, Knipscheer, & Van Tillburg, 1999).

In addition to the independent benefits of social support and coping self-efficacy on psychological health, there also appears to be a directional relationship between the two factors. Higher levels of perceived social support may predict higher levels of coping self-efficacy, both within the general population and as observed in trauma exposed individuals. For example, during times of increased stress, high levels of perceived social support predicted higher levels of coping self-efficacy (Hohl et al., 2015; Major et al., 1990). Similarly, for those dealing with a mental illness, such as depression, high social

support has predicted lower levels of symptoms severity; this relationship was mediated through coping self-efficacy (Cutrona & Troutman, 1986). Again, this relationship extends to individuals who have experienced a trauma. In terms of trauma outcomes, individuals with higher social support have reported lower levels of PTSD and depression which is also mediated through CSE (Smith, Benight, & Cieslak, 2013). Similarly, social support also directly predicted CSE for those who have been exposed to trauma (Israel-Cohen et al., 2016).

Dissertation Purpose

There are certainly a number of potential factors that could affect sexual assault psychological outcomes. Two such factors are social support behaviors and coping self-efficacy. Researchers have suggested that social support may predict coping self-efficacy, such that those with higher levels of support from others will tend to report higher levels of subjective coping confidence (Hohl et al., 2015; Israel-Cohen et al., 2016; Major et al., 1990; Smith et al., 2013). The relationship between support and CSE is likely influenced by a number of factors, one of which may be age.

For my dissertation, I explored the effect of perceived social support received from a legal advocate (LASS) on coping self-efficacy (see Figure 1). Specifically, I hypothesized that higher levels of LASS would be associated with higher levels of coping self-efficacy such that endorsement of LASS at time 2 is associated with CSE growth from time 1 to time 2. Correspondingly, endorsement of LASS at time 2 is associated with CSE growth from time, to time 3. Age was included as a covariate. In a manner consistent with the literature, I predicted that the strength of the LASS/CSE relationship would be stronger for older individuals. The results of this study will help the KCSARC

legal advocacy program assess the importance of perceived social support with regard to client outcomes.

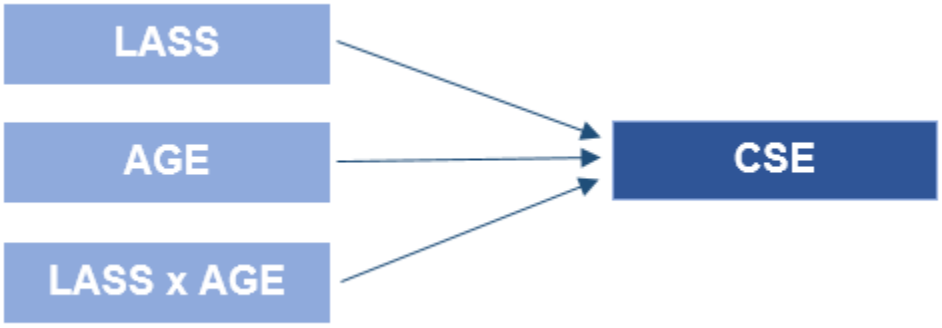

Figure 1. Proposed model 1 of coping self-efficacy as moderated by legal advocacy social support and age, covaried by time.

CHAPTER II

Method

Participant Characteristics

Participants were KCSARC clients who have received services from the Legal Advocacy program. In 2015, KCSARC's entire client population included 49% children and teens; 51% were adults. Clients were predominately female (79%) with 20.8% males and .2% identifying as Transgender or Other. In terms of ethnicity, 55.5% of clients were Caucasian, 19.5% were Hispanic/Latino, 9% Multiracial/Other, 5% Asian/Pacific Islander, and 2% were Native American/Alaskan Native. Clients were predominantly in the very low income range (35%) or low income range (33%). In total, KCSARC served 3,834 clients, with 1,879 being specifically enrolled in the Legal Advocacy program (KCSARC, 2015). Demographic information specific to the legal advocacy program is unavailable. There were five males within the current dataset, which makes gender an underpowered moderator to explore within the scope of this dissertation.

Sampling Procedures

Participants were administered up to three survey packets total. Surveys were administered once per fiscal quarter (i.e., approximately three months apart). Any client that was currently enrolled in KCSARC's Legal Advocacy program was eligible to participate in the study, regardless of their time in the program. Each survey packet contained three separate measures that were identical for each administration. The data was collected by KCSARC in two ways: (a) in-person at the KCSARC main office via paper surveys administered by KCSARC Legal Advocate employees and, (b) online surveys via KCSARC's Survey Monkey program (links are sent out by KCSARC Legal

Advocates). Completed data was then de-identified and digitally sent to the researchers. Participants were also offered incentives for their participation in the study, which was managed exclusively by KCSARC. For the completion of each assessment, participants were awarded a $10 digital gift card for Target, with the opportunity to receive up to $30 total. Prior to October 2015, participants were not administered all three survey packets for each observation (i.e., legal advocacy social support was not collected at the first observation).

Sampling Size, Power, and Precision

Conducting an a priori power analysis for hierarchical linear models is complicated by a number of factors (Hox, 2010). One issue is that sample size requirements for detecting a statistically significant effect differ as a function of level. That is, the number required for detecting a level 1/within-persons effect differs from detecting a level 2/between-persons effect. Another is that estimation of fixed effects is often more precise than random ones. When considering longitudinal designs, several factors are important to keep in mind (Raudenbush & Xiao-Feng, 2001). Power is increased when (a) the number of observations within-persons is increased, (b) the sample size is increased, (c) the effect size is larger (e.g., mean difference between treatments), (d) participants are more homogeneous than heterogeneous, and (e) measurement error is minimized. While programs such as Optimal Design (Spybrook et al., 2011) are available for conducting a priori sample sizes, the available models for analyzing power are predicated on randomized trials; ours is not such a design and, therefore, using such a program is not helpful. Several authors have provided rough guidelines for estimating a priori sample sizes. These recommendations, though, vary

widely, and appear to be based on nested groups – not repeated measures designs. For example, Snijders and Bosker (1999) indicated that a "bare minimum" of 10 level 2 units (i.e., persons, in our repeated measures design) is an appropriate minimum standard. Snijders and Bosker cautioned that small sample sizes might produce bias and that less bias was observed with at least 30 level 2 units. In contrast, Kreft (1996; as cited in Hox, 2010) offered different rules of thumb. The general rule is the "30/30" rule, for a sample of 30 groups with at least 30 individuals per group. If the researcher is interested in cross-level interactions this changes to 50/20 and if the researcher is interested in variance/covariance components, the rule is 100/10. This dissertation included data from 105 repeated observations (L1 units) from 87 participants (L2 units). Not surprisingly, the greatest number of observations occurred at the first time point (N = 43). The amount of available data was problematic and the nature of the data likely led to non-significant and unstable solutions. This is further explored in the discussion section.

Measures and Covariates

Legal Advocacy Social Support. The Modified Inventory of Socially Supported Behaviors (LASS; Barrera et al., 1981; Gibbs, Agatonovic, & Bikos, 2011) was developed for the specific purpose of evaluating the degree of programmatically-appropriate social support provided by KCSARC legal advocates to their clients. In creating the instrument, the authors (Gibbs et al., 2011) reviewed the literature and chose to modify the original Inventory of Socially Supported Behaviors (ISSB; Barrera, 1981). The original ISSB (Barrera, 1981) was a 40-item self-report questionnaire designed to assess the frequency of various types of social support that an individual received within the previous month. Responses were written in the second person and rated on a five

point Likert scale ranging from 1 (*not at all*) to 5 (*about every day*). The measure was scored by summing the 5-point ratings to create a total frequency score. Examples of items included: “Provided you with some form of transportation,” “Assisted you in setting a goal for yourself,” and “Let you know you did something well”

The ISSB was fielded with participants who were college students from Puerto Rico that volunteered to take part in the study (N = 464). The participants were predominately females (75.1%) with a mean age of 21.71 years. The initial sample produced an internal consistency coefficient between .36 and .89, depending on the factor (Barrera et al., 1981). Confirmatory factor analysis suggested four distinct dimensions pertaining to specific types of social support: directive guidance, tangible assistance, positive social exchange, and non-directive support (Finch et al., 1997). Since its initial development, the psychometrics of the ISSB have been determined across various populations. The internal consistency reliability coefficient holds above .9 for multiple settings and populations (Barrera, 1981; Barrera et al., 1981; Cohen & Hoberman, 1983; Stokes & Wilson, 1984). Test-retest reliability over a two-day interval was found to be .88 (Barrera et al., 1981) and over a one-month period was found to be .80 (Barrera & Ainlay, 1983). Researcher has suggested that the scale is appropriate for use in studies assessing the stress moderating effects of social support. This would make it ideal for use with sexual assault clients (Lefcourt, Martin, & Saleh, 1984; Sandler & Lakey, 1982).

Because one of the goals of KCSARC’s legal advocacy program is to provide specific types of social support to the client, 15 of the 40 items original items were chosen and modified to (a) identify the legal advocate as the source of the support and (b) reference types of social support that would be expected from the legal advocate

according to the results obtained from the program evaluation (Gibbs et al., 2011). Items were selected collaboratively by Seattle Pacific University (SPU) research team members and KCSARC professionals serving as subject matter experts. Respondents are asked to rate the frequency of social support behaviors that "best represents how often your advocate responded to you in this way" (Gibbs et al., 2011). Fourteen of the 15 items on the modified scale were kept in their original format. The item that was modified from the original scale was, "Let you know that he/she will always be around if you need assistance" and was modified to "Let you know that KCSARC services were always available."

For the Gibbs et al. (2011) study, the internal consistency alpha coefficients were calculated as .98 across two time points, and coefficient correlation between intake and follow-up (approximately three months later) was .51. Although this correlation could be thought of as a test-retest coefficient, participants were enrolled as clients in the program at the time, and the effects of the intervention likely influenced the resulting coefficient. The correlation does, however, suggest a strong link between intake and follow-up. Therefore, it does provide evidence of in-person consistency over time. The Cronbach's alpha for LASS in this dissertation was .98.

Coping Self-Efficacy. Similar to the MISSB, the Sexual Assault Coping Self-Efficacy Measure (CSE) was developed for the purpose of evaluating the KCSARC legal advocacy program. In creating the instrument, the authors (Gibbs et al., 2011) reviewed the literature and chose to modify The Domestic Violence Coping Self-Efficacy Measure (DV-CSE; Benight et al., 2004). The original DV-CSE (Benight et al., 2004) is a 30-item self-report questionnaire that assesses cognitive self-schemas related to abuse recovery.

Responses are written in the second person and are rated on a 100 point Likert scale ranging from 0 (*not at all capable*) to 100 (*totally capable*). The measure is scored by summing the 5-point ratings to create a total frequency score. Examples of items included: “Dealing with feelings of sadness,” “Dealing with rejection from others, since the latest attack,” and “Being strong emotionally for my family and friends.”

The DV-CSE was fielded with participants who were recruited from two domestic violence shelters, who had experienced abuse within the last six months (N = 283). The participants were all females with a mean age of 33.4 years. The initial sample produced an internal reliability coefficient of .97. Confirmatory factor analysis for quantitative item deletion was also utilized during development to eliminate 20 of the original 50 items. Factor analyses indicated one primary factor, with factor loadings ranging from .52 to .85. In terms of convergent validity, the results of the measure indicate a significant correlation with feelings of optimism, active/acceptance coping, and healthy psychological functioning. In terms of discriminant validity, the measure is found to be negatively correlated with negative moods and cognitions, and trauma-related distress (Benight et al., 2004).

Because KCSARC legal advocacy deals exclusively with sexual assault clients, 19 of the 30 items original items were chosen to reflect the themes obtained from the previous qualitative program evaluation. Of the 19 items that were retained for the CSE, 12 were modified. Items were modified to (a) replace any mention of “domestic violence” with “sexual assault,” (b) replace “abuser” or “abuse” with “assailant” or “assault,”, and (c) the phrase “since the most recent attack” and "since the latest assault" was deleted from the selected items because it was considered inappropriate for use with

the population (Gibbs et al., 2011). As with the ISSB, all items were selected collaboratively by the SPU research team members and KCSARC professionals who served as subject matter experts. Respondents are asked to indicate the "capability (ability or confidence) to manage the following issues since the sexual assault" (Gibbs et al., 2011). The items are rated on a five-point Likert scale, ranging from 1 (*completely incapable*) to 5 (*completely capable*.

For the Gibbs et al. (2011) study, the internal consistency alpha coefficients were calculated as .96 across all three time points. The correlation coefficient between times one and two, one and three, and two and three were 76, .67, and .79 respectively. As with the psychometric properties for the modified ISSB, while these correlations could be thought of as a measure test-retest, the effects of the intervention likely influenced the resulting coefficients. The correlation does suggest a strong link across administrations and, again, it does provide evidence of in-person consistency over time. The Cronbach's alpha for CSE in this dissertation was .97.

Age. Basic demographic information was collected as a write-in option within the survey packet. This information was collected at each administration of the measures to ensure that that each response had accompanying demographics. Information collected included: gender (i.e., male, female, and transgender), role in the program (i.e., client, parent/caregiver, other), and age. Individuals were selected for inclusion in this dissertations data set, if their role in the program is that of the client and if, as a client, they were 18 or older at the time of the assault. Clients were chosen for inclusion to increase the accuracy of the subjective measures collected, and eliminate issues of informed consent with minors.

Research Design

The data for this dissertation was collected from the ongoing program evaluation project that is a partnership between KCSARC and Lynette Bikos, PhD's Research Vertical Team (RVT). In addition to the LASS and CSE, the program evaluation also assesses other dimensions of the legal advocacy program. However, only the LASS and CSE was utilized for the purposes of this project. Data collection began in 2013 and is currently in progress, with no projected end-date. The data was a longitudinal design with up to three repeated-measures for each participant. Participation in all aspects of this study was voluntary.

CHAPTER III

Results

Data Analytic Plan

This dissertation utilized a growth curve analysis using Hierarchical Linear Modeling 7.01 (HLM; Raudenbush, Bryk, & Congdon, 2013). As high attrition rates are common within longitudinal studies, HLM was an appropriate method of analysis for this study because it can account for missing time-points within participants' scores. HLM was also the appropriate choice because this strategy allows for dependency between observations and unevenly spaced data collection (Raudenbush & Xiao-Feng, 2001). Within and between person effects are both estimated, while intercepts and slopes are predicted.

Modeling is accomplished through specifying Level 1 (L1) and Level 2 (L2 equations). L1 equations represent time-changing variables, in this case LASS (up to three observations per person) and time point (assessed in months) of observation. The goal of the L1 equations is to assess differences of within-persons variability and the shape of each participant's growth trajectory. As cubic and quadratic time functions can only be derived with quantitative date information (e.g., number of days between observations), curvilinear time functions were not created (i.e., time 1, time 2, and time 3). The lack of quantitative time information prevented the analysis of a curvilinear relationship within the data. L2 equations represent unchanging variables, which are represented in this study as age and an aggregate score of LASS (LASSAgg). The goal of the L2 equation is to detect difference between participants' intercepts and slopes and assess the relationship between predictors and the degree of each participant's growth

trajectory. CSE was specified as the outcome variable, and data was modeled with an unstructured covariance matrix and was estimated with full maximum likelihood.

Data Preparation and Missing Data

Data preparation was completed using IBM's SPSS version 24.0 (IBM Corp., 2016). Since the KCSARC program evaluation's inception, 216 participants completed at least one observation. I began by removing male participants, individuals who did not complete their own measures (i.e., those completed by a guardian or case manager), and participants under the age of 18. The SPSS file was then converted from wide format (i.e., one participant per row) to long format (i.e., one observation per row) to allow for multiple imputation and separation into L1 and L2 files. To prepare the data for analysis, multiple imputation was used to handle missing data, excluding those participants whose data contained greater than 24% missing information. Beyond 24% missing data does not appear to be an accurate approach to imputation (Olinsky, Chen, & Harlow, 2003).

After eliminating participants who did not meet the minimum completion requirements, I was left with 176 participants. In total, there were 106 time one observations, 46 time two observations, and 23 time three observations for participants who met the inclusion criteria and minimum completion rates. Because LASS was not collected prior to October, 2015, any participants who did not have a concurrent LASS and CSE observations also had to be eliminated so each L1 variable was matched with an L2 counterpart. This series of necessary eliminations left me with a final sample of 105, with 17 participants who had repeat observations. The eliminations also resulted in a number of participants having only a time 2 or 3 observation. A mean score for each participant's LASS and CSE was created. Next, each participant's age was centered by

subtracting 18, such that an age of zero represented the minimum age of inclusion. Centering age allows for a more meaningful value for the intercept while still resulting in a statistically equivalent model. Lastly, an aggregate score for each individual was created by using SPSS's aggregation function. The associated regression coefficient in the HLM model describes the relationship of means of predictors in individual clusters, to the mean of the dependent variable in those clusters. Aggregation is useful within this context because it describes the individual's changes in perceived support within the context of their overall support from their advocate.

Sequential Model Development

Data was analyzed using a sequential and exploratory method. Approaching a complex model sequentially allows for understanding simple relationships between variables, before incorporating more complex regression equations. Variables are added into the regression equation individually, and the change in variance is assessed with each new addition. When the next model in the sequence is able to explain more variance in the data than the previous model, there is evidence to continue building the model with increasing complexity. The significance of the change in variance is determined by a deviance test, which compares model goodness of fit versus parsimony. (O'Connell, Logan, Pentimonti, & McCoach, 2013). Building a model in this sequential fashion is accomplished in two distinct phases. First, an unconditional phase which assesses the shape of growth in CSE and what the change over time in CSE looks like as a function of LASS. In the second phase, or the conditional phase, the shape of growth is assessed according to each participant's age and aggregated LASS. In HLM, a slope can be thought of as a measure of how each individual changes between observations. Given that

only 17 of the participants had more than one observation, the slopes were not allowed to vary. First, I began with a L1 only model and assessed the relationship between CSE and LASS. Next, time and age were added as L2 predictors, both independently and together. Lastly, a similar sequence was completed with the inclusion of LASSAgg. Descriptive statistics for all variables included in the analysis can be found in Table 1.

Table 1
Descriptive Statistics for L1 and L2 Variables

	Time 1	Time 2	Time 3
CSE			
N	43	41	21
Mean	3.39	3.21	3.44
SD	1.09	.98	.86
LASS			
N	43	41	21
Mean	3.59	3.63	3.75
SD	1.18	1.17	1.05
LASSAgg			
Mean	3.64	-	-
SD	1.12		
Range	1.6 - 5		
Age			
Mean	30.16	-	-
SD	12.36		
Range	18 - 75		

Assessing Longitudinal Change

My sequential analysis began with an unconditioned means model, or baseline model, containing only the outcome variable as specified. For CSE, $\beta_{00} = 3.35$ ($p < .001$) was the estimated overall mean CSE across all participants at all observations, and the mean was significantly different from zero. The variance component, which is an estimate of L2 variance, indicated there was a statistically significant amount of between-subjects variance ($\tau_{00} = .906$ [$p < .001$]). The ICC is calculated by dividing the L2 variance ($\tau_{00)}$ by the total variance in the model ($\tau_{00} + \sigma^2$, where σ^2 represents L1 random

error within participants as compared their own means). While the unconditioned model does not convey growth, it is a necessary starting point for comparing subsequent models to the residual ICC. Corresponding, the intraclass correlation (ICC) for CSE suggested that 86% of the variance was between participants, while 14% was likely due to individual variations within participant's observations. This low amount of within-subjects variance was an early indicator that there would likely be no observed change over time.

For the next model in the sequence, I proceeded with a simple linear growth equation by adding time as a predictor to the baseline model. The average CSE score for participants at the first observation was 3.21 ($p < .001$). Participants increased in CSE scores by .08 ($p = .405$) at each observation, however this increase was not statistically significant. The variance component (.92, $p < .001$) indicated that participants significantly varied in CSE at the first observation. The baseline model and simple linear growth model can be compare via their deviance statistics. This comparison determines if the reduction in observed deviance is attributable to the more complex model. The model comparison between the empty and linear growth model did not suggest a statistically significant improvement when deviance statistics were compared: X^2 (1) = .679, $p > .05$. Because the difference in deviance was not significant, the linear growth model was not supported and the unconditioned means model was a better explanation of the data (see Figure 2). As there was not significant change over observations, time was removed from the analyses for subsequent models.

The next model sequence involved the inclusion of the L1 predictor (i.e., LASS) and the individual addition of the L2 predictors (i.e., LASSAgg and age). The sequential

building of the L1 and L2 predictors resulted in an additional four models, with a final mixed regression equation as follows: $CSE = \beta_{00} + \beta_{01}* LASSAgg_i + \beta_{02}*AGE_i + \beta_{10}*LASS_{ti} + \beta_{11}*LASSAgg_i *LASS_{ti} + \beta_{12} *AGE_i*LASS_{ti} + r_{oi} + e_{ti}$. Controlling for LASSAgg, the average CSE for participants was 3.14. While controlling for LASSAgg, CSE was higher by .06. Controlling for age, CSE scores increased by .003 units, when CSE increased by one unit. Controlling for SS, participants decreased -0.45 CSE units, when age increased by one year. As shown in Table 2, results continued to indicate a nonsignificant function.

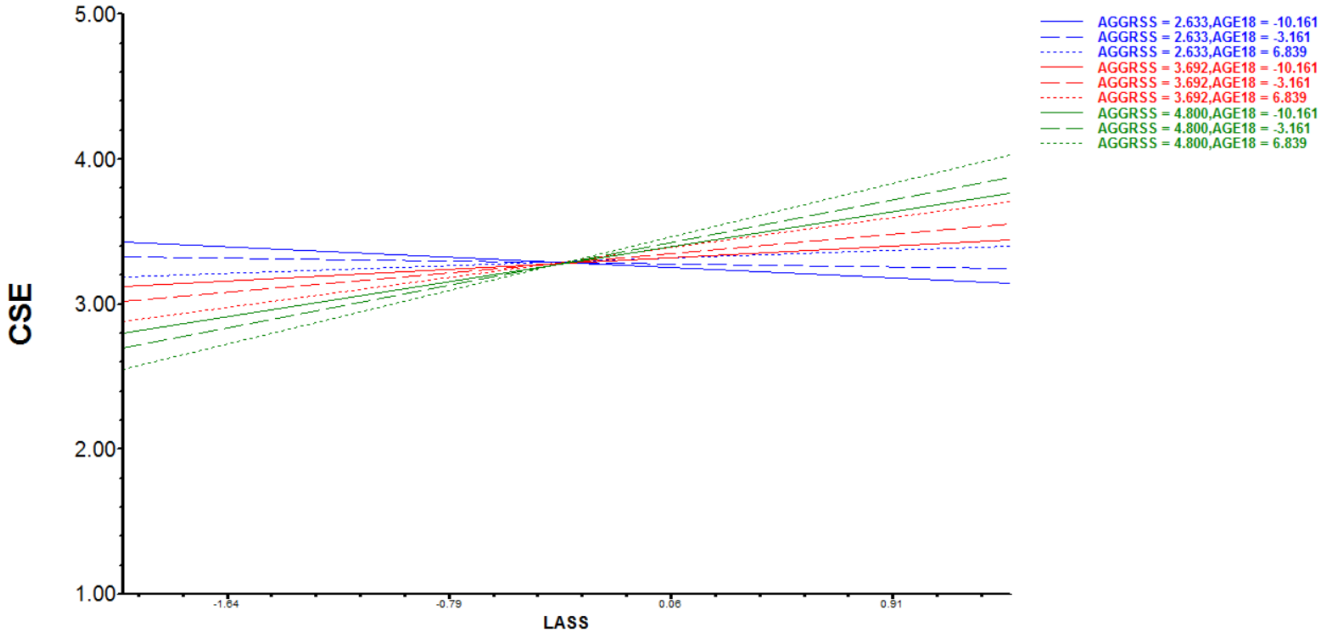

Figure 2. Model of Coping Self-efficacy as a function of Legal Advocacy Social Support, Age and Aggregated Legal Advocacy Social support.

Table 2
Model of Coping Self-efficacy (CSE) as a Function of Legal Advocacy Social Support, Age and Aggregated Legal Advocacy Social Support

Fixed Effect		
For INTRCPT1, π_0	Coping Self-efficacy (CSE)	
Fixed Effect	Coefficient	SE
INTRCPT2, β_{00}	3.140	0.371
LASSAgg, β_{01}	0.058	0.098
AGE, β_{02}	0.003	0.009
For MEANSS slope, π_1		
INTRCPT2, β_{10}	-0.447	0.919
LASSAgg, β_{11}	0.171	0.263
AGE, β_{12}	0.009	0.021

*Note. *** $p < .001$, ** $p < .01$, * $p < .05$, † $p < .10$.*

Ancillary Analysis

My original hypothesis posited that LASS would predict CSE over time, as moderated by age. Because participants did not appear to significantly change in their CSE as a function of observations, and because the dataset had far more attrition than we anticipated that pushes the limits of HLM, I chose to conduct a secondary analysis exploring the same relationship in the absence of time as a variable (see Figure 3). While HLM uses maximum likelihood estimators (i.e., parameter value that maximizes goodness of fit) and can accommodate repeated measures, it requires a more robust sample than was available in the final data set. In contrast, PROCESS utilizes ordinary least squares, which assumes the parameter value of the error term that minimizes the sum of squares (i.e., parameter value that reduces error). To assess this singly moderated relationship, I chose to utilize the PROCESS macro for SPSS v.2.12.1 as a parallel, alternative for detecting a moderation effect (Hayes, 2013). To avoid violating the independence statistical assumption, only one observation per participant was included in the analysis (N = 87).

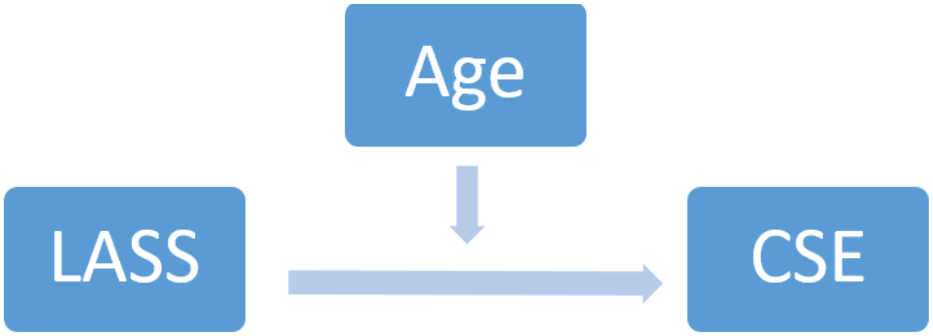

Figure 3. PROCESS model of relationship between legal advocacy social support and coping self-efficacy, as moderated by age.

Does age moderate the relationship between LASS and CSE? To test the hypothesis that LASS predicts CSE as a function of age, a moderation analysis using

PROCESS was utilized (Hayes, 2013). Using the PROCESS template model 1 for moderation, I specified a model predicting CSE (Y). The predictor was specified as LASS (X), and the moderator as age (M). The regression analysis accounted for 3% of the variance of CSE, with a 2% increase in proportion of variance accounted for by the interaction effect. Results indicated a non-significant negative interaction ($b_3 = -0.013$, $p = .22$). The direct effect of LASS on CSE was also non-significant ($b_1 = 0.073$, $p = .48$), as was the direct effect of age on CSE ($b_2 = 0.004$, $p = .68$). The Johnson-Neyman technique for determining the range of conditional effects indicated there were no statistical significance transition points within the observed range of the moderator.

CHAPTER IV

Discussion

Sexual assault is a pervasive issue with a high need for support services. One such service is the need to help clients through the lengthy and difficult legal process. Organizations like KCSARC have begun to address those needs through legal advocacy programs, which strives provide clients with valuable information and intangible support. In order to provide targeted and tailored services to clients exposed to sexual assault, clinicians must begin to understand the myriad of factors that may impact trauma outcomes. Both coping self-efficacy and social support appear to play a role in sexual assault trauma outcomes. The role of social support also appears to become more important as an individual ages. As such, the purpose of this study was to determine if legal advocacy social support appears to predict sexual assault coping self-efficacy, with age as a possible moderating variable. This study was intended to contribute to trauma literature overall by assessing the unknown impact of legal advocacy social support on coping self-efficacy. My goal was also to provide KCSARC with information on how to better serve their clientele through illuminating the potential psychological impact that legal advocates have on their clients, and identifying clients who may have greater support needs.

Coping Self-Efficacy Did Not Change Over Time

The inclusion of time to the sequential model building approach result in a non-significant slope and did not account for a statistically significant drop in deviance from the baseline model. That is to say, participants in this sample did not significantly change in their mean CSE scores from one observation to the next. The lack of significant change

overtime observed in CSE is likely due to the inadequacy of repeated within-persons observations. At the very least, it is good to see that participants were not decreasing in the CSE over time. A lack of decline in CSE over time could suggest that participants are feeling psychologically stable and may have returned to baseline since their ordeal.

Unfortunately, there is no information related to when each participant was exposed to psychological trauma prior to completing the measures. Participants filled out their measures at varying amounts of time following the trauma and for some participants, the length of time between exposure and observation could be several years. Ninety percent of those exposed to trauma appear to develop clinically significant psychological symptoms within the first six months (Yule et al., 2000). As it can often take a year or more for a case to go to trial, it is possible that the majority of participants in this study had already reached their new baseline levels of CSE. Even so, the stress of a trial, or secondary victimization, could conceivable lower an individual's CSE again (Campbell & Raja, 1999). Further research is, therefore, warranted.

Age Did Not Moderate the Relationship Between LASS and CSE.

Neither the HLM analysis nor the ancillary analysis supported the hypothesis that age moderated the relationship between CSE and LASS. Given the support in the current literature, the lack of significant relationship between these variables was somewhat unexpected (Cieslak et al., 2009; Hohl et al., 2015; Israel-Cohen et al., 2016; Major et al., 1990; Smith et al., 2013). The absence of a relationship may mean that the nature of the data itself prohibited the revelation of any sort of relationship due to inconsistencies or the LASS measure itself (discussed below). Or, the lack of relationship could imply that LASS is not actually a form of social support that is directly related to CSE. CSE is a broad and general measure of an individual's perceived ability to cope with daily stressors

following a sexual assault (Bandura, 1993). LASS is a narrow and targeted form of support that may not have broad reaching implications on an individual's overall level of functioning. This narrow measurement could, therefore, partially explain the lack of a significant relationship with CSE.

Possible Clinical Implications for Legal Advocacy

The average LASS across all observations was 3.64 out of five (*SD* = 1.18). This suggests that, on average, clients of KCSARC's legal advocacy program felt well supported by their legal advocates. While the results of this dissertation did not suggest that legal advocates have a significant impact on their client's CSE, the advocates still appear to be providing a service that is perceived to be helpful. Furthermore, it is possible that LASS may impact another important aspect of psychological functioning, such as resilience during the legal proceedings (Campbell, 2006). Current research also suggests that legal advocates can be an important source of information and support for clients, with effects ranging from increasing psychological resilience during the legal process, to a greater likelihood of a conviction (Campbell, 2006). Given the unique benefits of legal advocacy, it may be prudent for clinicians to refer clients who have been sexually assaulted to a legal advocacy program when one is reasonably available.

Despite the null findings of this dissertation, current literature still suggests that older individuals appear to be more negatively impacted by a lack of support during trauma recovery periods (Sherbourne et al., 1992; Matt & Dean, 1993). Therefore, I believe it would still be prudent to offer additional support to older clients who have been exposed to sexual trauma, where necessity dictates. The ISSB can be quickly and easy administered to older clients, and can serve as a gauge for determining appropriate

clinical recommendations regarding increasing social support (Barrera et al., 1981). This additional support could involve providing clients with information about additional external resources that are available in the area. Additional resources offered to older clients could include sexual assault support groups or community activities and events. For example, KCSARC offers a number of psychotherapy groups that are available to provide clients with a space to receive cognitive therapy and interact with other individuals who share similar experiences (KCSARC, 2015).

Study Limitations

Limitations to this dissertation included sample size, participant characteristics, and measurement validity. While this dissertation began with a robust sample size, a number of participants had to be excluded for various reasons (e.g., informed consent, inclusion criteria, missing data). The quality of the final dataset used for analysis in this dissertation prevented me from conducting a credible change over time analysis. An appropriate minimum standard appears to be 10 level 2 units (Snijders & Bosker 1999). While the final dataset used in this study met these minimum standards, the presence of only 17 participants with repeated measures has limited the predictive capabilities of HLM.

There are several sample characteristics that may have impacted the results and generalizability of this dissertation. Due to limited male KCSARC clients, all men were excluded from this study. Participants under the age of 18 were also excluded from the final analyses. Additionally, while KCSARC does serve a diverse clientele, further demographic information was not available for the current sample (KCSARC, 2015).

Due to these sample characteristics, the results are not necessarily representative of all clients utilizing legal advocacy programs.

It is possible that the LASS measure may have some issues with construct validity. Anecdotally in my own discussions with KCSARC's legal advocates, they reported clients often feel frustrated with the lack of progress from their legal cases. While the advocates make every effort to communicate with their clients as regularly as possible, clients may not receive updates related to their cases for several months because there have not been any changes to report. Some advocates feel as though their client's frustration is then transferred to the advocates and their work. Additionally, some advocates do not actually meet with their clients in person because the clients are living out of state. As the Likert scale for LASS ranges from 1 (*not at all*) to 5 (*about every day*) when assessing the frequency of supportive behaviors, this may not be an appropriate assessment of support given the nature of the advocates' typical interaction with their clients. Furthermore, there are not currently any established psychometrics for either of the modified scales used in this study.

Future Research

First and foremost, I believe it would be prudent to begin with establishing the psychometric properties of the scales used in this dissertation. While the Cronbach's alpha for LASS and CSE were acceptable (.97 and .98 respectively), no further information on the reliability and validity of these modified scales are currently available. If the concerns related to construct validity are unwarranted and psychometrics can be established, it would be helpful to reassess the original thesis posited in this dissertation. As this dissertation was part of an ongoing program evaluation, continued data collection

will bolster the repeated observations and allow for a more thorough exploration of this thesis.

KCSARC has also recently translated the measures into Spanish, in order to reach a wider portion of their clients. It would be interesting to explore the differences between the Spanish and English participants' measures. Research suggests that Latinos are more likely to request and receive support, when compared to Caucasians and African Americans (Kaniasty & Norris, 2000). Assessing any differences between LASS for different languages, and their possible impact on CSE, would further allow for more targeted and tailored services.

Given the possibility of a perceived secondary victimization experienced by individuals who chose to prosecute sexual offenders, it would be interesting to explore the impact that legal advocates have on their clients' perception of the legal process (Campbell & Raja, 1999). In a quasi-experimental, naturalistic study, researchers found individuals who worked with an advocate appeared to be more likely to have a police report taken and were less likely to feel they had been treated poorly by the police. Furthermore, the study's participants also reported less psychological distress after their contact with the legal system (Campbell, 2006). Further research into factors that support a client's ability to receive justice, would strive closer to meeting support needs for those exposed to sexual trauma. In conclusion, the field of sexual assault research and the role of legal advocacy remains widely unexplored, with the opportunity for much deeper insight.

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