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Deafness and Trauma:
A Preliminary Investigation of Trauma within Deaf Domestic Violence Survivors

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Master of Arts in Criminal Justice

To Fulfill Partial Requirements for a Master of Arts in Criminal Justice

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Abstract

Deaf individuals in the United States face an increased risk of criminal victimization than their hearing counterparts. In particular, Deaf and Hard-of-Hearing are at a significantly higher risk of becoming victims of domestic violence. Unfortunately, the few scholarly studies that exist reveal that survivors within the Deaf population experience significant barriers when attempting to seek mental health treatment. Likewise, there is a significant lack of literature on extant psychometric tools available to measure trauma and PTSD within the Deaf community. This study analyzes the psychometric properties of the PTSD Checklist-5 (PCL-5) and the Impact of Event Scale-Revised (IES-R) in a sample of Deaf adult female survivors of domestic violence. Demographic and qualitative information, including barriers to help-seeking and relationship to the Deaf community, are also reported. Policy implications and future research implications are discussed.

Keywords: *Deaf, hard of hearing, domestic violence, PTSD, trauma, victimization, hearing loss*

Chapter 1 – Introduction

Domestic violence is a pervasive problem that permeates gender, race, socio-economic status, and geographic location all across the United States (Breiding, 2014; Samuels & Thacker, 2000). Approximately 4.8 million intimate partner rapes and physical assaults are perpetrated against women in the United States annually, suggesting that domestic violence is a serious concern for both the criminal justice and public health systems (Samuels & Thacker, 2000). With figures as striking of over four million victims (Tjaden & Theonnes, 2000), it is hard to imagine that certain populations of women face even increased odds of falling victim to domestic abuse. However, women who are Deaf are twice as likely of becoming subject to this tragedy and the subsequent mental health problems that ensue (Anderson & Leigh, 2011; Mason, 2010).

Even so, the empirical research concerning the vulnerable population of Deaf domestic violence survivors is markedly scant (Anderson et al., 2011). In particular, studies utilizing commonly accepted psychometric tools to measure trauma, distress, and Post Traumatic Stress Disorder (PTSD) within the survivor population are poignantly absent in the literature. With an increase in empirical support, practitioners in the criminal justice and mental health fields could provide more informed treatment and resources to this population.

Definition of Domestic Violence

Violence against women is a major health and human rights concern in the United States (Field & Caetano, 2005; World Health Organization, 2013). Domestic violence, also known as intimate partner violence, is any behavior by an intimate partner that causes physical, sexual, or psychological harm, including acts of physical aggression, sexual coercion, psychological abuse, and controlling behaviors (Kernbach-Whighton, 2014; World Health Organization, 2013). An intimate partner includes formal partnerships, such as a legal spouse, as well as informal partnerships such as co-habitants, boyfriends, and unmarried sexual partners (World Health Organization, 2013). Furthermore, domestic violence has such prevalence it has been recognized as a national crisis by major organizations including the World Health Organization (WHO) and the Center for Disease Control (CDC). This is because experiencing domestic violence is correlated with chronic physical and psychological adverse health conditions (Smith et al., 2018). In addition, domestic violence poses a health crisis because it is cross-cutting. Throughout the U.S., men and women of all races are subjected to abuse by an intimate partner thus indicating a nationwide concern (Kernbach-Wighton, 2014).

Scope of Problem

Research on trends and patterns regarding domestic violence has primarily relied on official nation-wide measures of victimization (Powers & Kaukinen, 2012). Despite over twenty years of research on the topic, the quantity of domestic violence against women is still frequently discrepant (Bachman, 2000). The leading source of information regarding the rate of domestic violence in the United States is the CDC’s National Intimate Partner and Sexual Violence Survey (NISVS). Initially launched in 2010, this is an ongoing survey that collects the most contemporary and comprehensive nation-wide and state-wide data on domestic violence, domestic violence, sexual violence, and stalking victimization across the United States (Smith et al., 2018). The NISVS measures four types of domestic violence: sexual violence, stalking, physical violence, and psychological aggression. The findings of the most recent survey data published (2015) relay that approximately one-in-four women and one-in-ten men report a domestic violence -related incident in their lifetime. For women, the odds are increased to one-in-three when the categories are reduced to sexual violence, physical violence, and/or stalking by an intimate partner in their lifetime (Smith et al., 2018).

Another large-scale source of data regarding incidents of domestic violence is the National Crime Victimization Survey (Bachman, 2000). Each year, the Bureau of Justice Statistics (BJS) collects survey data from a nationally representative sample of households on victimizations, both reported and unreported, that members of the households sustained within the last year (BJS, n.d.). The NCVS separates reporting statistics into two categories: domestic violence and intimate partner violence, where the former encapsulates violence by intimate partners as well as family members (Truman & Morgan, 2018). According to the 2015 NCVS data, the rate of domestic violence is approximately 4.1 individuals out of 1,000. For intimate partner violence, the rate was slightly lower at 3.0 victims per 1,000 individuals ages twelve or older (Truman & Morgan, 2018).

In 2000, the Centers for Disease Control and Prevention partnered with the National Institute of Justice to cosponsor the National Violence Against Women (NVAW) Survey measuring the nature, extent, and consequences of domestic violence in the United States (Tjaden & Theonnes, 2000). The survey was administered telephonically to a sample of 8,000 female and 8,000 male U.S. citizens and asked about experiencing various forms of violence, one of which was domestic violence. Tjaden & Theonnes (2000) found that domestic violence is pervasive in the United States. For example, the researchers found that nearly one-in-four women have experienced rape and/or physical assault by an intimate partner at one point in their lives, and 1.5 percent of women were raped and/or assaulted within the last twelve months. While men also experience domestic violence, women are at a significantly greater risk of victimization whether it be rape, physical assault, or stalking (Tjaden & Theonnes, 2000). Amongst the women, rates of domestic violence varied greatly depending on racial background. Asian and Pacific Islander men and women reported the lowest rates of violence whereas other racial minorities, such as African American and American Indian populations, reported the highest rates.

Furthermore, the NVAW Survey also examined rates of domestic violence and gender of the partners. Women who were in a relationship or cohabitating with men reported victimization over 20% more frequently and men living with males reported abuse 7% more frequently (Tjaden & Theonnes, 2000). Thus, the survey found that domestic violence is largely perpetrated by males whether it is against female or male cohabitants. Even so, most incidences of domestic violence are not reported to the police. Only 20% of rapes, 25% of assaults, and 50% of stalking events were reported to police by women (male respondents reported even less). The findings on lack of reporting suggest that victims of domestic violence do not consider the justice system a feasible way of resolving conflicts with intimates (Tjaden & Theonnes, 2000).

In addition to large-scale official surveys conducted on the topic of domestic violence, individual-level research is also available based off the secondary data from the national surveys and primary collected data sources (Bachman, 2000; Brecklin & Ullman, 2002; Goodlin & Dunn, 2010). With the help of secondary data from the NCVS, researchers can investigate variable correlations with domestic violence, such as race (Rennison & Planty, 2003), varying patterns of domestic violence in households (Gooldin & Dunn, 2009), impacts of alcohol (Brecklin & Ullman, 2001), and the impacts of police and social services (Xie et al., 2012). Researchers also utilize the results of the national studies to cross-check the validity of the nation-wide studies. For instance, Bachman (2000) conducted a study comparing the annual incident rates and characteristics of domestic violence episodes as reported from the NCVS and the NVAW Survey. Bachman found that estimates regarding the frequency and characteristics of domestic violence vary depending on the research methodologies. Regardless of the variance in reporting, it remains evident that domestic violence is a cross-cutting phenomena impacting all genders, ages, races, and social classes (Truman & Morgan, 2018).

Furthermore, attention is given in the empirical literature to domestic violence through sources of primary data collection, as well (Nelson, 2012; Roberts et al., 1998; Sherman & Harris, 2014). As the national surveys establish the incidence rates of domestic violence, primary data studies often concern the efficacy of treatment modalities, mental health outcomes, barriers to help-seeking, legal trends, and determining the availability of resources to victims of domestic abuse (Nelson, 2012; Sherman & Harris, 2014). This proves beneficial, as treatment and resources can be better tailored to the needs of the population. For example, Hetling & Zhang (2010) found that the presence of a domestic violence victim serving agency has no correlation with the rates of domestic violence in the geographic area. A first study of its kind, the research was able to improve policy through social service provider awareness with the needs of the population and how to best serve the community (Hetling & Zhang, 2010). Not included in the study, however, was a discussion of the demographics of the victims. It is widely accepted that the population of people that make up domestic violence survivors is extremely variant (WHO, 2013). Missing from the majority of these studies, however, is discussion of the impacts of domestic violence on the Deaf community.

Definition of Deafness

In the United States, there is an estimated one million Deaf and eight million Hard-of-Hearing individuals (Mitchell, 2006). In fact, approximately fifteen percent of adults in America (~37.5 million) ages 18 and over report some form of hearing difficulties (Blackwell et al., 2014). While Deafness is often perceived as a stucco disability, it in fact presents itself across a diverse spectrum and brings forth a unique culture (Padden & Humphries, 2005). There are two major lenses in which Deafness can be perceived: (1) Deafness as a medical ailment and definition and (2) Deafness as a sense of identity and culture. “Deafness” can range from the profound inability to hear any sound levels to different levels of Hard-of-Hearing. Typically, Deafness is measured by the level of sound pressure, or decibels (dB). A hearing loss of more than 81 dB is considered a profound hearing loss/Deaf and a hearing loss of more than 40 dB is considered a hearing impairment (PubMed Health, 2017). An important distinction within deafness and the Deaf community is cultural identity. An individual who suffers from hearing loss but identifies with hearing culture is considered linguistically deaf and is grammatically identified as “deaf” with a lower-case “d.” However, individuals who are immersed in the culture and community of American Sign Language identify as culturally Deaf and are grammatically identified with an upper-case “D.” For the purposes of this study and out of respect for the Deaf community, the paper will capitalize the word “Deaf” with the understanding that the term will encapsulate d/Deaf individuals from all across the hearing and cultural spectrums.

Intimate Violence and the Deaf Community

While research has emerged over the past several decades about domestic violence, gaps still remain—particularly in the Deaf community. Recent research indicates that the rates of sexual, physical, and psychological domestic violence against Deaf women are nearly double the rates of their hearing counterparts (Anderson & Leigh, 2011). Even so, research regarding domestic violence for those with disabilities is markedly scant and is virtually absent for those who are Deaf and Hard of Hearing (Mason, 2010).

A significant portion of the literature on Deaf experiences of domestic violence consist of undergraduate student samples. For example, the prevalence of domestic violence was studied amongst a sample of 100 Deaf female undergraduate students at Gallaudet University by

Anderson & Leigh (2011). The researchers found that over half of the Deaf women experienced some form of intimate partner violence in the past year, double that of their hearing counterparts. On average, the participants experienced 20 psychologically aggressive behaviors, 9 sexually coercive behaviors, and 8 physical assaults during the last calendar year (Anderson & Leigh, 2011). In 2013, Anderson and Pezzarossi sought to investigate prevalence, correlates, and characteristics of domestic violence within Deaf-Deaf and Deaf-Hearing relationships. Results of this research revealed that there were no significant differences in the rates of physical aggression, assault, or injury based on partnered hearing status. However, sexual coercion was significantly higher in partnerships where both individuals were Deaf or Hard of Hearing (Anderson & Pezzarossi, 2013).

It is important to note, however, that the rates of intimate violence reported throughout the literature vary, likely due to the lack of community understanding of the definitions of domestic violence (Anderson, Leigh, & Samar, 2011; Anderson & Pezzarossi, 2011). In a study consisting of 97 Deaf female undergraduate students, over half of the sample did not label recent experiences of psychological aggression, physical assault, and sexual coercion as abuse even if they endured severe violence (Anderson & Pezzarossi, 2011). Regardless of how the population labels their violence, these individuals still suffer from the impact of trauma.

Research regarding the manner in which trauma manifests within the Deaf community is arguably scarcer. Anderson et al. (2016) conducted a pilot study of Deaf trauma survivors' experiences. Utilizing semi-structured interviews with seventeen Deaf trauma survivors, most common traumas were physical assaults, sudden unexpected deaths, and "other" markedly stressful events. While domestic violence was not explicitly addressed, sexual assaults and "other unwanted or uncomfortable sexual experiences” were experienced by over half of the sample, and 82% of the population experienced some form of physical assault (Anderson et al., 2016).

Few other studies have utilized psychometric tools to examine the experiences of domestic violence amongst the Deaf community. As the literature exists today, the only one of the following instruments having been utilized: the Revised Conflict Tactic Scales, the Clinical-Administered PTSD Scale, and the Trauma Symptoms Inventory (Anderson, Leigh, & Samar, 2011). Thus, there is a marked deficit in available data regarding the psychometric properties of other assessments that measure trauma in the Deaf community. Two of which could be of particular benefit and that are utilized in this study are the Post Traumatic Stress Disorder Checklist (PCL-5) and the Impact of Event Scales – Revised (IES-R).

Tools to Measure the Impact of Domestic Violence

Post-Traumatic Stress Disorder Checklist (PCL-5). The PCL-5 is a self-report measure consisting of 20 items that assess the 20 *DSM-5* symptoms of Post-Traumatic Stress Disorder. It takes approximately ten minutes to complete and can be administered in three formats: with criterion A, without criterion A, and as an extended assessment including the Life Events Checklist. The purpose of the PCL-5 is to provide a provisional PTSD diagnosis (Weathers et al., 2013).

Impact of Event Scale-Revised (IES-R). The Impact of Event Scale – Revised is another self-report measure. It consists of 22 items that assess subjective distress caused by specifically identified traumatic events. Respondents who are administered the assessment are asked to identify a specific stressful life event and indicate on a Likert-type scale ranging from 0 (“not at all”) to 4 (“extremely”) how distressed they were during the past seven days due to the event. While not intended to provide a diagnoses of PTSD on its own, the IES-R yields a total score ranging from 0 to 88 indicating an amount of subjective duress that can be compared to other respondents or population norms.

Purpose of the Study

It is understood that Deaf women disproportionately experience rates of domestic violence (Anderson & Leigh, 2011). Even so, there is a striking dearth of empirical literature on the available on the experience, needs, and treatments for this minority population (Anderson, Leigh, & Samar, 2011). As it stands today, the majority of the literature involving violence in the Deaf community concentrates on child abuse or child sexual assault (Anderson et al., 2011). A noted pivotal issue in the field of mental health and the Deaf community is the lack of empirical work, in comparison to the anecdotal resources and case studies, on the instances of domestic violence and the correlated manifestation of trauma within this population (Anderson et al., 2011). One example provided is the anecdotal understanding first responders have regarding the hearing status of batterers in Deaf-Deaf or Deaf-Hearing relationships, though there is no empirical evidence to support this (Anderson et al., 2011). Nonetheless, empirical work on this particularly vulnerable population is critical to better serve the community and provide informed treatment measures.

This goal of this study is to provide a preliminary empirical analysis on the experiences of Deaf and Hard of Hearing survivors of domestic violence utilizing data obtained from a short battery of assessments: the Post Traumatic Checklist- 5, the Impact of Event Scale – Revised, and a short demographic questionnaire. To this author’s knowledge, no study to date has analyzed this population utilizing the Impact of Event Scale – Revised or the Post Traumatic Stress Disorder Checklist.

Benefits of Research

While there is extant research on psychotherapy techniques that can be tailored to best serve the Deaf community, there is a marked absence in available data on how to best serve Deaf survivors of domestic violence (Anderson & Leigh, 2011). The benefit of this study is to provide mental health and social service practitioners a sense of the experiences women who are Deaf and are survivors of domestic abuse endure. With preliminary data from the IES-R and the PCL-5, these individuals may be able to make more informed treatment decisions. Further, the population may then have an even better chance at receiving resources, appropriate therapy modalities, and ultimately, a stronger sense of healing.

Policy Implications

With novel research data available, possible policy implications involve the provision of resources and the reporting options of domestic violence victims. In addition, policy implications include the need for culturally-sensitive law enforcement officers, the need for more publically available reporting resources for Deaf domestic violence survivors, and the need for increased research grant opportunities for organizations to study the needs of this population.

By Utilizing results from the PTSD Checklist-5 (PCL-5) and the Impact of Event Scale-Revised (IES-R), this study examines the results from a sample of Deaf adult women survivors of domestic violence in an attempt to begin to fill these voids in the literature.

In chapter two, a detailed literature review on Deafness, domestic violence or intimate partner violence, and Post-Traumatic Stress Disorder will be presented followed by a chapter explicating the methodological steps to this study. Chapter four will present the results of the data analysis and chapter five will conclude with a discussion of the findings and limitations.

Chapter 2 – Literature Review

The literature on domestic violence is extensive and has grown exponentially since the 1960s. This chapter will present an overview of the literature on domestic violence. In addition, it will then tailor and provide background on historic trends in domestic violence research, domestic violence within minority populations, individuals with disabilities, and individuals who are Deaf. Further, it will also review the extant studies using psychometric tools to measure trauma and PTSD in Deaf domestic violence survivors. An overview on the Impact of Event Scale-Revised and the PTSD Checklist-5 will be provided. In chapter three, study methodology will be discussed.

Definition of Domestic Violence

Prior to the 1970s, researchers and the public paid little attention to domestic violence issues. However, that changed in the 1970s with the feminist movement and scholars then began exploring the issue. Today, violence against women has been labeled as both a national and global crisis (WHO, 2013). The violence can manifest in many ways, primarily as intimate partner or domestic violence (WHO, 2013). Domestic violence, also known as intimate partner violence, is any behavior by an intimate partner that causes physical, sexual, or psychological harm, including acts of physical aggression, sexual coercion, psychological abuse, and controlling behaviors (Breiding, 2014; Kernbach-Whighton, 2014; WHO, 2013).[1]

An alternate definition of domestic violence can be found within criminal jurisdictions. These can be classified as misdemeanor or felony violent crimes committed by a current/former

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[1] Near year 2000, the terminology shifted from Domestic Violence to Intimate Partner Violence. Though they mean the same thing, the term shifted to avert from the connotation related to Domestic Violence as a crime committed by a man against a women. The term Intimate Partner Violence expands the understanding of the abuse to incorporate all gender pairings, perpetrators, and sexuality.

spouse, intimate partner, or cohabitant (Office on Violence Against Women, n.d.). Unfortunately, the legal definitions and standards of what constitutes intimate partner violence/domestic violence is variant on a state-by-state basis (Barocas et al., 2016). This is partly because domestic violence is a fairly new “crime.” Historically, the battering of women by male partners was considered a relationship norm (Erez, 2002). As such, formal laws prohibiting domestic violence were not widely established until the 1970s. In Washington State, the definition of domestic violence is “(a) Physical harm, bodily injury, assault, or the infliction of fear of imminent physical harm, bodily injury or assault, between family or household members; (b) sexual assault of one family or household member by another; or (c) stalking of one family or household member by another family or household member” (RCW 26.50.020).

Domestic Violence Overview

Domestic violence is a pandemic issue with enough severity to attract the time and attention of global organizations such as the Center for Disease Control and World Health Organizations (Smith et al., 2018). As such, large-scale data is collected on the topic through entities such as the National Institute of Justice and the Bureau of Justice Statistics, which provide an overall sense of the prevalence of domestic violence within the United States (Tjaden & Theonnes, 2000). In 2000, the National Institute of Justice and the Center for Disease Control collaborated and produced a research report based on data from their National Violence Against Women Survey (NVAWS) (Tjaden & Theonnes, 2000). The research analyzed survey data on the prevalence, consequences, and incidences of violence against women and found that 1.3 million women and ~835,000 men are assaulted annually by an intimate partner within the United States alone (Tjaden & Theonnes, 2000). The study proved that violence against women is pervasive in society and that 64% of violence sustained by women is inflicted at the hand of an intimate partner.

Furthermore, recent survey data on domestic violence has been published by the CDC's National Center for Injury Prevention and Control department (Smith et al., 2018). In 2018, data from the 2015 National Intimate Partner and Sexual Violence Survey was released and found that one in four women and one in ten men experience some form of intimate partner abuse in their lifetimes (Smith et al., 2018). Within their survey, intimate partner violence is operationalized into the following categories: sexual violence, stalking, physical violence, psychological aggression, and intimate partner violence-related impacts[2]. When examining specific categories of IPV, the prevalence rates fluctuate. For example, one-in-three women will experience incidences of sexual violence, physical violence, or stalking in their lifetime while one-in-eighteen women experienced those forms of violence in the past twelve months (Smith et al., 2018). In addition, the survey found that women who experience intimate partner violence tend to be age 18-25 during their first assault (45.2%).

A third large-scale study producing information on the trends and prevalence of household violence is the National Crime Victimization Survey (NCVS). This survey has been collecting data from households about victimizations continuously since 1972 (Rand, 2006). In 1992, the NCVS underwent significant methodological revisions and developed new strategies for identifying victimizations via revised screening interviews. By virtue of the revised interviews, respondents who were previously reluctant to report sexual assaults and family violence were then more apt to report valid victimization statistics (Goodlin & Dunn, 2009). In

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[2] An intimate partner-related impact is defined as any of the following: feeling fearful, concerned for safety, injury, the need for medical care, the need for assistance from law enforcement, missing at least one day of work, missing at least one day of school, needing legal assistance, needing advocacy services, becoming pregnant or contracting an STI if raped, and contacting a crisis hotline.

fact, reports of non-stranger crimes were approximately 80% higher upon the new method compared to the original interview design (Kindermann et al., 1997).

The large-scale data studies provide an opportunity for outside researchers to access and utilize the data. This produces a substantive portion of the extant research on domestic violence and provides more in-depth analyses on trends in IPV other than just overall prevalence and incidence statistics. For example, Rennison & Planty (2003) utilized the National Crime Victimization Survey to examine nonlethal intimate partner violence trends in relation to race, gender, and socio economic status. The researchers found that, once gender and annual income were controlled, the victim's race in incidences of nonlethal domestic violence incidences was no longer significant (Rennison & Planty, 2003). Other researchers have found positive relationships with the duration/co-occurrence of abuse and the number of individuals residing in a single household (Goodlin & Dunn, 2009). Topics such as substance abuse have also been examined utilizing NCVS data. In a sample of 859 women who reported sexual assault on the NCVS, logistic regression analyses found that offender intoxication was significantly related to the rape completion but was unrelated to physical injury or subsequent medical care sought by the victim (Brecklin & Ullman, 2001). Other risk factors have also been studied utilizing NCVS data. Interestingly, a longitudinal study utilizing over 20 years of NCVS data found that being employed was a positive risk factor for women becoming victims of domestic violence (Powers & Kaukinen, 2012).

The aim of some of the research derived from the large-scale data is the ability to provide informed policy implications for the criminal justice system. Based on data from the NCVS, research shows that the likelihood of a woman experiencing domestic abuse is significantly lower in metropolitan areas that employ more sworn law enforcement officers per capita (Xie et al., 2012). In addition, research finds that domestic violence-related mandatory arrest laws have no impact on prevalence and trends in domestic abuse (Xie et al., 2012) and that the presence of a domestic violence service agency within a town has no relationship with the reported rates of domestic violence (Hetling & Zhang, 2010).

Historic Trends in Domestic Violence Research

The early laws in the United States were adopted from English Common Law, thus statutes addressing the abuse, neglect, and assault of a spouse were not present until the 1800s (Barner & Carney, 2011). Historically, domestic violence was considered a private matter that occurred beyond closed doors, thus, the courts took a hands-off approach to intervention. Since women, or wives, were viewed as property, husbands were permitted to use force to keep her in her place, or status in society. From the 1850s – 1950s, the women's movements was pivotal in advocating for victim rights and domestic violence advocacy (Barner & Carney, 2011). Even so, instances of domestic violence were considered misdemeanor offenses until the 1960s; the increased legislation rose in parallel with the increased national attention on the discrimination of women (Barner & Carney, 2011). These early statutes were rarely enforced and it was not until the second wave of feminism occurred in the 1960s that DV was recognized (Messing, 2011). As such, the first shelters specifically for providing resources to female victims of domestic violence were established in 1976 (Lemon, 2009). The domestic violence shelters and the sister women's shelters banded together to form a grassroots organization promoting awareness and rights. By 1977, the "Battered Women's Movement" was branded by popular media and had made significant progress toward its goals (Lemon, 2009; Schechter, 1982). Even so, the growth in the research available on domestic violence can be attributed to the Violence Against Women Act (VAWA) which did not occur until 1994 (Parmley, 2004). Post Battered Women's Movement, the National Institute of Justice funded the Minneapolis Domestic Violence Experiment (MDVE) in 1984. The MDVE was the first time effect of arrest for any crime was scientifically tested (Sherman et al., 1989). The researchers tested three law enforcement approaches to domestic violence dispute calls: arrest, advice, and sending the suspect away. The results concluded that those who were arrested had the lowest percentage of repeat violence over the subsequent six months (Sherman et al., 1989).

As domestic violence advocacy and awareness was developed, the movement emerged from predominantly White, middle- to- upper SES status women, and as such, has retained certain institutional biases (Bogard, 2007). Three concerns in domestic violence awareness and research are race, gender, and cultural competency. Within the criminal justice system, arrest and prosecution rates are disproportionate based on racial demographics and gender alone. Historically speaking, most attention in the literature and protective factors were granted to White female victims of domestic violence. As the national crime statistics and empirical researched developed, it became evidence that minority victims are, in actuality, more susceptible to sustaining intimate partner abuse and, as such, future research directives from various organizations including the national Violence Against Women (VAW) efforts directed attention specifically to these populations (Jordan, 2004).

Furthermore, the patterns emerging from the Battered Women's Movement including national crime reporting statistics corroborated a unidirectional precedent for DV where the male is the perpetrator and the female is the victim (Tjaden & Theonnes, 2000). However, research has continued in the field that shows that domestic violence is a bi-directional phenomenon. For example, Busch & Rosenberg (2004) reported that mandatory arrest statutes for crimes of domestic violence resulted in a significant increase in females being arrested for the crime. In addition, the National Institute of Justice (1998) survey found that more than 1,000,000 women and 143,000 men were violently victimized by intimate partners in the US alone. As the research continued, the research measures began including an option to measure female-on-male domestic violence and found that domestic violence is, in fact, bi-directional (Straus & Gelles, 1990). As a result, males began to receive slightly more awareness as potential victims of domestic abuse, albeit with a different connotation. Currently, efforts of domestic violence agencies are working on inclusive branding strategies for domestic violence survivors identifying as male and explicating that male-on-male and female-on-female domestic violence is a problem. The four inclusivity efforts are: inclusive language, visual diversity, community outreach, and appropriate communication channels (Dewey & Heiss, 2018).

Even so, minority victims of domestic violence are relatively under-researched. This extends to individuals of different ethnicities requiring culturally effective interventions, individuals with various sexual orientations, and individuals with disabilities. Over the last decade, research has been more attuned to the needs of this population (Ballan & Freyer, 2012; Brownridge et al., 2008; Casteel et al., 2008; Curry et al., 2011; Healey et al., 2013; Krnjacki et al., 2015). Though still considered underrepresented in terms of domestic violence research, studies investigating minority victims are described below.

Minority Victims

Culturally diverse communities understand, respond, and recognize domestic violence in different ways (Sokoloff & Dupont, 2005). One of the richest data sources available regarding the prevalence of domestic violence in specific populations is the National Intimate Partner and Sexual Violence Survey (NISVS).The NISVS is an ongoing, nationally representative telephone survey that collects information about experiences of IPV, sexual violence, and stalking from both native and non-native English speakers. The population consists of both men and women who are ages 18 and older in the United States (Breiding, 2014). Based on data from the NISVS, it is understood that one of the most terrifying components of domestic violence is its cross-cutting nature among all class stratifications and geographic locations (Breiding, 2014). It is a crime that impacts men as well as women. In fact, approximately one-in-four women and one-in-seven men in the United States have experienced severe physical violence by an intimate partner and nearly one-in-ten women and one-in-forty-five men have been raped by an intimate partner in their lifetime (Breiding, 2014).

While domestic violence is a cross-cutting phenomenon impacting individuals of all socio-economic classes, races, and education levels, minority populations are impacted in different, often more severe, ways (Reina & Lohman, 2015). One prominent field of domestic violence research investigates the impact and prevalence of domestic violence in ethnic/racial minority populations. For example, figures indicate that African American women are 20% more likely to become a victim of domestic violence than Caucasian women (Truman & Morgan, 2014). This extends to other minority races, as well. In 2015, Reina & Lohman conducted a study examining the vulnerability of the Latina immigrant population to domestic violence and intimate partner abuse. Utilizing semi-structured interviews with Latina immigrants in a metropolitan area of Central Iowa, they found that this particular minority culture is vulnerable to abuse given the fact the significant barriers to help seeking including unstable residency status, institutional discrimination, and economic inequality (Reina & Lohman, 2015).

The African-American community has also received empirical attention in regard to domestic violence research, though a scant amount of research proportionately (Gillum, 2008). For some minority women, the level of melanin in the skin makes it difficult to document bruises, thus provide evidence of abuse, and may discourage the women from help-seeking and obtaining a positive court outcome (Deutsch et al., 2017). Research indicates that African-American women experience domestic violence at a higher rate than Caucasian women (Taft et al., 2009). Even such, there is little extant literature examining specific cultural and structural factors that differentiate the two communities (Taft et al., 2009). One of the landmark studies on domestic violence providing an ethnically representative sample was the National Family Violence survey of 1975 (Cazenave & Straus, 1979). Utilizing the data from the NFVS, Cazenave and Straus surveyed 427 White couples and 147 African American couples to determine how domestic violence manifests across social and ethnic stratifications (1979). The researchers found that African American men were more likely to be perpetrators of domestic violence (11% versus 3%) (Cazenave & Straus, 1979). Furthermore, African American survivors of domestic violence also face additional barriers to help-seeking and reporting than Caucasian women. For example, “racial loyalty” occurs when a woman consciously decides to “withstand abuse and make a conscious self-sacrifice for what she perceives as the greater good of the community but to her own physical, psychological, and spiritual detriment” (Bent-Goodley, 2001, p. 323). As such, the women who experience racial loyalty set aside the sexism and their experiences as women in order to protect their partners because it is perceived that racism is the more serious issue (Bent-Goodley, 2004). One contributing factor to this could be the fact that African Americans are incarcerated at higher rates that White Americans for domestic violence charges, and that mandatory arrests for domestic violence are unequally applied to African Americans (Mills, 1998).

In addition, there are cultural assumptions and biases that may impact an African American woman’s perceptions of risks and protective factors (Gillum, 2008). In a focus group from a rural southern community, African American women identified dating intra-racially as a risk factor for violence while they viewed dating interracially as more protective (Valandra et al., 2016). In addition, the stereotypes directly impact a victim's ability to obtain help and the method in which the perpetrator transverses the criminal justice system. African American men who perpetrate domestic violence are given more severe sentences and African American women who report abuse receive less assistance because "the violence is expected and accepted" (Valandra et al., 2016, p. 12). Thus, this highlights a pivotal issue when minority race and domestic violence intersect: cultural competency.

In order to provide adequate, unbiased accommodations for survivors of intimate partner violence of color, cultural competence is key (Bent-Goodley, 2013). Within the African American community, there are several reasons for which a victim of IPV may elect not to report the violence. One example is the fact that African American women are socialized to independently and autonomously address their problems without asking for help (Bent-Goodley, 2013). Cultural competence is also important when determining how to screen and protect minority women. For example, African American women are more likely to seek assistance for injuries sustained in a domestic attack at an emergency room than White women (Bent-Goodley, 2013). Minority women are encultured and socialized to handle stress and trauma differently, have different coping strategies, different help-seeking behaviors, and face different barriers as victims than Caucasian women (Bent-Goodley, 2013). Thus, cultural competency and awareness is key when assisting and serving minority victims of domestic violence.

Similarly, cultural attitudes of minority women impact their ability to report abuse given the cultural beliefs that social discrepancies should be handled internally within the community prior to engaging third parties such as law enforcement (Wolf et al., 2003). Another component is language barriers for ethnic minorities. In a “wish list” assembled by participants in a qualitative Seattle-based study, obtaining translators for non-English speaking victims was ranked fourth in terms of importance, as using the batterer or children as interpreters was seen as a barrier in reporting to police (Wolf et al., 2003).

In addition, NISVS data indicates that black non-Hispanic women and multiracial non-Hispanic women had a significantly higher rate of lifetime prevalence of rape, physical violence, or stalking by an intimate partner compared to White non-Hispanic women. In addition, the survey found that Asian or Pacific Islander women had a significantly lower prevalence than White non-Hispanic women (Breiding, 2014). For men, the rates of violence by ethnicity were slightly different. American Indian or Alaska Native men, Black men, and Multiracial men had a significantly higher lifetime prevalence of physical violence, rape, or stalking compared to White men (Breiding, 2014). Other than cultural and linguistic communities, individuals with disabilities also disproportionately experience domestic violence victimizations (Krnjacki et al., 2016; Lin et al., 2010). This is an important and often overlooked, under-researched population of domestic violence survivors (Curry et al., 2011).

There is also somewhat limited body of research on domestic violence and intimate partner abuse regarding sexual orientation (Sklaska & Edwards, 2015; Walter et al., 2013). Research indicates that bisexual men and women have a higher prevalence of lifetime domestic abuse than heterosexual or homosexual men and women (Breiding, 2014; Walter et al., 2013). In particular, bisexual women are disproportionately impacted (Walter et al., 2013). According to the 2010 NISVS, the lifetime prevalence rates were as follows: 44% of lesbian women, 61% of bisexual women, and 35% of heterosexual women have ever experienced rape, physical violence, and/or stalking by an intimate partner in their lifetimes (Walter et al., 2013). For men, the figures are as follows: 26% of gay men, 37% of bisexual men, and 29% of heterosexual men (Walter et al., 2013). When asked if ever specifically raped by an intimate partner, one-in-five bisexual women (compared to that of one-in-ten heterosexual women) endorsed yes. Even so, it is believed that approximately one-third of LGBT victims of domestic violence ever disclose their abuse (Sylaska & Edwards, 2015).

Further, individuals who are lesbian, bisexual, and transgender report facing challenges in identifying and responding to domestic violence that are specific to their unique cultural context (Bornstein et al., 2006). For example, respondents in a qualitative focus group consisting of transgender, bisexual, and lesbian survivors of domestic violence reported refusing to access mainstream domestic violence services out of fear of trans- and homophobias (Bornstein et al., 2006). In addition, a mixed-methods study of 77 young LGBT adult college students who were currently in abusive relationship said a primary theme for reason behind non-disclosure centered on the victims’ perceptions that the domestic abuse was “not a big deal” (Sylaska & Edwards, 2015).

Cycle of Violence

Pioneering research on Battered Woman Syndrome found that there is a three-phase cycle of violence that can be measured and described in the lives of women who experienced domestic violence (Walker, 1979; Walker, 2009). The Walker Cycle Theory of Violence (Walker, 1979) explicates three distinct phases associated with the cyclical and repetitive nature of abuse: tension-building accompanied with rising sense of danger, the acute battering incident, and loving-contrition. Prior to the first phase in the cycle, there is a courtship period in which the victim receives significant attention and loving behavior from the batterer (Walker, 1979). Subsequent to the courtship, there is phase one of the cycle: the tension-building phase. During this time, there is a progressive escalation in acts promoting tension, such as name-calling and physical abuse. Additionally, during this phase, the victim attempts to placate the batterer and use anger-reduction techniques.

In phase II, the tension escalates from phase I and the victim is unable to continuously control the angry responses of the batterer. “The second phase, the acute battering incident, becomes inevitable without intervention. Sometimes, she precipitates the inevitable explosion so as to control where and when it occurs, allowing her to take better precautions to minimize her injuries and pain” (Walker, 2009, p. 94). Most injuries are sustained during the second phase of the abuse and this is also the point at which law enforcement would be contacted, if at all (Walker, 1979). The final phase, loving contrition, occurs when the batterer potentially apologizes, shows remorse, provides gifts, promises, and may even assist in dressing the victim’s wounds (Walker, 1979). The batterer during this phase may believe that he will never permit himself to injure the victim again, and the victim typically wants to believe this as true. As such, it provides a positive reinforcement for remaining in the abusive relationship. The batterer attempts to shower the victim with affection and love. For example, many activities and actions that the batterer performed during the courtship phase to make her fall in love with him are often repeated here. Even if there is a lack of doting affection or loving contrition, the absence of tension and violence may still be enough to reinforce the victim to remain in the relationship (Walker, 1979).

Given the lack of awareness and sensitivity to the cycle abuse, there are preconceived notions, biases, and myths often used against victims of (Yamawaki et al., 2012). One common phenomenon is victim-blaming once the battered woman returns to the abusive partner after she has disclosed abuse (Yamawaki et al., 2012). Up until the 1970s, psychodynamic misconceived notions dominated the domestic violence narratives claiming that battered women were harboring conscious or subconscious needs for punishment to fill a female masochistic, Freudian void. This Freudian reasoning was utilized to explain the “provocation” on part of the victims, such as explaining why a battered woman would not voluntarily leave an abusive relationship (Young & Gerson, 1991). However, feminist activists challenged these views and utilized the help of social scientists to reconstruct an image of battered women that emphasizes gender role conditioning, sexism, and external factors that preclude a woman’s ability to leave (Anderson & Saunders, 2003).

As the empirical literature has developed, various studies indicate various reasons as to why battered women may return home. The decision to return, however, is often reported as a composition of both material resources/situational factors and psychological factors (Anderson & Saunders, 2003; Bornstein, 2006). Bornstein (2006) provided primary reasons for why women would return to abusive partners: economic dependency, contributing to lack of resources and lack of residency should they leave their abusers, and dependent personality traits (DPD) (Bornstein, 2006). Anderson & Saunders (2003) further endorsed the dichotomous framework of material resources and psychological factors for victim decisions to return to an abusive partner and found that material resources, especially income and employment, coupled with social psychological factors, are prominent in being able to predict if a battered woman returns to her abuser. Johnson (1992) surveyed 426 battered women who sought help from a shelter and found that survivors were most likely to return to their abuser if the family income was high, the victim was unemployed, they had been subject to severe physical abuse, or if they had negative perceptions of themselves. Further, qualitative methods have also been used to determine why battered women may return home to abusive partners. Martin et al. (2000) conducted a qualitative study of 70 female residents of an urban domestic violence shelter investigating two factors relevant to the decision of the victim to leave: risk assessment and decision certainty. The women in the study were unrealistically optimistic in terms of their self-perceived risk assessment when deciding whether to return to the batterer (Martin et al., 2000). Furthermore, minority populations experience similar yet unique situational factors that may provide ancillary variables or rationales that contribute to a woman returning to her abuser. This is particularly relevant in the realm of domestic violence survivors with disabilities. Examples of this include increased dependence on the significant other as income and physical assistance providers (Curry et al., 2011).

Risk Factors of Domestic Violence

Understanding the magnitude and prevalence of a global concern such as domestic violence is important, but understanding risk factors for victims can be equally pivotal for designing prevention strategies (Yakubovich et al., 2018). It is understood that young unmarried women are at the greatest risk of victimization (Alhabib et al., 2010; Yakubovich et al., 2018). However, various psychological and situational components have been found to have a positive correlation with risk of becoming a victim of domestic violence. For example, research indicates that being disabled is a situational risk factor that greatly enhances the likelihood of sustaining domestic abuse (Krnjacki, 2016; Rosen, 2006). Furthermore, Papadaki et al. (2008) conducted a cross-sectional study consisting of 1,122 men and women ages 18 to 65 and found that self-esteem levels were significantly associated with physical violence victimization and perpetration. The same study also reported that past experience of childhood abuse, younger age, and gender were strong predictors of domestic violence victimization/perpetration. Specifically, those who experienced violent childhood victimization were found to have 1.5 to 3.5 times the risk of being a victim/perpetrator of intimate partner violence than those without (Papadaki et al., 2008). In the first domestic violence risk factor meta- analysis on longitudinal risk and protective factors for different types of domestic violence against women found that the primary risk factors for domestic violence victimization were experiencing an unplanned pregnancy during the lifetime and having parents with a less than high school education and the primary protective factors were being older and married (Yakubovich et al., 2018). Further, there is regular support for a low-to-moderate association between past childhood maltreatment and becoming a victim of domestic violence as an adult (Capaldi et al., 2012; Hayward et al., 2018; Levendoksy et al., 2013; Widom, Czaja, & Dutton, 2014).

Difficulty in Reporting

Though domestic violence is a prolific crime casting severe short- and long-term consequences, it is a crime that is often under reported (Erez et al., 2000). It is estimated that only 82.4% of female victims and 60.9% of male victims disclose their victimization to someone, and only 21% of female victims and 5.6% of male victims disclose their victimization to medical professionals (Breiding, 2014). Incidences of abuse may not be reported for several reasons. A victim may elect not to report sustained abuse due to feelings of guilt, shame, inadequacy, fear of financial repercussions, desire to keep the family unit intact, concern for their dependents, emotional attachment to the abuser, and lack of perceived options should they leave their abuser (Erez, 2002; Erez & Belknap, 1998).

Another explanation for the underreporting of domestic and intimate abuse is the fact that, even despite disclosure, victims of domestic violence do not always receive the resources they need. In data of domestic violence through the year 2010, only 33% of male survivors of domestic violence reported that they received the resources they need when requested from a social service agency (Breiding, 2014). Further, less than fifty percent of women who needed housing and advocacy services during their lifetime received them (Breiding, 2014).

Various barriers to help-seeking are also indicative of the difficult nature of reporting domestic abuse (Evans & Feder, 2016). A study consisting of 31 qualitative interviews of women from the UK who were actively seeking help from domestic violence agencies illuminates this point. Of the barriers, one prominent preclusion to help-seeking was the lack of support from general practitioners. Instead of through medical professionals, help was more often facilitated through law enforcement or housing agencies following a crisis after the abuse had been sustained (Evans & Feder, 2016). Further, help-seeking barriers also manifest in the realms of legal settings, such as interactions with law enforcement and judges. In 2015, 20 judges were interviewed and observed in courtroom settings during domestic violence protection order (DVPO) hearings. The research found that judges often do not have enough information available to them, or enough cultural awareness in the arena of domestic violence, to make fully-informed decisions that protect the victims (Pearson et al., 2018). Judges base their decisions when granting DVPOs based on available evidence during the hearing and testimony from both the plaintiff and the defendant, which may be abbreviated given the cumbersome caseloads (Agnew-Brune et al., 2017). Along those lines, judges may only have as little as five minutes to review the filed complaints. As such, the plaintiffs/victims in DVPO hearings are faced with the responsibility to adequately prove their abuse, which may be difficult in the instances of abuse that are hard to substantiate with physical evidence including verbal threats, psychological harm, and healed, undocumented physical abuse (Agnew-Brune et al., 2017; Person et al., 2018).

Furthermore, there is a stigma from legal professionals behind victims of domestic violence. A common frustration from law enforcement and prosecutors is “well, why does she keep going back to him." Prosecutors in cases of domestic violence, similar to other alleged crimes, play a pivotal role in case disposition, including whether or not the defendant will be convicted and serve time in a correctional facility (Hartman & Belknap, 2003). Thus, attitudes of legal professionals can be a pivotal component in a survivor's decision to disclose abuse. Prosecutors often decline to pursue domestic violence cases due to the belief that the victims will not cooperate, thus limiting the prosecutor's ability in a successful outcome (Erez & Belknap, 1998). Unfortunately, this misconception exists even in the midst of documented cases where battered women want their abusers legally prosecuted (Erez & Belknap, 1998). In 1997, 62 court officials including judges, prosecutors, and defense attorneys were interviewed on their attitudes and experiences regarding domestic violence cases and victim-blaming tendencies were endorsed (Hartman & Belknap, 2003). The most important factors to consider according to the interviewees, in order of importance, were offense seriousness, injury severity, past record of batterers, law violation, batterers' attitudes, and, ranked last, was victim wishes (Hartman & Belknap, 2003).

Law enforcement are often seen as the frontline responders in terms of domestic violence cases (Horowitz et al., 2011). Though not instituted until the 1970s, nearly all 50 states have adopted criminal and civil protections for victims of domestic violence (Horowitz et al., 2011). In the process of legal investigation of domestic violence claims, law enforcement have reported a feeling of powerlessness when perpetrators are not punished due to victim lack of cooperation or the inability to appear in court (Horowitz et al., 2011). In addition, law enforcement face the fear that incarcerating the perpetrator will in fact heighten rage when incarcerated instead of being deterred (Hirschel & Hutchinson, 2003). Likewise, there are hesitations on the side of the victim where reporting crime to police is considered. In 2003, a focus group was conducted identifying women's perceptions of barriers to seeking police help for intimate violence (Wolf et al., 2003). The sample consisted of 41 women from Seattle, Washington who obtained advocacy services from local community agencies. The three themes that emerged as primary barriers in reporting to police were situational and personal factors (i.e., beliefs that abuse must be physical with proof, rape and injury to private parts of the body, and cultural attitudes), fear and negative associations with law enforcement, and fear of possible repercussions (Wolf et al., 2003). There is concern in the victim community that law enforcement will not listen and trivialize the victims' feelings (Wolf et al., 2003). And, of course, victims can be physically prevented from calling the police for help (Wolf et al., 2003). Aside from the concerns law enforcement have for the community, there are other factors that impact survivors' perceptions of police ability to help.

One factor of this is the fact that law enforcement officers are given minimal training on how to address situations of domestic violence as opposed to the extensive training victim advocates receive (Sudderth, 2006). Even such, the majority of responding law enforcement officers in Gover et al.'s (2011) research indicated that increased training on domestic violence was not viewed as beneficial. In addition, officers express a high level of frustration regarding the length of time it takes to respond to routine domestic violence calls and repeat calls (Gover et al., 2011). This could impact law enforcements attitudes and application of discretion when responding to domestic violence incidents. As such, it is no surprise that victims of domestic violence often report feelings disappointment after law enforcement intervention (Horowitz et al., 2011).

Furthermore, there are several states that have adopted mandatory intimate violence documentation from responding officers. However, given the level of discretion, it is difficult to ascertain compliance (Cerulli et al., 2015). In New York City, Cerulli et al. (2015) examined

Domestic Violence Incident Reports (DVIRs) and assessed correlations within individual and legal factors. The researchers found that law enforcement filed DVIRs in 54% of the cases and were significantly more likely to complete the requisite paperwork if the defendant had prior court contact or a visible injury was sustained.

A pivotal issue in the realm of domestic violence victim and law enforcement interactions is cultural competency. This is relevant for victims who are ethnic minorities and those who are disabled, as well. One particular study conducted a pre- and post- training workshop surveys assessing the efficacy of officer cultural competency in working with Deaf and Hard of Hearing survivors of domestic violence (Engelman & Deardorff, 2015). After a two-hour training, law enforcement officers rated themselves as more satisfied in the training they have received as a whole and more skilled in responding to Deaf and Hard of Hearing individuals in an intimate partner violence emergency (Engelman & Deardorff, 2015). Training and cultural competency are poignant for law enforcement officers as domestic violence is a public health concern that has serious consequences for the survivors (Smith et al., 2018).

Consequences of Abuse

One of the reasons why domestic violence is a national public health and criminal justice concerns is because of the consequences of the crime itself. Both men and women with a history of violence inflicted by an intimate partner are more likely to report frequent headaches, chronic pain, difficulty sleeping, and poor physical health compared to individuals without a lifetime history of domestic abuse (Breiding, 2014). Women who experience domestic violence experience adverse mental and physical health outcomes and report higher incidences of asthma, irritable bowel syndrome, diabetes (Breiding, 2014; Bonomi et al., 2006; Cody et al., 2017; Grandner et al., 2018; Helfrich et al., 2008). In particular, women who experience domestic abuse have significantly higher rates of mental health and functional impairments (Helfrich et al., 2008). For example, domestic violence victimization has a high correlation with sleep disorders, such as Insomnia (Grandner et al., 2018). Although the literature consistently reports on rates of physical injury and consequences, the literature available on mental health outcomes for these women is significantly more limited and often restricted to non-generalizable inpatient psychiatric samples (Helfrich et al., 2008). While the psychological consequences of domestic violence can be vast, the most commonly reported outcomes are depression and posttraumatic stress disorder (PTSD) (Ulloa & Hammett, 2016).

One of the landmark researchers in the realm of domestic violence, Dr. Lenore Walker, developed the term “battered woman syndrome” in the 1970s (Walker, 2000). Battered Women Syndrome is now considered a cluster of symptoms closely related to PTSD consisting of anxiety/depressive symptoms, however it is not identified as a psychiatric illness (Paradis, 2017). The syndrome develops as a result of severe and ongoing abuse by a spouse or partner and manifests very similar to PTSD (Paradis, 2017). There are six (6) specific criteria that have been empirically tested and can identify the syndrome: intrusive recollections of the trauma, hyperarousal and high levels of anxiety, avoidance behavior and emotional numbing, disrupted interpersonal relationships from batterer’s power and control measures, body image distortion and/or somatic or physical complaints, and sexual intimacy issues (Walker, 2009).

Compared to women who have not experienced DV, surviving women have higher rates of severe and minor depressive symptoms, a range of physical symptoms, lower mental and social functioning scores, and generally report overall lower health (Bonomi et al., 2006). In a systematic analysis of literature on mental and physical health outcomes of DV against women, Dillon et al. (2012) found that women who have been abused by violent partners are more likely to experience various psychological/physical symptoms and illnesses, in particular depression, PTSD, anxiety, suicidal ideation, self-harm, insomnia, pain, respiratory conditions, musculoskeletal conditions, cardiovascular disorders, diabetes, and gastrointestinal symptoms (Dillon et al., 2012). In particular, 41 of 42 studies examining the impact of depression-related outcomes showed that a history of DV was significantly related to increases in depressive symptoms. Fourteen of the 14 confirmed that DV was a significant correlate to PTSD symptoms (Dillon et al., 2012). It is generally supported that female survivors are more than three times as likely to exhibit depressive symptoms and nine times more likely to develop posttraumatic stress disorder symptoms than females who have never sustained DV abuse (Bonomi et al., 2006).

Further, it is known that domestic violence is underreported to authorities and victims often rely on informal supporters (Smith et al., 2018). These informal supporters of domestic violence also share the burden of adverse health outcomes. In 2012-2013, 23 individuals who self-identified as being an informal supporter of a survivor of domestic violence participated in semi-structured qualitative interviews. Five key themes emerged from the study: informal supporters suffered from mental health impacts (e.g., anxiety, low mood, confusion, and anger), physical health impacts, relationship deterioration, and being at a direct risk for physical harm at the hand of the perpetrator (Gregory et al., 2016). Thus, the impact on informal supporters of domestic violence is recognizable, and yet, the resources available for this subset of the population is scarce (Gregory et al., 2016).

Even though the research on Domestic Violence has grown substantially in the last thirty years, there are still striking voids in the literature. One of which is the experiences of minority women who endure domestic violence (Tjaden & Theonnes, 2000). One sub population particularly vulnerable and under-researched within domestic violence literature is women domestic violence victims with disabilities. The little extant research available shows that women with disabilities often report increased negative mental health outcomes after being victimized in a domestic dispute (Coston, 2017; Curry et al., 2011).

Domestic Violence & People with Disabilities

“*Knowledge is power and education is key to combat violence against women who have disabilities*” (Brodwin & Siu, 2007, p. 550).

Women with disabilities face an increased likelihood of enduring abuse than men with disabilities and women without (Ballan & Freyer, 2012; Brownridge et al., 2008; Casteel et al., 2008; Curry et al., 2011; Healey et al., 2013; Krnjacki et al., 2015). In fact, it is estimated that the annual increase in the rate of domestic violence is 3.7 times higher for individuals with disabilities than that of the general population (Lin et al., 2010) and that up to 85% of individuals with disabilities have victimized in emotionally abusive relationships at some point in their lives (Hassouneh-Philips & Curry, 2002). As such, it is no surprise that when asked, women with disabilities endorsed violence as their most important social and health priority (Curry et al., 2001). Despite this consensus, the availability of research on the topic of disabilities and domestic violence remains understudied and a poignant social problem (Brownridge, 2006; Rosen, 2006).

Support services tend to overlook or respond to the needs of these individuals inappropriately (Hague et al., 2011). An issue the community faces is the lack of research available on the population in general, which only becomes more scant when general violence is narrowed down to domestic violence (Ballan & Freyer, 2012; Brownridge et al., 2006; Nixon, 2009; Rosen, 2006). In addition, due to the varying methodologies of data collection in the existing studies, the prevalence and risk estimates are variant throughout the studies (Rosen, 2006). While most studies provide estimates that women with disabilities face risk of domestic abuse at a rate of 50% higher than the rest of the population (Rose, 2006), estimates ranging from 40% to 65% times that of the general population appear (Ballan & Freyer, 2012; Brownridge, 2006; Feurestein, 1997; Lin et al., 2010).

The evaluation and societal perceptions of individuals with disabilities present two available models of disability discourse: the medical and the social models (Manago et al., 2017). The medical model highlights diagnostic labels and criteria and views disabilities as an individual deficit. The social model, on the other hand, emphasizes the impact on unaccommodating social structures (Manago et al., 2017). Those who endorse the medical perspective view disability as a deficit and an issue to be fixed while the social model of disability resists the “personal tragedy” view on people with disabilities (Manago et al., 2017). In the social perspective, the impairments and disabilities have neutral connotations and are only made disabling based on the societal inability to accommodate an individual’s needs (Landsman, 2009). Understanding the complex social-ecological surroundings around the experiences of individuals with disabilities is critical to fully comprehending the nature and impact of domestic abuse on disabled women (Hauge et al., 2011). Because of the disabling social attitudes as well as the lack of general access or awareness, common resources utilized by non-disabled women victims of domestic abuse are often markedly less available to those with disabilities (Hague et al., 2011).

The experiences of disabled women who endure domestic abuse is multifaceted and impacted by their disabilities (Brodwin & Siu, 2007; Healey et al., 2013). Women who have disabilities are likely to have needs more complex than victims without, thus making it more difficult for standard domestic violence agencies to provide assistance (Healey et al., 2013;

Milberger, 2003). As a result, these women may be forced to live in a situation of abuse longer than women without disability (Browdin & Siu, 2007). A common example of this is providing structural resources for Deaf individuals. In shelters, Deaf individuals require communication facilitations through American Sign Language-English interpreters, but they also require structural accommodations many shelters are not prepared to provide. Examples of this include vibrating alarm clocks, lighted emergency warning systems, and video phones for communication purposes.

Further, research provides speculation as to why individuals with disabilities face an increased risk of intimate partner victimization. In 2006, a study conducted by Brownridge found that, although women with disabilities had varying levels of education and length of time they were in the abusive relationships, these variables did not significantly contribute to the elevated risk of violence against women with disabilities, though it is known that domestic violence is a serious barrier to education due to the increased mental/physical health hazards the victim endures (Brodwin & Siu, 2007). In that same study, age was the only variable that impacted the odds of domestic violence against women with disabilities, as there was a negative relationship between age and violence which held true for domestic violence statistics (Brownridge, 2006). In addition, social perceptions surrounding people with disabilities may also enable or contribute to the abuse. For example, the extant stereotype that a disabled woman is less desirable than a non-disabled counterpart contributes to the myth that anyone who is willing to be a significant other to those with a disability must be a “saint,” thus incapable of abuse (Weisseman, 2000). As such, the perpetrators of domestic violence against women with disabilities face the chance of being under-investigated, unseen, and unrecognized. Likewise, the fact that disabled women are encouraged to be compliant and discouraged from being assertive to ease the role of caregivers contributes to the reduced likelihood of these women speaking out against abusive partners (Ballan & Freyer, 2012).

Studies have also examined characteristics of the individuals who perpetrate violence against women with disabilities. Researchers suggest that male partners of women with disabilities are not more likely to abuse alcohol, nor did alcohol effect the level of risk for these women (Brownridge, 2006). However, male partners of women with disabilities are 2.5 times more likely to possess patriarchal and dominating mannerisms and 1.5 times more likely to engage in sexually proprietary behaviors than male partners of women without disabilities (Brownridge, 2006).

Larger-scale data is also used to contribute to the existing literature on domestic violence for individuals with disabilities. Out of 1,152 eligible women ages 18-65 in family practice clinics, 54% experienced some form of domestic violence and those who did were more than twice as likely to report a disability (Cooker et al., 2005). Further, utilizing data from the 2012 Australian Personal Safety Survey (n=17,050), all forms of violence experienced by individuals in the past twelve months were higher among individuals with disabilities (Krnjacki et al., 2015). Further, the National Violence Against Women survey was utilized by Casteel et al. (2008) to examine the association between disability and physical/sexual assault. Though not specific to domestic violence, the study (n=8000) found that women with “severe disability impairments” were four times as likely to report sexual assault than women who reported no disability (p. 87). It is important to note, however, that large-scale studies do not focus on individuals with disabilities, and certainly do not focus on individuals with hearing loss. For example, in the NVAW Survey, the only types of disability inquired were chronic diseases such as asthma, diabetes, cancer, etc., serious injury (i.e., spinal cord injury, head injury), and chronic mental health diseases (Tjaden & Theonnes, 2000).

Similar to the unique predispositions individuals with disabilities possess for domestic violence, the abuses they may endure are also unique (Nixon, 2009). The abuse of disabled women is not limited to the acts that are traditionally considered domestic violence for the normative population (Nixon, 2009; Smith & Hilton, 2008). For example, abuses can be impairment-specific, such as withholding accessibility devices (e.g. motility or communicative aids) (Curry et al., 2001). Communicative aids, in particular, can be a pivotal barrier in help-seeking and reporting of abuse for individuals with hearing loss. Curry et al. (2011) interviewed 305 women with diverse disabilities utilizing an audio computer-assisted self-interview (A-CASI). Ninety-percent of the participants reported experiencing some form of abuse in their lifetime, 68% of them within the last year. The participants were given a provider screening and questionnaires regarding facilitators and barriers they experience when attempting to disclose abuse. Sadly, nearly one in five women endorsed there is no point in reporting abuse because nothing could be done to change their situation (Curry et al., 2011).

That being the case, women with disabilities face an increased probability of enduring domestic violence, and are particularly at risk of enduring severe violence (Brownridge, 2006). Despite this, there is a substantial lack of research available on this population, specific facets of disability classifications, and minority women with disabilities (Lightfoot & Williams, 2009). Another alarming trait of disability and domestic violence research is that, for the most part, extant studies on effectiveness of interventions to prevent or respond to violence against individuals with disabilities possess serious methodological weaknesses (Mikton et al., 2014). In 2014, Mikton et al. performed an analysis on extant literature involving the aforementioned topic and evaluated the studies utilizing the Quality Assessment Tool for Quantitative Studies. Of the 736 studies on interpersonal violence prevention against persons with disabilities (not limited to domestic violence), all ranked poorly on the Quality Assessment Tool and none were indicated as effective studies once risk for bias was taken into account (Mikton et al., 2014). The authors in the study suggest that current empirical evidence provides little guidance for policy makers and individuals with disabilities for selecting interventions (Milkton et al., 2014).

Other than prevalence and risk statistics, there is a growing body of literature on the ways to adequately accommodate and assist women with disabilities in domestic violence situations (Chang et al., 2003). In 2003, Chang and colleagues conducted a statewide cross-sectional study in North Carolina exploring the accommodations provided by domestic violence service agencies to women victims with disabilities. Of the 72 agencies that responded, 67 answered questions about serving women with disabilities and reported they are “somewhat able” to accommodate the needs of these women. Of those responding agencies, 73% reported to having served a woman with intellectual disabilities, 69% physical disabilities, 38% hearing disabilities, and 25% vision disabilities in the last twelve months of operation (Chang et al., 2003). In 2013, Healey et al. provided a pivotal piece of literature when they developed a matrix tool to identify minimum standards to support the inclusion of women with disabilities in existing domestic violence service standards. The five minimum standards identified by the study are: (1) allowing women with disabilities to have a voice in advocacy, (2) ensuring the definition of DV is inclusive to the disabled community, (3) understanding that possessing a disability is a risk factor for DV, (4) collecting data on individuals with disabilities, and (5) ensuring that women with disabilities are aware of and capable of receiving the services the agencies have to offer (Healey et al., 2013).

In sum, empirical attention is needed regarding women with disabilities who endure domestic violence because of the increased prevalence of abuse within this population. There is a consensus that women with disabilities face a 50% increased chance at becoming a victim of domestic violence (Brownridge, 2006; Rosen, 2006). Within this population, several studies indicate that women with hearing loss as a disability are at the top when ranked in terms of risk (Lin et al., 2010; Milberger et al., 2003). In 2003, Milberger et al. conducted a study of 177 women with disabilities. Of these women, 56% reported some form of abuse and those with hearing impairments faced significantly higher levels of abuse than those with alternate disabilities (Milberger et al., 2003). In a more recent study (Lin et al., 2010), data from the "Domestic Violence Report System" developed by the Council of Domestic Violence and Sexual Assaults Prevention in Taiwan revealed that individuals with disabilities that precluded the ability to speak were among the subpopulations of individuals with disability to experience the highest rate of domestic violence. In fact, individuals with hearing disability showed a significant increase in the annual reported rate of domestic violence from 2006-2009 (Lin et al., 2010). This study is one of the few that emphasizes the relevance of domestic violence within Deaf populations.

Deaf Community

As mentioned earlier in chapter one, there is about one million Deaf and eight million Hard of Hearing individuals in the US (Mitchell, 2006). Of those individuals, some identify as members of the Deaf community. The Deaf community differs from the hearing population in America. Rather than a sub-population of mainstream culture that is identified by a disability, the Deaf community is a linguistic and cultural minority population with its own set of values, traditions, art, and social nuances (Edwards, 2012; Miller, 2002). The individuals who identify with the Deaf community are grammatically identified with a capitalized “D” in the word “Deaf,” whereas those who do not align themselves with the community are identified with a lower case “d”. In the United States, the most common form of communication for the Deaf is American Sign Language, a non-universal language completely separate from the linguistics of spoken English (Duvall, 2004). Signed languages were not recognized as official languages until 1960 when William Stokoe utilized the empirical tools of descriptive linguistics to determine signed communication had the scientific capacity to be its own legitimate language (Stokoe, 1960). The emergence of the American Deaf Community occurred in the early-to-mid nineteenth century along with the establishment of Deaf residential schools (Burch, 2000). Due to historical oppression of sign language, the culture of Deaf individuals arose into a tight-knit community where members allied to preserve the language, socialize in their natural language, and, in turn, promote cultural identity (Burch, 2000). Today, there is a united Deaf community within America that utilizes American Sign Language as their primary language (Humphries & Padden, 2005). Although ASL is the most common sign language utilized within the United States, there are other sign language modalities that are preferred by some Deaf citizens. Examples of these are Signed Exact English, Manually Coded English, Pidgin Sign Language, and Cued Speech. Thus, researchers and practitioners are not able to assume the linguistic preferences or capabilities for Deaf individuals, as they remain variant person-to-person (Vernon & Miller, 2001). Some of the key factors signaling an alliance with Deaf culture are: a Deaf cultural identity, fluency of ASL within communication, primary language of ASL, early onset/prelingual deafness, and hearing loss to a degree that precludes the development of phonetically-based language skills (Pendergrass et al., 2019). In addition, given the communication barriers within Deaf individuals and family members, individuals within the Deaf community typically identify more with Deaf culture than their familial culture (Pendergrass et al., 2019). As such, beliefs, values, and attitudes are most often inherited from other members of the Deaf community and not the family of origin. As such, Deaf individuals learn more from the Deaf community, as engaging with members within the community is often the only instance they can engage in uninhibited, fluent communication (Pendergrass et al., 2019). As the Deaf community is comprised of values, traditions, and a unique minority culture completely separate from the traditions of mainstream society, cultural competency becomes a requisite trait for any health provider providing services to this population.

Deafness and Cultural Competency

Cultural competence for mental health professionals refers to the behaviors, skills, knowledge, attitudes, and structures that are required to comprehend a population and work effectively across groups from diverse backgrounds (Whealin & Ruzek, 2008). In the realm of mental health, cultural competency is pivotal in establishing effective, meaningful treatment for patients and clients alike. Recent research across the last two decades has exemplified the fact that minority groups receive far fewer appropriate services and resources than the mainstream population (U.S. Department of Health & Human Services, 2001). As cultural competency has been studied and recognized as a poignant component of quality mental health treatment, large-scale organizations have adopted standards of conduct requiring cultural competency of practitioners. For example, in 2002, the American Psychological Association published a manual titled *Guidelines on Multicultural Education, Training, Research, Practice, and Organizational Change for Psychologists*" (APA, 2002). Within the manual, there are five key guidelines a mental health practitioner is encouraged to follow to practice in a manner reflecting cultural competency: (1) psychologists are encouraged to practice autognosis, an understanding of one's own biases and psychodynamics influenced by their own culture, (2) psychologists are encouraged to recognize the importance of an individual’s culture and practice with appropriate sensitivity, responsiveness, and knowledge about ethnically and racially different individuals, (3) psychologists are encouraged to instill multiculturalism and diversity when acting as educators, (4) psychologists are encouraged to act with ethics and cultural sensitivity when researching individuals from ethnic, linguistic, and racial minority backgrounds, (5) psychologists are encouraged to learn and apply culturally-appropriate skills in clinical settings, and (6) psychologists are encouraged to promote organizational changes to support culturally-informed policy development and practice. Thus, it is recognized and understood that cultural competency is pivotal in the realm of mental health to ensure ethical and effective treatment. If not observed, “clinical practices that do not acknowledge the important role of culture may prevent diverse clients from receiving the care they deserve” (Whealin & Ruzek, 2008, p. 320). This is particularly relevant to practitioners of the Deaf community.

Within the Deaf community, several misconceptions exist, including the fact that Deaf people are English-literate and can read lips. When functioning under such a misconception, efforts towards cultural competency are not adequately addressed. However, 90% of Deaf children are born to hearing parents, thus, critical stages in language and communication milestones are often missed which negatively impacts their ability to receive healthcare information and, unfortunately, healthcare in general (Richardson, 2014). As such, it is the responsibility of healthcare providers to ensure they are adequately addressing cultural concerns and that their practices are appropriately accommodating Deaf patients in order to mitigate the communication barriers and provide equitable, ethical care with positive health outcomes (Richardson, 2014).

Even though most culture is nurtured by way of family members, Deaf individuals experience enculturation in a different manner (Miller, 2010). The first step in the enculturation process, unfortunately, is to experience language deprivation as a result of immediate family members not knowing American Sign Language. As the individual ages and is introduced to other Deaf people, the enculturation process continues and the person identifies themselves as ethnically Deaf (Miller, 2010). Through commonalities such as shared experiences, customs, and physical abilities, Deaf individuals adopt a sense of peoplehood and identify as a minority culture when facing discrimination for the inability to assimilate into mainstream hearing culture (Miller, 2010). This presents a conflict, as Deaf individuals that embrace Deaf culture feel a sense of pride, whereas healthcare professionals are inclined to view deafness as a pathophysiological disease that needs to be cured rather than a cultural heritage deserving of respect (Steinberg, 2006).

Richardson (2014) comprehensively outlines the key components to Deaf culture and how they intersect with receiving culturally-competent treatment in a healthcare setting. She recommends the following topics be addressed to improve Deaf patient/provider communications: physical environment (i.e., good lighting, technology in exam rooms, space for an interpreter), provider behavior (speaking and writing clearly and in plain English, congruent facial expressions and message, speaking directly to the patient, using appropriate visual screening and teaching methods), use of technology (i.e., having interpreter technology working and available, using technology only if professional medical interpreters are not available), use of interpreters (i.e., using only qualified interpreters, speaking directly to the patient and not the interpreter, timely payment of invoices of interpreters), patient teaching (i.e., asking patients to identified preferred learning method, employing visual teaching methods, ensuring written materials are appropriate level of literacy), patient assessment tools (i.e., partnering with deaf individuals/advocates to modify standard tools to become culturally appropriate), and provider education (i.e., health literacy, understanding English is the second language, understanding healthcare laws and reasonable access/accommodations).

Though cultural competency is key especially within Deaf populations, the research on this topic is markedly scant. In 2010, Hoang et al. conducted a study assessing the cultural competency of physicians and medical students with regard to the Deaf community. The researchers found that professionals trained in Deaf cultural competency were significantly more able to care for Deaf community members and reduce health disparities experienced by the community (Hoang et al., 2010). As illustrated in this research, cultural competence is pivotal in rendering services to the Deaf community.

Deafness and Trauma

On average, Deaf individuals report a total number of 6.18 unique traumatic experiences endured in their life (Schild & Dalenberg, 2012). Deaf individuals experience trauma and require tailored services to adequately serve their clinical needs (Anderson et al., 2016; Schenekel et al., 2014).This is because Deaf individuals are a part of a cultural and linguistic minority of individuals who report trauma at nearly double the rate of hearing society whether it be from domestic violence, sexual abuse, or childhood maltreatment (Anderson & Leigh, 2011; Pollard et al., 2014; Schild & Dalenberg, 2015). For example, Deaf individuals may experience developmental traumas at a higher rate than the hearing population. That is because there are developmental traumas that are distinct to being Deaf in a hearing society, such as being corporally punished for using manual signs in an oral program (Anderson et al., 2016). Other Deaf-specific forms of trauma reported are lack of access to interpreters for communication, no communication access at hospitals, no communication with parents, witnessing parental grief when they were diagnosed as Deaf, and being sent to residential schools for the Deaf at a young age (Ballan et al., 2017). In addition, as most Deaf children are born to hearing parents, an added Deaf-specific trauma often endured is attachment disruption due to communication barriers early on in life between Deaf children and hearing caregivers (Ballan et al., 2017).

The way trauma manifests in the Deaf community is largely understudied, as most attention is devoted to specific forms of abuse such as childhood sexual abuse or domestic violence (Ballan et al., 2017). However, Schild & Dalenberg (2015) conducted a study on trauma manifestations in male and female Deaf individuals. Their study provided an overview on traumatic experiences for this population. According to their research, the vast majority of Deaf children enter into adulthood having already endured a traumatic experience as either a child or an adolescent (Schild & Dalenberg, 2015). The average age of first reported abuse was slightly over seven years of age. In the sample, over 48% of children experienced physical abuse with rates of sexual abuse being 18.8% and 20% for boys and girls, respectively. As adults, 40.6% of men and 53.3% of females experienced some form of sexual trauma. The prevalence of first sexual trauma occurring during adolescence was three times higher for Deaf women compared to Deaf men. Further, those who were exposed to sexual trauma were three times more likely to experience physical trauma as adults. Importantly, childhood/adolescent sexual trauma status predicted a 57% increase in the risk\of adult physical trauma (Schild & Dalenberg, 2015). In another study, 76% of Deaf and hard of hearing participants reported experiencing childhood maltreatment at least once in their lifetimes. Compared to hearing individuals, Deaf and hard of hearing report significantly higher rates of childhood maltreatment, lifetime trauma, and PTSD symptoms (Schenkel et al., 2014).

Furthermore, additional vulnerability factors identified for the Deaf population included number of traumatic events, ethnicity, sexual orientation, comorbid disabilities, prior substance abuse, and low social support (Schild & Dalenberg, 2012). For those individuals who had higher levels of trauma exposure, depression, anger, sexual concerns, irritability, and substance abuse problems were more likely to ensue (Schild & Dalenberg, 2012). Protective factors for Deaf individuals who have experienced trauma have also been identified (Johnson et al., 2018). The protective factors include: individual assets, identity development, access to information, access to communication, and support networks (Johnson et al., 2018).

Clinical implications. It is difficult to draw current clinical implications for Deaf survivors of domestic violence given the dearth of available data especially with regard to extant psychometric tools (see Appendix A for table). However, it is hypothesized that PTSD in the Deaf community manifests via different symptom constellations (Schild & Dalenberg, 2012). The symptoms contributing to the prediction of PTSD presence in a Deaf clinical sample were hyperaousal and avoidance/numbing (Schild & Dalenberg, 2012). The Clinician Administered PTSD Scale (CAPS) is a more sensitive measure for PTSD in Deaf populations than the (Trauma Symptoms Inventory) TSI (Schild & Dalenberg, 2012). In one study, 19.5% of the population met the criteria for PTSD utilizing the CAPS-5 compared to only 2.5 percent if utilizing TSI cutoff scores (Schild & Dalenberg, 2012). In addition, Konig (2013) published a case study on a prelingually Deaf individual undergoing cognitive therapy for PTSD symptoms and found that the patient’s IES-R scores were not variant from the standard norms.

Deafness and Trauma Treatment

In a clinical setting, the likelihood that a Deaf client is a survivor of trauma is high (Schild & Dalenberg, 2015). Though Deaf individuals are at an increased risk of experiencing trauma, they face significant barriers when attempting to seek help (Anderson et al., 2016; Anderson et al., 2017; Ballan et al., 2017; Skot et al., 2017). Deaf survivors often begin seeking help for their domestic abuse when an escalation in severity of abuse is endured (Ballan et al., 2017). The top issues faced by Deaf individuals when seeking help after traumatic events are: lack of cultural awareness of professionals, problems accessing interpreter services, professionals relying on hearing relatives to disseminate information, and professionals being unwilling to modify communication modalities (Skot et al., 2017). Barriers within psychosocial services include lack of Deaf or hard of hearing support groups and lack of available respondents in cases of Deaf or hard of hearing crises (Skot et al., 2017). In order to provide informed treatment decisions for the Massachusetts Behavioral Health Care System, Anderson et al. (2016) conducted a study consisting of 16 semi-structured interviews with Deaf individuals who had experienced trauma and help-seeking behaviors. In order to provide Deaf-friendly care, the pivotal components are incorporating trauma-informed care via direct signed communication with an understanding and appreciation of Deaf history and culture with the appropriate level of confidentiality, visibility in the community, and provision of peer-support opportunities (Anderson et al., 2016). Unfortunately, this standard of care is often lacking and unavailable to Deaf survivors of domestic violence (Ballan et al., 2017).

Deafness and Domestic Violence Research

The Deaf community is vulnerable to all kinds of abuse and the prevalence of abuse experienced is generally higher than that of the hearing population (Wakeland et al., 2017). As a cultural and linguistic minority community, Deaf victims of domestic violence face significant barriers when attempting to access medical and legal services and resources that are supposed to help with the consequences of victimization (Mastrocinque et al., 2017). It is no surprise that the literature regarding abuse and deafness is notably scant. An added difficulty is that most recent research on domestic violence and the Deaf community is not published (Anderson et al., 2011).

One source of data for the Deaf community is the Rochester Prevention Research Center: National Center for Deaf Health Research’s Deaf Health Survey (DHS). This survey was designed to be a model for collecting ethical and effective data about the Deaf community. Via computer interface, Deaf respondents were able to select the language modality in which to take the survey (ASL, MCE, or English) and could switch modalities, or view all modalities, during any part of the survey. Though a generalized health screener, the DHS had six (6) questions specific to domestic violence that were analyzed by Pollard et al. (2014) and compared to a similar hearing sample. The researchers, using the term intimate partner violence, found that Deaf individuals reported more physical abuse (6%) compared to the hearing comparison group and a marked increase in the amount of physical and forced sexual forms of abuse (Pollard et al., 2014). More than one-in-four Deaf individuals experienced some form of emotional IPV at least once in their lifetime (Pollard et al., 2014).

In 2017, a meta-analysis was conducted in attempt to determine the prevalence of Deaf individuals being victim to neglect, various forms of abuse, and intimate partner violence as defined by the researcher, and identified only 14 studies that met the inclusion criteria for quality research and applicability (Wakeland et al., 2017). Further, in the few research studies available on the topic, there are marked discrepancies in the rate of various forms of reported violence and most of the research on intimate partner violence consists of college aged female samples (Wakeland et al., 2017).

Within the studies that derived their results from samples consisting of college-aged female Deaf students, it is consistently reported that Deaf young adult females reported increased instances of domestic violence compared to hearing students. Interestingly, in a 2014 study of 222 Deaf and Hard of Hearing students in an Upstate New York university found that Hard of Hearing individuals were more likely to experience physical abuse whereas Deaf individuals were significantly more likely to experience psychological abuse (Williams & Porter, 2014).

A qualitative approach has also been utilized in attempt to shed light on the experiences of these women. In 2010, fourteen women who identified as Deaf or Hard of Hearing and victims of intimate partner violence, as defined by the researcher, participated in an in-depth interview (Mastrocinque et al., 2017). This study did not include women who were actively experiencing abuse and did not include abuses outside of intimate partner (e.g., family members, platonic friendships, roommates). This study exemplified several methods of abuse that Deaf women remain more vulnerable to, including communication abuse. For Deaf women, communication abuse occurred nearly as frequently as physical abuse (Mastrocinque et al., 2017). When physically abused, the victims often suffered serious physical and mental health injury. Examples of communication abuse were limiting and confiscating communication (e.g. text) devices, selecting who the victim may communicate with, snatching and damaging hearing aids, and exerting more control in third party conversations to control the narrative of the victim when communicating with individuals who were less fluent in ASL (Mastrocinque et al., 2017). These women reported an expedited timeline in the initial phases of the relationship with the perpetrators, such as moving in, getting engaged, and initiating in sexual activity early on in the relationship. In addition, substance abuse was a reported issue 50% of the time. Furthermore, the interview schedule also inquired about the relationship with the Deaf community. While some may think the close-knit nature of the community, it was most often reported as a barrier when help-seeking. The reasons for this varied from under-education in the Deaf community and IPV, to the batterer threatening to spread rumors about the victim within her community should she go forward and report (Mastrocinque et al., 2017).

The reported rates of IPV and DV in relation to Deaf victims is particularly variant within sub-population of Deaf survivors. One of the pioneering studies on the prevalence of IPV in a sample of young Deaf women found that they were approximately two times as likely to experience victimization in the past year compared to the hearing population (Anderson & Legh, 2011). In a sample of 46 Deaf/Hard of Hearing women receiving mental health outpatient treatment, 71% reported experiencing psychologically abusive behaviors and 56% physically abusive behaviors at least once in their lifetime (Johnston-McCabe et al., 2010). One cause of the variance could be related to the non-universal understanding or labeling of what constitutes "domestic violence" or "intimate partner violence" within the Deaf community (Anderson & Pezzarossi, 2011). In a sample of ninety-seven undergraduate females who identified as Deaf or hard of hearing, over half of the women elected not to label incidences of psychological aggression, physical assault, and sexual coercion experienced within the prior year as abuse (Anderson & Pezzarossi, 2011). In that same population who elected not to label experiences as abuse, 87.5% reported experiencing psychological aggression, 36.9% reported experiencing physical assault, and 56.7% reported sexual coercion at least once in the past year (Anderson & Pezzarossi, 2011).

Aside from trends and prevalence in domestic violence and IPV victimization rates, the relationship between IPV and auditory status has also been investigated (Anderson & Pezzarossi, 2013; Porter & Williams, 2011; Williams & Porter, 2015). Utilizing a sample of 97 Deaf female undergraduate students from Gallaudet University, the prevalence, correlations, and characteristics of IPV in Deaf-Deaf and hearing-Deaf relationships were investigated and found no significant relationship between hearing status of the partner and correlation with psychological aggression, physical assault, or injury (Anderson & Pezzarossi, 2013). Interestingly, the study found that the presence of sexual coercion was significantly higher in Deaf-Deaf or Deaf-Hard of Hearing relationships compared to hearing-Deaf relationships (Anderson & Pezzarossi, 2013). One year later, another study was published examining the correlation of gender and risk factors on the perpetration and victimization of domestic violence (Williams & Porter, 2014). Utilizing a sample of 686 students from Rochester Institute of Technology, the study supported prior findings when reporting that Deaf and hard of hearing students experienced all forms of abuse at a higher rate than hearing students. In addition, the study found that Deaf and hard of hearing partners were significantly more likely to be perpetrators of domestic violence than hearing partners (Williams & Porter, 2014). The findings of the studies on domestic violence and IPV and partner hearing status highlight a need for greater education and health literacy for Deaf individuals, both male and female, in attempt to preclude future violence by teaching of resources and appropriate relationship behaviors (Williams & Porter, 2014).

Domestic Violence: Comparing Deaf and Hearing Survivors

It is difficult to formulate a side-by-side comparison of Deaf versus hearing survivors of domestic violence because the extant literature is scant and the research that is available does not provide parallel data for hearing survivors (Anderson et al., 2011). However, there are some comparisons that can be drawn. Both communities experience the highest rate of domestic violence for females in the 18 – 24 age range (Anderson et al., 2011; Smith et al., 2018). In addition, in a sample of Deaf individuals, 60% of all individuals meeting PTSD criteria were non-white. This is similar to the extant research available which relays that racial and ethnic minorities are more at risk of experiencing trauma in their lifetime (Shild & Dalenberg, 2012). Deaf women have a one-in-two chance of becoming a victim of intimate partner violence whereas hearing women face a one-in-four chance (Anderson & Leigh, 2011; Smith et al., 2018). Further, it is estimated that 29.5% of Deaf women reported experiences of lifetime sexual assault compared to 16.7% of hearing women and 29.1% of Deaf women reported unwanted sex by an intimate partner compared to 10.4% of hearing women (Anderson, 2010). With regard to being in an abusive relationship with an intimate partner, Mason (2010) found that 16.2% of Deaf women reported being in one currently and 26.78% reported being in one previously, which the author notes were "consistent with the prevalence rates of other studies with college students in the general population" (Mason, 2010, p. 74).

In addition, psychometric tools to measure the impact of domestic violence have been measured for validity and reliability within both hearing and Deaf populations[3]. First, the most widely used psychometric tool to study domestic violence in the hearing population is the Conflict Tactics Scale. This measure is consistently reliable and valid for hearing populations, however only certain subscales (victimization of negotiation, psychological aggression, physical assault, and injury) are reliable and valid measures for the Deaf community. Secondly, the "gold standard" for PTSD research in the general population, the Clinician-Administered PTSD Scale has also researched within the Deaf community and was found more reliable than the Trauma Symptoms Inventory (TSI). However, Dobosh (2002) in an unpublished doctoral dissertation found that the TSI had reasonable validity/reliability within a sample of 81 Deaf and hard-of-hearing adults, though the Deaf and Hearing respondents had significant differences on the clinical scales. Deaf respondents had significantly higher symptomology manifestations,

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[3] Unfortunately, most studies do not actually provide psychometric scores or properties in order to compare with the norms of the hearing population.

suggesting that the TSI norms based on the hearing population may not be appropriate for comparison with Deaf respondents (Doosh, 2002). In 2012, Schild & Dalenberg published a similar study utilizing the CAPS and the TSI-2 and found that both measures were reliable and valid, and thus useable, within the Deaf community. Within that same study, Schild & Dalenberg found that utilizing the CAPS, PTSD in the Deaf sample was significantly lower than that of the hearing sample even though 53.3% of Deaf women reported some kind of sexual abuse in their lifetime, a figure substantially higher than the general population (Schild & Dalenberg, 2012). Even so, the use of psychometric tools to study or measure the manifestation of trauma or domestic violence-related stressor disorders within Deaf survivors of traumatic events are markedly absent from the literature. When it comes to studying the impact of domestic violence, the figure becomes significantly smaller. Thus, the utilization of psychometric tools to study Deaf domestic violence survivors is a void that currently needs to be filled in the research.

Psychometric Tools in This Study

This study will utilize two novel psychometric tools to measure the impact of domestic violence on female Deaf survivors of domestic violence: The Impact of Event Scale – Revised (IES-R) and the Posttraumatic Stress Disorder Checklist – 5 (PCL-5). Both of these tools are utilized to measure potential PTSD symptomology.

Posttraumatic stress disorder (PTSD) was first introduced as globally recognized psychiatric nomenclature in 1978 by virtue of the publication of the ICD-9 documenting a patterned symptomatic response after an individual experiences a traumatizing event (Horowitz, 1976; World Health Organization, 1978). At its advent, the hallmark signs of PTSD were developed by Horowitz (1976) and consisted of comorbid and oscillating avoidance and intrusion. Avoidance typically manifests as deliberate efforts to not recall or think of the event including intentional efforts to push recollections of the event and aftermath out of conscious memory. This can be observed through actions such as illicit substance abuse, overworking, and other overt strategies utilized to divert attention or exhaust an individual so they are temporarily relieved from the intrusive distress (Weiss, 2007). Intrusion, on the other hand, is typically observed as phenomenon such as nightmares, flashbacks, and intrusive thoughts about the event, sequelae, and/or aftermath (Weiss, 2007).

IES-R. Based on the Horowitz conception of posttraumatic stress, he and his colleagues published the Impact of Event Scale (IES), a self-report measure of distress intended to qualify the magnitude of symptomatic response from a specified traumatic life event (Horowitz, 1979). However, this was published prior to the formal diagnostic criteria as presented by the American Psychiatric Association in the Diagnostic and Statistical Manual – III. In 1980, the APA published the DSM-III and the diagnostic criteria for PTSD slightly differed from Horowitz's initial bi-symptom model and included three symptom clusters (APA, 1980). In addition to the two original subscales of intrusion and avoidance, the DSM introduced the third symptom cluster of hyperarousal. Thus, the Impact of Event Scale was updated in 1997 by Weiss & Marmar to become more reflective of the tripartite symptom criteria outlined by the DSM-III.

The IES-R is a 22-item self-report measure of subjective distress that takes about ten minutes to complete. The IES-R contains eight intrusion (e.g., 1,2,3,6,9,14,16,20) and eight avoidance (e.g., 5,7,8,11,12,13,17,22) items which are derived from the original IES and six additional items assessing hyperarousal (e.g., 4,10,15,18,19,21) (Weiss & Marmar, 1997). Individuals being assessed via the IES-R are asked to indicate their degree of distress for each of the 22 items according to a Likert Scale ranging from 0 "not at all" to 4 "extremely." The IES-R has been validated as a reliable tool to screen for and measure the clinical change in PTSD symptoms (Mouthaan et al., 2017).

Originally developed to evaluate bereaving individuals, the IES-R has since been utilized as a screener and within research for various populations (Horowitz et al., 1979; Sundin & Horowitz, 2002) including motor vehicle accidents (Beck et al., 2008), war survivors (Morina et al., 2010; Nexhmedin et al., 2013), political prisoners (Hyland et al., 2017), natural disaster survivors (Chen et al., 2011; Paxson et al., 2012), hospital settings (Chan et al., 2016; Christianson & Marren, 2012; Sveen et al., 2010), and childhood trauma (Choi, 2017). Likewise, the instrument has shown great potential for cross-cultural compatibility as it has been translated and normed in various other languages such as Chinese (Wu & Chan, 2003), Korean (Lim et al., 2009), Japanese (Asukai et al., 2002), Lithuanian (Malinauskiene & Bernotaite, 2016), Italian (Craparo et al., 2013), and Swedish (Sveen et al., 2010).

PCL-5. Another self-report tool utilized to gauge PTSD symptomology is the PTSD Checklist (PCL) developed by Weathers et al. (1993). The PCL consisted of 17 items that correspond with the DSM-III criteria for PTSD. Though originally developed to be used as a screener for military personnel, the PCL can be adapted to measure any traumatic event. As such, the language utilized within the assessment can be modified to measure distress for a particular event, for example stating “in the past week” instead of “in the past month.” As the various publications and diagnostic criteria for PTSD have evolved, the authors of the PCL have updated their assessment tool. Upon the development of the PCL, several versions were published including the PCL-Military, PCL-Specific, and the PCL-Civilian. The key difference in the various versions of the PCL is how the index trauma is referred to in the eight respective questions (Blevins et al., 2015). The most current version of the PCL is the PCL-5 which concords to the DSM-5 criterion for PTSD (Weathers et al., 2013). Unlike prior versions of the PCL, the PCL-5 is *not* population specific (Blevins et al., 2015; Bressler et al., 2018). The PCL-5 is a 20-item self-report measure that evaluates the degree of subjective distress an individual is experiencing as a result of his/her most currently distressing event (Weathers et al., 2013). The items can be divided into four subscales that correspond to clusters B-E in the DSM-5 (Intrusion, Avoidance, Negative Alterations in Cognitions and Mood, and Alterations in Arousal and Reactivity). Respondents are asked to endorse how much they have been bothered by PTSD symptoms utilizing a Likert scale ranging from 0 "*not at all*" to 5 "*extremely*". In addition, there are addendums that can be administered with the PCL-5 to gain additional information from respondents such as a Life Experiences Checklist and a questionnaire titled "criterion A"[4]. To date, the PCL remains one of the most commonly utilized self-report PTSD screeners (Blevins et al., 2015; McDonald & Calhoun, 2010; Wilkins et al., 2011).

As the PCL-5 was developed in 2013, several studies have reported on the psychometric properties in various populations including active duty military members (Hodge et al., 2014), veterans (Arbisi et al., 2012; Armour et al., 2015, Eddinger & McDevitt-Murphy, 2017), and civilian community members (Eddinger & MCDevitt-Murphy, 2017; Gelaye et al., 2017). Similar to the IES-R, the PCL-5 is typically utilized in military populations (Arbisi et al., 2012; Bovin et al., 2016; Gore et al., 2013). Thus, most literature available on this instrument involves samples of active or retired military samples. In 2016, Bovin et al. examined the psychometric properties of the PCL-5 in a cohort of military veterans. Comparing the results of the PCL-5 with the gold standard PTSD assessment (the CAPS), researchers found that the PCL-5 is a psychometrically sound instrument and scores of 31 – 33 on the PCL-5 were optimally efficient

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[4] PCL-5 with Life Experiences Checklist and Criterion A can be retrieved vial https://www.ptsd.va.gov/professional/assessment/documents/PCL-5_LEC_criterionA.pdf

for diagnosing PTSD (Bovin et al., 2016). Similarly, Wortmann et al. (2016) analyzed the psychometric properties of the PCL-5 in a sample of treatment-seeking active military service members. Utilizing a battery of other assessments to measure the various factors of PTSD as well as the PCL-5, researchers found that the PCL-5 has high convergent validity for provisional PTSD diagnoses. The PTSD Checklist has been adapted and utilized beyond the scope of military personnel screening and treatment, as well, in populations such as the elderly (Schinka et al., 2007), pregnant women (Gelaye et al., 2017), incarcerated men (Wolff et al., 2015), parents of injured children (Sveen et al., 2016), and natural disaster survivors (Demirchyan et al., 2015; Hirschel & Schulenberg, 2010; Li et al., 2010).

Importantly, several studies in the literature have examined the reliability and validity of the psychometric properties of the PCL and have found the instrument psychometrically sound (Bressler, 2018; Conybeare et al., 2012; Wilkins et al., 2011). In 2010, the PCL-Civilian version was examined for reliability, validity, and factor structure in a nonclinical sample (Conybeare et al., 2010). Researchers found that, even in nonclinical samples, the PTSD Checklist is a reliable and valid measure of PTSD and is superior to alternate scales utilized in the same study (Conybeare et al., 2010). While typically administered via pen and paper during a face-to-face clinical visit, research has shown that the findings of the PCL are invariant regardless of administration mode being in person, via telephone, web-based administration, or via mobile devices (Boal et al., 2017; Price et al., 2015).

Not only have the instruments been validated separately, there is evidence of significant positive correlations when using the PCL-5 and the IES-R in tandem to screen for PTSD in various populations. In 2003, Creamer et al. utilized the PTSD Checklist to analyze the psychometric properties of the IES-R by running various statistical correlations. Their research found that the IES-R showed high internal consistency (alpha = 0.96) and the correlation between the IES-R and the PTSD Checklist was high (0.84). Several years later in 2016, Sveen et al. utilized a short battery of assessments including the IES-R and the PCL-5 to measure the psychometric properties of the PCL-5 in parents of children with burns. The data determined that the PCL-5 subscales were moderately to highly correlated with the corresponding IES-R subscales (Sveen et al., 2016).

Though these instruments are population non-specific and often used in clinical settings, the data regarding the IES-R and PCL-5 within the literature regarding survivors of domestic violence is scant. For the IES-R, the first instance of utilizing domestic violence survivors in a study occurred in 2008 when Lindegren and Renck examined 14 assaulted women (average age 38) living in Sweden utilizing a short battery of assessments to gauge long-term level of psychological stress reactions. In their study, the IES-R was utilized on their population of women. The results were valid and the average score for these women was 67 (Lindegren & Renck, 2008). More recently, in 2017, Cody et al. examined the correspondence between self-report measures and clinical assessments of PTSD in female domestic violence survivors. The researchers compared the IES-R with the Clinician Administered PTSD Scale (CAPS). The researchers found that though the IES-R had psychometrically sound properties, it had a weaker relationship with clinical interviews when used to screen PTSD survivors (Cody et al., 2017). Furthermore, the PCL has also been utilized in empirical work regarding survivors of domestic violence, though less frequently than the IES-R. In 2017, the PCL-Civilian was validated and normed in a population of 299 Saudi women utilizing the Arabic version of the PCL-C, thus confirming the cross-cultural applicability for the PCL and PTSD symptoms (Alhalal et al., 2017). Moreover, the available literature on disabilities, Deafness, Domestic Violence, PTSD, and psychometric properties of the IES-R and the PCL-5 provide implications for the criminal justice system.

Implications in CJ System

Though not the main emphasis in this study, it is important to keep in mind the relevance and implications to the criminal justice system the literature on domestic violence and the Deaf community presents. Domestic violence is such a prevalent crime in America that the federal government recognizes it as a national crime in order to relieve the overburdened state and local criminal justice systems (Weisberg, 2019). Thus, the criminal justice system is constantly encountering both victims and perpetrators of domestic violence. Whether it is the victim, the perpetrator, or both parties who are Deaf, there are considerations and implications for the justice system.

When a Deaf individual is victimized, there are communication barriers that are experienced that someone without hearing loss would not otherwise encounter (Gardner, 1985). This leads to barriers in reporting and difficulty in building rapport with law enforcement and first responders (Anderson & Pezzarossi, 2014; Pollard, 2014). Unfortunately, cultural competency training for law enforcement and first responders revolving around the Deaf and Hard of Hearing populations is rare. However, in 2016, Engleman & Deardorff evaluated a law enforcement personnel program designed to increase cultural efficiency for Deaf and Hard of Hearing populations in the San Francisco Bay area. The research found that there was a significant improvement between pre- and post-tests for the officers, including knowledge and self-efficacy measures. That same study suggests that, while there were positive outcomes based on the training, alternate training methods should be utilized in order to shift attitudes about the capabilities of the Deaf and Hard of Hearing populations (Engelman & Deardorff, 2016).

An individual with hearing loss also experiences increased barriers when testifying at trial (Gardner, 1985). One unfortunate side effect seen in the legal system is a bias against the perceived reliability of a Deaf witness' testimony due to preconceived notions that Deaf individuals, in many cases, are unfamiliar with medical or legal terms (Gardner, 1985).

Another issue victims with hearing loss face in the courtroom and throughout legal proceedings is lack of access to qualified, certified interpreters (Miller, 2001; Olsen & Kermit, 2015). The availability of interpreters can be variant. Although it is the Deaf person's right to be provided with an attorney during court proceedings, this is not always the case. There are unfortunate and frequent circumstances when Deaf individuals are forced to rely on informal interpreters, such as friends and family members, or interpreters who are not adequately trained to handle legal jargon (Miller, 2001; Olsen & Kermit, 2015).

For the perpetrator, similar issues arise given lack of access to communication and interpreters through the legal proceedings, courtroom sessions, and while incarcerated (Miller, 2001). However, perpetrators of domestic violence face additional concerns when interacting with the criminal justice system. One pivotal issue is the ability of the court to adequately assess whether or not a Deaf defendant is fit for trial (Davidson et al., 2015). Given the unique cultural and linguistic characteristics of this population, it is often the case that mental health practitioners are not adequately prepared to make a fitness for trial/competency to stand determination for a Deaf defendant. Moreover, receiving due process is an overarching challenge when a Deaf defendant encounters the legal system (LaVinge & Vernon, 2003). This is partly due to the vast linguistic capability diversity present within the Deaf community (Miller, 2004). Once incarcerated, the challenges only continue, as a Deaf individual is more likely to encounter abuse, trauma, neglect, and communication barriers than an individual without hearing loss (Schneider & Sales, 2010).

Deaf individuals, whether they be perpetrators or victims of a crime, experience enhanced barriers when interacting with the criminal justice system (Vernon & Miller, 2005). Thus, it is important to keep in mind the implications of domestic violence within the Deaf community and the accessibility, systemic accountability, and discriminatory tendencies of the criminal justice system.

In sum, this chapter provided a review of the literature on Domestic Violence, individuals with disabilities, and the Deaf community in order to lay a foundation for the current study. The following chapter (three) will detail the methodological process.

Chapter 3 – Methodology

This mixed-method study was designed to: (1) examine the level of trauma Deaf survivors of domestic violence endorse and (2) give survivors a chance to provide narrative answers and share their experiences. To explore this issue, the study used the following instruments: (1) the Impact of Event Scale – Revised (IES-R), (2) the Posttraumatic Stress Disorder Checklist – 5 (PCL-5), and (3) a demographic/personal experiences questionnaire. This chapter will outline the sample selection and the survey protocol. The analysis portion of the chapter will provide a description of the qualitative content analysis and quantitative analyses used to determine the meaning and relevance of the data.

Hypotheses

This research explored the average IES-R and PCL-5 scores for Deaf survivors of domestic violence. Furhtermore, the internal consistency and inter-measure correlation between the IES-R and the PCL-5 scores were also explored. Additionally, this research will explore the barriers Deaf victims of domestic violence experience when help-seeking and the relationship to the abuser in instances of domestic violence where the victim is Deaf. Specifically, the hypotheses for this research are as follows:

1. The average score for the participants on the IES-R and the PCL-5 will reflect high likelihood of a PTSD diagnosis.
2. The average scores on the IES-R and the PCL-5 will be higher than the norm for hearing survivors of domestic violence.
3. The PCL-5 and the IES-R will have high internal consistency and inter-measure correlation in Deaf survivors of domestic violence.
4. Most batterers will be hearing spouses.
5. Female survivors who are Deaf face significant barriers when help-seeking.

Access to the Population and Data Collection

This study consisted of an instrument developed and distributed utilizing the web-based survey resource, Qualtrics. Institutional Review Board (IRB) approval was sought and granted from Seattle University in January of 2019. The Primary Investigator is a hearing researcher fluent in American Sign Language. The thesis committee was comprised of two professionals with Ph.D. degrees in criminal justice, a psychologist, and a psychiatrist. One of the members of the thesis committee was born Deaf and, in addition, cultural consulting services were obtained to ensure the study remained ethical and culturally sensitive to the target demographic.

The recruitment method for this study involved snowball sampling methods. Given the snowball outreach method, it is unknown to the researcher exactly how many people the survey reached during the investigative process. A list of 24 agencies nationwide that provided services to Deaf domestic violence survivors was assembled by the researcher utilizing the online search engine, Google. Each of those agencies were sent an email briefly explaining the survey and the importance of the research and asked to help distribute the survey via social media and email listserv outlets (See Appendix B). Along with the email, the agencies were provided a jpeg graphic advertising the survey (See Appendix C), a recruitment video in American Sign Language, a transcript of the video in written English (See Appendix D), and a brief description of the survey agencies could copy and paste when distributing the survey (See Appendix E). After the initial contact to the agencies, two (2) separate follow-up emails were sent asking the agencies to re-share the survey information via social media and email listserv platforms. The survey was released initially in January of 2019. The first follow-up email was sent in April 2019. The second follow-up email was sent in May 2019. Furthermore, the recruitment video was also shared via several online Facebook pages that served the Deaf community[5]. Deaf individuals in the primary investigator's community were asked to forward and share the survey, as well. At the conclusion of the survey, participants are asked to forward the survey on to

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[5] Pages include: Deaf Civil Rights Activists, Deaf Thought Police, ASL That!, Deaf Beauty Talk, and Deaf Night Out.

anyone who they believe may be a qualified participant. They are also invited to share the survey via email or social media, should they feel safe doing so. Individuals were eligible to participate in this study if they fulfilled four criteria: self-identified as Deaf or hard of hearing, identified as female, were age 18 or older, and identified as experiencing at least one instance of domestic violence in their lifetimes.

As a small incentive, participants in this study were entered in a raffle to win a $50.00 Amazon gift card. The study included an incentive because during the research design process, an informational interview was conducted with various domestic violence agency representatives who advised that participation is significantly more likely should participants in the population be offered some form of incentive. At the conclusion of the trauma survey, participants are invited to click a link to take them to a separate Qualtrics survey where they may provide their email addresses. This was done in order to ensure that the contact information for the participants was in no way linked to their survey responses. The winner of the survey was randomly selected and provided an electronic Amazon gift card via email message. For participant protection, the email message did not include any details about participating in the survey.

Population Concerns

Individuals conducting research involving the Deaf community are expected to conduct their investigations in an ethical manner maintaining the integrity of the culture and each participant (Singleton et al., 2014). As such, several precautions were taken in the formulation of this study. These efforts are detailed below.

Since the target demographic for this survey consists of women who are particularly vulnerable and drastically underserved by social service agencies, several precautionary measures were taken. First, in order to ensure cultural competence and cultural sensitivity was met, two Deaf individuals, one having a PhD, were involved in the development of the research model. Each of them were provided research materials as the research developed for their review, feedback, and ultimate approval. In addition, involved in the construction of the survey was a psychiatrist with expertise in trauma and victimization. This individual served as a protective measure to minimize re-traumatization and, as such, re-victimization to the participants in this survey. As with any study asking an individual to recall incidences of trauma, there is a potential chance for distress. A list of agencies across the United States available to the participants, including a national hotline, were provided to the participants before beginning the survey. The agencies were provided again at the conclusion for the participants' convenience.

Furthermore, the close-knit nature of the Deaf community and potential repercussions of being identified as a victim by the Deaf community brought the need for increased attention toward participant confidentiality. To protect the identity of the participants, none of the questions asked for contact information, names, or other identifying information. The questions within the survey were generalized enough to make it nearly impossible to deduce an individual's identity based solely on the demographics provided. For those individuals who elected to participate in the drawing for the Amazon gift card, an email address was required. However, this was not collected with survey responses to ensure that no identifying information was linked or stored with survey responses. The gift card winner was randomly selected via random number generator. The email providing the gift card did not contain any information about the survey or reason for the award.

Lastly, language access is an important consideration for the target demographic of this study. In order to ensure the informed consent was accessible to the population, the participants had the opportunity to either read the informed consent in English or watch it signed in American

Sign Language (as recommended in Singleton et al., 2014). In addition, the language utilized in the personal experiences questionnaire was limited to ensure easy readability. The language on the other measures, however, was not drastically altered due to maintaining the integrity of the tests.

Measures

IES-R. The Impact of Event Scale – Revised (IES-R) is a brief twenty-two item self-report measure that was developed to assess subjective distress catalyzed by traumatic events (Horowitz et al., 1979). The instrument is routinely used in PTSD screenings as it assesses the three symptom clusters of PTSD: Intrusion, Avoidance, and Hyperarousal. Respondents are asked a series of 22 questions and asked to endorse on a 5-point Likert-scale ranging from 0 (“not at all”) to 4 (“extremely”). Intrusion is measured through items 1,2,3,6,9,14,16, and 20 and consists of items such as: *Any reminder brought back feelings about it, I had trouble staying asleep, other things kept making me think about it, I avoided letting myself get upset when I thought about it or was reminded of it, and I stayed away from reminders of it*. Avoidance items are measured through items 5,7,8,11,12,13,17, and 22 and consist of language like: *I avoided letting myself get upset when I thought about it or was reminded of it, I felt as if it hadn’t happened or wasn’t real, I stayed away from reminders of it, and I tried not to think about it.* The Hyperarousal items are what distinguishes the IES-R from the IE-S (Weiss & Marmar, 1996) and are measured via items 4,10,15,18,19, and 21. The Hyperarousal subscale consists of items such as: *I felt irritable and angry, I was jumpy and easily startled, I had trouble falling asleep, I had trouble concentrating,* and *I felt watchful and on-guard*.

For this instrument, the most prominent cutoff score for a probable diagnosis of PTSD is 33 (Creamer et al., 2002). However, an individual who scores 24 or higher is likely to earn a partial PTSD diagnosis (Asukai et al., 2002). Further, a score of 37 or more is indicative of trauma symptoms severe enough to suppress immune system functioning even ten years post-triggering event (Kawamura et al., 2001).

PCL-5. To date, the Posttraumatic Stress Disorder Checklist remains one of the most popular PTSD screeners in the clinical arena (Blevins et al., 2015). The PCL-5 is a 20-item self-report measure that evaluates the degree of subjective distress an individual is experiencing as a result of his/her most current most distressing event (Weathers et al., 2013). Respondents are asked *"In the past month, how much were you bothered by"* a series of questions and are asked to endorse their responses on a 5-point Likert-scale ranging from 0 ("not at all") to 4 ("extremely"). Similar to the IES-R, the items can also be divided into subscales in accordance to the most recent DSM that was published during the development of the instrument. For the PCL-5, the items can be divided into four subscales that correspond to clusters B-E in the DSM-5 (Intrusion, Avoidance, Negative Alterations in Cognitions and Mood, and Alterations in Arousal and Reactivity). Intrusion items consist of items 1 – 5 and include questions such as*: repeated, disturbing, and unwanted memories of the stressful experience; repeated, disturbing dreams of the stressful experience,* and*; feeling very upset when something reminded you of the stressful experience*. Avoidance items are measured through questions 6 and 7 and are: *avoiding memories, thoughts, or feelings related to the stressful experience;* and *avoiding external reminders of the stressful experience*. Negative Alterations in Cognitions and Mood are measured via items 8 – 14 and consist of questions such as: *trouble remembering important parts of the stressful experience; loss of interest in activities you used to enjoy; feeling distant or cutoff from other people;* and *having strong negative feelings such as fear, horror, anger, guilt, or shame.* Alterations in arousal and reactivity are assessed through items 15 – 20 on the PCL-5 and consist of questions such as: *irritable behavior, angry outbursts, or acting aggressively; taking too many risks or doing things that could cause you harm; having difficulty concentrating;* and *having trouble falling or staying asleep.* For this instrument, a cutoff score of 33 is indicia of a high likelihood that the individual is suffering from posttraumatic stress disorder (National Center for PTSD, 2016). Further, the PCL-5 was administered with the additional Criterion A component which consists of situational questions laying a foundation for the typical twenty items. The questions in Criterion A consist of items such as "*Briefly identify the worst event (if you feel comfortable doing so)"* and "*How long ago did it happen."*

Coding of the IES-R and PCL-5. In order to examine the psychometric properties of the IES-R and the PCL-5, this study methodology was designed after the Sveen, Bondjers, & Willebrand (2016) pilot study. Items from the IES-R and the PCL-5 were coded independently as a whole utilizing coding based on the Likert-scale questions (0= "not at all" to 4= "extremely"). The total for each of the scales is recorded. For the PTSD Checklist for DSM-5, total score ranges from 0-80 with a cutoff score of 33 being indicia of probable PTSD diagnosis (National Center for PTSD, 2016). For the Impact of Event Scale-Revised, total scores range from 0 to 88 with a recommended cutoff of score of 33 being indicia of probable PTSD diagnosis (Creamer et al., 2002).[6] When looking at the IES-R and PCL-5, the subscales (i.e., Hyperarousal, Avoidance, Intrusion, etc.) scores are important, as well, thus they are summed independently and recorded for correlation purposes.

Personal Experiences Questionnaire. In order to allow the participants to share more information about themselves and their experiences as a Deaf survivor of domestic violence, a personal experiences section was composed. The personal experiences questionnaire consists of

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[6] Scores of 24 and above indicate concern for partial PTSD diagnosis; Scores of 37 and above are high enough to suppress immune system functioning even ten years post impact event (Asukai et al., 2002; Kawamura et al., 2001).

questions regarding the demographics of their abuser, relationship with their abuser, how frequently they experienced abuse, the most recent date in which they were a victim of domestic violence, and several open ended narrative-style questions. The specific items and their coding will be detailed below.

The participants in this study were asked three introductory questions to situate their timeline of abuse that functions as independent variables in analysis. The first questions asked were: *"I was subject to domestic violence:"* (1 = During a one time event) or (2 = During multiple events over a period of time) and *"If you experienced domestic violence over a period of time, please provide an estimated length of duration"* (coded as a chain variables). The subjects are then given a calendar and asked to indicate the most recent date on which they experienced domestic violence (coded as a date).

After the introductory questions, participants were asked two scalar questions in which they were asked to rank their level of overall well-being on a scale of 0 (worst) – 100 (best) during two times: today and when they were at their worst. The participants were also asked to rank on a Likert-scale ranging from "not at all involved" to "very involved" their level of involvement with the Deaf community.

In addition, participants were asked several qualitative questions within the personal experiences questionnaire. The open-ended questions inquired details about barriers the individual experienced while help-seeking, resources they were able to receive, resources they were not able to receive, their interactions with the criminal justice system, how being Deaf impacted their experience as a victim, advice they would give another Deaf woman in a similar situation, and an overarching question inviting the participants to share any remaining details they would like.

Control Variables

Demographic Questions. Participants in the study are asked to answer several demographic questions including: how they self-identify their hearing status (1=d/Deaf, 2=Hard of Hearing, 3=Other), their level of involvement in the Deaf community (0 “not involved at all” to 10 “very involved), the hearing status of their abuser (1=Deaf, 2=Hard of Hearing, 3= Hearing, 4=Other), the gender of their abuser (1=male, 2=female), their relationship with their abuser (1=spouse, 2=non-marital significant other, 3=family member, 4=roommate, 5=other), their age (coded as string variable), their race/ethnicity (1=Caucasian/White, 2=African American, 3=Native American, 4=Asian/Pacific Islander, 5=Hispanic American, 6=Bi-Racial, 7=Other), their current state of residence, current relationship status (1=single, 2=married, 3=separated, 4=divorced, 5=other), quantity of children, and annual income (1=Less than $25,000, 2=$25,000-$34,000, 3=$35,000-$49,999, 4=$50,000-$74,999, 5=$75,000-$100,000, 6= More than $100,000).

Sample

The sample demographics can be found in table 1 (below). A total of 56 women responded to the survey with 24 producing valid and interpretable results. On average, the survey took approximately twenty minutes to complete. Of the respondents, sixteen identified as d/Deaf and 8 identified as Hard-of-Hearing and the average age was 39 years old (range 23 – 60). Furthermore, 70.8% of the respondents identified as Caucasian/White (n=17), 4.25% African American (n=1), and 12.5% Hispanic and Bi-Racial (n=3). The responses came from a total of 16 different states, 4 from the Northeast, 4 from the Midwest, 7 from the South and 9 from the West. Eleven (45.8%) of the participants are single, 7 (29.2%) were married, 4 (16.7%) were divorced, and 1 (4.2%) identified as separated and in a relationship. The majority of the participants had two children (37.5%, n=9, range 1-5). The majority of the participants reported an income of less than $25k annually (n=11, 45.85%), followed by four participants who make between $25,000 and $34,999, four participants who make between $50,000 and $74,999, two participants who make between $35,000 and $49,999, two participants who make between $75,000 and $100,000 and one participant who endorsed an annual income of above $100,000. Furthermore, the participants endorsed a current wellbeing on a scale of 0 (worst) – 100 (best) an average of a 66.5. At their worst, they endorsed a wellbeing of 37.2. On a scale of 1 (not at all involved) to 10 (very involved), the participants averaged a score of 6 in regard to their level of involvement with the Deaf community (SD=2). Each of the women endorsed enduring domestic violence over a period of time ranging from one year to ten years with the most recent incidence of domestic violence ranging from thirty years ago to as recent as two days prior to taking the survey.

The abusers were 91.7% male (n=22) and 8.3% female (n=2) and primarily Hearing (50%) followed by Deaf (45.8%) and then Hard of Hearing (4.2%). The victim relationships with the abusers were unmarried significant others (58.3%, n=14), spouses (25%, n=6) and brothers (16.7%, n=4).

Table 1. Sample Demographics (n=24)

Measure		*f* (%)	M (sd)
Age			39 (10.8)
	18-24	3 (12.5)	
	25 - 34	8 (33.3)	
	35 - 44	7 (29.1)	
	45-54	2 (8.3)	
	55-64	4 (16.6)	
Hearing Status			
	Deaf	16 (66.7)	
	Hard-of-Hearing	8 (33.3)	
Race			
	Caucasian	17 (70.8)	
	African American	1 (4.2)	
	Hispanic	3 (12.5)	
	Bi-Racial	3 (12.5)	
Marital Status			
	Single	11 (45.8)	
	Married	7 (29.2)	
	Divorced	4 (16.7)	
	Separated	1 (4.2)	
Annual Income			
	<$25,000	11 (45.8)	
	$25,000-$34,999	4 (16.7)	
	$35,000-$49,999	2 (8.3)	
	$50,000-$74,999	4 (16.7)	
	$75,000-$100,000	2 (8.3)	
	>$100,000	1 (4.2)	
Region			
	Northeast	4 (16.7)	
	Midwest	4 (16.7)	
	South	7 (16.7)	
	West	9 (37.5)	
Abuser Gender			
	Male	22 (91.7)	
	Female	2 (8.3)	
Abuser Hearing Status			
	Deaf	11 (45.8)	
	Hard-of-Hearing	2 (4.2)	
	Hearing	12 (50)	

Data Analyses

Statistical analysis were performed via IBM SPSS. The internal consistency of the IES-R and the PCL-5 will be evaluated with Cronbach's alpha coefficients. In addition, reliability and validity will be measured with Spearman's rho correlations as Spearman's rho measures the strength of the relationship between two variables. In order to facilitate comparisons between the IES-R and the PCL-5, means and standard deviations will be presented in addition to the total summed scores. In addition, independent samples t-tests were performed examining the relationship between level of wellbeing (0-100) and hearing status, total scores on the PCL-5 and hearing status (d/Deaf, Hard-of-Hearing), and total score on the IES-R and hearing status, total score on the IES-R and relationship to the abuser (spouse, unmarried significant other), and total score on the PCL-5 and relationship to the abuser. Furthermore, descriptive statistics are reported on the scores of the IES-R and the PCL-5 total scores and subscale scores. In addition, Pearson's correlation will be used to examine the relationship between: the endorsed level of involvement with the Deaf community and the endorsement of overall wellbeing.

Data collected from the qualitative questions will be entered into SPSS verbatim as string variables. However, the data was interpreted utilizing Interpretative Phenomenological Analysis, a qualitative approach that aims to provide details of a person's lived experience without limiting the narrative to pre-existing prescribed theoretical conceptions and can be particularly useful for research on the lived experience of pain (see Smith & Osborn, 2015).

In sum, chapter three explained the methodological approach to this research design. Chapter four will detail the results and chapter five will provide a detailed discussion of specific findings and policy/research implications.

Chapter 4 – Results

The results of the aforementioned analyses are reported below. First, the findings of the IES-R and the PCL-5 as independents scales are discussed (see table 2 below). For sake of clarity, the first administration, (i.e. *indicate level of distress in the past seven days)* is referred to as IES-R NOW and the second administration of the IES-R (i.e., *indicate level of distress when your distress was at its worst)* is referred to as IES-R WORST. Subsequent to independent scale summary, internal consistency is reported, followed by validity measures, and then qualitative results. Overarching themes of the qualitative data are reported and direct quotes from the open-ended questions are provided in italics.

Table 2. IES-R and PCL-5 Scores

Measure		Items	Mean (SD)	Cronbach's Alpha
IES-R NOW Total (n=24)		22	47(24)	.97
IES-R NOW Subscales				
	Intrusion	8	16(10)	.95
	Avoidance	8	17(8)	.88
	Hyperarousal	6	13(7)	.92
IES-R WORST Total (n=23)		22	58(21)	.96
IES-R WORST Subscales				
	Intrusion	8	21(9)	.96
	Avoidance	8	21(8)	.86
	Hyperarousal	6	16(7)	.89
PCL-5 Total (n=23)		20	41(23)	.97
PCL-5 Subscales				
	Intrusion	5	7 (29.1)	.93
	Avoidance	2	2 (8.3)	.87
	Cognition & Mood	7	4 (16.6)	.91
	Arousal & Reactivity	6	11(8)	.93

IES-R

The average IES-R score for the respondents during administration one (i.e., symptoms during the past seven days) was 47. When administered the IES-R and asked to endorse their symptoms when their level of distressed was at its worst, the average score for the respondents was 58. Thus, the difference in item endorsement from the level of functioning at their worst and current level of functioning is 11. In addition, the average scores are above the cutoff score for a probable PTSD diagnosis. For the first administration of the IES-R, 71% of the respondents (n=17) scored as having a probable PTSD diagnosis (i.e., scored at or above 33) and 66% of the respondents endorsed a high enough score to suppress immune system functioning (n=16, i.e. scoring at or above 37). During the second administration of the IES-R (worst level of distress), 88% of the respondents (n=21) scored high enough to receive a probable PTSD diagnosis and 83% scored high enough to suppress immune system functioning.

Further, each individual subscale is summed and then compared to measure any change in the participant's level of distress between the two administrations. For the Intrusion subscale, the difference between IES-R WORST (M=21, SD=9) and IES-R NOW (M=16, SD=10) was 5. The difference between the Avoidance subscale for IES-R WORST (M=21, SD=8) and IES-R NOW (M=17, SD=8) is 4. For Hyperarousal, the difference between the IES-R WORST (M=16, SD=7) and IES-R NOW (M=13, SD=7) is 3.

An independent t-test found that the average total IES-R score for d/Deaf respondents was 48 while the Hard-of-Hearing respondents averaged 43 (difference of ~5, not statistically significant). Further, a t-test was performed on the total IES-R score for respondents who were married to their abuser (M=51.3) and who were in a relationship but not married (M=39) and was found to be not statistically significant.

PCL-5

For the PCL-5, the cutoff scores above 31-33 indicate a high likelihood of a PTSD diagnosis (Bovin et al., 2016). The average PCL-5 score for the women in this study was 41(SD=23.1), thus the probability of PTSD diagnoses within this population is high. However, a smaller number of respondents in this population individually scored above a 33 (n=14, ~61%). Thus, the majority of participants would qualify for a provisional PTSD diagnosis based on a cutoff score of 33. When separated by hearing status, the average PCL-5 score for Deaf respondents was 31 while the Hard-of-Hearing respondents scored an average of 40 (not significant). When asked to identify the type of trauma involved with their worst event, eleven participants endorsed that it involved threatened death, twelve endorsed serious injury, eight endorsed sexual violence, and seven endorsed that none of the aforementioned were applicable. When asked when the worst incident occurred, the responses ranged from thirty years ago to as recent as three days prior to taking the survey.

When asked “Briefly identify the worst event (if you feel comfortable doing so)”, three respondents elected not to explain the worst incidence of abuse. For the participants who did respond (n=21), the events included physical injury (i.e., kicking/punching/shoving (n=12), gaslighting/manipulation (n=2), assault with a knife or gun (n=3), and verbal abuse (n=3). Five respondents reported their children being involved in the worst incident. In one case, the abuser had raped the respondent’s daughter. In another instance, one respondent reported the worst event occurred when, “*He chased me and my kids in our car. We almost crashed. He tried to take my baby and me and my other kids tried to get her back.*” The third respondent reported the worst event was, *“While I was driving a car he was passenger side and my son was in back he turned the wheel while I was driving on hwy [SIC] while threatening me w gun. I looked in* *mirror view I saw how frightening [SIC] my child was.”* The fourth response with mention of a child was “*I had left him for good for the last time. We had been split for over a year. He kicked the door into my home and severely beat me, punched, kicked, strangled me and held me hostage. All with our 2 [year old] child locked in his running truck.”* Two respondents included stalking in their report of their worst incidence of abuse, two endorsed having broken bones, and two reported being held hostage in their explanation of their worst incidence of abuse.

In addition, an independent samples t-test was ran on the total score of the PCL-5 for individuals who were Deaf (M=41.2) and Hard-of-Hearing (M=39.5). The difference in the mean was not found to be statistically significant. Further, Pearson’s correlation was computed to assess the relationship between the total PCL-5 score and current level of endorsed wellbeing (r=-.214, p=.326).

Internal Consistency

Cronbach’s alpha correlations were performed on both administrations of the IES-R and the administration of the PCL-5 within the survey and achieved strong to very strong correlations. For a table summary of alpha scores, see table 3 (below).

Table 3. Internal Consistency

		α
IES-R NOW Total		.97
IES-R NOW Subscales		
	Intrusion	.95
	Avoidance	.88
	Hyperarousal	.92
IES-R WORST Total		.96
IES-R WORST Subscales		
	Intrusion	.96
	Avoidance	.86
	Hyperarousal	.89
PCL-5 Total		.97
PCL-5 Subscales		
	Intrusion	.93
	Avoidance	.87
	Cognition & Mood	.91
	Arousal & Reactivity	.93

Notes: PCL-5 = The PTSD Checklist 5th Version, IES-R = Impact of Event Scale Revised,

IES-R. Within the survey, the IES-R was administered twice. During the first occurrence, the participants are asked to endorse the 22 items with respect to their symptoms within the past seven days (IES-R NOW). During administration one, the Cronbach’s alpha score reported high internal consistency (.97) for the overall scale. Each of the individual subscales reported high internal consistency, as well, with the IES-R Now Intrusion scoring .95, Avoidance .88, and the Hyperarousal scoring a .92. For the second administration of the IES-R (IES-R WORST), Cronbach’s alpha was .96 for the overall scale. For the Intrusion subscale, the alpha score was .96, the Avoidance subscale was .86, and the Hyperarousal a .89.

PCL-5. Of the 25 responses for the PCL-5, two were excluded due to missing items. A total of 23 surveys were processed through Cronbach’s alpha achieving a score of .97 for the overall scale. The Intrusion subscale of the PCL-5 achieved an alpha of .93, the Avoidance subscale a .87, the Negative Alterations in Cognition and Mood a .91, and the Alterations in Arousal and Reactivity scored an alpha of .93.

Validity

Modeled after the Sveen et al (2016) article, Spearman’s rho was utilized to assess aspects of validity within correlations between the two assessments. Spearman’s rho is a non-parametric rank-order correlation. Unlike Pearson’s correlation coefficient, Spearman’s rho measures the monotonic relationship between variables versus a linear relationship, thus making it optimal for ordinal variables (Gibbons, 1993).

IES-R. The two administrations of the IES-R reported a moderately strong correlation (r_s=.62) significant at the .01 level. Furthermore, Spearman’s rho was ran on the total IES-R scores and each subscales (IES-R NOW total and Intrusion (r_s=.96), Avoidance (r_s=.94), and Hyperarousal (r_s=.90) finding strong correlations for each subscale that all were significant at the .01 level. For the second administration of the IES-R (IES-R WORST), the total scale score and each of the subscales each reported high correlation significant at the .01 level (Intrusion (r_s=.92), Avoidance (r_s=.86), Hyperarousal (r_s=.84). A table of the correlation between administration one and administration two of the IES-R can be found in table 4 (below).

Table 4. IES-R NOW and WORST Inter-Measure Correlation (Spearman’s rho)

		IES-R NOW			
Measure		IES-R NOW Total	Intrusion	Avoidance	Hyperarousal
IES-R NOW Total		1	.97**	.94**	.89**
IES-R NOW Subscales					
	Intrusion	.97**	1	_.89**_	.79
	Avoidance	.94**	.89**	_1_	.79
	Hyperarousal	.89**	.79**	_.79**_	1
IES-R WORST Total		.58**	.48*	.50*	.61**
IES-R WORST Subscales					
	Intrusion	.53**	.45*	_.43*_	.53*
	Avoidance	.67**	.59**	_.63**_	.59*
	Hyperarousal	.37(NS)	.26(NS)	_.24 (NS)_	.63**

Notes: IES-R = Impact of Event Scale Revised, _**=p<.01, *=p=<.05_

PCL-5. Spearman's rho was also utilized to measure the correlation between the total PCL-5 score and each of its individual subscales. Each of the subscales were strongly correlated with the total PCL-5 scale and significant at the .01 level (Intrusion (r_s=.94), Negative Alterations in Cognition and Mood (r_s=.93), Alterations in Arousal and Reactivity (r_s=.94), and Avoidance (r_s=.83).

Inter-Measure Correlation

Spearman's rho correlation was ran on the total PCL-5 scores and each of the administrations of the IES-R, finding a strong correlation between both the first and second IES-R administrations and the PCL-5 (IES-R NOW (r_s=.83), IES-R WORST (r_s=.60). Further, the correlations between the IES-R NOW subscales and the PCL-5 subscales were also ran. The Intrusion subscale on the IES-R NOW and the PCL-5 exhibited a strong correlation significant at the .01 level (r_s=.85). The IES-R NOW Hyperarousal subscale was correlated with the PCL-5 Alterations in Arousal and Reactivity and exhibited a strong correlation significant at the .01 level (r_s=.85). The Avoidance subscales scored lower, though still significant at the .01 level (r_s=.61). For a table exhibiting the Inter-Measure correlation of the PCL-5 and IES-R administrations, see table 5 (below).

Table 5. IES-R and PCL-5 Inter-Measure Correlation (Spearman's rho)

		PCL-5				
Measure		Intrusion	Avoidance	Cognition & Mood	Arousal & Reactivity	PCL-5 Total
IES-R NOW Total		.88**	.63**	.79**	.69**	.83**
IES-R NOW Subscales						
	Intrusion	.85**	.58**	.74**	.62**	.74**
	Avoidance	.73**	.61**	.72**	.59**	.72**
	Hyperarousal	.88**	.62**	.82**	.85**	.91**
IES-R WORST Total		.56**	.55**	.37	.51*	.60**
IES-R WORST Subscales						
	Intrusion	.53*	.52**	.34	.48*	.53**
	Avoidance	.56**	.59**	.42*	.43*	.60**
	Hyperarousal	.45*	.35	.31	.56**	.51**
PCL-5 Total		.94**	.83**	.93**	.94**	1
PCL-5 Subscales						
	Intrusion	1	.74**	.87**	.84**	.94**
	Avoidance	.76**	1	.77**	.67**	.84**
	Cognition & Mood	.87**	.77**	1	.80**	.93**
	Arousal & Reactivity	.84**	.97**	.80**	1	.94**

Notes:PCL-5 = The PTSD Checklist 5th Version, IES-R = Impact of Event Scale Revised, **=p<.01, *=p=<.05

Correlations with Levels of Wellbeing

Within the survey, the participants were asked to endorse their level of wellbeing on a scale of 0 (worst) to 100 (best). Pearson's correlation was performed to assess the relationship between the current level of wellbeing, the level of wellbeing when the participants were at their worst, and their endorsed relationship with the Deaf community. Neither level of wellbeing at their worst (r=.37) or their current level of wellbeing (r=-.11) indicated a strong relationship and neither were significant at the p=.05 level.

Further, Pearson's correlation was performed on levels of current wellbeing and the total IES-R and PCL-5 scores. The results found that the IES-R first administration (r=-.25, p=.002) and the second administration (r=-.27, p=.21) did not have a particularly strong nor significant relationship with current level of wellbeing. For the PCL-5 (r=-,21, p=.33), the current level of wellbeing also did not have a particularly strong correlation nor significance.

Qualitative Data

Within the survey, the respondents were asked to provide open-ended responses to questions regarding where they looked for help, services they were able to receive, services they needed but were not able to receive, barriers they experienced when help-seeking, barriers they experienced specifically to the criminal justice system, their own definition of domestic violence, how being Deaf impacted their experience as a victim of domestic violence, and advice they would give other women in their situation. In addition, they were provided a final question inquiring if there is anything else they would like to share. The questions were examined via Interpretive Phenomenological Analysis (APA) and read for the true meaning of the respondent's experience. The results of the questions will be summarized below by question type.

Please describe where you looked for help when you were experiencing domestic abuse. Of the 24 surveys, 20 of the respondents elected to answer this question. Six respondents expressed seeking help with family, friends, or the Deaf community. However, the outreach was not always reported as a direct cry for help. For example, one respondent reported "*instead of reaching out for help, I tried to get together with friends just to hang out and try to feel safe and normal again."* Furthermore, five respondents reported seeking help from mental health agencies including therapists and local county crisis centers. One respondent reported seeking help from both therapy and religious outlets: *"I went to a therapist to help me figure out ways to save my marriage and to cope. I tried to get my ex-husband to go. After the worst incident he stopped drinking and we started going to church together*." Three respondents reported seeking help from law enforcement either reporting their own abuse or having a friend/relative report. One reported seeking help from academic resources such as the Office of Student Conduct. Six of the women who responded reported that they did not seek any form of help. The reasons for this varied from resources being unavailable at the time, being unaware of available resources, being unaware that their experiences classified as abuse, and electing not to report. For example, one respondent relayed, *"During my time there was no resources to get help. I did not have a clue that I was being abused emotionally. I saw therapist who did not sign. We had to depend on interpreters which was not always effectively."*

What services did you need that you were able to receive?. Of the 24 respondents, 19 participants elected to answer this question. Six of the respondents relayed that they did not receive any services. The most common service they received was therapy (n=7), one participant specifically endorsing "EDMR." Two reported receiving housing assistance and one reported receiving assistance with legal documents such as protection orders. Law enforcement was endorsed as a service they were able to receive in one response.

What services did you need that you were not able to receive? Twenty-two respondents elected to answer this question. Of those twenty-two, four reported “none,” seven endorsed therapy/counseling and two endorsed police protection. When asked about services the respondents needed that they were and were not able to receive, counseling or mental health services was a prominent answer. Those who endorsed receiving therapy still relayed a need for more therapy or better quality of therapy, for example: “*I had to do counseling over the videophone. There was no physical in-person counseling services close to me that provided communications in ASL.”* In addition, respondents reported limited access to therapy. Per one respondent, *“A[n] appropriate therapist would have been awesome [because] my self-esteem and life situation was trash.”* Another respondent endorsed, “*my options and opportunities in receiving counseling were very limited because I need access to ASL, so it took more work and willpower for me to see it through.”*

Furthermore, two endorsed legal assistance, such as learning how to file a protection order. For example, one respondent stated, “*After the last incident of him dragging me down the street, I couldn’t get a restraining order. I didn’t know where to go for help.”* Two respondents endorsed an unmet need of financial assistance, two endorsed support systems/groups, and one endorsed interpreters. One respondent reported increased barriers to help-seeking due to her relationship with her abuser: “*Some places couldn’t help me because the abuser was not married to me. (Brother).”*

Please describe any barriers you experienced when seeking help from individuals or agencies. The most common barrier to help-seeking (n=8) as reported by the 19 individuals who responded to this question was the language barrier associated with being Deaf. The language barriers impacted the victim's ability to report help and receive treatment. For example, one respondent reported, *"When I did seek help I interpreters and providers didn't know how to work with someone w hearing loss. No understanding about technology like TTY and how an abuser can use that."* In addition, the respondents endorsed varying levels of interpersonal barriers to reporting such as feeling as if they could not tell anyone about the abuse, reluctance to report due to the five shared children, nervousness, being too traumatized to seek help, and lack of desire to *"open up more past issues."* Furthermore, law enforcement was also a reported barrier to help-seeking. Per one respondent, "*The police do not take these matters seriously. He bailed himself out that very night."* Another respondent reported that *"…the police were not helpful. The officers I talked to made it sound like there wasn't anything I could do. They made me give his gun back to him after I found it in our daughters closet and I wasn't aware there was a gun in the house until his best friend's girlfriend confided in me he told them he bought a gun and told them he was going to shoot me and claim self defense [SIC]."*

Please describe any barriers you experienced when interacting with the criminal justice system. Twenty-one individuals responded to this question. Of the twenty-one, nine respondents endorsed that they had no involvement with the criminal justice system. Three of the respondents reported barriers relating to securing an interpreter in a legal setting, one respondent endorsing, *"Court and police dropped case because of interpreters."* One respondent felt an overall sense of injustice when interacting with the legal system: *"Mostly legal barriers and injustice within the system with protection against the abuser. The court rooms were difficult and intimidating and were not HOH accomidating [SIC]. When I told a judge that I was HOH his response was 'I'll talk louder'. I often left confused and unsure about what was even said. The* *legal system is not designed to protect victims."* Furthermore, three individuals endorsed barriers specific to law enforcement. One reported issues with law enforcement not "listening carefully," where two reported lack of action of law enforcement. For example, one individual *"Police in Texas wouldn't do anything said until I had a cut wound or [was] dead, then they will do something."* Another respondent reported, *"I asked the police to get my ex out of camping in the woods near my mom's out because I feared for my life and police just said get a restraining order. I was only 17 and I did not know how to do that so my neighbor took actions and got my ex to go back home."* In addition, one respondent also reported criminal justice barriers related to both law enforcement and legal settings when she relayed, *"Police came many times but he would act normal and I would be frozen. They didn't have patience to speak with me. Speaking in front of a court room about my abuse was hell. Especially in front of him."*

How do you define "Domestic Violence"? Twenty-one respondents provided their own definition of domestic violence. Two of the respondents reported the definition as *"dangerous."* The remaining respondents endorsed that Domestic Violence is a multi-layer of sustained abuse not limited to physical altercations. Four respondents included the importance of the relationship with the individual in their definition of domestic violence (i.e., intimate partner, someone in the same domicile, taking place in the home, family or "someone close"). Two respondents specifically endorsed the role of power in their definitions of domestic violence, for example, *"When one asserts and uses power and control over another in various forms, such as physical, sexual, financial, psychological, mental, etc."* Two respondents defined Domestic Violence as the impact the abuse has on an individual, for example *"trauma"* and *"worse than death."*

How did being Deaf impact your experience as a victim of Domestic Violence? When inquired about how being Deaf impacted their experiences as a victim, only one respondent failed to answer this question. Two respondents endorsed hypervigilance/hypersensitivity. For example, one woman reported, *"I am [Hard of Hearing] [with] severe bilateral loss. My hearing impairment mostly has impacted me because when my hearing aids are out still to this day, 7 years later, I struggle with hypervigilant [SIC] behavior and anxiety from fear of not hearing an attack."* Two respondents reported that being Deaf had no impact on their victimization. However, the majority of respondents (n=8) reported the largest impact was the more limited resources available to Deaf women who are enduring domestic abuse. This is exemplified by one respondent who stated, *"During my time being Deaf is hard because most of DV agencies are clueless on how to serve the Deaf victims and they Did not want to pay for interpreters"* and other who reported *"Because I couldn't express to anyone I felt mute like a barrier that I couldn't scream out and tell someone what I'm going through get like someone had more control over me."* Furthermore, respondents also endorsed difficulty in reporting due to the lack of ability to speak on the phone, increased perception of vulnerability, a magnification of victimization, a sense of helplessness, and an increase in difficulty overall. In addition, one respondent reported on the perception of others given her Deafness and relayed, *"I was looked at as stupid by many who didn't understand I was deaf."*

What advice would you give another Deaf woman in a Domestic Violence situation? The responses to the question about advice the respondents would give to another Deaf women in a similar situation (n=21) fell into two main categories: get help and remove yourself from the situation. Eight respondents emphasized the importance in getting help in their advice, for example: *"You are stronger than you know. It is dangerous to leave i know, but it is more dangerous to stay. When you leave lean on anyone who will help, do not live alone. Surround yourself with as many supporters as possible."* Six individuals included getting out of the situation as a component of their advice. One respondent stated, *"Get out of situation faster. I waited 10 years and suffered 10 years of life… I wasted on… I could done better and found love or didn't waste my life now [it's] too late for me but other people deserve [to] get out quickly. Love is blind, [it doesn't matter] if he was nice at first."* Furthermore, two individuals gave advice including a safety plan, such as, *"Your life is not over, talk to your friends and family, it takes time to get out, but DO make a safety plan, create strategies and hang in there until you see the opportunity."* In addition, two respondents gave the advice of seeking help from Deaf domestic violence agencies, one highlighted that those resources can be researched online: *"If you don't know where Services are with interpreters, go online. There are deaf hotlines, Deaf counselors who can help. And if you feel something in the relationship is wrong, believe yourself. Get out or act to minimize your harm."*

Please include below anything else you would like to share about your experience as a survivor of Domestic Violence. Sixteen individuals elected to share more information about their experiences. Five respondents included information about the outcome of their situations or added more context to their own lived experience. For example, one respondent reported, *"you think you will know when you see DV, but I had no idea and learned the hard way that emotional and mental abuse are hard to detect and can be much worse than physical abuse in the long run. Now I understand all levels of DV. And I understand what a healthy relationship looks like."* Another respondent provided insight into her lived experience when she relayed, *"I had a hard time leaving. I experienced more emotional/mental abuse then physical. The physical came in waves. The emotional abuse is what dragged me down to the point I just took the physical abuse and hid the bruises. [I lied] about where they came from. I believed I [was] a dumb fat cow. That* *no one would ever love someone like me. I wouldn't be able to have custody of my kids because I was hard of hearing. I was worthless."*

Furthermore, two respondents included recommendations for better services. One individual advocated for Deaf individuals with Medicare, stating *"People with Medicare cannot afford out of pocket costs to pay for counseling sessions while they are not qualified for the state medical assistance/Medicaid to cover*." Another respondent endorsed the need for more education within the Deaf community about Domestic Violence by stating that education should be provided to the Deaf community *"about DV and [that] it is ok to get help. At first I was ashamed to see therapist but I found it was helpful that it was not my fault."* Three respondents in this section expressed an interest in being involved with fellow survivors of Domestic Violence, whether it be through volunteering or support groups. One respondent expressed difficulty in finding a mental health provider and stated, "…*It is extremely hard to find a therapist that is competent on providing services for deaf/HOH population.*" One respondent specifically reported a diagnosis of PTSD and two additional respondents mentioned experiencing flashbacks even though their lives have moved past the abuse. Lastly, when asked if there was anything else she would like to share, one respondent briefly stated, *"We are a survivors. Always [will] be. We will not be victim forever."*

During this chapter, the results of the survey were reported. In the next chapter, the findings, limitations, and policy implications will be discussed.

Chapter 5 – Discussion

This study was the first of its kind utilizing the IES-R, the PCL-5, and a personal experiences questionnaire to examine the impact of Domestic Violence within the Deaf community. This chapter will discuss the demographics of the participants, the findings of the data in the order of the hypotheses, and provide a discussion on limitations and policy implications.

As reported, the respondents in this study were females ages 23-60 with an average age of 39. In addition, the responses came from thirteen states spanning from all across the United States. This is divergent from the extant literature on Deafness and Domestic violence, as the current literature typically consists of convenience, undergraduate university-based samples (Anderson & Leigh, 2011). In addition, demographic information such as income and total number of children was collected, which provides more insight than the current literature on the population.

Below, the hypotheses will be reiterated and the findings will be discussed in the context of the five (5) hypotheses.

The average score for the participants on the IES-R and the PCL-5 will reflect high likelihood of a PTSD diagnosis.

The researcher accurately hypothesized that the scores for the participants on the IES-R and the PCL-5 will indicate a high likelihood of a PTSD diagnosis. Both the IES-R and the PCL-5 are not sufficient as the sole instruments to use in order to render a diagnosis of PTSD. However, both of the assessments have been utilized and standardized as tools to screen for PTSD and to provide provisional PTSD diagnoses. For the IES-R[7], it is understood that a cutoff

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[7] IES-R NOW

score of 33 or higher is indicia of a probable PTSD diagnosis (Creamer et al., 2002). For scores 24 and above, PTSD is a clinical concern and a score of 37 or higher is correlated with severe enough symptoms to suppress immune system functioning even ten years post-event (Asukai et al., 2002; Kawamura et al., 2001). Thus average scores on the IES-R (47) and the PCL-5 (41) were above the cutoff for provisional PTSD diagnoses. In addition, within the qualitative data, participants endorsed classic symptoms of PTSD including flashbacks and nightmares (Weiss, 2007), as exhibited by one participant who referenced having recurring nightmares even though she considered herself recovered with a happy marriage and a successful career and another who reported hyperarousal symptoms.

Interestingly, a smaller percentage of respondents qualified for a provisional PTSD diagnoses on the PCL-5 than the IES-R. There can be several explanations for this, one of which is that the IES-R is a more sensitive gauge of PTSD symptoms within the Deaf community than the PCL-5. The IES-R is a 22-item self-report scale whereas the PCL-5 is only 20 items. In addition, per Schild & Dalenberg (2012), the symptom constellations contributing to the prediction of PTSD presence in a Deaf sample was most sensitive toward hyperarousal and avoidance. The IES-R has scales specifically dedicated to avoidance and hyperarousal with a total of 14 items. The PCL-5 only has two items measuring avoidance and six items in the scale alterations in arousal and reactivity, totaling only eight items. Thus, it may be the case that the IES-R is more applicable to use as a PTSD screener within the Deaf population. Regardless, the IES-R and the PCL-5 scores of the participants indicate a high likelihood of a PTSD diagnosis. As such, hypothesis one was supported.

The average scores on the IES-R and the PCL-5 will be higher than the norm for hearing survivors of domestic violence.

On average, the scores of the participants in this study were lower than hearing populations in similar studies, thus the hypothesis was inaccurate. The IES-R and the PCL-5 are commonly utilized screeners for PTSD, though the literature published on these tools specifically examining survivors of Domestic Violence is scant.

In 2008, Lindegren & Renck examined 14 Swedish women survivors of domestic violence utilizing the IES-R. The average scores for women in this study was 67, which is eleven points higher than the administration of the IES-R where the participants endorsed their scores when their level of functioning was at their worst. Though there is a discrepancy, the scores did fall within the standard deviation of the women in the current study. The reason for the lower scores on the IES-R could be the result of the conditions of either study. The average age of the participants in the Lindgren study was 38 whereas the average age for the women in the current study was 39. The IES-R was administered in Swedish and to a sample of only 14 women, thus limiting the applicability and generalizability of the results. In addition, the women in the Lindegren & Renck study had all left their relationship with the abusers, which was not the case for the current study.

For the PCL-5, there is no study that the researcher is aware of utilizing the specific version of the assessment on survivors of domestic violence. However, Alhalal et al (2017) utilized the PCL-Civil Version (PCL-C) on a sample of 299 Saudi women who had experienced domestic violence. The PCL-5 is not the same scale as the PCL-C, as the PCL-C consists of only 17 items corresponding to the key symptoms of PTSD. However, both the PCL-C and the PCL-5 can be applied to any traumatic event sustained by an individual. Per Alhalal et al. (2017), the average score for the PCL-C was 46.72 and 75.6% of women met the cutoff score for clinical significance. For the current study, the average score on the PCL-5 was 41 and 61% of the respondents scored above the threshold for clinical significance. Again, it is important to reiterate that the PCL-5 and the PCL-C are not identical scales. Regardless, the respondents in the current study were less likely to meet the cutoff scores for the provisional diagnosis of PTSD.

In sum, the sample in the current study averaged lower scores on the IES-R and the PCL-5 than comparative hearing samples, and as such, hypothesis two was not substantiated.

The PCL-5 and the IES-R will have high internal consistency and inter-measure correlation in Deaf survivors of domestic violence.

The current study proved that the PCL-5 and the IES-R have high internal consistency and inter-measure correlations in the sample of 24 Deaf survivors of domestic violence, thus the hypothesis was accurate. The total scale scores and each of the subscales within the IES-R and the PCL-5 reflected high internal consistency, thus indicating that the tools are reliable within the Deaf population. This study is the first of its kind to analyze internal consistency for the IES-R and the PCL-5 within the Deaf community. In addition, it is one of the first of its kind to administer the IES-R via web-based survey.

The IES-R as a whole (IES-R NOW α=.97, IES-R WORST α=.96) and the PCL-5 as a whole (α= .97) indicate that the tools have high reliability within the current population. The internal consistency of the IES-R was found to be α=0.96 in Creamer et al.’s (2003) study examining the psychometric properties of the IES-R. Further, each of the subscales reflected high alpha scores, as well. The avoidance subscale on the PCL-5 (α= .89) and the avoidance subscale within the IES-R (IES-R NOW α=.88, IES-R WORST (α=.89)) were the scales reflecting the lowest alpha scores, though they are still above the threshold of an acceptable alpha (.70) (Nunnally, 1978). As such, it is important for clinicians utilizing these assessments to examine Deaf survivors of domestic violence to remain cognizant of the avoidance scales and to collect ancillary data on avoidance symptoms when rendering their diagnoses.

Furthermore, Spearman's rho was utilized to assess the correlation between the two assessments and each of the subscales. Each of the total scales were found to have strong correlations with each of the subscales within the parent assessment. In addition, the IES-R and the PCL-5 were found to have a strong correlation (r_s=.83, p=.01), This closely aligns with the Creamer et al. (2003) study that found a correlation of 0.84 between the IES-R and the PCL, thus strengthening the argument that the assessments are reliable when used within the Deaf population.

This is poignant, as no other study has utilized the IES-R or the PCL-5 within Deaf populations. This study provides support for the IES-R and the PCL-5 as tools appropriate to use within this population. The fact that the alpha and Spearman correlations were satisfactory suggest that these assessments are within the linguistic capacity of Deaf female survivors of domestic violence. In addition, because of the high internal consistency, it suggests that the participants were honest reporters and were not attempting to malinger or exacerbate symptoms upon reporting.

Furthermore, the IES-R and PCL-5 are screener tools commonly utilized by clinicians during intakes or to monitor symptom change. The self-report tools are affordable and can be quickly administered, thus making them practical tools as they require low resources and provide valid, reliable results. The use of these assessments can benefit the Deaf community, as it can assist clinicians with initial assessment of Deaf clients and can in a more affordable, expeditious way direct the client to appropriate trauma-related services. This is particularly relevant for individuals seeking treatment in Domestic Violence service agencies, as the agencies may be facing limited funds and clinicians. In addition, the IES-R and the PCL-5 do not require in-depth time and resources for administration such as the Clinician Administered PTSD Scale (CAPS).

Thus, having evidence that these assessments are valid within the Deaf community provides valuable tools for agencies and mental health practitioners, alike.

Most batterers will be hearing spouses.

The researcher inaccurately hypothesized that most batterers would consist of hearing spouses. Existing literature has shown that the abusers of Deaf domestic violence survivors are typically Deaf, as well (Williams & Porter, 2014). In the current study, the hearing status of the abusers was nearly equal (12 hearing abusers, 11 Deaf abusers, one Hard-of-Hearing abuser). Though difficult to ascertain given the limited sample size, it is hypothesized that this sample is more representative of the actual population, given the fact that most studies in the extant literature are comprised of convenience samples from universities with high Deaf populations (Ballan et al., 2017).

Moreover, it was hypothesized that the majority of the abusers would be spouses, however this study reflects that the majority (n=14, 58.3%) of the abusers were non-marital significant others. This is contrary to the Porter & Williams (2011) study which depicts that perpetrators of domestic violence, or intimate partner abuse, are likely to be Deaf or Hard-of-Hearing spouses or relatives. As such, hypothesis four was unsubstantiated.

Female survivors who are Deaf face significant barriers when help-seeking.

The final hypothesis was the broad statement that Deaf female survivors of domestic violence experience significant barriers when help-seeking, which the current study has proven true. The qualitative data collected reflects barriers consistent with the literature on domestic violence with the general population and also experiences that are unique to being Deaf. Similar to the extant studies, some of the respondents elected not to report their abuse (Erez et al., 2000). Another common trend in the literature is an overall deterrence of reporting given the fact that resources may not be provided even if the victim does disclose abuse. This topic arose and was particularly prevalent for the Deaf women in the study, as even if abuse was disclosed, they experienced difficulty in receiving resources from domestic violence shelters and legal proceedings due to the lack of cultural competency and awareness from the respective agencies. As reported in Chapter four, this was exemplified by one respondent reported barriers related to Deafness when trying to receive services from agencies who were "clueless" about Deafness and did not want to pay for an interpreter. Cultural competence is key in providing adequate mental health treatment and also providing appropriate resources to individuals who are being abused. Due to a lack of cultural competency, one individual reflected on the being perceived as below-average intelligence my many people due to her Deafness alone, indicating an increased difficulty in reporting and potentially questionable credibility. Without understanding the nuances of a given culture, there is a greater risk of misinterpretation, wrongful assumptions, and biases increases, thus potentially limiting the assistance provided to individuals of a minority culture.

Furthermore, a prominent barrier experienced by the individuals in this study was the inability to obtain mental health-related services. Even though counseling was endorsed as a service commonly received, it was also commonly reported as services that required a larger quantity or better quality. Given the markedly high prevalence of domestic abuse in Deaf populations, and the high likelihood of suffering from a stressor disorder, counseling is an important resource to secure for Deaf survivors of domestic violence.

In addition, it is frequently reported that domestic violence victims experience barriers when seeking assistance within legal settings, such as interacting with law enforcement and judges (Agnew-Brune et al., 2017). This theme was also reported by respondents in this study, noting barriers with regard to the criminal justice system, particularly in obtaining restraining orders and receiving law enforcement protection. Furthermore, there is a stigma regarding law enforcement perceptions of domestic violence victims, given that the victims are often locked into a cycle of abuse and return to the perpetrator (Hartman & Belknap, 2003; Walker, 2009). This theme was expressed by the respondents of this study, as well. In sum, given the qualitative responses, Deaf survivors of domestic violence experience significant barriers when help-seeking, some of which are enhanced due to Deafness.

Limitations

Though this study adds to the extant literature providing novel, primary, contemporary data on two never before used psychometric tools in the population, the study is not without limitations. To begin, the small sample size caused inherent limitations in generalizability and produces an increased risk for type-two errors (Weinbach & Grinnell, 2007). In addition, there was a large rate of respondent attrition, with 56 surveys being completed but only 24 being analyzable (Kazdin, 1998). As no contact information was collected from participants, the researcher was unable to contact respondents and ask them to complete the remaining questions. Furthermore, the survey was administered via computer and in English. With any research regarding the Deaf community, literacy and the reading level of the survey instruments provides some limitation. The linguistic ability of Deaf individuals is variant, thus a standard reading level cannot be assumed (Miller, 2004). The instruments incorporated into the survey (IES-R and PCL-5) were relayed with the standard testing language and was not adapted to accommodate the risk for lower English literacy. In an ideal study, each question would be administered in various sign modalities (i.e., ASL, PSE, SEE) to accommodate a wide range of language preferences. Lastly, the survey did not explicitly ask for highest level of education obtained or occupational status. Even with the limitations in mind, this study is capable of providing policy implications and areas in need of future research.

Policy Implications and the Need for Future Research

Based on the findings of this study, policy implication considerations and future research needs can be discussed. To begin, the research highlights the needs for several important policy implication considerations. Within the Deaf community, there is always a need for increased policy implications protecting the individuals from increased vulnerability and violations of ADA rights, particularly when interacting with the justice system. In order to better serve Deaf survivors of domestic violence, law enforcement officers should be offered increased trainings in cultural competency, resources for domestic violence victims with disabilities, and now to recognize potential signs of intimate partner abuse during house calls where one or both partners are Deaf. Given the fact that domestic violence is frequently under-reported, other professionals that Deaf individuals have regular contact with, such as primary care physicians, audiologists, academic advisors, etc. should also be taught how to recognize and to screen for signs of potential intimate partner abuse. Lastly, given the markedly high prevalence of domestic violence within the Deaf community, education should be provided to Deaf individuals to increase their health-literacy on appropriate conduct in romantic relationships, where to seek help if feeling unsafe, and that there is no stigma behind help-seeking. In order to initiate any policy change, there must first be adequate research so there is data available to fully understand the problem.

The topic of Deafness and Domestic Violence is markedly under researched, and as such, groundwork exploratory research is needed. A body of literature should be built on overall prevalence of domestic violence within the Deaf community, including perpetrator and victims that is more nationally representative than university-based samples. Research should be conducted exploring the types of abuse sustained, the mental health impacts and PTSD symptom constellation manifestations that result, and potential barriers the individuals experience during various stages in cycle of domestic violence. In addition, more research on the factors that increase susceptibility for Deaf women to become victims of domestic violence and Deaf-specific forms of abuse need to be explored.

Furthermore, there is a large deficit in data regarding psychometric tools assessing PTSD and trauma within the Deaf community. It would be beneficial to have studies conducted comparing hearing survivors of domestic violence and Deaf survivors of domestic violence utilizing respected psychometric tools such as the Clinician Administered PTSD Scale (CAPS), Trauma Symptom Inventory – 2 (TSI-2), the Early Trauma Impact-Self Report – Short Form (ETI-SR-SF), and the Conflict Tactics Scale – 2 (CTS-2) in representative samples. In addition, research is needed assessing the best routes of administration for psychometric tools, which tools are most effective for treating the population, and how to best advertise about resources available to Deaf domestic violence survivors.

In sum, this research provided an overview on the global crisis that is domestic violence and the increased prevalence Deaf women face regarding domestic violence victimization. Deaf women experience domestic abuse at twice the rate of hearing counterparts. Even so, the population is drastically under-researched, under-acknowledged, and under-served. This study validated two novel psychometric tools, the Impact of Event Scale – Revised (IES-R) and the PTSD Checklist – 5 (PCL-5), within female Deaf survivors of domestic violence. The average score on the IES-R was 58 and the average score on the PCL-5 was 41, thus displaying a very high likelihood of PTSD diagnoses within this population. Through qualitative questions, the

Deaf women provided comments on their own lived experiences of abuse, help-seeking, and advice they would give to other Deaf women in a similar situation. Though only a preliminary investigation, the research highlights the heart-wrenching experiences of these particularly vulnerable women. To reiterate one survivor's response: *"We are a survivors. Always [will] be. We will not be victims forever."* With appropriate policy changes and increased empirical attention, quality mental health treatment can be provided to restore emotional and physical wellbeing to survivors of domestic violence. We can ensure that they will, in fact, not remain victims forever.

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Appendix A

Extant Psychometric Tools Used in the Published Literature

Conflict Tactics Scale /CTS-2	Peritraumatic Distress Scale	Life Experiences Checklist	Trauma Symptoms Inventory – 2	Clinician Administered PTSD Scale	Somatoform Dissociation Questionnaire
Anderson & Leigh, 2010;2011	Schild & Dalenberg, 2012	Schild & Dalenberg, 2012; 2015	Schild & Dalenberg, 2012; 2015	Schild & Dalenberg, 2012; 2015	Schild & Dalenberg, 2012; 2015
Anderson & Pezzarossi, 2011; 2013					
Johnston-McCabe et al., 2010					
Williams & Porter, 2014					

Appendix B
Email to Agencies

Hello,

My name is Kabrianna. I am a Masters candidate at Seattle University conducting research on the experiences of Deaf survivors of domestic violence. The research is conducted via a web administered survey. I was hoping that your agency would be willing to assist in this research by distributing the survey via email roster and via social media platforms. The link to the survey is: https://seattleux.qualtrics.com/jfe/form/SV_80QpodDlojTv7kF

The societal benefits resulting from this study are extensive. There is currently an extreme deficit of data regarding the experiences of Deaf survivors of domestic violence. This is the first study of its kind that will provide invaluable clinical data obtained from two commonly utilized psychological questionnaires, as there is no known standardization or validation of these instruments on the Deaf community. In addition, the research on Deaf survivors is equally as scant. Thus, this research will provide the community with data that can be used to improve clinical and social work practices regarding this population that is at an increased risk for domestic violence.

Attached to this email you will find the following: (1) a letter confirming that Seattle University’s Institutional Review Board (IRB) has approved this survey, (2) a recruitment video for this survey recorded in American Sign Language, and (3) an English transcript of the recruitment video. For your convenience, a brief summary your agency can utilize to introduce the survey via email and social media is also attached.

As a member of the Deaf community, I am passionate about this research and the benefit it will provide to the community. I have taken steps to ensure this research is ethical, culturally sensitive, and protects the identity of each one of the participants.

Please feel free to contact me with any questions or concerns and I look forward to hearing from you soon.

Thank you for your time and consideration.

Respectfully,

Kabrianna Tamura
tamurak@seattleu.edu
206-455-3004

Appendix C
Survey Image

Please Take This Survey on

Deaf Survivors of Domestic Violence

Contact Information:
Kabrianna Tamura
Seattle University
Tamurak@seattleu.edu
VRS: 206-455-3004

Each participant is entered in a chance to win a $50.00 Amazon Gift Card!
Participation is anonymous and confidential.

Appendix D
Transcript of Video

Hello, my name is Kabrianna. I am a student researcher at Seattle University conducting a study asking Deaf women to share their experiences of domestic violence.

Deaf women are especially vulnerable to domestic violence compared to hearing women. In fact, studies estimate that Deaf women are twice as likely to become victims of domestic violence. However, very little is known about the actual experiences or needs of this at-risk population.

This study will allow the Deaf survivors of domestic violence to be heard in a way that they have not before.

If you are a Deaf woman who is eighteen or older and has experienced domestic violence, please take this brief survey to share your experience. Your identity will be kept private and confidential.

As a way to say “thank you,” all participants will be entered to win a $50.00 Amazon electronic gift card.

Even if you cannot participate in the survey, please share the link to the survey via email or social media to anyone who can take or further distribute the survey.

Each survey that is collected is a step towards awareness for Deaf domestic violence survivors.

Please feel free to email me tamurak@seattleu.edu with any questions.

Thank you.

Appendix E
Survey Summary Provided for Distributor Convenience

Please consider participating in the survey conducted through Seattle University exploring the impacts of Domestic Violence in the Deaf Community. All participants have a chance at willing a $50.00 Amazon gift card.

Participating in this survey will allow professionals to better treat, serve, and protect Deaf survivors of domestic violence. If you are a Deaf/ Hard-of-Hearing woman who is eighteen or older and has experienced domestic violence at any point in your life, please take this brief 25-minute survey to share your experience. Your identity will be kept private and confidential.

The results of this survey will help Deaf/Hard-of-Hearing survivors to be heard and served in a way they have not before.

Please feel free to forward and share this survey and contact tamurak@seattleu.edu with any questions.

Thank you.