INTERACTIONS BETWEEN VICTIMS OF INTIMATE PARTNER VIOLENCE AND THE
POLICE: WOMEN'S FUTURE INTENTIONS TO CONTACT THE POLICE

By

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ABSTRACT

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The purpose of this research is to examine whether the quality of police interactions affects women's willingness to re-contact the police for help with intimate partner violence (IPV). Existing research has highlighted women's interactions with the police during their prior IPV complaints and suggested that the interactions may influence their intentions to avoid or return to the police for subsequent violence. However, little research has identified this relationship. Using data obtained from the National Impact Evaluation of Victim Program Through the STOP Violence Against Women Formula Program, this research uses several indicators of victim-police interactions. This research entails statistical analyses with a sample of 925 women who had been physically, sexually, and/or psychologically abused by an intimate partner and contacted the police about the abuse. The results suggest that the more women feel control over the responses and actions of police officers to their needs, the more likely they are willing to contact the police. The results also suggest that the more women perceive police as supportive in helping them and as effective in securing their safety, the more likely they are willing to re-contact the police. Finally, it is found that women's future intentions to contact the police for help with IPV are significantly diminished if they have ever been arrested as a result of calling the police. This research contributes by providing empirical evidence about the relationship between victim-police interactions and victims' re-utilization of the police. Theoretical and practical implications are discussed as well as suggestions for future research.

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CHAPTER 1. INTRODUCTION

Introduction

This research examines the influence of women's interactions with the police on their intentions to re-contact the police for help with intimate partner violence (IPV). The question of how women's experiences with and perceptions of the police during IPV complaints are associated with their willingness to re-contact the police is central to this dissertation. An important body of work on IPV has linked women's beliefs about the police that are shaped from their own experiences with their ongoing decision-making related to the utilization of the police (i.e., Erez & Belknap, 1998; Fleury, Sullivan, Bybee, & Davidson, 1998; Johnson, 2007; Stephens & Sinden, 2000). However, to date, little empirical evidence has been produced on this relationship. The primary goal of this research is to provide an empirical analysis of the relationship between victim-police interactions experienced and perceived by women and their intentions to re-contact the police for help with future IPV.

The Centers for Disease Control and Prevention (CDC) defines IPV as physical violence, sexual violence, stalking, and psychological aggression (including coercive tactics) by a current or former intimate partner (i.e., spouse, boyfriend/girlfriend, dating partner, or ongoing sexual partner) (Breiding, Basile, Smith, Blank, & Mahendra, 2015). Victimization of women by their intimate partners is a major concern because it affects millions of women in contemporary American society. The most recent survey, the 2011 National Intimate Partner and Sexual Violence Survey (NISVS), reveals that the lifetime prevalence of physical abuse by an intimate partner is an estimated 31.5% among women (nearly 37 million women) (Breiding et al., 2014). Further, the NISVS reports that approximately 19% of women have experienced spousal rape, 44% of women have experienced sexual violence other than spousal rape, 15% of women have

experienced stalking that made them feel fearful or made them believe that they or their family or friends would be harmed, and 47% of women have experienced psychological aggression by an intimate partner during their lifetime (Breiding et al., 2014).

As IPV is now considered a crime in which police officers are the frontline responders, it is important to investigate how the victims interpret their interactions with the responding police officers. Victim-police interactions have been depicted as variable, reflecting that not all victims who seek help from the police have equivalent experiences (Fleury et al., 1998; Gover, Welton-Mitchell, Belkanp, & DePrince, 2013; Stephens & Sinden, 2000). For instance, while many victims encounter police officers who are respectful and supportive, there are victims who interact with police officers who act bored, treat the victims like criminals, or blame the victims for causing the violence (Avelar, 2014; Burgess-Proctor, 2012a; Buzawa, Austin, Bannon, & Jackson, 1992; Cattaneo, 2010; Gover et al., 2013; Johnson, 2007; Shoham, 2000; Stephens & Sinden, 2000). These experiences may produce an increased perception of the police as helpful or unhelpful.

A critical aspect of the victim-police interactions is that the channels that victims choose for help may change over time (Bell, Goodman, & Dutton, 2007; Burgess-Proctor, 2012a; Cattaneo, Stuewig, Goodman, Kaltman, & Dutton, 2007; Lempert, 1996). It is at this point that victims who initially seek help from the police may change their help-seeking source, especially when the first attempt fails or is not as effective as they expected. In addition, help-seeking is a complicated process, which may be distinct for each individual. Victims' decisions to return to the police for help after another IPV incident may be influenced by multiple issues, circumstances, and contexts, which may go beyond their sociodemographic and situational characteristics.

The use of police services is important for IPV victims because the police can provide them with a range of benefits and opportunities to change their lives. Police, as gatekeepers to the criminal justice system, are critical to diffusing conflict situations at an early stage and linking victims to accessible services. In addition, police are in a prime position to provide victims with a safety net from battering, a point of entry into the criminal justice system, and a smooth transition to various systems of victim assistance and care (Buzawa & Buzawa, 2003; Hochestein & Thurman, 2006; Russell & Light, 2006). They are also reachable any time of day. Furthermore, police intervention may reduce risks of repeated assaults and threats by the perpetrators (Felson, Ackerman, & Gallagher, 2005; Langan & Innes, 1986; Willson, McFarlane, Lemmey, & Malecha, 2001). For instance, a police visit may influence the perpetrators to recognize and change their abusive behaviors and to be aware of the costs and risks of arrest if they recidivate (Felson et al., 2005).

Of all of the resources available in the criminal justice system, the police are the most widely utilized source of help among female victims of IPV (Bowker, 1984; Burgess-Proctor, 2012a; Gordon, 1996). A report analyzing a series of the National Crime Victimization Survey (NCVS) data found that women's reporting rate of nonfatal intimate partner victimization to the police remained above 50% in the past decades (Catalano, 2006). In addition, the latest NCVS reported that in 2014, 58% of women who were victimized by their intimate partners called the police for help (Truman & Langton, 2015). Because many partner-abused women contact the police for help and they can benefit from using police services, it is important to consider ways in which victims decide to return to the police for help with subsequent IPV.

Current Research

This research is an investigation of women's intentions to re-contact the police for help with IPV in the future. The research aims to answer the following research question: Are women's experiences with and perceptions of the police during their IPV complaints associated with their willingness to contact the police for future IPV? To answer this question, various types of victim-police interactions are examined. In this research, the victim-police interactions represent women's own experiences and perceptions in relation to police intervention for IPV. It is hypothesized that women with positive interactions with the police are more willing to contact the police whereas women with negative interactions with the police are less willing to contact the police. The primary goal of this research is to provide an empirical analysis to test this hypothesis.

Although valid studies are available regarding this issue, they too suffer from a variety of problems including small sample sizes, limited geographic locations, selective samples from domestic violence shelters, and a lack of empirical testing. This research fills these gaps with the following specific aims.

Aim 1. To examine the relationship between victim-police interactions in IPV and women's willingness to re-contact the police for help with future IPV.

Aim 2. To assess the extent to which women's sociodemographic characteristics mediate the relationship between victim-police interactions and women's willingness to re-contact the police for help with future IPV.

Aim 3: To increase generalizability by using a large sample of female IPV victims from diverse communities.

CHAPTER 2. LITERATURE REVIEW

While previous studies have provided significant insight into partner-abused women's decisions to seek help from the police, their ongoing decisions to seek help from the police have not been examined as thoroughly. This research focuses on victim-police interactions experienced and perceived by women to examine the relationship between victim-police interactions and women's intentions to re-contact the police for help with future IPV. This chapter starts with an illustration of the importance of researching this topic by detailing the impact of IPV on women's physical and mental health. It also provides a brief overview of women's interactions with police officers in IPV cases. Next is a discussion about the variation in police response to IPV, followed by a research synthesis. The research synthesis summarizes what is known from the literature about the relationship between victim-police interactions and women's decisions to contact the police for help with subsequent IPV. The chapter ends with a description of women's sociodemographic characteristics and situational circumstances that may be related to women's intentions to contact the police in the future. Several indicators drawn from the characteristics and circumstances are used as control variables in a regression analysis.

Health Impacts of IPV

IPV poses threats to the short- and long-term physical and mental health of many women. According to the 2011 NISVS, nearly 16.1 million women reported the presence of a physical injury and 8.3 million women received medical care because of their partners' violence (Breiding et al., 2014). IPV can result in more serious physical health problems, such as chronic pain, respiratory disease, heart disease, sexually transmitted infections, nerve system damage, or traumatic brain injury (Coker, Smith, & Fadden, 2005; Gielen, et al., 2007; Wingood,

DiClemente, & Raj, 2000). For example, Campbell and colleagues (2003) explored risk factors

for femicide in abusive relationships with a sample of 220 women, and observed that

approximately 10% of the sample reported experiencing strangulation, which can lead to a loss

of consciousness.

The most severe consequence of IPV is death. A report analyzing the Supplementary

Homicide Report (SHR) data between 1980 and 2008 reveals that women are almost six times

more likely than men to have been killed by an intimate partner (Cooper & Smith, 2011). It also

shows that almost 45% of female homicides are perpetrated by a male intimate partner (Cooper

& Smith, 2011). A more recent report analyzing the 2014 SHR found that among 1,388 female

victims of non-stranger homicides, 870 were murdered by their husbands or intimate partners

(Violence Policy Center, 2016).

In addition to the physical health problems of IPV described above, women who have

been in an abusive partnership are at a greater risk for mental health problems. For instance,

they are twice as likely to have depression and three times as likely to have post-traumatic stress

disorder (PTSD) compared to those who have not been in such a partnership (Beydoun,

Beydoun, Kaufman, Lo, & Zonderman, 2012; Fedovskiy, Higgins, & Paranjape, 2008). The risk

for depression and PTSD among women who have experienced IPV could be even higher than

women who have a history of childhood sexual assault (Golding, 1999). In addition to

depression and PTSD, suicidality, self-harm, sleep disorders, eating disorders, anxiety, and

alcohol or drug abuse are also common among women abused by their intimate partners

(Bonomi et al., 2009; Devries et al., 2013; Dillon, Hussain, Loxton, & Rahman, 2013).

The changes that have occurred over the past decades concerning consequences of IPV

hold promise for improving women's health. However, women are still at great risk for

immediate and lifelong physical and mental health conditions. Many women report repeated victimizations even after they end the abusive relationships (Bell et al., 2007; Lempert, 1996; Shurman & Rodriguez, 2006). While there are many victim service resources sought by partner-abused women, police are often the first source of help. The police can play a critical role in helping these women in various ways. For instance, police officers can provide opportunities for them to receive legal information about the criminal laws for punishing those who abuse them, as well as learn about safety planning for themselves and their children. In order to facilitate women's access to the police, and potentially help them escape from future violence and improve their lives, it is important to understand what influences women's ongoing decisions to contact the police for help with IPV. To understand this, the current study focuses on women's interactions with police officers during their past IPV incidents.

Overview of Women's Interactions with the Police

Women who experience abuse from their intimate partners and seek police help for the abuse report diverse interactions with the police. The victim-police interactions described by women diverge within four domains: 1) police demeanor toward women, 2) inconsistent police responses to IPV, 3) whether women's outcome preferences are supported by police, and 4) structural barriers experienced in the male-dominated police system.

First, while women interact with police officers who show respect and empathy in assisting them, not all women interact with police officers who behave in a professional manner (Brown, 1984; Cattaneo, 2010; Johnson, 2007; Stephens & Sinden, 2000). Certainly, there are women who meet disrespectful and unsupportive officers. A large proportion of women report a situation in which police officers act bored, treat them as tough criminals, and blame them for

causing the violence (Burgess-Proctor, 2012a; Gover et al., 2013; Leisenring, 2012; Muraoka, 1996; Shoham, 2000; Stephens & Sinden, 2000; Walker-Quarterman, 2013). Stephens and Sinden (2000) found that 65% of the sample of IPV victims described negative experiences with the police, such as minimizing the IPV situation, disbelieving the victim, indifferent and unconcerned attitudes, and rude, often contemptuous attitudes toward the victim. Walker-Quarterman (2013) also found that 40% of the sample of African-American women stated that the responding police officers did not believe their stories or treated their IPV complaints indifferently.

Second, women experience inconsistent police responses to IPV. Some police officers respond to women's calls for help immediately and stop the violence and the perpetrator (Cattaneo, 2010; Johnson, 2007; Nguyen, 2003). After the initial response, some women are guided to legal remedies (i.e., protection orders, restraining orders), referred to safe places (i.e., domestic violence shelters), and receive a follow-up safety check (Brown, 1984; Cattaneo, 2010; Fleury et al., 1998; Johnson, 2007; Nguyen, 2003). However, claims that police officers do not respond to women's calls for help or respond after a considerable amount of time has passed are also common (Bergen, 1996; Burgess-Proctor, 2012a; Muraoka, 1996). Even if police respond to the calls and arrive at the scene, they often fail to address women's safety needs and requests by withholding prompt services from them – for example, not arresting the abuser (Fleury et al., 1998; Grauwiler, 2008; Meyer, 2011). Tragically, some women also experience their own arrest or are threatened with arrest if they keep calling the police department for the same reason for their partner's abuse (Abel & Suh, 1987; Bui, 2001; Burgess-Proctor, 2012a; Coulter, Kuehnle, Byers, & Alfonso, 1999; Leisenring, 2012; Walker-Quarterman, 2013; Wolf, Ly, Hobart, & Kernic, 2003).

Another domain is whether women's input into how they want the police to handle the case is supported by police. Partner-abused women have diverse preferences with regard to what they want from the police. Women may have a desire for arrest, especially those who experience more severe violence (Hirschel & Hutchison, 2003). However, some may be reluctant to have their partner arrested. This may be due to their concerns about a loss of the family source of income, a potential loss of child custody, and their emotional attachment to the partner (Bui, 2001; Burgess-Proctor, 2012a; Goodman, Dutton, & Weinfurt, & Cook, 2003; Gover et al., 2013; Rodriguez, Craig, Mooney, & Bauer, 1998; Nguyen, 2003). Besides the preferences for arrest and non-arrest, partner-abused women have other requests. For instance, they may want to obtain a restraining order or have their partner attend a counseling program (Apsler, Cummins, & Carl, 2003; Burgess-Proctor, 2012a; Nguyen, 2003; Walker-Quarterman, 2013). While these requests are supported and followed by police in some cases, this is not true for all women who interact with police officers.

The final domain reflects structural barriers women experience while seeking help from the male-dominated police system. As mentioned earlier, women who reach out to the police for help with their partners' abuse often meet police officers who are not responsive to their cases. It is probable that some officers still believe it is acceptable for a husband or male domestic partner to punish his female partner in some circumstances, so they do not take IPV seriously (Hoyle, 1998). On rare occasions, women are frustrated by the responding officer taking the perpetrator's side or the officer and the perpetrator engaging in male bonding (Kim & Gray, 2008; Meyer, 2011; Stephens & Sinden, 2000; Walker-Quarterman, 2013; Wolf et al., 2003). Stephens and Sinden (2000) address a macho cop culture, indicating that police officers convey gendered messages in favor of female subordination and male privilege and control in the name

of men's responsibility to take care of their partners. Sometimes, such messages are exhibited in a form of disdainful or unresponsive attitudes. For example, a survivor of spousal rape in Bergen's (1996) study recounted that the responding officers did not take spousal rape seriously, and verbally harassed her, asking her embarrassing questions about details of her victimization.

Understanding the Variation in Police Response to IPV

It is possible that police officers are now less likely to overtly show dismissive attitudes and unsupportive responses to partner-victimized women. There are certainly a substantial number of police officers who provide women with appropriate, timely services and legal support. However, it is also true that there are still many women who do not receive quality services when they approach police for help. A number of factors can explain the variation in police response to IPV. First, it is often alleged that police responses to IPV are determined by the traditional police culture that emphasizes fighting crime and machismo (Hoyle, 1998). IPV may be seen as not "real" police work within the traditional police culture (Hoyle, 1998; Young, 1991). Some officers who internalize this traditional value may still define IPV as trivial, and therefore they are unresponsive and indifferent when dealing with women abused by an intimate partner. There is widespread agreement that police make fewer arrests in cases where the victim has an intimate partnership with the perpetrator (Bachman & Coker, 1995; Buzawa, Austin, Buzawa, 1995; Dobash & Dobash, 1979; Felson & Ackerman, 2001; Felson & Paré, 2005).

Furthermore, police decisions on how to respond to IPV can derive from the characteristics of the incident, perpetrator, and victim. Police officers may take the case seriously when they believe there is enough evidence that violence has taken place or when the victim is injured (Bachman & Coker, 1995; Feder, 1996). Police officers may also take the case

seriously and make an arrest when there is a witness present at the scene (Robinson & Chandek, 2000). Additionally, police decisions can also be affected by whether the incident occurs at night or on the weekend, whether it is a misdemeanor or aggravated assault, or whether a weapon is involved (Lee, Zhang, Hoover, 2013). Perhaps, these police responses are largely affected by the policies and guidelines on how to respond to IPV calls in each jurisdiction. Furthermore, a perpetrator who challenges police authority and remains aggressive in the presence of police officers is more likely to be arrested (Buzawa & Buzawa, 1993; Feder, 1996; Worden & Pollitz, 1984). An African-American perpetrator is more likely to be arrested compared to a White perpetrator (Bachman & Coker, 1995). In addition, the race of a victim may influence the police response to IPV calls. Although conclusive evidence has not been established, some studies have found that White victims receive higher quality police services compared to non-White victims (Ferraro, 1989; Robinson & Chandek, 2000).

Finally, the personal characteristics of police officers can affect the way that they respond to IPV calls. Robinson (2000) found that White officers are more likely to make an arrest than non-White officers. Female officers are less likely to use coercive actions on perpetrators and more likely to provide supportive actions for victims than male officers (Robinson & Chandek, 2000; Sun, 2007). Stalans and Finn (2000) observed 40 female and 214 male police officers, and found that compared with male officers, female officers were more inclined to consider victims' preferences for arrest and non-arrest and provided more referrals to women's shelters. In addition to gender, work experience as police officers may also influence their responses to IPV. Logan, Shannon, and Walker (2006) found that as officers work longer and gain more experience, they perceive sanctions as less appropriate for IPV offenders. This may be due to

senior officers having less education and training for up-to-date strategies and tactics that may be employed to respond to IPV offenders than newer officers (Logan et al., 2006).

Victim-police Interactions Associated with Women's Re-contacts with the Police

The literature reviewed for this section was limited to studies of women's re-contacts with the police for help with IPV. Eligible studies must include a sample of adult women who have experienced physical, sexual, psychological, or verbal abuse, or economic control by a male intimate partner and who have sought help from the police at least once. Studies involving a sample of males, homosexuals, or females under the age of 18 were excluded. Studies were excluded from the review if both initial contact and re-contact with the police were not related to IPV.

In addition, eligible studies must address the relationship between victim-police interactions and women's subsequent contacts with the police for help or intentions to contact. In this review, the victim-police interactions represent women's experiences with and perceptions of the police during or after IPV complaints. The search was limited to peer-reviewed journals, theses, dissertations, book chapters, and reports that were all published between 1970 and 2015. Quantitative, qualitative, and mixed method studies were included in the review. There was no restriction on geographic locations, yet studies had to be written in English. Twenty-one studies were included in this review, in which 19 studies were conducted in the United States.

The review identified a number of victim-police interactions that may support or hinder their subsequent contacts with the police for help with IPV. The identified victim-police interactions diverge within six themes: 1) police demeanor toward women, 2) police provision of

legal information and support, 3) police actions to help women escape abuse, 4) police responses to IPV, 5) whether women's outcome preferences are supported by police, and 6) whether women are arrested.

Police Demeanor toward Women

Studies generally support that how police officers behave toward women is associated with women's decisions to avoid or return to the police in the future. Positive police demeanor toward women abused by their intimate partners is important given that they have been abused by their partners. Research reveals that women who view police as being interested in helping them (Johnson, 2007), concerned and respectful (Avelar, 2014), and understanding and supportive (Cattaneo, 2010) are more likely to call the police again if necessary. On the other hand, women are hesitant to re-contact the police after encountering police officers who blame them for causing the violence (Gover et al., 2013; Grauwiler, 2008; Walker-Quarterman, 2013), treat them like criminals and property (Fischer & Rose, 1995), who are disrespectful and look angry (Apsler et al., 2003; Burgess-Proctor, 2012a), do not listen to their stories (Cattaeno, 2010), and make fun of them (Bergen, 1996).

However, several studies suggest that how police behave toward women may not be related to women's decisions to re-contact the police in the future. It is suggested that police officers' attitudes, such as being concerned about women (Brown, 1984) and listening to women's stories (Hickman, 2000), do not affect women's decisions to seek help from the police in the future. Furthermore, studies suggest that even if women encounter police officers who are rude, hostile, angry, or concerned about their own safety, they may keep calling the police for

help with their partners' abuse (Brown, 1984; Meyer 2011; Muraoka, 1996; Shoham, 2000). This may be due to women's lack of other sources of help to escape the abusive situation.

Police Provision of Legal Information and Support

The police are a legal resource for women who need information and support about how to respond to their partners' violence against them (Ragusa, 2013). Previous studies suggest that women who receive legal information and support by police are likely to seek help from the police in the future. The information found in the literature includes general information about IPV and legal rights as IPV victims (Brown, 1984; Cattaneo, 2010). It also includes protection steps, such as restraining orders, protection orders, and warrants (Johnson, 2007; Nguyen, 2003). Considering that many partner-abused women live in an environment where having access to information for help sources is limited, the legal information and support provided by police may be a starting point from which to address the situation in a legal manner. For instance, Nguyen (2003), studying 12 Latina women whose intimate partners committed physical, psychological, sexual, economic, or verbal abuse against them, found that 83% of the sample affirmed their growth in knowledge regarding the existence of restraining orders. This might further allow them to take steps to improve their lives and help navigate the legal system.

Police Actions to Help Women Escape Abuse

The police are a critical source of assistance, and can provide short- and long-term help to partner-abused women so that they can escape abuse. This review found a number of police actions related to women's subsequent help-seeking behaviors. These typically include helping women leave the house, stopping the ongoing violence at the scene, taking the perpetrator out of

the house, giving the perpetrator a warning, and providing referrals to shelters or other victim service agencies (Cattaneo, 2010; Fleury et al., 1998; Johnson, 2007). These actions are critically important because they can shed light on factors that facilitate women's access to the police for future IPV. They can also shape women's perceptions of police ability to protect them and make them feel safe. These perceptions potentially can make the women feel confident that police could protect them in another IPV situation.

Other studies illustrate that police actions, such as doing nothing or doing less to resolve the ongoing violent situation (Bergen, 1996; Fleury et al., 1998; Meyer, 2011), and ineffective actions to stop or arrest the perpetrator (Avelar, 2014; Burgess-Proctor, 2012a), can discourage women from seeking help from the police in the future. These police actions can lead to women's perceptions that the police are ineffective in protecting them and helping them escape abuse, and thereby their help-seeking behaviors can be deterred. In addition, having police referrals to a safe place may not be beneficial for some women. Even if police referrals are intended to provide women with a safety net to protect against further battering, too routine referrals, often inappropriate for some populations such as immigrant women, may contribute to women's avoidance of the police as a source of help in the future (Brown, 1984; Bui, 2001). However, this relationship has been under-examined, and more research should be conducted in this area.

Police Responses to IPV

Research suggests that how police officers respond to IPV is related to women's decisions to re-contact the police for help with IPV. In particular, women's perceptions of how fast and seriously police respond to their cases are critical. Their perceptions are driven mostly

by whether police arrive at the scene straight away after receiving calls for help (Meyer, 2011) and treat their cases seriously (Avelar, 2014). The immediate and serious police response to IPV can provide evidence that can help women in their case processing. They can also telegraph to women that their cases are handled fairly. As a result, women may perceive that the police are a legitimate source of help. However, these findings were from only two studies. More research attention should be given to how police respond to IPV in relation to women's decisions to contact the police for help.

On the other hand, women may refrain from seeking help from the police in the future when they encounter police officers who do not respond to their calls or respond to the calls very late after a significant amount of time has passed (Bergen, 1996; Burgess-Proctor, 2012a). This is most likely due to the fact that the amount of time before police arrive at the scene is a serious concern among women who are being abused. In addition, studies suggest that women who perceive that police do not take IPV seriously and respond to it indifferently are less likely to return to the police in the future. Specifically, police responses, such as minimizing IPV (Lanthier, 2008), acting bored and tired of responding to IPV (Gover et al., 2013), and not taking time and not putting effort in IPV cases (Cattaneo, 2010) are barriers to future help-seeking behaviors. Such police responses might lead victims to lose faith in the police after learning that police officers were indifferent and unconcerned, therefore they would not rely on police assistance in the future.

Whether Women's Outcome Preferences Are Supported

There is much variation in what women want from the police regarding case outcomes, but some similarities exist. A preference for arrest and non-arrest of the perpetrator is most often

discussed. Women may want their abusive partners arrested. However, others may not want their partners arrested. This may be particularly true for women who are worried about a loss of the father for their child, a loss of the family source of income, or have an emotional attachment to their partners (Bui, 2001; Burgess-Proctor, 2012a; Goodman, Bennett, & Dutton, 1999; Gover et al., 2013; Rodriguez et al., 1998). Research suggests that women whose expectations for having the perpetrator arrested or not arrested are supported by police are likely to keep utilizing police services (Hickman, 2000), and women who do not receive their arrest preferences from police are likely to refrain from contacting the police (Bui, 2001; Burgess-Proctor, 2012a). In addition to the preference for arrest and non-arrest, when a request for a protection order or offender counseling program is supported by the police, women are more likely to indicate that they would contact the police in the future (Apsler et al, 2003; Fischer & Rose, 1995; Muraoka, 1996).

However, there is some evidence that even though women's preferences for non-arrest are unmet, women would keep contacting the police for help when they experience violence from their partners again. Apsler et al. (2003) found that among abused women whose partners were arrested despite their objections, the majority reported their willingness to call the police in the future. This finding is supported by Buzawa, Hotaling, and Bryne (2007) and Lanthier (2008), suggesting that although women may initially resist the arrest of their partners, they will contact the police for help in the future. Perhaps, these women want to seek police assistance for their revictimization because they have no alternative. It may be that their wishes for a more helpful police response in the future is more attractive than taking no action (Apsler et al., 2003). It is also probable that they think that the police do their job following an arrest policy (Apsler et

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al., 2003). They may have also found subsequently that their partners' arrest helped discontinue further attacks (Apsler et al., 2003).

Arrest of Women

There is strong consensus in the literature that women who are arrested or charged as a result of reporting their victimization to the police avoid further police assistance. Lantheir (2008) interviewed 56 Canadian victims of physical abuse, harassment, or stalking, and found that none of the women who were charged with domestic assault reported that they would call the police again. This finding is supported by Burgess-Proctor (2012a) and Leisenring (2012), who suggest that the arrest of women in an abusive partnership results in their reluctance to call the police for help in the future. In addition, prior experience of being threatened with arrest is also related to women's avoidance of police contact for help in the future (Walker-Quarterman, 2013). One limitation is that there is little depth of findings in the studies mentioned above because they used only a small interview sample. Additional research with a larger sample must be conducted to examine the relationship between the arrest of women and women's contacts with the police for help.

Gaps in the Literature

The literature review identifies a number of victim-police interactions experienced and perceived by women while interacting with police officers during their IPV complaints. The literature suggests that women's diverse experiences and interactions with the police can explain why some women avoid the police and others return to the police for help in the future.

However, there are several important gaps in the literature that the current research seeks to address: 1) small sample size, 2) selective sample, and 3) lack of empirical testing.

First, most of the studies were limited due to their small sample sizes. The smallest sample size was 10 and the average sample size across the studies was 110. A possible threat from the small sample size is that some important types of victim-police interactions could be masked because the small sample size is not sensitive to a single or a few cases that may be more prevalent in a larger sample.

Second, samples were highly selective. The majority of the studies recruited their samples from shelters. A critical point is that shelter victims may be different from non-shelter victims. It is possible that shelter victims might have been more knowledgeable of help-seeking sources than non-shelter victims, which might lead them to rely on other victim services rather than the police. It is also possible that shelter victims might have more accumulated negative experiences with the police than non-shelter victims before they reached out to the shelters. Although two studies reviewed employed non-shelter samples, they have some other limitations. First, Apsler et al. (2003) employed a sample of 95 women from a police department and found that 89% of the sample reported that they would use police again even if their preferences for arrest or no arrest were ignored. This result may be misleading because it could have resulted from the interview procedure in which police officers interviewed the women. This interview procedure could potentially affect women's responding favorably to please the police interviewers. Second, Cattaneo (2010) utilized a sample of 820 female victims of IPV from victim service agencies and communities. However, the study was limited to bivariate analyses.

Finally, few studies empirically tested the association between victim-police interactions and women's future contacts with the police for help. While the qualitative research provides an

in-depth understanding of complex contexts of women's help-seeking behaviors and discloses grey areas of their interactions with police officers, the lack of clear association is still challenging to predict whether these interactions are associated with an increase or decrease in subsequent contact with the police. Although several studies employed quantitative data and used statistical models in order to explore this relationship (i.e., Cattaneo, 2010; Fleury et al., 1998; Johnson, 2007), these studies were limited to bivariate analyses. In studies employing multivariate regression models, the exclusion of important variables and misinterpretation of regression coefficients (i.e., Avelar, 2014) threatened the reliability of their empirical testing.

In order to fill these gaps described above, the current study includes a more diverse and larger sample and conducts a regression analysis. This study involves a sample of 952 women who had experienced physical, sexual, and/or psychological violence from their intimate partners. They were recruited through victim service or criminal justice agencies or a community sample. In addition, various victim-police interaction variables are included in a regression model to examine whether the victim-police interactions are associated with women's intentions to re-contact the police for help in the future. Confounding factors are also controlled for in an additional regression analysis.

Sociodemographic Characteristics Associated with Women's Contacts with the Police

The help-seeking process is distinct for each woman, and it often involves a series of decisions (Kingsnorth & Macintosh, 2004; Liang, Goodman, Tummala-Narra, & Weintraub, 2005). An important point is that the decision to seek help from the police may be related to a woman's sociodemographic characteristics in addition to her prior interaction with the police during the IPV complaint. This may provide an explanation for why some women continue to

contact the police for help even if they have received poor quality services. Women may keep

calling the police for help with their partners' abuse though they encounter police officers who

behave unprofessionally and rudely (Shoham, 2000). Those who do not receive support from the

police in regard to their outcome preferences may also keep contacting the police for help

(Buzawa et al., 2007). The relationship between women's interactions with the police and their

future contacts with the police for help with IPV may be mediated by their sociodemographic

characteristics, such as race, marital status, income, employment status, educational level, and

having children. There are mixed findings regarding the impact of women's sociodemographic

characteristics on their decisions to contact the police for help with IPV. An overview of the

research findings is below.

There are some indications that race may impact women's decisions to seek help from the

police, but findings vary across the studies. Several studies have found that African-American

women are more likely to seek police assistance for their partners' abuse compared with White

women (Akers & Kaukinen, 2009; Gondolf, Fisher, & McFerron, 1991; Lipsky, Caetano, Field,

& Larkin, 2006). However, there are opposing results suggesting that White women than non-

White women are more likely to seek police assistance in IPV (Johnson, 1990; Thompson &

Kingree, 2006). In some other studies, the race of a woman is not related to her decision to seek

police assistance for her partners' violence (Avelar, 2014; Berk, Berk, Newton, & Loseke, 1984;

Fleury et al., 1998; Hirschel & Hutchison, 1998).

Marital status may be related to women's contacts with the police for help in cases of

IPV. Studies have suggested that married women are consistently more oriented to obtaining

police help than unmarried or cohabiting women (Fleury et al., 1998; Hirschel & Hutchison,

1998; Johnson, 1990). It may be that married women invest a lot of time to resolve marital

conflict. Alternatively, unmarried or cohabiting women may believe that they are not eligible for

formal services for their victimizations, and therefore they do not seek help from the police

(Hirschel & Hutchison, 1998). On the other hand, there are conflicting results suggesting that

women in a cohabiting relationship contact the police more often than women in a marital

relationship (Akers & Kaukinen, 2009; Berk et al., 1984; Bonomi, Holt, Martin, & Thompson,

2006). It may be that married women have stronger ties to their partners or feel trapped in the

abusive partnership, which may serve as barriers to reaching out to the police for help (Akers &

Kaykinen, 2009).

Women's socioeconomic status is also a controversial variable. Hickman (2000) found

that women who are more financially dependent on the perpetrator are less likely to call the

police for help with IPV (Hickman, 2000). On the other hand, studies have revealed that low-

income and unemployed women contact the police more often than high-income and employed

women for IPV (Johnson, 1990, Kantor & Straus, 1990; Muraoka, 1996). When it comes to

education, research has shown that as women earn a higher educational degree, they attempt

fewer contacts with the police for their partners' abuse (Abel & Suh, 1987; Muraoka, 1996).

Several other studies have found that women's income level, employment status, and educational

level do not impact their decisions to seek help from the police for their partners' abuse (Akers &

Kaukinen, 2009; Avelar, 2014; Cattaneo, 2010; Hirschel & Hutchison, 1998).

Finally, having children may be a factor that affects women's decisions to contact the

police for help with their partners' abuse. Carlson, Harris, and Holden (1999) found that having

biological children with the abusive partner increases women's reporting of a new victimization

to the police nearly four times. Consistent with this result, Akers and Kaukinen (2009) suggest

that women with dependent children are more likely to call the police when they experience

violence from their partners compared to women without dependent children. These findings

indicate that having children can serve as an encouraging factor for some women to be involved

in seeking police help for IPV.

CHAPTER 3. THEORETICAL FRAMEWORK

Although our knowledge of IPV has expanded over the past three decades, theory that would provide a framework for understanding victims' help-seeking remains underdeveloped. Much of the previous work on victims' help-seeking in the criminal justice system has focused on who seeks help and which source of help is utilized, rather than how and why victims make such decisions (Burgess-Proctor, 2012b). In particular, victims' prior experiences and interactions with criminal justice service providers have been largely omitted in a theoretical context that may account for their ongoing engagement with the criminal justice system in the help-seeking process. This research holds a theoretical stance that help-seeking is a process that develops over time in which the quality of victim-police interactions can influence the development. The theoretical framework informing this stance is based on a cognitive process model developed by Liang et al. (2005) and procedural fairness.

Cognitive Process Model

Liang et al. (2005) propose a conceptual framework for understanding the processes of help-seeking among IPV victims. They conceptualize that victims' decisions to seek help from either informal (e.g., family, friends, religious leaders) or formal (e.g., police, courts, shelters) sources of help involves a three-stage cognitive process: 1) a process of recognizing and defining a problem, 2) a process of deciding to seek help, and 3) a process of selecting a source of help. In this model, victims' help-seeking is understood as a reciprocal, multilayered process influenced by a wide array of individual, interpersonal, and sociocultural factors. Below are details of each stage of the cognitive process model.

The first stage is problem recognition and definition. This stage involves a cognitive process of how women in an abusive partnership view their situation and recognize it as a problem. According to the CDC, IPV is defined as physical violence, sexual violence, stalking, and psychological aggression by a current or former intimate partner (Breiding et al., 2015). However, not all victims who fit the definition view themselves as victims. A range of individual, interpersonal, and sociocultural factors affect the process of which victims define themselves as IPV victims. First, individual factors relate to women's personal characterization of whether the violence is undesirable. As they recognize that the violence is serious and not their fault, they begin to define themselves as victims. In addition, how other people (i.e., family, friends, neighbors, partners) define IPV can also influence this defining process. For example, the abusive partner's patriarchal beliefs may influence the victim's beliefs less sensitive to the partner violence. Conversely, interacting with people who hold perceptions that IPV is serious and threatening can construct and shape the victim's definition of IPV. As a result, she may begin to define her as a victim. Furthermore, sociocultural characteristics, such as low socioeconomic status, minority status, immigration status, and holding traditional gender norms, can guide women's conceptualization of IPV. For example, research shows that women who endorse patriarchal ideology have a tendency to blame themselves for their partner's violence and believe that they benefit from the violence (Zaatut & Haj-Yahia, 2016).

As a second stage, once women recognize their situation as undesirable, they decide whether to seek help. The process of deciding to seek help involves women's repeated assessment of their situation and the needs for assistance. The decision to seek help is affected by a number of individual, interpersonal, and sociocultural factors. Individual factors at this stage are mainly related to severity of the violence. As women experience more severe violence,

they are likely to perceive that trying to solve the problem themselves will not change their situations. Consequently, they become aware of the need for outside assistance. In regards to interpersonal factors, Liang et al. (2005) emphasize women's prior social interactions with family, friends, acquaintances, or formal service providers. For example, weak or denied support from family when a woman asks for help or an encounter with unsupportive criminal justice agents may constrain her decision to continue to seek outside assistance. Furthermore, women's decisions to seek help are shaped by sociocultural factors, such as low socioeconomic status, minority status, and immigration status. For example, a lack of appropriate and accessible services and language barriers for immigrant women and costs of transportation for low-income women may impede their participation in help-seeking activities (Bui, 2001; Dutton, Orloff, & Hass, 2000).

The final stage is support selection. After having recognized that the abusive situation is a problem and the need for assistance, women choose a source of help. The type of support, either informal or formal, may vary depending on their particular needs and situation at the time when they decide to seek help. Liang et al. (2005) maintain that selecting a source of help is determined by a variety of individual, interpersonal, and sociocultural factors. Individual factors are related to women's coping and rational styles and cost-benefit analyses. By navigating individual circumstances and potential consequences of help-seeking, women choose a help provider for which they need emotional support from family and friends, counseling from professionals, or legal support from the criminal justice system. Interpersonal factors are related to the level of supportiveness and availability of informal support. For instance, women who have strong informal support may be likely to turn to formal support because the strong informal support helps them move forward, given potential challenges in seeking formal support, such as

babysitting, losing days of work, and paying for transportation. Moreover, sociocultural factors, such as holding to traditional gender roles and patriarchal beliefs can also influence women selecting a source of help. Women with strong patriarchal beliefs may cope with their violence within their family networks and seek less support from formal help-seeking agencies (Ahmad, Riaz, Barata, & Stewart, 2004; Haj-Yahia, 2002).

The theoretical emphasis of the cognitive process model is that victims' help-seeking is a process, and a broad range of individual, interpersonal, and sociocultural factors influence their help-seeking decisions. This model has been adopted in several studies on IPV victims' help-seeking behaviors. For example, Cattaneo, DeLoveh, and Zweig (2008) examined whether the experience of sexual violence within IPV affected victims' decisions to choose a formal source of help from law enforcement, prosecutors, hotlines, shelters, or rape crisis centers. They found that victims who experienced sexual IPV in addition to physical or psychological IPV were more likely to report that they did not seek any help when they felt they needed it. In addition, victims who experienced more severe physical and psychological abuse were more likely to report using any victim services, whereas victims with higher personal incomes were more likely to report using legal services for their partners' abuse. In a more recent study, Backes (2015) explored IPV victims' help-seeking patterns in terms of whether they sought formal sources of help. In the study, victims of physical violence were more inclined to seek help from law enforcement, whereas victims of sexual violence were likely to engage with health or victim service agencies. The study also found that presence of victim's injury and offender's use of a weapon were related to victim's help-seeking from law enforcement over victim service agencies.

Backes (2015) and Cattaneo and colleagues (2008) provide support for the cognitive process model by suggesting that multiple factors influence women's decisions about whether to

seek help and what resources they utilize. However, they did not consider victims' experiences and interactions with the source of help they initially sought, which may explain the *help-seeking process* that develops and evolves over time. In particular, they did not attempt to examine the relationship between victims' prior experiences and interactions with a help-seeking source and the continued utility of the source.

Rationale for the Application

Liang et al.'s (2005) cognitive process model has two primary strengths that can provide a theoretical framework for the current research. First, the model acknowledges that victims repeatedly assess their situations and choose the best option that would be helpful for them. Second, the model recognizes the influence of victims' interactions with a source of help. This theoretical viewpoint is particularly well-suited for the current study examining the impact of victim-police interactions on victims' intentions to re-contact the police for future IPV.

Women who seek help from the police for their partners' abuse report diverse experiences in their encounters with police officers (Fleury-Steiner, Bybee, Sullivan, Belknap, & Melton, 2006; Johnson, 2007; Stephens & Sinden, 2000). For example, a woman may encounter a police officer who treats her in a professional manner, provides sufficient legal information, and supports her request. If it is her first help-seeking experience with the police in the status of an IPV victim, this may lead to her perception that seeking help from the police is beneficial. On the contrary, if she is blamed by the officer for causing the violence and no support is given, she may believe that seeking help from the police next time will not yield different results. That is, her subsequent decision to seek help from the police may depend on what she experiences with police and how she defines her interaction with police. By employing Liang et al.'s (2005)

cognitive process model, the current study proposes that women's experiences and interactions with police officers during their IPV complaints are the key element that influences their future decisions to seek help from police for subsequent IPV.

Procedural Fairness

Procedural fairness can be described as the idea that people view the criminal justice system as fair, and part of this fairness relies on criminal justice actors behaving appropriately (Sunshine & Tyler, 2003; Tyler, 2000). For example, police behaviors toward a victim who experiences violence form her partner and calls the police for help, such as treating her in a respectful fashion and listening to her carefully, may shape her perception of procedural fairness of the police. Procedural fairness is a process-based model of regulation (Tyler & Huo, 2002). The processes criminal justice actors use in responding to people's needs and requests are critical because people are sensitive to the manner in which they exercise their authority (Tyler, 2000). If people view the police as fair and legitimate, they are likely to conform to the laws, cooperate with police activities, and empower the police when they perform their law enforcement duties (Sunshine & Tyler, 2003). More importantly, how fairly the police act is often more critical than how effectively the police solve a problem because the fair treatment can influence people's assessments on police legitimacy, which can eventually increase public compliance and cooperation with the police and support for police empowerment (Sunshine & Tyler, 2003).

Procedural fairness is achieved through the quality of social interactions because these interactions usually occur in a social situation in which individuals must engage with each other, often to solve a problem or address an issue (Tyler & Blader, 2003). The way that people treat each other varies greatly. This is also true when police respond to IPV complaints. Police

officers can behave professionally and respectfully in dealing with IPV victims, but in some cases, police officers also behave in a hostile or rude manner. An important aspect of procedural fairness is that the manner in which criminal justice actors—such as the police—treat people during their time at work greatly influences the way people view criminal justice agencies in general (Sunshine & Tyler, 2003). That is, the way people view the police—whether in a fair and legitimate light or in another light—is mainly driven by their individual interactions with police officers. For example, when a victim of IPV has a negative interaction with a police officer, she may come to find that the police are not trustworthy. This is why when criminal justice actors do not behave appropriately, the victim's perception of the criminal justice system is negatively impacted overall, and this can lead to a loss of trust in the criminal justice system and deter people from reaching out to criminal justice actors when they need help.

There are three elements that comprise procedural fairness: 1) quality of decision-making, 2) quality of interpersonal treatment, and 3) trustworthiness (Tyler & Blader, 2003; Tyler, Boeckmann, Smith, & Huo, 1997; Tyler & Huo, 2002; Tyler & Lind, 2002; Tyler & Wakslak, 2004). The quality of decision-making means that people view the decisions that are made in the criminal justice system, or by law enforcement specifically, as objective and fair—as opposed to subjective and depending on the officers' personal experiences and values. Professional behavior helps ensure that people view decisions made by criminal justice actors as objective as opposed to subjective. The second element, quality of interpersonal treatment, requires that people have experiences with the criminal justice system that lead them to believe that criminal justice agencies care about them, as evidenced by treating them with dignity and being respectful throughout the process. The third element, trustworthiness, indicates people's

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belief that the criminal justice agencies behave in a positive and ethical manner, guided by the goal of being fair.

In adopting procedural fairness and exploring IPV victims' re-contacts with the police for help, Hickman and Simpson (2003) examined whether victims who viewed the police as procedurally fair from their previous encounters were likely to report their subsequent victimization to the police. With a sample of 180 women who had been abused by their partner, however, the study found no support for procedural fairness. Their results suggested that victims who perceived the police as unfair were more likely to call the police in the future. However, the unexpected result might be due to the characteristics of their sample. The majority of the sample fell into a racial/ethnic minority group (40.8% African-Americans; 22.8% Hispanics; 33.3% Whites). It might be that even though the racial/ethnic minority women were more likely to view the police as unfair, they would rely on the police for future violence because the police might be one of the few resources that they have access to when they need help (Hickman & Simpson, 2003). Some women might also refrain from reporting victimization to the police due to their cultural circumstances, such as language barriers or immigration status (Hickman & Simpson, 2003). There is much to learn about how procedural fairness is related to IPV victims' help-seeking behaviors. Colquitt's research (2001) has helped create a foundation from which to consider procedural fairness. Procedural fairness can be measured through individuals' perceptions that their feelings and values matter during the procedures, they have influence over the outcome, they are able to appeal the outcome, and the procedures are unbiased, accurate, consistent, and ethical.

The occurrence of crime is often beyond police control, yet police can control the way they treat people with respect and in an unbiased manner (Sunshine & Tyler, 2003). Procedural fairness emphasizes the degree to which people perceive the police as fair and legitimate. This perspective provides a theoretical framework for the current study that attempts to understand why some victims of IPV avoid the police and others return to the police for help with future IPV. The quality of interactions that partner-abused women have in their initial encounters with police officers can be a key factor when they experience more violence and make a decision to contact the police for the violence. If the women view that police officers are following rules, behaving in an unbiased way, and are ethical in the manner in which they complete their work, they are likely to believe that the processes by which the police handle their complaints are fair and legitimate. The positive assessments of the processes can influence the women's willingness to support decisions made by the police. Such support may impact their willingness to return to the police when they need help from the police in the future–for example, when they experience violence from their partner. Considering this perspective, the current study applies procedural fairness in examining the relationship between victim-police interactions and IPV victims' intentions to re-contact the police for help in the future.

CHAPTER 4. METHODOLOGY

The current research examined the influence of women's interactions with the police on their intentions to re-contact the police for help with IPV. This research used survey data collected for the evaluation of federally-funded nonprofit victim service programs that provided direct services to female victims of domestic violence and sexual assault[1]. This chapter presents the research methodology. The following sections outline the data source, target population and sample eligibility, measures and variables, and the analysis plan.

Data Source

The STOP Violence Against Women Formula Grants Program is a federal program authorized by the Violence Against Women Act (VAWA) of 1994. It was reauthorized and amended by the VAWAs of 2000, 2005 and 2013. The STOP Program is administered by the Office on Violence Against Women (OVW) in the U.S. Department of Justice. For over two decades, the STOP Program has contributed to promoting a coordinated, multidisciplinary approach to improving responses of law enforcement, prosecution, courts, and victim service agencies to address the issues of domestic violence, sexual assault, dating violence, and stalking. The Program's recipients include all states and territories. Every state and territory receives a base amount of $600,000 and then a supplementary amount based on population (OVW, 2014). Each award must allocate 25% of funding for law enforcement, 25% for prosecutors, 30% for victim services, 5% for state and local courts, and 15% for discretionary distribution (OVW, 2014). An average of approximately 431,000 victims receive services supported by the STOP Program funds each year (OVW, 2014).

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[1] Grant Number 99-WT-VX-0010 from the National Institution of Justice to the Urban Institute.

In 1999, the National Institute of Justice (NIJ) initiated an evaluation, "National Impact Evaluation of Victim Program Through the STOP Violence Against Women Formula Program, United States, 2000-2001," conducted by Burt, Zweig, and Van Ness. The STOP Evaluation was designed to assess whether nonprofit victim services funded by the STOP Program had improved victims' safety and well-being and helped them work successfully with legal systems and other victim service agencies in their community. It specifically addressed the nature of victims' experiences of domestic violence and sexual assault, types of services victims used, factors influencing victims' patterns of service utilization, helpfulness and effectiveness of victim services, and interagency cooperation in response to violence against women. The STOP Evaluation is comprised of four surveys: 1) subgrantee survey through fax, 2) subgrantee survey by telephone, 3) help-seeker survey by telephone, and 4) community survey by telephone. The present research used the help-seeker and community surveys that involve a sample of women who had experienced physical, sexual, or psychological IPV.

Recruiting Sites

The first phase of recruitment involved a selection of impact states. Eight impact states were selected by considering state-level STOP administrative offices' levels of emphasis on creating collaborative efforts with local communities and other victim service agencies to deal with violence against women. Eight impact states that represented high, medium-high, medium, and low level of state agency promotion of collaborative efforts were chosen. The states were Colorado, Illinois, Massachusetts, Pennsylvania, Texas, Vermont, Washington, and West Virginia. These states also represented a balance of states across the country, including the New

England, Mid-Atlantic, South Atlantic, West-South-Central, East-North-Central, Mountain, and Pacific regions.

The second phase of recruitment involved a selection of victim service programs in the eight impact states. All STOP-funded nonprofit victim service programs[2] were rated on three criteria, including using STOP funds to offer direct services to victims, being funded by STOP for at least three years, and having received at least $10,000 in STOP funds. Of all programs that met these criteria, 200 programs were randomly selected across the country for the subgrantee surveys; 40 of those programs/communities located in the eight impact states (5 per state) were contacted to ask about their willingness to participate in the help-seeker and community surveys.

Recruiting and Interviewing Participants

The current research used the help-seeker and community surveys collected on the STOP Evaluation. The help-seeker survey was conducted from June to October 2001. The initial target sample size was 1,800 interviews (45 participants per program). Approximately 50% of the target number of interviews were obtained because some program agencies were reluctant to participate in the survey due to their concerns about vulnerability, confidentiality, and safety issues around victims and other problems associated with budget constraints, time limits, and informed consent procedures (Zweig & Burt, 2002)[3]. The number of interviews completed was 958 cases in 38 communities in this survey.

The help-seeker survey included 557 women recruited from victim service agencies (e.g., hotlines, shelters, counseling, health care facilities, and welfare offices) and 401 women

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[2] A total of $540.6 million was distributed into 6,500 subgrants across the states from 1995 to 1999. These subgrants were translated into approximately 4,700 individual projects, of which 1,200 were non-profit victim service programs (Burt, Zweig, Schlichter, & Andrews, 2000).
[3] Unfortunately, data necessary to calculate response rates are not available.

recruited from their legal partner agencies (e.g., law enforcement, prosecution, and courts).

These women were defined as help-seekers because they had contacted at least one of these

agencies for assistance for IPV. Agency staff responsible for victim services were trained to

have individual meetings with all women entering the agency during the data collection period.

The staff approached potential participants, described the survey, explained potential risks and

benefits of participation, confidentiality, and their rights as participants, and asked about consent

to participate in the survey. If a woman agreed to participate in the survey, she was asked to

provide her own contact information for a telephone interview. The telephone interview was

conducted by WESTAT, a professional surveying firm that had conducted other surveys in

sensitive subject areas, such as surveys on victimization and drug use (Zweig & Burt, 2002). All

the interviewers were female and the interviews lasted for one to two hours. All participants

who completed the interviews were paid a stipend of $30.

The community survey was conducted from November 2001 to February 2002. The

initial target sample size was 1,200 interviews (30 participants per program). Similar to the help-

seeker survey, approximately 50% of the target number of interviews were obtained. The

number of interviews completed in this survey was 673 cases from the same 38 communities

from which the help-seeker survey was conducted.

The community survey included a random sample of women through random digit

dialing of households. All women aged 18 to 35 years living in a household were eligible for

sampling. The same-trained interviewers who interviewed the help-seeker sample conducted

interviews with the community sample about IPV experiences, and no compensation was

involved. If a woman reported having experiences with domestic violence or sexual assault from

a current or the most recent former partner, she was asked to have a longer and more extensive

interview, equivalent to the help-seeker sample. All participants who completed the longer and more extensive interviews were paid a stipend of $30.

There is a caveat, which concerns potential biases resulting from different sampling strategies. The help-seeker survey used convenience sampling. This sampling frame was chosen in an attempt to access women who had used a wide array of STOP-funded victim service agencies. Conversely, the community survey used random sampling. The help-seeker sample might be more knowledgeable of formal sources of help and engaged in relatively more formal help-seeking activities than the community sample. Presumably, the help-seeker sample might be more likely than the community sample to use victim services other than the police. If this was the case, one segment of the study population might be systematically less likely to use the police than the other segment. This possibility was tested by including a dummy variable, denoting which sample the participant came from, in the regression analysis. The sample type was included in the analysis to address whether it has an impact on women's future intentions to re-contact the police for help.

Another bias relates to the age of participants. The community survey limited the age of participants to between 18 and 35, while the help-seeker survey had no such restriction. This resulted in notable age differences in the two samples. Although IPV affects women of all age groups, their help-seeking behavior may vary with women's age. For example, as a woman becomes older, she may be less likely to use formal networks to seek help because of internalized emotions and perceptions linked to a longer history of being a victim (Beaulaurier, Seff, Newman, & Dunlop, 2005). This possibility was tested by including age as a control variable in the regression analysis.

Target Population and Sample Eligibility

The target population for this research was women who had interacted with police for physical, sexual, or psychological IPV. To be eligible for this research, women who participated in the "National Impact Evaluation of Victim Program Through the STOP Violence Against Women Formula Program, United States, 2000-2001" must meet two criteria. First, an eligible participant must be an IPV victim. She must have experienced physical, sexual, or psychological violence perpetrated by her former or current husband, partner, boyfriend, or date. Participants who had been abused by a stranger, boss, relative, neighbor, or unknown perpetrator, were excluded from the analysis. Second, an eligible participant must have at least one prior contact with the police for their partners' violence against them. Participants who had never been in contact with the police were excluded from the study. In addition, participants who contacted the police for non-IPV incidents were excluded. Of all 1,631 women who participated in the STOP Evaluation, 928 women met the sample eligibility and were included in the analysis.

Measures and Variables

Survey questions from the STOP Evaluation were used for creating variables for the current research. Descriptions of measures and variables are below. The original survey questions and response options can be found in Appendix A.

IPV Measures

This research used a sample of women who had experienced physical, sexual, or psychological violence by their intimate partners. The violence measures were based on the Revised Conflict Tactics Scales (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996), the

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Canadian Violence Against Women Survey (Canadian Housing, Family and Social Statistics Division, 1993), and the 1996 Survey of Violence Against Women in Michigan (Michigan Department of Community Health, 1997).

Physical IPV was measured with six questions. Respondents were asked how often they had experienced the following types of violence by an intimate partner: 1=*throw anything*, 2=*push, grab, or shove*, 3=*slap, kick, beat, or hit with a fist*, 4=*hit with an object*, 5=*choke or beat up*, and 6=*threaten to use or use a weapon*. For these questions, respondents were asked to select one of the following responses: 1=*never*, 2=*once*, 3=*a few times a year*, 4=*about once a year*, 5=*a few times a month*, 6=*several times a week*.

Sexual IPV was measured with two questions. One question was whether respondents ever had sexual intercourse including vaginal, oral, or anal intercourse when they did not want to. For this question, they were asked to answer *yes* if they had and *no* if they did not have. The other question was about how often respondents' husbands or partners forced them into any sexual activity against their will. They were asked to select one of the following responses: 1=*never*, 2=*once*, 3=*a few times a year*, 4=*about once a month*, 5=*a few times a month*, and 6=*several times a week*.

Psychological IPV was measured with nine questions representing emotional abuse and controlling tactics. Respondents were asked about the degree to which their husbands or partners exhibited the following behaviors: 1=*show jealousy*, 2=*call their names to put them down or make them feel bad*, 3=*try to limit their contact with family or friends*, 4=*insist on knowing who they were with and where they were at all times*, 5=*prevent them from knowing about or having access to the household or family income*, 6=*damage/destroy their possessions or property*, 7=*harm/threaten to harm someone close to them*, 8=*threaten to hurt their children or to take*

them away, and 9=*threaten to hit with a fist or anything*. For all these questions, respondents were asked to select one of the following responses: 1=*not at all*, 2=*a little*, 3=*somewhat*, and 4=*a lot*.

Dependent Variable

Women's willingness to re-contact the police for their partner's abuse was the dependent variable in this research. The measure of the dependent variable came from a single question. Respondents were asked if they had to deal with domestic violence, rape, or sexual assault issues in the future, how likely were they to contact the local law enforcement again. For this question, respondents were asked to choose one of the following responses: 1=*definitely not*, 2=*probably not*, 3=*probably would*, and 4=*definitely would*. This variable remained ordinal. Ordinal logistic regression was chosen to test the research hypothesis.

Victim-police Interaction Variables

In examining women's willingness to re-contact law enforcement for help with IPV, multiple predictors were employed, which measure victim-police interactions experienced and perceived by women during their most recent IPV complaints. Seven victim-police interaction variables were hypothesized to increase women's willingness to contact law enforcement. For ordinal variables, a higher value was hypothesized to increase the willingness to contact law enforcement. For dummy variables, a value of 0 was hypothesized to increase the willingness to

contact law enforcement. A value of 1 for dummy variables indicates a reference category in this study.[4]

Supportive demeanor toward women*.* Three questions ascertained respondents' perceptions of supportive police demeanor toward them. They were asked to indicate whether the officers believed their stories, whether the officers supported their decisions, and whether the officers supported their use of legal remedies (e.g., the police, getting a protective order, pressing charges). For all the questions, respondents were asked to select 1=*yes* or 0=*no*. The questions were summed to form a single variable, which produced values ranging from 0 to 3. The variable was recoded as an ordinal variable ranging from 1 to 4, with 1 indicating *the least supportive police demeanor* and 4 indicating *the most*.

Provision of legal information and support*.* Three questions were used to measure whether the police provided respondents with legal information and support. They were asked whether the police gave them written information about domestic violence, whether the police gave them written information about the legal system, and whether the police kept them up-to-date in the case and legal process. Respondents were asked to select 1=*yes* or 0=*no* for all these questions. The questions were summed to create a single variable, which produced values ranging from 0 to 3. The variable was recoded as an ordinal variable ranging from 1 to 4, with 1 representing *the least legal information and support from the police* and 4 representing *the most*.

Police effort to secure women's safety and protection. Five questions were used to capture the extent to which respondents felt safe and protected by police. Respondents were asked whether the officers were effective in making them feel safe and whether the officers

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[4] This coding strategy was used for all dummy variables included in this research because the SPSS ordinal logistic regression does not have the option to specify a reference category. Instead, it automatically takes the highest value, 1, as a reference category.

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helped them leave the house. For the two questions, they were asked to indicate one of the following responses: 1=*not at all*, 2=*a little*, 3=*somewhat*, and 4=*very*. Respondents were also asked whether the officers followed them to check their safety and wellbeing and whether the officers took photos of injuries at the time or a few days later. For the three questions, they were asked to select 1=*yes* or 0=*no*. All five questions were summed to form a single variable, which produced values ranging from 2 to 11. The variable was recoded as an ordinal variable ranging from 1 to 10, with 1 indicating *the least effort* and 10 indicating *the most*.

     Police effectiveness in stopping the partner. Two questions were used to measure respondents' perceptions that police were effective in stopping the perpetrator. Respondents were asked whether the officers were effective in stopping the partner from being violent and whether the officers were effective in getting the partner out of the house. For these questions, they were asked to choose one of the following responses: 1=*not at all*, 2=*a little*, 3=*somewhat*, and 4=*very*. The questions were summed to create a single variable, which produced values ranging from 2 to 8. The variable was recoded as an ordinal variable ranging from 1 to 7, with 1 representing *the least effective* and 7 representing *the most*.

     Police referral. Respondents were asked if the police referred them to a battered women's shelter or domestic violence program. They were asked to report *yes* if they had a referral and *no* if they did not have a referral. The variable was coded 0 indicating *having a referral* and 1 indicating *having no referral*. *Having no referral* was used as a reference category.

     Partner arrest. Respondents were asked whether their current or past husband, partner, or boyfriend was arrested for IPV. They were asked to report *yes* if their partners were arrested

and *no* if they were not arrested. The variable was coded as 0=*partner arrested* and 1=*partner*

not arrested. *Partner not arrested* was used as a reference category.

   Women's sense of control. Respondents were asked if they felt in control of the police

response. They were asked to choose one of the following responses: 1=*not at all*, 2=*a little*,

3=*somewhat*, and 4=*very*. This variable remained ordinal.

   Three victim-police interaction variables were hypothesized to decrease the willingness

of women contacting law enforcement in the event of future IPV. For ordinal variables, a higher

value was hypothesized to decrease the willingness to contact law enforcement. For dummy

variables, a value of 0 was hypothesized to decrease the willingness to contact law enforcement.

   Hostile police demeanor toward women. Three questions ascertained respondents'

perceptions of hostile police demeanor toward them. They were asked whether the officers

blamed them for causing the violence, whether the officers scolded them for not following

through with a prior incident, and whether the officers threatened them. They were asked to

select 1=*yes* or 0=*no* for these questions. The questions were summed to form a single variable,

which produced values ranging from 0 to 3. The variable was recoded as an ordinal variable

ranging from 1 to 4, with 1 indicating *the least hostile* and 4 indicating *the most*.

   Indifferent police response. Four questions were used to measure the extent to which

respondents viewed police officers as indifferent to their IPV complaints. They were asked

whether the officers acted bored, whether the officers said there was nothing they could do,

whether the officers said there was not enough evidence, and whether the officers the told them

to 'patch things up' with their partners. They were asked to select 1=*yes* or 0=*no* for these

questions. The questions were summed to create a single variable, which produced values

ranging from 0 to 4. The variable was recoded as an ordinal variable ranging from 1 to 5, with 1

representing *the least indifferent* and 5 representing *the most*.

    Arrest of women. Respondents were asked whether they had been arrested by the police

as a result of calling the police for help with IPV. They were asked to report 1=*yes* if they had

ever been arrested and 0=*no* if they had never been arrested. This variable was coded as

0=*women arrested* and 1=*women not arrested. Women not arrested* was used as a reference

category.

Control Variables

    This research employed women's sociodemographic characteristics as controls in

examining the association between victim-police interactions and their willingness to contact law

enforcement for future IPV. Additionally, whether women were recruited from the help-seeker

survey or the community survey was also included as a control.

    Age. Respondents were asked for the year that they were born. A continuous variable

was created by subtracting the birth year from the year they were interviewed.

    Race/ethnicity. Respondents were asked two questions about their race and ethnicity.

One question asked them to indicate which of the following best described their racial

background: 1=*White*, 2=*Black/African-American*, 3=*Asian/Pacific Islander*, 4=*American

Indian/Alaskan Native*, and 5=*other*. The other question asked them to indicate whether they

were of Hispanic origin. The majority of the respondents were identified as *White non-Hispanic*

(78%), and there were few respondents identified as other racial groups[5]. Hence, these two

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[5] Black or African-American non-Hispanic (6%); Asian or Pacific Islander non-Hispanic (1%); American
Indian or Alaskan Native non-Hispanic (7%); other non-Hispanic (1%); Hispanic (7%)

questions were collapsed into a dichotomous variable coded as 0=*White* and 1=*non-White*. *Non-White* was used as a reference category.

Annual personal income. Respondents were asked to report their personal income from all sources, such as work, child support, welfare, and any other government benefits, before taxes in the year prior to data collection. They were asked to select one of the following categories: 1=*less than $5,000*, 2=*$5,000 to under $10,000*, 3=*$10,000 to under $15,000*, 4=*$15.000 to under $20,000*, 5=*$20,000 to under $25,000*, 6=*$25,000 to under $30,000*, 7=*$30,000 to under $35,000*, 8=*$35,000 to under $50,000*, 9=*$50,000 to under $80,000*, 10=*$80,000 to under $100,000*. Given that only 4.7% of the respondents reported annual incomes of $35,000 or above, the variable was recoded as ordinal ranging from 1 to 8, representing 1=*less than $5,000*, 2=*$5,000 to under $10,000*, 3=*$10,000 to under $15,000*, 4=*$15.000 to under $20,000*, 5=*$20,000 to under $25,000*, 6=*$25,000 to under $30,000*, 7=*$30,000 to under $35,000*, and 8=*over $35,000.*

Educational level. Respondents were asked about the highest level of education they had completed. They were asked to select one of the following categories: 1=*no formal schooling*, 2=*1st-8th grade*, 3=*some high school*, 4=*high school diploma*, 5=*general equivalency diploma (GED)/adult basic education(ABE)*, 6=*vocational/technical/business school*, 7=*some college*, 8=*2-year college degree*, 9=*4-year college degree*, and 10=*postgraduate degree*. This variable was recoded as ordinal ranging from 1 to 6, representing 1=*less than high school*, 2=*high school/GED/ABE*, 3= *vocational/technical/business school*, 4=*some college*, 5=*2/4-year college degree*, and 6=*postgraduate degree.*

Employment status. Respondents were asked whether they were employed at a job or business including self-employment at the time of the interviews. They were asked to indicate

yes if they were employed and *no* if they were unemployed. This variable was coded as 0=*employed* and 1=*unemployed*. *Unemployed* was used as a reference category.

Marital status. Respondents were asked their current marital status at the time of the interviews. They were asked to select one of the following categories: 1=*married*, 2=*currently separated*, 3=*separated with no plans for reunion*, 4=*divorced*, 5=*widowed*, and 6=*never been married*. This variable was recoded as 0=*married and* 1=*single*. *Single* was used as a reference category.

Children. Respondents were asked whether they had any children. They were asked to indicate *yes* if they had children and *no* if they did not have children. This variable was coded as 0=*having children* and 1=*having no children*. *Having no children* was used as a reference category.

Sample type. In addition to respondents' sociodemographic characteristics, the sample type was controlled for because the combined sample came from two surveys utilizing different sampling strategies. A dummy variable was created and coded as 0=*help-seeker sample* and 1=*community sample*. *Community sample* was used as a reference category.

Analysis Plan

Preliminary Analysis

The current research involves a series of preliminary analyses to describe the sample and variables, explore missing data, transform variables into simplified forms for regression analysis, and explore individual relationships among variables. All analyses were conducted in SPSS 24.

First, descriptive statistics were computed for all variables of interest to explore the characteristics of the sample and variables. Minimum, maximum, and standard deviations were

computed for all variables. Percentages were computed for categorical variables while medians were produced for ordinal variables. In addition, means were computed for continuous variables. The descriptive statistics were also used to search for missing data.

Second, missing data were checked across all variables. The existence of missing data can hide true values that are meaningful for data analysis (Little & Rubin, 2014; Little & Schenker, 1995). Additionally, a few missing cases can shrink sample size if they are spread across multiple variables. Therefore, a missing data analysis was conducted to explore patterns and mechanisms of missing data and to choose an appropriate method for handling the missing data.

Third, a statistical technique was used for data reduction because this research employed 24 survey items to measure women's prior interactions with the police during their most recent IPV complaints. Of the 24 survey items, 20 items were manually allocated to six variables as they could be categorized into six broad themes based on the literature review. The rest remained as single-item variables for two reasons. First, they did not fall under the six broad themes. Second, the research interests focused on the investigation of their individual impacts on the outcome. The single-item variables included police referral, partner arrest, victim's sense of control, and victim arrest. Appendix B presents a list of victim-police interaction variables and original survey questions used for extracting the victim-police interaction variables.

The technique used in data reduction was a principal component analysis. Principal component analysis is a method for data reduction by transforming a given set of observed variables into a smaller set of meaningful variables (Kim & Mueller, 1978). In this research, a series of principal component analyses was run for the six pre-specified variables. Initial eigenvalues and factor loadings were used to assess whether the pre-specified variables were

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underlying components and survey items constructed for each component were relevant. Initial

eigenvalues denote the amount of variance in the items (observed variables) accounted for by

each component (Kim & Mueller, 1978). A higher initial eigenvalue indicates that the

component represents more variance in the items. In this study, an initial eigenvalue of 1 or

greater was used as a cut-off to determine whether each pre-specified variable is an underlying

component (Kaiser, 1960). Factor loadings illustrate the relationship of each item to a

component (Kim & Mueller, 1978). A larger factor loading means that the item is more strongly

related to the component. In regard to an acceptable factor loading, an item with a factor loading

of .40 or greater determined that the item is part of a component.

Fourth, bivariate statistics were obtained to explore individual relationships between the

independent and dependent variables. Bivariate statistics were also obtained for the control

variables. As descried earlier, this research involved an ordinal dependent variable and

categorical, ordinal, and continuous independent variables. Considering the level of

measurement of each variable, two analytic tools were used. First, a Kruskal-Wallis H test was

chosen for categorical independent variables. A Kruskal-Wallis H test is used as an alternative

to the one-way analysis of variance (ANOVA) when the dependent variable is ordered or ranked

(Chan & Walmsley, 1997). In the Kruskal-Wallis H test, a sum of the ranks in each category is

produced, and a statistical difference in the sums across the categories is assessed (Wall, 1986).

A chi-square test is commonly used for the assessment because the Kruskal-Wallis H statistic has

a very close approximation of the chi-square distribution unless the sample size is too small

(Kruskal & Wallis, 1952). A significant chi-square indicates that a relationship exists between

the two variables. Second, a Spearman's rank order correlation was chosen for ordinal and

continuous independent variables. A Spearman's rank order correlation is used to determine a

monotonic relationship between two variables that are measured on at least an ordinal scale (Corder & Foreman, 2014; Gibbons, 1993). A significant monotonic relationship was assessed by a Spearmen-rho coefficient range from -1 to +1. A coefficient of -1 indicates a strong negative association, a coefficient of +1 indicates a strong positive association, and a coefficient of 0 indicates no association.

Fifth, multicollinearity was assessed across all independent variables. Multicollinearity denotes a situation in which one independent variable in a regression model is correlated with another independent variable. In the presence of a high degree of multicollinearity, it is difficult to derive the unique impact of the multicollinear independent variable on the dependent variable (Berry & Feldman, 1985). Statistically, as the correlations among the independent variables increase, the standard errors of regression coefficients increase for those variables (Berry & Feldman, 1985). Consequently, regression coefficients may become unreliable (Lewis-Beck, 1980). For this reason, it is desired to remove one of the variables in the case that two or more independent variables are highly correlated. In this research, multicollinearity between independent variables was assessed by tolerance and variance inflation factor (VIF) statistics. Tolerance is a collinearity measure of an independent variable with another independent variable. Tolerance is calculated by subtracting the proportion of variance in an independent variable that it shares with another independent variable in the regression from 1 (O'Brien, 2007). A smaller tolerance value indicates higher multicollinearity. On the other hand, VIF measures the effect of collinearity between two independent variables on the regression coefficients (O'Brien, 2007). VIF is calculated by dividing 1 by the tolerance. A larger VIF value indicates higher multicollinearity. In this study, a tolerance value below .1 and a VIF

value exceeding 10 were used to determine high multicollinearity (Berry & Feldman, 1985; Menard, 2001).

Regression Analysis

Ordinal logistic regression was used to examine the effects of the victim-police interactions that were perceived and experienced by women on their willingness to contact the police for future IPV. Ordinal logistic regression was selected as the dependent variable was a four-level ordinal variable rather than a true continuous variable. Two ordinal logistic models were analyzed in this study. Model 1 included only the dependent and independent variables in the model. Model 2 added the control variables to Model 1. Regression coefficients, odds ratios, model fit tests, goodness-of-fit tests, and pseudo R-squares of both models were reported and assessed.

Ordinal logistic regression is closely related to logistic regression. Thus, an overview of logistic regression provides a useful tool to better understand ordinal logistic regression. Logistic regression analyzes a dichotomous outcome with two categorical values of 1 and 0. The value of 1 indicates an outcome occurrence, whereas the value of 0 indicates a non-occurrence. A direct application of linear function to a regression model with a dichotomous outcome is inappropriate for several conceptual and statistical problems, such as violations of linearity, additivity, normality, and heteroskedasticity (Pampel, 2002). Therefore, logistic regression takes a log transformation. First, logistic regression estimates the odds of an outcome occurrence by dividing the probability of an outcome occurrence (p) by the probability of a non-occurrence (1-p). Second, the odds is transformed by taking the natural logarithm. This log transformation eliminates the upper and lower boundaries of probabilities, which allows regression coefficients

to be ranged from negative infinity to infinity. The equation for logistic regression with a single independent variable follows (Pampel, 2002):

$$ln(Y) = ln\left(\frac{p}{1-p}\right) = \alpha + b_1 X_i$$

Where

Y = Odds of the outcome occurrence

α = Intercept (the value in the log odds when X_i equals to 0)

b_1 = Regression coefficient (the change in the log odds for a change in X_i)

X_i = Independent variable i

Ordinal logistic regression is an extension form of logistic regression when an outcome consists of more than two categories that are ordered or ranked (O'Connell, 2006). The current research used a dependent variable which consisted of four ordinal responses, coded as 1=*definitely not*, 2=*probably not*, 3, *probably would*, and 4=*definitely would*. Similar to logistic regression, ordinal logistic regression attempts to estimate the odds by comparing the probability of an event occurrence to the probability of a non-occurrence. However, ordinal logistic regression estimates the cumulative odds by comparing the probability of being in a lower (or higher) category to the probability of being in all higher (or lower) categories (Fagerland & Hosmer, 2016). The SPSS ordinal logistic regression takes the highest value as a reference category. For example, the probability of reporting *definitely not* is compared to the probability of reporting *probably not*, *probably would*, and *definitely would*. The probability of reporting *definitely not* and *probably not* is compared to the probability of reporting *probably would* and *definitely would*. Because one response category is compared to all others, the number of

possible outcome thresholds for regression is one less than the number of the ordinal responses (K-1). In this research, three thresholds were produced in the regression model. The equation for ordinal logistic regression with a single independent variable follows (O'Connell, 2006):

$$ln(Y_j) = ln\left(\frac{\pi_j(x)}{1-\pi_j(x)}\right) = \alpha + b_1 X_i$$

Where

Y_j = Cumulative odds of being at the jth category ($j=1, 2,... K-1$)

$\pi_j(x)$ = Cumulative probability of being at the jth category

In regard to the interpretation of the regression results, although regression coefficients (log odds) are useful tools, odds ratios are frequently used to express the relative chance of an outcome occurrence in an analysis using the logistic function. In addition, the interpretation of ordinal logistic regression is different and often more difficult than logistic regression (Field, 2009). Therefore, odds ratios were calculated for better interpretation for the impact of each independent variable on the dependent variable, women's willingness to contact law enforcement for future IPV. Bounded from 0 to infinity, an odds ratio was interpreted as a percentage increase or decrease of a higher response category of the dependent variable with a one-unit change in the independent variable.

Furthermore, model fit tests, goodness-of-fit tests, and pseudo R-square statistics were produced for both Models 1 and 2. First, model fit tests were used to assess whether there was a statistical difference between the baseline model with only the dependent variable and the final model with the dependent and independent variables. The difference between the baseline and final models was assessed by a chi-square. A statistically significant chi-square indicates that the

final model gives a significant improvement to predict the outcome better than the baseline

model. Second, chi-square goodness-of-fit tests were employed to assess whether the regression

models fit the data well. A statically significant chi-square indicates that the distribution of the

observed values in the data is different from the distribution of the expected values in the

regression model. Finally, pseudo R-square statistics were used as another method of indexing

the goodness-of-fit. Analogous to the R-square in a linear regression model, the pseudo R-

square accounts for the proportion of variance in a dependent variable predicted by independent

variables in a nonlinear regression model (Pampel, 2002). In this study, Nagelkerke's R-squares

were reported and interpreted as percentages of the variation in women's willingness to contact

law enforcement explained by victim-police interaction variables, women's sociodemographic

characteristics, and the sample type.

CHAPTER 5. RESULTS

This chapter presents the results of preliminary and regression analyses. This chapter consists of two sections. The first section presents the results of missing data analysis, principle component analyses, descriptive statistics, bivariate statistics, and multicollinearity diagnostics. The second section presents the regression results. Two ordinal logistic regression models were analyzed to examine the effects of victim-police interactions on women's future intentions to contact law enforcement for their partner's physical, sexual, and/or psychological abuse. Model 1 only included victim-police interaction variables. Model 2 included control variables in addition to the victim-police interaction variables.

Preliminary Results

Missing Data Analysis

The current study employed 32 survey items to create the independent and control variables for data analysis. Before dealing with missing data, it is critical to know about the existence and extent of missing cases. It appeared that of the 32 items, 26 items had at least one missing value. None of them had missing rates greater than 2.4%. Annual personal income had the highest missing rate of 2.4%. Since the number of missing cases for each item was small, listwise deletion was considered. Listwise deletion is a method used to drop missing cases from analysis. However, listwise deletion of those with missing data would have resulted in a 10% reduction in sample size, for a total sample of 834 complete cases. In order to avoid losing a large fraction of the data, imputation was considered.

Prior to choosing an imputation method, it was assessed whether the data subject to analysis in this study were missing completely at random (MCAR) or missing at random (MAR).

If data are MCAR, it is assumed that a missing value does not depend on any values that are observed (Little, 1988). If this is the case, handling missing data is straightforward because observed cases are considered a random subset of all the cases (Garson, 2015). Therefore, listwise deletion can still draw valid inferences when data are MCAR. However, if data are MAR, it is possible that a missing value may depend on values available in the data (Little, 1988). Under MAR, listwise deletion may result in biased inferences because the analysis that results when missing data are eliminated may differ from what would be found without missing data (Fichman & Cummings, 2003). Therefore, it is critical to consider a method to impute missing data with available information when data are MAR.

Little's MCAR test is a useful tool to verify whether data are MCAR or MAR (Little, 1988). Little's MCAR test divides the sample into two groups, one with and one without missing data, and detects a statistical difference between the groups using a chi-square test. A result of no statistical difference indicates that data are MCAR. In this research, the Little's MCAR test resulted in a chi-square of 1137.3 (df=1117, p=.330), suggesting that the data are MCAR, and therefore missingness does not influence statistical inferences. However, as mentioned earlier, the exclusion of the missing data would have reduced the sample size by 10%. Because of this, missing values were imputed in this study. Multiple imputation was chosen for filling in the missing values for all variables, except for the dependent variable. The dependent variable was excluded from the imputation procedure because it only contained three missing cases. The multiple imputation produced five imputed data sets with 925 complete cases. In all the following analyses, the pooled (combined) data set was used.

Principal Component Analysis

       As this research used 24 survey items to measure victim-police interactions, some data reduction was required. As detailed in the methodology chapter, 20 survey items were manually allocated to six variables. Initial eigenvalues were used to assess whether the six variables were underlying components. In addition, factor loadings were employed to assess whether each item loaded on a component is part of the component. Table 1 shows the results of the principal component analyses performed on the six pre-specified variables. As can be seen in the table, initial eigenvalues all exceeded 1 and factor loadings were all above .40, which were the recommended cutoffs in this research. Based on the results of principal component analysis, it was determined to use the six variables for the regression analysis. Four survey items, including police referral, partner arrest, victim's sense of control, and victim arrest, remained as single-item variables. Ten victim-police interaction variables were included in the regression analysis to predict women's willingness to re-contact the police for future IPV.

Table 1. Principal Component Analyses for Six Pre-Specified Victim-police Interaction Variables

	Factor Loading	Initial Eigenvalue
Supportive police demeanor toward women		
Believe her story	.862	
Support her decision	.861	2.168
Support her use of legal remedies	.827	
Police provision of legal information/support		
Information about domestic violence	.828	
Information about the legal system	.874	1.900
Up-to-date information on the case	.671	
Police effort for women's safety/protection		
Make her feel safe	.720	
Help her leave the house	.604	1.776
Follow-up safety check	.431	
Take photos of injury at the time	.628	
Take photos of injury later	.603	
Police effectiveness in stopping the partner		
Get the partner to stop being violent	.849	1.442
Get the partner out of the house	.849	
Hostile police demeanor toward women		
Blame her for causing the violence	.806	
Scold her	.627	1.574
Threaten her	.729	
Indifferent police response		
Act bored	.771	
Say 'nothing to do'	.770	2.126
Say 'not enough evidence'	.779	
Say 'patch things up' with the partner	.575	

Note: Ten victim-police interaction variables were included in the regression analysis. Six variables were confirmed by principal component analysis with 20 survey items. The rest of the variables were single-item variables, which include police referral, partner arrest, victim's sense of control, and victim arrest.

Descriptive Statistics

Descriptive statistics were computed for all variables of interest to present summaries about the sample and variables (see Table 2). The total sample consisted of 925 women after multiple imputation. The sample was fairly diverse on age and employment status. Women

were between the ages of 18 and 69, and the average age was 34 years. More than half of the sample had a job (60%).

However, there is a very large percentage of White, low-income, less educated, single, maternal, and active help-seeker population in this sample. Nearly 78% of the sample were White, which indicates the sample is fairly homogenous regarding race. When it comes to annual personal income, women were not evenly divided between income categories. The median score was 2 (1-8 scale), which shows that half of the sample earned less than $10,000 in 2000, the year prior to data collection. Furthermore, a small proportion of women were married at the time of the interview (12%). The median score of the educational level was 2 (1-6 scale), presenting that half of the sample completed a high school education at most. Specifically, 20.2% had less than a high school education, 32% attained a high school diploma, GED, or ABE, 26.7% had some college education, and 15% completed at least a college degree. The majority of the women were single, citing various reasons, including whether they had been divorced, separated, widowed, or always single (88%). Most of the sample had children (88%). The majority of the sample were recruited from the help-seeker survey (89%).

The dependent variable measured women's willingness to re-contact law enforcement for help with IPV or sexual assault with four ordinal responses. The median score was 4 (1-4 scale) indicating that half of the sample expressed high willingness to seek assistance from law enforcement for their partner's abuse. Specifically, nearly 62% reported that they would definitely contact law enforcement and 22% reported that they would probably contact law enforcement. Approximately 16% of the sample expressed their unwillingness to contact law enforcement for help in the future.

The independent variables measured women's experiences with and perceptions of the police during their IPV complaints. In regard to the variable of supportive demeanor of police, the median score of 4 (1-4 scale) means that half of the sample perceived that police were very supportive in helping them. Moreover, the median score of the police provision of legal information and support was 2 (1-4 scale), indicating that 50% of the sample reported that police provided them only a little legal information and support. In addition, the median score of women's perception of police effort for their safety and protection was 4 (1-10 scale), presenting that half of the sample reported lower levels of perceived police effort to ensure their safety and protection. With regard to women's perceived police effectiveness about stopping the partner, the median score of 4 (1-7 scale) points out that one half of the sample was below the moderate perception that police were effective in stopping the partner; another half was above the moderate perception. Furthermore, 51% of the sample had been referred to a women's shelter or domestic violence program by the police. Regarding the partner arrest, 39% reported that their partners had been arrested for partner-abuse violence.

With respect to the variable of women's sense of control of the police response, the median score of 3 (1-4 scale) indicates that half of the women felt somewhat powerful interacting with police officers. In addition, the median score of the hostile demeanor of police was 1 (1-4 scale). This suggests that half of the sample reported that police were not at all hostile toward them. When it comes to the variable of indifferent police response, the median score of 1 (1-5 scale) points out that 50% of the sample perceived that police were not at all indifferent to their IPV cases. Lastly, a very small proportion of the sample experienced their own arrests as a result of calling the police for their partner's abuse (3%).

Table 2. Descriptive Statistics (n=925)

	Range	Median	Mean	%	SD
Age	18 - 69	33	33.6		9.06
White				78	.41
Education	1-6	2			1.44
Less than high school				20.2	
High school/GED/ABE				32.0	
Vocational/technical/business				5.8	
Some college				26.7	
2/4-year college degree				13.6	
Postgraduate degree				1.6	
Employed				60	.49
Annual personal income	1-8	2			2.04
Less than $5,000				34.4	
$5,000 - $9,999				21.0	
$10,000 - $14,999				14.2	
$15.000 - $19,999				10.6	
$20,000 - $24,999				6.9	
$25,000 - $29,999				5.0	
$30,000 - $34,999				2.7	
$35,000 or above				5.3	
Married				12	.33
Having children				88	.32
Help-seeker sample				89	.32
Police contact for future IPV	1-4	4			.95
Definitely not				8.3	
Probably not				8.0	
Probably would				21.6	
Definitely would				62.1	
Supportive police demeanor	1-4	4			1.08
Police provision of legal information/support	1-4	2			1.09
Police effort for women's safety/protection	1-10	4			2.41
Police effectiveness in stopping the partner	1-7	4			2.27
Police referral				51	.50
Partner arrest				39	.49
Women's sense of control	1-4	3			1.17
Hostile police demeanor	1-4	1			.68
Indifferent police response	1-5	1			1.18
Arrest of women				3	.18

SD=Standard Deviation

Bivariate Statistics

Bivariate statistics were produced to explore individual relationships between all independent and control variables and the dependent variable. Table 3 shows the results of Kruskal-Wallis H tests that were run on eight categorical independent variables.

Table 3. Kruskal-Wallis H Tests

	Willingness to re-contact police		
	N	Mean Rank	Chi-square
Having police referral			
Yes	473	500.9	26.09[**]
No	452	423.2	
Partner arrest			
Arrested	361	503.3	18.01[**]
Not arrested	564	437.2	
Arrest of women			
Arrested	30	263.6	23.04[**]
Not arrested	895	469.7	
Race			
White	722	466.3	0.66
Non-White	203	451.4	
Employment status			
Employed	557	464.7	0.08
Unemployed	368	460.4	
Marital status			
Single	814	466.4	1.49
Married	111	437.9	
Having children			
Yes	816	460.3	0.93
No	109	483.1	
Sample type			
Help-seeker	820	469.8	6.21[*]
Community	105	410.0	

** $p < .01$; * $p < .05$

Four variables were found to be significantly correlated to the dependent variable with four ordinal ranks. Women who were referred to a safe place by the police ($\chi^2 = 26.09$, $p < .01$),

women whose partners were arrested (χ^2=18.01, p<.01), and women who had never been arrested (χ^2=23.04, p<.01) reported higher intentions to re-contact law enforcement in the future. Additionally, the help-seeker sample reported a higher intention to contact law enforcement in the future (χ^2=6.21, p<.05). Race, employment status, marital status, and having children were not found to be significantly correlated to the dependent variable.

Table 4 presents the results of Spearman's rank order correlations that were run on ordinal and continuous independent variables. Six variables were found to be significantly and positively correlated to the dependent variable. Women who perceived that the police attitudes were supportive (r_s=.39, p<.01), women who received legal information and support from the police (r_s=.3, p<.01), women who perceived that the police made efforts to secure their safety (r_s=.35, p<.01), women who perceived the police as effective in stopping the partner (r_s=.32, p<.01), and women who had a great sense of control over the police response (r_s=.44, p<.01) reported higher intentions to contact law enforcement in the future. In addition, there was a positive correlation between income and women's willingness to contact law enforcement (r_s=.08, p<.05). On the other hand, two variables were found to be significantly and negatively correlated to the outcome. Women who perceived that the police were hostile (r_s=-.27, p<.01) and women who perceived that the police responded to their IPV complaints indifferently (r_s=-.34, p<.01) reported lower intentions to contact law enforcement in the future. Age and education were not significantly correlated to the dependent variable.

Table 4. Spearman's Rank Order Correlations

	1	2	3	4	5	6
(1) Willingness to re-contact police	-					
(2) Supportive police demeanor	.39**					
(3) Legal information/support	.30**	.41**				
(4) Effort for women's safety/protection	.35**	.48**	.44**			
(5) Effectiveness in stopping the partner	.32**	.48**	.37**	.52**		
(6) Women's sense of control	.44**	.49**	.38**	.46**	.45**	
(7) Hostile police demeanor	-.27**	-.41**	-.16**	-.22**	-.20**	-.33**
(8) Indifferent police response	-.34**	-.53**	-.33**	-.36**	-.42**	-.45**
(9) Age	.04	.00	-.04	.00	.06	.02
(10) Education	-.04	-.05	-.08*	-.12**	-.09*	-.07**
(11) Income	.08*	.05	.06	.01	.00	.08*

	7	8	9	10	11
(1) Willingness to re-contact police					
(2) Supportive police demeanor					
(3) Legal information/support					
(4) Effort for women's safety/protection					
(5) Effectiveness in stopping the partner					
(6) Women's sense of control					
(7) Hostile police demeanor	-				
(8) Indifferent police response	.43**	-			
(9) Age	.06	.04	-		
(10) Education	.00	-.01	.18**	-	
(11) Income	-.02	.00	.18**	.28**	-

** $p<.01$; * $p<.05$ (2-tailed)

Multicollinearity Diagnostics

Prior to the regression analysis, multicollinearity between the victim-police interaction variables was assessed by tolerance and VIF statistics. Table 5 presents the results of multicollinearity diagnostics. Multicollinearity was not found to be an issue after examining tolerance and VIF statistics. Tolerance values were all above .52 and VIF values were all below 2. Based on the multicollinearity diagnostics results, it was determined that all victim-police interaction variables should be included in the regression analysis.

Table 5. Multicollinearity Diagnostics

	Tolerance	VIF
Supportive police demeanor toward women	.52	1.91
Police provision of legal information/support	.69	1.44
Police effort for women's safety/protection	.59	1.71
Police effectiveness in stopping the partner	.60	1.68
Police referral	.80	1.24
Partner arrest	.85	1.18
Women's sense of control	.62	1.62
Hostile police demeanor toward women	.69	1.45
Indifferent police response	.59	1.70
Arrest of women	.92	1.09

Regression Results

Two ordinal logistic regression models were analyzed to investigate the effects of victim-police interactions on women's future intentions to contact the local law enforcement for an IPV incident. Table 6 presents the regression results of each variable tested in Model 1. Model 1 solely included the victim-police interaction variables. As can be seen in the table, four variables showed significant effects on women's willingness to contact law enforcement in the future: women's sense of control of the police response, women's perception of police effort for their safety and protection, women arrest, and supportive police demeanor toward women.

First, women who felt a greater sense of control over the police than women who felt a less sense of control were 67% more likely to report higher willingness to contact law enforcement for future partner-abuse violence (OR=1.672, p=.000). Second, women who viewed that the police made efforts to make them safe and protected were approximately 12% more likely to report higher willingness to contact law enforcement in the future (OR=1.115, p=.007). Third, women who were arrested as a result of calling the police for help were 57% less likely to report higher willingness to contact law enforcement than those who were never

arrested (OR=.423, *p*=.018). Finally, women who perceived the police attitudes toward them as more supportive than those who perceived the police attitudes as less supportive were 21% more likely to report higher willingness to contact law enforcement in the future (OR=1.209, *p*=.024).

Table 6. Ordinal Logistic Regression Model with Women's Willingness to Re-contact the Police for IPV and Victim-police Interactions

	Model 1				
	B	SE	*p*-value	OR	95% CI
Willingness to re-contact police					
α=1	-.447	.402			
α=2	.492	.396			
α=3	1.953	.402			
Supportive police demeanor	.190	.084	.024	1.209	1.03-1.43
Provision of legal information/support	.160	.086	.063	1.174	.99-1.39
Police effort for women's safety/protection	.109	.041	.007	1.115	1.03-1.21
Police effectiveness in stopping the partner	.039	.041	.340	1.040	.96-1.13
Police referral	.152	.160	.344	1.164	.85-1.59
Partner arrest	.092	.165	.578	1.096	.79-1.52
Women's sense of control	.514	.077	.000	1.672	1.44-1.94
Hostile police demeanor	-.170	.113	.131	.843	.68-1.05
Indifferent police response	-.124	.071	.082	.884	.77-1.02
Arrest of women	-.860	.364	.018	.423	.21-.86
Model fit					
2 Log-likelihood (intercept only)	1832.015				
2 Log-likelihood (model) (*p*-value)	1555.442 (.000)				
Goodness-of-fit x^2 (*p*-value)	2219.892 (.969)				
Nagelkerke's R^2	.296				

B=Coefficient; SE=Standard Error; OR=Odds Ratios; 95% CI=95% Confidence Interval

For Model 1, the chi-square of the model fit (χ^2=1555.442, *p*=.000) indicated that the final model with the independent variables was better than the baseline model with only the dependent variable at predicting the cumulative probability for women's willingness to contact the police. Furthermore, the chi-square of the goodness-of-fit (χ^2=2219.892, *p*=.969) was insignificant. This insignificant chi-square suggested that there was no significant difference

between the observed values and the values expected under Model 1. In other words, Model 1 fit the data well. Finally, the Nagelkerke's R^2 of .296 demonstrated that 29.6% of the variation in women's willingness to contact the police was explained by the 10 victim-police interaction variables in Model 1.

Model 2 examined the effects of victim-police interactions on women's intentions to contact law enforcement in the future while controlling for women's sociodemographic characteristics and whether they were recruited from the help-seeker survey or the community survey. Table7 presents the regression results of each variable included in Model 2. Corresponding to Model 1, the same four variables showed significant effects on women's willingness to contact law enforcement in the future: women's sense of control of the police response, women's perception of police officer for their safety and protection, women arrest, and supportive police demeanor toward women. supportive police demeanor toward women ($p=.031$), women's perception of safety and protection provided by police ($p=.007$), women's sense of control of the police response ($p=.000$), and women arrest ($p=.025$). First, women who felt a greater sense of control over the police than women who felt a less sense of control were 65% more likely to report higher willingness to contact law enforcement (OR=1.654, $p=.000$). Second, women who viewed that the police made efforts to secure their safety and protecting them were approximately 12% more likely to report higher willingness to contact law enforcement (OR=1.117, $p=.007$). Third, women who were arrested as a result of calling the police for help were 56% less likely to report higher willingness to contact law enforcement than those who were never arrested (OR=.437, $p=.025$). Fourth, women who perceived the police attitudes toward them as more supportive than women who perceived the police attitudes as less supportive were 20% more likely to report higher willingness to contact law enforcement

(OR=1.200, p=.031). Women's sociodemographic characteristics and the sample type were found to be insignificant.

Table 7. Ordinal Logistic Regression Model with Women's Willingness to Re-contact the Police for IPV and Victim-police Interactions while Controlling for Women's Sociodemographic Characteristic and the Sample Type

	Model 2				
	B	SE	p-value	OR	95% CI
Willingness to re-contact police					
α=1	-.073	.536			
α=2	.867	.533			
α=3	2.336	.539			
Supportive police demeanor	.182	.085	.031	1.200	1.02-1.41
Provision of legal information/support	.162	.087	.062	1.176	.99-1.39
Police effort for women's safety/protection	.111	.041	.007	1.117	1.03-1.21
Police effectiveness in stopping the partner	.035	.042	.398	1.036	.96-1.12
Police referral	.156	.162	.337	1.168	.85-1.61
Partner arrest	.054	.169	.749	1.055	.76-1.47
Women's sense of control	.503	.077	.000	1.654	1.42-1.92
Hostile police demeanor	-.189	.114	.098	.828	.66-1.04
Indifferent police response	-.136	.072	.058	.872	.76-1.00
Arrest of women	-.828	.370	.025	.437	.21-.90
Age	.011	.008	.188	1.011	1.00-1.03
White	-.188	.179	.295	.829	.58-1.18
Educational level	-.048	.054	.376	.953	.86-1.06
Employed	.033	.157	.836	1.033	.76-1.41
Annual personal income	.065	.042	.117	1.067	.98-1.16
Married	.125	.222	.573	1.133	.73-1.75
Having children	.087	.237	.713	1.091	.69-1.74
Help-seeker sample	-.043	.240	.857	.958	.60-1.53
Model fit					
2 Log-likelihood (intercept only)	1915.639				
2 Log-likelihood (model) (p-value)	1630.507 (.000)				
Goodness-of-fit x^2 (p-value)	1631.893 (.999)				
Nagelkerke's R^2	.302				

B=Coefficient; SE=Standard Error; OR=Odds Ratios; 95% CI=95% Confidence Interval

For Model 2, the chi-square of the model fit (χ^2=1630.507, p=.000) indicated that the final model with the independent variables was better than the baseline model with only the dependent variable at predicting the cumulative probability for women's willingness to contact law enforcement. Furthermore, the chi-square of the goodness-of-fit (χ^2=1631.893, p=.999) was insignificant. The insignificant chi-square suggested that there was no significant difference between the observed values and the values expected under Model 2. This result presented that Model 2 fit the data well. Finally, the Nagelkerke's R^2 of .302 demonstrated that 30.2% of the variation in women's willingness to contact law enforcement was explained by the victim-police interaction variables, women's sociodemographic characteristics, and the sample type in Model 2.

Reviewing the results of the model fit tests in Model 1 and Model 2, the difference in the model fit chi-squares between the models was not large. Additionally, the difference in Nagelkerke's R^2 between the models was only 0.6%. These imply that a large proportion of the variance in women's willingness to contact law enforcement was predicted by the victim-police interaction variables.

CHAPTER 6. DISCUSSION

The purpose of this research was to examine whether the quality of police interactions affects women's perceptions of the police, and how these perceptions are related to their intentions to re-contact the police for help with IPV. The research question was: Are women's experiences with and perceptions of the police during their IPV complaints associated with their willingness to contact the police for future IPV? It was hypothesized that women with positive interactions with the police are more willing to contact the police, whereas women with negative interactions with the police are less willing to contact the police. To test this hypothesis, 10 victim-police interaction variables were included in a regression analysis. This hypothesis was also tested after controlling for women's sociodemographic characteristics and for whether they were recruited through help-seeking agencies or a community sample. This chapter summarizes and interprets the results of the analysis. In addition, implications for theoretical significance and police practice are discussed. Several suggestions for future research are provided based on the limitations of this research.

Summary and Interpretation of Results

The regression analysis found that four types of victim-police interactions were significantly related to women's willingness to re-contact the police for help. In order of statistically significant magnitude, the variables included women's sense of control, women's perception of police effort for their safety and protection, women's arrest, and supportive police demeanor toward women.

First, the analysis suggests that the more women felt control while interacting with police officers, the more likely they were to intend to contact law enforcement. This variable of

women's sense of control had the greatest magnitude among all victim-police variables. Using the same data utilized in this study, three studies found consistent findings, which suggest that when women perceive that they have control over the criminal justice process, they are more satisfied with their help-seeking in the criminal justice system, and therefore they are more willing to return to the system in the future (Cattaneo, 2010; Cattaneo & DeLoveh, 2006; Zweig & Burt, 2003). However, much remains to be learned about this relationship. Additional research is needed to detail specific elements that lead women to feel control in their interactions with police officers.

Second, women's greater willingness to contact law enforcement was found to be significantly associated with their feelings of being safe and protected by the police. In particular, women that reported greater willingness to contact police for future IPV reported that police made them safe, helped them leave the house, provided a follow-up safety check, and took photos of their injuries. It is probable that police efforts taken to protect women from an immediate danger and providing further safeguards might contribute to women's positive perceptions of their future safety. These perceptions might make some women feel secure that the police are a reliable source of protection for future IPV. Third, it was found that arresting the women who had contact with the police as a result of IPV was associated with a decrease in women's willingness to contact law enforcement in the future. This is consistent with previous literature, which suggests women avoid contacting police when they had their own arrest experience (Burgess-Proctor, 2012a; Fleury et al., 1998; Leisenring, 2012). Women's use of violence is often present in domestic violence scenarios. However, their violence is often used as a tool of self-defense in attempt to escape from the perpetrators in many cases (Dobash & Dobash, 2004; Hamberger, Lohr, Bonge, & Tolin; 1997; Miller, 2001; Saunders, 2002; Stuart,

Moore, Hellmuth, Ramsey, & Kahler, 2006). If an arrest was made without this consideration, women would feel doubly victimized by their partners, and then by the police (Rajah, Frye, & Haviland, 2006). This might contribute to women refraining from contacting police even if they were abused by their partners again.

Fourth, the results suggest that the more women perceived that police officers behaved in a supportive manner, the more likely they were to intend to contact law enforcement for future IPV. This finding is consistent with previous literature, which suggests that women who feel supported, believed, and listened to by police officers would contact the police again (Fleury-Steiner et al., 2006; Johnson, 2007; Leisenring, 2012). It is likely that women might have found that they were taken seriously and treated fairly by supportive police officers, and therefore they had increased trust in and satisfaction with the police. This positive perception might raise women's expectations that they will have the same treatment in a future incident.

The analysis did not identify any statistically significant results for six types of victim-police interactions. The variables included police provision of legal information and support, police effectiveness in stopping the partner, police referral, partner arrest, hostile police demeanor, and indifferent police response. There are several explanations for the null effects. In terms of providing legal information and support, the characteristics of the sample may have contributed to this variable as being statistically insignificant. The majority of the sample (89%) were help-seekers because they were actively engaged in help-seeking activities by contacting victim service agencies for help with their partners' abuse. As a result, they might be more likely to have prior knowledge and information with regard to legal remedies than their counterparts that might not have sought help in the past. If the majority of the sample consisted of victims that were never in touch with shelters, perhaps having legal information and support

provided by police officers would be significantly correlated with their future help-seeking behaviors.

In addition, police effectiveness in stopping the partner was not related to women's intentions to re-contact the police for help. It may be a reflection of women's perceptions that stopping the perpetrator is what they expect from the police when they call the police for help. As a result, even if IPV victims believe that the police are effective in stopping the perpetrator, it may not affect their intentions to contact the police in the future. In addition, this also may be a result of potentially inappropriate police responses for addressing individual and unique circumstances of women's needs. Just because police are effective in stopping the perpetrator, this does not mean that police officers resolve the violent situation. Taking away the perpetrator from home and the victim may be only a temporary solution.

Furthermore, it was found that having a police referral was not related to women's help-seeking from the police. It may be because that the police referral was a referral in name only and did not provide substantial help to women in unique cases. In a study of Vietnamese-American women who had been abused by their partners, Bui (2001) suggests that police referrals may be ineffective for women who are from a different cultural background. Although the sample included in this study did not consist of immigrant women, the finding can be true across women from all walks of life. Additionally, having a referral may not be enough. There are many issues, such as housing, childcare, and so forth that may not be covered in a generic referral.

Having their partner arrested was not related to women's intentions to re-contact the police. It may be that the arrest decision was not in line with women's preferences. Several studies suggest that when women's expectations of having their partner arrested or not arrested

are met by police, their experience can help explain why some women avoid or return to the police for help for future violence (Bui, 2001; Burgess-Proctor 2012a; Hickman, 2000). Unfortunately, the data used in this study did not provide information on how the partner arrest related to women's requests. Specifically, there was no information about women's preferences and the arrest decision. Additional research must address the relationships between women's ongoing help-seeking behaviors and partner arrest in the context of women's input into their partner's arrest.

Moreover, the variables of hostile police demeanor and indifferent police response had null effects on women's willingness to re-contact police for future IPV. Perhaps, this is a reflection of the limited resources that are available to IPV victims. Even when police officers behave in a hostile and indifferent manner, IPV victims may not have any other resources available to them. That is, in times of experiencing violence, they may have no choice but to contact police again. This is an important finding because this is exactly why police officers must be trained and must behave in a professional manner. Because women are in a particularly vulnerable place and because police officers are the first line of defense for these women, it is especially important that police officers are well-trained and handle cases in an appropriate manner. Their response could very well mean the difference between life and death.
In this research, none of the control variables were associated with women's willingness to re-contact the police for help with their partners' abuse. That is, women's age, race, educational level, income, employment status, marital status, and having children were not related to their intentions to seek help from the police in the future. Additionally, whether they were recruited through victim service agencies or a community sample was not associated with their intentions to seek help from the police in the future.

Implications

Theoretical Implications

This research utilized a theoretical framework grounded in the cognitive process model and procedural fairness to investigate the relationship between women's ongoing decisions of seeking help from the police and their interactions with the police. Although support was not found for all victim-police interaction variables, there were some interesting results. In short, the results imply that partner-abused women change their help-seeking channels by considering circumstances, and their assessment of police treatment influences the decisions to seek help from the police for future IPV.

The cognitive process model is a useful theoretical framework for understanding why some women keep utilizing the police. The cognitive process model states that victims repeatedly assess their situations and choose the best option that would be helpful for them (Liang et al., 2005). Considering this statement, it is rational for women to contact the police when police officers have been helpful and supportive in the past. The findings of this research suggest that women's future intentions to contact the police for help depend on their perceptions that they were treated by police in a supportive manner, they were made to feel safe by police, and they had control over the responses and actions of police to their needs. Because going to a shelter or engaging in other help-seeking behavior may require considerably more effort than calling police officers, it is more likely that women will encounter the police at some point for IPV, especially considering that sometimes neighbors or others call the police. If they have positive perceptions of the police while interacting with police officers, they are more likely to return to the police for assistance in the future. This may be because positive police responses affect their assessment of the police as helpful. On the other hand, having negative perceptions

can discourage women from seeking help. In particular, calling police may have detrimental consequences if it leads to the arrest of victims. Victims that experience their own arrest for IPV may have a perceived risk of arrest when they call the police again for their partners' abuse. This experience may lead to the perception that calling the police for future IPV is not an ideal option for them. These findings are consistent with the cognitive process model because what is found in this research is that women change their help-seeking behaviors–whether or not they return to the police for future violence—by considering the quality of their interactions with the police. In particular, whether the police allowed them to have control in the help-seeking process, whether they were supportive, and whether they were effective in securing their safety impacted women's decisions to utilize the police for future IPV. Therefore, rational decisions are made based on prior interactions with the police. Further use of this model is necessary in examining the help-seeking decisions among victims of IPV. There is a need to scrutinize specific aspects of victim-police interactions that affect women's decision-making processes in contacting the police for help with their partners' violence.

Furthermore, procedural fairness is also a suitable theoretical framework for understanding why some women keep contacting the police for help with their partners' violence. The key proposition of procedural fairness is that the way criminal justice actors respond to people's needs and requests affects the way people evaluate the police response as fair and legitimate (Tyler, 2000). More importantly, their evaluations are connected with their internal sense of obligation to the police and cooperation with the police in the future. Regarding IPV victims' help-seeking decisions, this study found support that whether or not they seek help from the police for future violence is driven by victims' evaluations of how fairly the police respond to their cases. It is found that women's perceptions that police were supportive, made an

effort to protect their safety, and allowed them to have control over the police responses were related to greater intentions to contact the police for help in the future. When IPV victims have these perceptions, they may perceive that police officers are fulfilling their legitimate duties to "protect and serve." As a result, victims are more likely to have faith in the police overall, leading them to be encouraged to seek help from the police. On the other hand, experiencing an apathetic response from a police officer after suffering a terrible crime such as IPV could make people lose faith in the police. As this study found, arresting the victim is an example of such a negative police response. Experiencing their own arrest, IPV victims may perceive that police officers are behaving in a biased way or not following proper procedures. As a result, the victims are less likely to trust the process and view police officers as illegitimate and untrustworthy, and eventually make them less likely to utilize police in the future, even when they could potentially benefit from calling the police.

Moreover, in this study, the process appears to be more important to women than the actual effectiveness of the police officer's response or the outcome of the police intervention. For example, police behavior is more important than whether or not the partner is arrested, and more important than providing legal information or resources. Interestingly, the outcome is not as important as the perception that the process was fair and that the police are interested and care about being helpful. Taking IPV seriously and being professional and respectful was a large predictor of the likelihood of contacting the police for future IPV. The sense of control was the biggest predictor in re-contacting the police. Women who felt empowered and that their opinion influenced the manner in which their complaint was handled were more likely to re-contact the police.

Perception is very important and this study is consistent with procedural fairness in that women who perceive that police officers are keeping them safe—for instance, when they stop the violence or make the perpetrator leave the home—are more likely to view the police as legitimate and feel safe, whether or not they are actually safer. Based on the findings of this study, there needs to be more consideration of how victims of IPV view and define their interactions with the police in understanding their future intentions to utilize the police.

Implications for Police Practice and Policy

There is much that police officers can learn from this study. First and foremost, police officers must recognize that their response can have drastic consequences on the lives of women who are affected by IPV and have contact with the police. Police officers that take the time to engage in positive practices (e.g., friendly attitudes toward victims, being receptive and listening) have an opportunity to improve the lives of women that have been victimized, and perhaps serve as the first step to helping women leave abusive situations. If police officers are engaging in positive practices, they can provide the crucial support that women need in order to improve their lives—and in some cases—save their lives. However, when police officers engage in negative practices (e.g., arresting both partners without understanding who was victimized), they create circumstances in which women may not contact them again for IPV. Considering the tragic and sometimes fatal consequences of women not seeking help after experiencing IPV, police officers must understand that their apathy or other negative responses can discourage women from seeking help and may even play a role in their abuse and potential death.

Effective training is absolutely necessary in this area. As police officers are often first responders to IPV incidents, they are the first point of contact for women and the first

opportunity for women to seek help. While going to a shelter or seeking out a social worker requires the victim to find the information and take the steps to visit, dealing with the police is almost inevitable in some cases, especially since neighbors or others may call on the victim's behalf, who may not be able to fight for herself at that point. Because police officers can be the first outside source of help that victims come across, it is incredibly important that police officers take this role seriously and are trained in handling IPV cases. By making sure that police officers receive adequate training and refresher courses after the initial training, they can be encouraged to practice the positive responses that are necessary in order to help women. For example, having a follow-up check performed by police officers made women feel safer and improved their perceptions of the police. Knowing this was effective, this behavior can be encouraged by police chiefs and included in training. Because IPV often escalates, having a follow-up check is crucial. It helps ensure safety, and gives victims another opportunity to gain resources from the police.

Without training, police officers may be unable to respond correctly and in a timely manner. This can lead to negative consequences for the victims. Considering that IPV is particularly difficult for victims to escape, police officers must be made aware of the cycle of violence and why victims sometimes return to their abusers multiple times. Unfortunately, without this information, police officers may not realize that the victim is going back to her abuser because of the cycle, and not because she does not want help. In repeat calls to the same location, police officers sometimes respond in a bored or annoyed manner, possibly thinking that the victim is at fault for staying or that nothing the police officer can do will actually change the situation (Walker-Quarterman, 2013). It is important that in their training, police officers receive information about the cycle and what it can take to break it.

In addition to providing adequate training for police officers, a partnership with IPV experts, social workers, or victim service providers can enhance the skills of police officers and the services IPV victims receive. For example, an IPV expert can come to the homes of victims with the police officers to help them and show police officers how to respond. There is precedent for having a social worker in a similar situation. For example, in cases of child abuse, a social worker is often assigned to come to the home along with the police and interview the abused child (Bull, 2010; Faller & Henry, 2000; Frost, Robinson, & Anning, 2005; Wood & Garven, 2000). The social worker can provide a comfortable atmosphere that the child can speak freely and assist to find testimony information that can be used for pursuing criminal charges. Since this type of model requires someone who is specifically trained to help, it can improve the overall experience that partner-abused women have with the police since a specialized expert will be there to assist them. Police officers could learn positive practices from IPV experts, social workers, or victim service providers, and victims will know that they have a resource that is both knowledgeable and compassionate.

Furthermore, it is important to recognize the consequences of policies that increase the likelihood of arrest of women who are being victimized, such as mandatory and preferred arrest practices. Research has found that dual arrest in which both the victim and the perpetrator are arrested after an IPV incident has increased in states implementing the mandatory and preferred arrest practices (Hirschel, Buzawa, Patavina, Faggiani, & Reuland, 2007; Simpson, Bouffard, Garner, & Hickman, 2006). In Ohio, arrest of women in IPV has increased 425% since the preferred arrest practices were implemented (Bohmer, Brandt, Bronson, & Hartnett, 2002). Arresting women who reach out to the police for help can discourage them from contacting the police in the future. In line with this research, research has suggested that women who have

been arrested, charged, or incarcerated for their partners' violence are significantly less likely to utilize the criminal justice system for help when they they experience IPV in the future (Abel & Suh, 1993; Bliss, Cook, Kaslow, 2006; Lantheir, 2008; Burgess-Proctor, 2012a; Leisenring, 2012).

Police officers are sometimes faced with difficult situations in which the individual that is the primary aggressor is not easily identified. Gover, Paul, and Dodge (2011) found that 44% of the sample of police officers agreed with the statement that identifying the primary aggressor is difficult. In some cases, this challenge not only contributes to erroneously arresting the person who is victimized, but also prevents the perpetrator from being held responsible for his actions (Sengupta, 2001). In order to identify the primary aggressor and ultimately avoid arresting the victim, states have enacted primary aggressor laws. Thirty-four states now have primary aggressor laws (Hirschel & Buzawa, 2013). Since identification of the primary aggressor is not an easy task, the states have enumerated criteria to assist police officers who respond to IPV complaints in identifying who is the most significant or primary aggressor, though specific criteria slightly vary from state to state. For example, when a police officer receives IPV complaints from two or more opposing persons, the officer should evaluate each complaint separately to determine who was the primary aggressor[6]. In a case in which both parties sustain injuries, a police officer should consider the relative severity of the injuries inflicted on each person[7]. In addition, police should be able to assess whether the injuries are offensive or defensive, height and weight of each party, the tactics of power and control, prior history of IPV, and witness statements if available (Stop Violence Against Women, 2010). A study on dual arrest in IPV cases reveals that states with specific primary aggressor instructions have better

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[6] E.g., Alabama Code § 13A-6-134; Connecticut Code § 46b-38b; Colorado Code § 18-6-803.6
[7] E.g., Georgia Code § 17-4-20.1; Montana Code § 46-6-311; Ohio Code § 2935.032

outcomes than states without any instructions. Specifically, dual arrest was present in 2% of cases in states with instructions, but it was present in 9% of cases in states that did not have any instructions (Hirschel et al., 2007). In a more recent study on the impact of primary aggressor laws with 3,078 IPV incidents reported to the police in four states, it was found that the states with primary aggressor laws had significantly lower rates of dual arrest compared with states without the laws (Hirschel & Deveau, 2016). These findings indicate that primary aggressor laws can decrease the likelihood that the police arrest victims erroneously. Therefore, states without primary aggressor laws should consider enacting such laws in order to avoid wrongful arrest of IPV victims.

Finally, statewide effort can play a critical role in increasing the quality of the police response to IPV because police actions are largely affected by state laws and regulations that detail how police officers should respond to IPV cases. While there is variation across states in terms of which police actions have been legislated and implemented, most states have required police officers to provide victims with a notification of victim's rights or community resource information (e.g., shelters) or help with filing protection orders, transportation, or medical treatment (Hirschel et al., 2007). A few states have required police officers to stay on the scene, help victims take personal items from the house, or seize weapons from the perpetrator (Hirschel et al., 2007). Some of these police responses were examined in the current study–for example, providing legal information about domestic violence, referrals to shelters, or taking photos of victims' injuries. A critical point is that police actions have been mandated by state laws and regulations. This implies another way of improving the quality of the police response to IPV, and ultimately facilitating women's positive perceptions of the police and their future help-

seeking behaviors in the police system. What is perhaps even more important with the statewide effort is that it can improve the consistency of police actions in dealing with IPV victims.

Limitations

Several limitations in this research need to be addressed. To start, studies based on secondary data, including the current study, are limited by the data available. There are many factors that influence women's decision-making related to contacting police for future IPV, but the study is limited by the factors that are available in the data set. Some factors—such as characteristics of the offending partner and the responding police officer—are not included in this data set. Due to the restricted data user's agreement with ICPSR, additional information that would be important in providing nuance in the study is not available. In addition, the data were obtained in 2001 and 2002. Although there were interesting results that underline police responses to IPV to impede or facilitate victims' future contacts with local law enforcement, the data do not reflect the current police practices taken in response to the issue of partner violence.

However, the results are still meaningful, particularly given the lack of quantitative research on this subject matter. Utilizing a large survey sample, this study empirically examined the influence of women's interactions with the police during or after an IPV incident on their help-seeking behaviors to re-contact the police. The results are also meaningful because women's reactions to police interactions would not have changed since 2000. Although some data may become outdated, this data is still very relevant considering that women's perceptions and experiences as a result of police response will not change greatly over this time period. Although some police officers may have changed over time, these patterns are deeply ingrained and the findings are relevant. When women have negative experiences with police officers, that

will discourage them from seeking help from the police, regardless of the year. Conversely, when women have positive experiences with police officers, they will be encouraged to seek help from the police in the future, regardless of the year. This relationship is not dependent on time period. Rather, the relationship is dependent on experiences and perceptions.

Another limitation relates to the use of cross-sectional retrospective data. The women included in this study were asked to recall their past experiences with their partners' abuse and interactions with police officers. Thus, there is a possibility of errors in recall and faulty memories. Further, with the retrospective approach relying on women's reports, the interpretation of the study results must be cautious. This measure does not necessarily guarantee that the women will contact law enforcement, as the questions ask about the *willingness* of women to contact law enforcement.

In regard to the outcome measure, the outcome was measured by asking women how likely they would call the local law enforcement again when another domestic violence, rape, or sexual assault would occur in the future. A limitation is that the perpetrator for future violence is unknown. Particularly regarding rape and sexual assault, the measure might include sexual violence committed by a person other than an intimate partner. However, it was assumed in this research that the perpetrator was likely to be an intimate partner because all women included in this study were IPV victims. As a result, results cannot be generalized to victimization that occurs as a result of another individual's crimes, as opposed to their partner's crimes.

Furthermore, the external validity of the results must be questioned as the study sample overrepresented economically disadvantaged and less-educated women. More than 80% of the sample earned less than $20,000 in 2000, the year prior to data collection. According to the US

Census Bureau, the mean personal income of women was $22,320 in 2000[8]. This information

indicates that a large proportion of the sample included in this study were under the national

average income. In addition, more than 52% of the sample had a high school education as their

highest form of completed education. The US Census Population Survey reports that the

national educational attainment of adult women for a high school education was 84.4% in 2002

(Sparggins, 2003). Considering this, the sample included was less educated than the national

level of educational attainment. Future research requires a more diverse and representative

sample in order to broaden the generalizability.

Suggestions for Future Research

Based on the limitations, there are multiple areas that would benefit from future research

on IPV and women's experiences and perceptions of law enforcement. First and foremost, a

more diverse and representative sample is necessary. This sample was skewed in terms of

education and sociodemographic status. It would be helpful to survey women from more diverse

backgrounds and to have a more diverse sample overall. In terms of methodology, the measures

of willingness to re-contact law enforcement in the future should specify whether the willingness

is tied to who the perpetrator of the violence is. Respondents may assume that the question about

willingness is specifically about their current or latest partner, and the survey should specify

whether the respondents would be willing to contact local law enforcement regardless of the

perpetrator (e.g., the perpetrator is unknown or is a different person from their current abusive

partner). In addition, there are several indicators that were not available in the data set, which

may impact women's re-contact with the police for help with future IPV. Future research should

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[8] https://www.census.gov/data/tables/time-series/demo/income-poverty/cps-pinc/pinc-01.2000.html

include perpetrators' characteristics, such as whether or not they are employed or what their prior criminal history is and the severity and type of violence. Additionally, the police officers' characteristics, such as gender, age, years of experience, and so forth should be included in future studies.

Furthermore, future research in this area should include a sample of IPV victims that have called the police once, and have not contacted other victim service agencies. IPV Victims may have differential treatments each time when they contact the police multiple times. Sometimes, they may encounter police officers who show friendly and professional behavior, but this may not happen in another encounter. Also, those who contact the police and victim service agencies (e.g., shelters) at the same time may come to find that one is better than another. If this was the case, their assessment of the police may be biased favorably or unfavorably. Therefore, having a sample of IPV victims who only contact the police once can have different results in regard to their willingness to re-utilize the police for their partners' abuse in the future. This way, the response of police officers and the impact that this response has on future willingness to contact the police is more accurately studied when compared with samples that include women who have had multiple encounters and may have other factors influencing their perceptions of the police.

Finally, this study was built around better understanding whether victim-police interactions are related to women's ongoing help-seeking behaviors in the police system. However, some of the victim-police interactions analyzed in this study might not reflect objective police behaviors. For instance, the variable of indifferent police response was measured with questions asking participants about how police behaved in dealing with their IPV complaints–for example, whether the responding police officer acted bored. It is possible that

the officer actually acted bored, but it is also possible that the officer behaved professionally and too seriously, which might lead the victim to perceive that the officer did not care about her complaint. Future research should be able to examine whether the perceptions of victims reflect an objective third party's perceptions. This could be achieved through reviewing police body camera footage to see if the perceptions of the victims are consistent with the perceptions of an objective third party. Another option would include interviewing any witnesses about the response of the police. It is important to differentiate between disrespectful responses and overly serious responses that can be viewed as disrespectful. This knowledge could be used to inform police officer training policies to ensure that police officers are communicating effectively and in a manner that is supportive to victims.

APPENDICES

Original Survey Questions and Response Options

Physical IPV – 6 Questions

- In your current or most recent former relationships, how often, if ever, has your husband or partner 1) thrown anything at you, 2) pushed/grabbed/shoved you, 3) slapped/kicked/bit/hit you with a fist, 4) hit you with an object, 5) choked/beaten you up, and 6) threatened to/used a weapon on you?
    1) Never
    2) Once
    3) A few times a year
    4) About once a year
    5) A few times a month
    6) Several times a week

Sexual IPV – 2 Questions

- Have you ever had sexual intercourse including vaginal, oral, or anal intercourse when you did not want to?
    1) Yes
    2) No

- In your current or most recent former relationships, how often, if ever, has your husband or partner forced you into any sexual activity against your will?
    1) Never
    2) Once
    3) A few times a year
    4) About once a year
    5) A few times a month
    6) Several times a week

Psychological IPV – 9 Questions

- Has your current or most recent former husband or partner 1) showed jealousy, 2) called you names to put you down or make you feel bad, 3) tried to limit your contact with family or friends, 4) insisted on knowing who you were with and where you were at all times, 5) prevented you from knowing about or having access to the household or family income, even you asked, 6) damaged/destroyed your possessions or property, 7) harmed/threatened to harm someone close to you, 8) threatened to hurt your children or to take them away from you, and 9) threatened to hit you with a fist or anything that could hurt you?
    1) Not at all
    2) A little
    3) Somewhat

4) A lot

<u>Dependent Variable: Women's Willingness to Re-contact Law Enforcement</u>

- If you had to deal with domestic violence or rape or sexual assault issues in the future, how likely is it that you would contact the local law enforcement again?
    1) Definitely not
    2) Probably not
    3) Probably would
    4) Definitely would

<u>Independent Variables: Victim-police Interactions in the Most Recent Encounter</u>

- Did the local law enforcement believe your story?
    1) Yes
    2) No

- Did the local law enforcement support your decisions?
    1) Yes
    2) No

- Did the local law enforcement support your use of legal remedies—for example, the police, getting a protective order, or pressing charges?
    1) Yes
    2) No

- Did the local law enforcement give written information about domestic violence?
    1) Yes
    2) No

- Did the local law enforcement give written information about the legal system?
    1) Yes
    2) No

- Did the local law enforcement keep you up-to-date in the case and what was happening legally?
    1) Yes
    2) No

- Did the local law enforcement help you feel safe?
    1) Not at all
    2) A little
    3) Somewhat
    4) Very

- Did the local law enforcement help you get you out of the house?

1) Not at all
2) A little
3) Somewhat
4) Very

- Did the local law enforcement contact you to check on your safety and well-being?
    1) Yes
    2) No

- Did the local law enforcement take photos of your injuries at the time?
    1) Yes
    2) No

- Did the local law enforcement take photos of your injuries a few days later?
    1) Yes
    2) No

- Did the local law enforcement help your husband or partner to stop being violence?
    1) Not at all
    2) A little
    3) Somewhat
    4) Very

- Was the local law enforcement effective to get the perpetrator out of the house?
    1) Not at all
    2) A little
    3) Somewhat
    4) Very

- Did the local law enforcement refer you to a battered women's shelter or domestic violence program?
    1) Yes
    2) No

- Were your (husband, partner, or boyfriend) arrested?
    1) Yes
    2) No

- Did you feel in control of the local law enforcement response?
    1) Not at all
    2) A little
    3) Somewhat
    4) Very
- Did the local law enforcement blame you for the violence?
    1) Yes
    2) No

- Did the local law enforcement blame or scold you for not following through prior incidents?
    1) Yes
    2) No

- Did the local law enforcement threaten you?
    1) Yes
    2) No

- Did the local law enforcement act bored?
    1) Yes
    2) No

- Did the local law enforcement say there was nothing they could do?
    1) Yes
    2) No

- Did the local law enforcement say there was not enough evidence?
    1) Yes
    2) No

- Did the local law enforcement to tell you 'patch things up' with your husband or partner?
    1) Yes
    2) No

- Were you arrested?
    1) Yes
    2) No

Participant's Sociodemographic Characteristics

- How old are you?

- Which one or more of the following categories best describes your racial background?
    1) White
    2) Black or African-American
    3) Asian or Pacific Islander
    4) American-Indian or Alaskan Native
    5) Other

- Are you of Hispanic origin?
    1) Yes
    2) No

- Including income from all sources, such as work, child support, welfare, and any other government benefits, approximately how much income did you personally received in 2000 before taxes?
    1) Less than $5,000
    2) $5.000 to under $10.000
    3) $10,000 to under $15.000
    4) $15.000 to under $20,000
    5) $20.000 to under $25,000
    6) $25,000 to under $30.000
    7) $30,000 to under $35.000
    8) $35,000 to under $50,000
    9) $50,000 to under $80,000
    10) $80,000 to under $100.000
    11) Over $100,000

- Which is the highest level of education you have completed?
    1) No formal schooling
    2) 1st - 8th grade
    3) Some high school
    4) High school diploma
    5) GED/ABE
    6) Vocational, technical or business school
    7) Some college
    8) 2-year college degree (AA)
    9) 4-year college degree (BA/BS)
    10) Postgraduate degree (MA/BS/Ph.D.)

- Are you currently employed at a job or business including self-employment?
    1) Yes
    2) No

- What is your current marital status?
    1) Married
    2) Separated
    3) Divorced
    4) Widowed
    5) Never married

- Do you have any children?

    1) Yes
    2) No

APPENDIX B
Victim-police Interaction Variables and Questions Used in Principal Component Analysis

Supportive Police Demeanor toward Women

- Did the local law enforcement believe your story?
- Did the local law enforcement support your decisions?
- Did the local law enforcement support your use of legal remedies -for example, the police, getting a protective order, or pressing charges?

Provision of Police Legal Information and Support

- Did the local law enforcement give written information about domestic violence?
- Did the local law enforcement give written information about the legal system?
- Did the local law enforcement keep you up-to-date in the case and what was happening legally?

Police Effort to Secure Women's Safety and Protection

- Did the local law enforcement help you feel safe?
- Did the local law enforcement help you get you out of the house?
- Did the local law enforcement contact you to check on your safety and well-being?
- Did the local law enforcement take photos of your injuries at the time?
- Did the local law enforcement take photos of your injuries a few days later?

Police Effectiveness in Stopping the Partner

- Did the local law enforcement help your husband or partner to stop being violence?
- Was the local law enforcement effective to get the perpetrator out of the house?

Hostile Police Demeanor toward Women

- Did the local law enforcement blame you for the violence?
- Did the local law enforcement blame or scold you for not following through prior incidents?
- Did the local law enforcement threaten you?

Indifferent Police Response

- Did the local law enforcement act bored?
- Did the local law enforcement say there was nothing they could do?
- Did the local law enforcement say there was not enough evidence?
- Did the local law enforcement to tell you 'patch things up' with your husband or partner?

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