THE IMPACT OF INTIMATE PARTNER VIOLENCE ON MENTAL HEALTH WELL-BEING AMONG WOMEN SEEKING HELP FROM A POLICE STATION.

by

CECILIA MENGO

Presented to the Faculty of the Graduate School of

The University of Texas at Arlington in Partial Fulfillment

of the Requirements

for the Degree of

DOCTOR OF PHILOSOPHY

THE UNIVERSITY OF TEXAS AT ARLINGTON

May 2016

Acknowledgements

This dissertation is a milestone in my academic career. I am grateful to a number of people who have guided and supported me throughout the research process. First and foremost, I would like to express the deepest appreciation to my committee chair and co-chair. Dr. Beverly Black, no words can express how grateful I am to you. Since my entry into the doctoral program, you have watched me grow academically and continually conveyed a spirit of adventure in research, teaching, and scholarship. Your expertise, patience, motivation, knowledge, constructive criticism, and challenging me to get out of my comfort zone has molded me to be the researcher that I am today. Your role in my journey as a doctoral student and specifically this dissertation has brought out the best in me and you are forever my mentor and collaborator. Dr. Eusebius Small, God places the right people in our pathways and He truly placed me in your pathway with a purpose. You have guided me throughout this doctoral program from my first day until now. You created a platform for me to learn freely, make mistakes, and learn from those mistakes. You have offered a listening ear to me and challenged me to think broad and deeper as a researcher. Your constant support and open door policy throughout this program and in this dissertation stage, has made me an emerging scholar that I am today. You will forever be my mentor, friend, and collaborator.

To my committee members. Dr. Peter Lehmann, I do not have enough words to express my gratitude to you. You have been one of the most influential people in my academic journey. You have continually taught me that the journey to becoming a great researcher begins with small steps and requires a lot of patience. You have natured my ever growing research and teaching skills in different ways and I am who I am today because of your great counsel in the

last five years. To Drs. Ling Xu and Cheryl Anderson. I am especially thankful for your willingness to serve on my committee and your thoughtful contribution each step of this process. Thank you for all the great ideas you have shared with me throughout this process. A special thank you to Dr. Vijiyan Pillai who, though not on my committee, has served as a mentor since my first days in the doctoral program. You offered me the "little tricks" that I need to navigate the doctoral program and complete successfully in good time. I will forever treasure your mentorship and words of wisdom.

I owe a deep sense of gratitude to my cohort members, Lily Kim, Brandi Felderhoff, and Lester Colllins. My PhD journey would have been so lonely and difficult without your support. Thank you for always being there and offering thoughtful ideas. We are indeed the fantastic four. To my friends, Lily Kim, Arati Maleku, Bonita Sharma, Silviya Nikolova, Kathleen Murray, Jeyle Ortiz, Paula Ude, Bernadette Ombayo, and Moses Okumu. You have supported my endeavors in so many ways including: countless texts, phone calls, and emails. Our late night stories and laughter while sharing a delicious meal are what added fun to this grueling process. Your assurance that all is going to be fine despite the enormous work pressures we were facing together has helped me to successfully complete this program. I sincerely offer my gratitude to all the PhD doctoral students. Thank you for sending your best wishes all the time.

To my dear parents Lazarus Mengo and Esther Wangu. Although you are no longer in this world, I know you are both watching and praying for me from heaven. I am always inspired to know that you would both be happy to see the person I have become today. To my dearest son Ryan Mengo, thank you so much for being strong and hanging there with me especially when

you had to spend two years with relatives to allow me focus. Your emotional strength while we were miles apart taught me things that I would have never imagined. It is because you of that I am doing this and may you be inspired to be the best that you can be. To my fiancé and best friend ever, Dennis Makokha. You have been my greatest source of strength throughout. My life is good and different because you are in it. To my extended family, thank you for your support and especially for taking care of my son while I was miles away pursuing my education until I was reunited with him again.

I would also like to thank the rural women in Laikipia, Kenya, who prayed and encouraged me when I decided it was time for me to pursue my higher education. You hard work and tenacity to move on and provide for your families is what gives me the motivation to burn my midnight candle knowing that my research and scholarship is contributing to a worthy cause. Finally, I would like to sincerely thank the Arlington Police Department Victim Assistance Program coordinator Ms. Derrelynn Perryman, assistant program coordinator Nikki Rosenboom and all the staff members who supported me while I was reviewing data for this dissertation. Thank you for creating the opportunity for me to work and collaborate with this great agency. Your ideas during our meetings was invaluable. I dedicate this dissertation to all women around the world experiencing violence of any form.

Abstract

The Impact of Intimate Partner Violence on Mental Health Well-Being among Women Seeking Help

From a Police Station.

Cecilia W. Mengo, PhD

The University of Texas at Arlington. 2016

Supervising Professor: Beverly Black and Eusebius Small

Studies have examined the relationship between IPV and mental health. However, there is limited knowledge on women who seek help from police stations because many studies have used samples of women residing in domestic violence shelters and medical clinics. The purpose of this dissertation is to understand self-reported mental health symptoms among women seeking help from a police station. Evidence shows that there are many variables that affect the link between IPV and mental health. This dissertation specifically explores the impact of demographic risk factors, type and number of IPV incidents, victim referral needs, and protective factors (social support, coping strategies, and economic resources) on self-reported mental health symptoms.

Data from case records of women victims of IPV seeking help from a city police station located in the southwest, United States, were examined to identify: (1) the type and incidents of IPV, (2) demographic risk factors of age, ethnicity, marital status, and financial dependence, (3) protective factors of social support, coping strategies, economic resources, and (4) self-reported

mental health symptoms. The sample consisted of 154 women majority (42.9%) of whom were aged between 31-40 years. Nearly half of the women were married (51.9%), about 45.5% were Whites, 28.6% Black/African Americans, 18.8% Hispanic/Latino and 7.1% were categorized as others. More than half of the women experienced physical violence (70.1%); 9.1% experienced sexual violence; 14.9% experienced emotional/stalking violence and 5.8% experienced combined violence. Approximately 67.5% of the women reported some mental health symptoms.

Bivariate analyses showed that there were significant differences in mental health symptoms based on protective factors of social support, coping strategies, and economic resources. Contrary to the expectations of this dissertation, those who had more resources significantly reported more mental health symptoms. In addition, those who had more resources reported fewer IPV incidents but these differences were not significant. Overall, victim referral needs, social support, coping strategies, and economic resources were all positively correlated with mental health symptoms. Further, social support was found to postively predict mental health symptoms among women. Coping strategies fully mediated the relationship between the interaction variable of IPV and victim referral needs, and mental health symptoms. Social support and economic resources did not mediate this relationship.

Results from this dissertation indicate that development of individuals' protective resources may help protect women from repeated IPV and improve their mental health and well-being. Specifically, coping strategies may reduce the negative impact of IPV on women's mental health. In discussing prevention and intervention efforts with women who have experienced or are at risk of experiencing IPV, social work practitioners need to emphasize the important role of coping resources as a protective factor mental health symptoms.

Table of Contents

List of Illustrations

List of Tables

CHAPTER 1

Intimate Partner Violence as a Social Problem in the United States

Introduction

Intimate Partner Violence (IPV) is an important human rights and public health concern in the United States (US) and around the world. Over the last thirty years, many legal, health, and social service programs have been established to prevent and intervene in IPV. Many laws have also been adopted to prevent and respond to IPV. Advocacy programs in the US and across the globe have been developed, including the National Center on Domestic and Sexual Violence, National Network to End Domestic Violence (NNEDV) and the Coalition to End Violence against Women and Girls Globally, to draw more attention to the abuse of women and to stimulate action (Ellsberg et al., 2008). They have provided battered women with shelter, lobbied for legal reforms, and challenged the widespread attitudes and beliefs that support violence (Ellsberg et al., 2008). Legal reforms like, the Violence Against Women Act (VAWA) signed into law in 1994 and sanctioned both in 2000 and 2005 and recently reauthorized in 2013, has improved response to IPV in the US by reducing IPV, decreased the personal and social cost of gender-based violence, and changed the prevailing culture around this violence (VAWA, 2013). The recent VAWA of 2013 has closed critical gaps in services and justice for victims of domestic violence, sexual assault, dating violence, and stalking among Native women, immigrants, LGBT victims, college students, youth, and public housing residents.

Despite the presence of prevention and intervention efforts, and federal and state policies to address IPV, prevalence rates remain high, and violence against women continues to have serious adverse consequences for women's health and society (Ellsberg et al., 2008). The United States Department of Health and Human Service (2010) identified IPV as a primary social concern for the coming decade because of its immense consequences, especially on women's health. IPV has been established as having a significant adverse effect on women's physical, emotional, mental, sexual, and reproductive health (Breiding, Chen, & Black, 2010; Golding, 1999; Mechanic, Weaver, & Resick, 2008; Nathanson, Shorey, Tirone, & Rhatigan, 2012). The majority of research on health effects has shown that IPV is associated with negative mental health effects (Coker, Weston, Creson, Justice, & Blakeney, 2005).Thus, we need to continue to commit research efforts to understand better the impact of IPV on women so we can develop more effective prevention and intervention mechanisms to address IPV. The goal of this dissertation is to explain self-reported mental health symptoms among women victims of IPV who seek help from a police station. The study's specific aim is to explore the impact of demographic risk factors (age, marital status, race/ethnicity, and financial dependence), type and number of IPV incidents, victim referral needs, and protective factors (social support, coping strategies, and economic resources) on self-reported mental health symptoms.

Intimate Partner Violence Defined

IPV encompasses a variety of behaviors in adult intimate relationships. Discrepancies arise on how IPV is defined and which behaviors are included (Romans, Forte, Cohen, Du Mont, & Hyman, 2007). Some studies focus on IPV as only physical actions, other studies include

sexual assault and coercion, and still other studies include emotional or psychological abuse (Basile & Smith, 2011; Romans et al., 2007). Hence, there is no universally agreed-upon definition of IPV (Hamberger, 2005). This study will adopt the definition of IPV as the use or threat of physical, sexual, psychological, economic abuse and stalking, among current or former heterosexual or same sex partner or spouse (Center for Disease Control and Prevention [CDC], 2012; Postmus, Huang, & Mathisen-Stylianou, 2012). According to CDC (2012), physical violence is the use of physical force with the intention of harming the victim. It can potentially lead to injury, disability, and even death. Some examples of physical violence are shoving, chocking, shaking, slapping, punching, burning, and use of a weapon. Sexual violence is the exertion of physical force to coerce a victim to engage in sexual activity against his/her will. Psychological or emotional violence is the act of intimidating the victim by humiliating, exerting control over the victims' life, or by isolating the victim (CDC, 2012). Economic abuse occurs when the abuser maintains complete control over money and other economic resources by making all financial decisions, forcing the victim to rely on him or her for financial needs (Postmus et al., 2012). In terms of the terminology of this study, the term intimate partner violence as defined by Basile and Smith, (2011) (abbreviated as IPV throughout the study) is used to refer to violence between individuals who are, or have been, in an intimate relationship, married, divorced, separated, cohabiting, and non-cohabiting.

Prevalence of IPV

Most reported IPV prevalence rates include physical and sexual violence only (CDC, 2012). However, more recently, IPV researchers have included psychological and economic

abuse as they recognize its pervasive nature, severity, and harmful effects on women's social and psychological well-being (Postmus et al., 2012; Thomposon et al., 2006). Although statistics clearly show that men and women are both victimized by IPV, national surveys supported by the National Institute of Justice and Bureau of Justice Statistics (NIJ) in the United Sates have conclusively stated that men are much more likely to be perpetrators and women, more likely to be victims of IPV. The National Intimate Partner and Sexual Survey (NISVS), based on 18,049 interviews of adult women and men across the US in 2010, found that 35.6% of women experienced rape, physical violence, and/ or stalking by an intimate partner over their lifetime compared to 28.5% of men (Black et al., 2011). Similarly, the National Violence Against Women Survey (NVAWS) found that women were significantly more likely than men to report being victims of IPV whether rape, physical assault, or stalking over a lifetime or the previous 12 months (Tjaden & Thoennes, 2000). Similar to research reports of the prevalence of IPV in heterosexual relationships, reports of IPV in lesbian and gay male relationships range, from less than 10% to more than 50% (Black et al., 2011; Kelly & Johnson, 2008). Fox and Zawitz (2007), reported in the National Crime Victimization Survey, that 5.7 women per 1,000 in the United States aged eighteen and older were victims of IPV in 2006.Today, approximately 5.3 million incidents of IPV are perpetrated against women in the U.S. every year, causing an estimated 2.0 million injuries (CDC, 2014).

Racial differences are particularly critical for understanding and developing effective responses to IPV as the racial and ethnic composition of the U.S. population becomes more diversified than ever before (U.S.Census Bureau, 2008). National surveys on victimization have reported ethnic differences in IPV. About 39% Native women, 43.7% of African American

Women, 37.1% of Hispanic women, and 34.6% of White women (Black et al., 2011; CDC, 2008) are likely to experience violence in their lifetime. Furthermore, Native American women are more than five times likely to die from IPV injuries than women of any other background. These surveys have also consistently found higher rates of abuse for African American and Native American women compared to others (Tjaden & Thoennes, 2000). Among ethnic groups, Asians and Latinos have been reported to experience less IPV (Black et al., 2011; Tjaden & Thoennes, 2000). Within ethnic groups, rates are higher for persons born in the United States compared to those who migrated here (Catalano, 2008).

The United States has the highest level of intimate partner homicide of any industrialized country (Department of Justice, 2012). The Department of Justice, Bureau of Justice Statistics reports that IPV resulted in about 2340 deaths among adult males and females in the US during 2012. Out of those who died, 70% were females and 30% were males (Department of Justice, 2012). In 2008, males murdered an estimated 1,817 females in single-victim/single-offender incidents (Department of Justice, 2012). Between 1976 and 2005, 30% of the homicides against women were committed by intimate partners (Fox & Zawitz, 2007). Moreover, the effects of IPV are more detrimental to women than men in terms of severity of injuries, time required off work, and use of medical, mental health, and justice system service (Tjaden & Thoennes, 2000).

Risk and protective factors for IPV

Risk Factors. Risk factors such as young age, low socio-economic status, race/ethnicity, traditional gender norms, witnessing IPV of parents in childhood, and marital status (Capaldi, Knoble, Shortt, & Kim, 2012; Kim, Laurent, Capaldi, & Feingold, 2008; Linder & Collins, 2005;

Thompson et al., 2006) increase the likelihood of someone becoming a victim of IPV, while protective factors, buffer against the risk of becoming a victim. Many studies that have focused on the risk factors associated with IPV often focus on individual or demographic characteristics, exposure to violence in the family and society level (Capaldi et al., 2012).

Literature suggests that low-income women who are financially insecure (Cho, 2012), less educated, and of minority background report higher rates of IPV (Certain, Mueller, Jagodzinski, & Fleming, 2007; Cho, 2012). Young age has also consistently been found to be a risk factor for a woman experiencing IPV (Harwell & Spence, 2000; Kim et al., 2008). Specifically, young women between the age of 18 and 22 have been found to be more at risk of rape and other forms of sexual assault than older women (Jewkes, Sen, & Garcia-Moreno, 2002; Thomas, Sorenson, & Joshi, 2010). Additionally, young age has consistently been found to be a risk factor for experiencing physical violence in a relationship (Black et al., 2011; Tjaden & Thoennes, 2000).

Women who report lower levels of education (primary or none) have a 2 to 5 fold increased risk of IPV compared to higher educated women (Ackerson, Kawachi, Barbeau, & Subramanian, 2008; Certain et al., 2007; Cho, 2012). A higher level of education may act as a protective factor, since women with a higher level of education, or married couples with relatively equivalent education levels, report lower levels of IPV (Capaldi et al., 2012). However, some studies have found that women with a higher level of education were at increased risk of IPV (Flake, 2005) and so results are mixed.

Women with low incomes or who are poor are also vulnerable to violence (Raphael, 2000). Economic justice continues to be one of the most elusive forms of justice for women throughout the world and this increases the risk of victimization. Without access to economic opportunity, it is difficult to be self-sufficient enough to live free of abuse (Raphael, 2000, Thompson et al., 2006). Low income and financial insecurity are factors often associated with poverty. Poverty may be a source of marital disagreements or may make it more difficult for women to leave violent or unsatisfactory relationships (Cho, 2012; Thompson et al., 2006). Specifically, financial insecurity forces many women and girls into occupations that carry a relatively high risk of IPV (Jewkes et al., 2002). Among the ethnic minority, incidents of IPV have been reported higher for Blacks and Hispanic women than white women (Field & Caetano, 2005). Blacks are at significantly greater risk of IPV even after controlling for factors such as alcohol use, its associated problems, and socioeconomic characteristics (Field & Caetano, 2005)

Protective Factors. Absence of the above discussed risk factors can act as a buffer for IPV and psychological distress among women victims of IPV. Specifically, social and economic resources have been found to be important in supporting well-being and decision making of battered women (Nurius et al., 2003). Studies identify these resources as belonging to high-income groups, women with high levels of education, employment, financial assistance, access to resources such as health insurance, work training/skills, social support, and coping (Benson & Fox, 2004; Canady & Babcock, 2009; Certain et al., 2007; Ford-Gilboe et al., 2009; Kim et al., 2008; Nurius et al., 2003; Sabina & Tindale, 2008). The significance of social support as a buffer to IPV has been consistently highlighted (Beeble, Bybee, Sullivan, & Adams, 2009; Canady et al., 2009; Carlson, McNutt, Choi, & Rose, 2002; Coker et al., 2002; Huang, Song, & Wang,

2010; Lanier & Maume, 2009). Various aspects of social support related to IPV have been examined in the literature but the results have varied. For instance, although study by Huang et al.(2010) found that social support reduced the odds of victimization for women, Lanier and Maume (2009) found that some forms of support (help received) related to IPV but other forms of support (social interaction, church involvement, and participation in events) was unrelated to IPV. The role of coping as a protective factor for IPV has also been studied (Calvete, Corral, & Estevez, 2015; Waldrop & Resick, 2004). These studies suggest that use of effective coping strategies such as problem solving skills can reduce the strain and psychological stress experienced by victims of IPV. Additionally, use of coping strategies (number and frequency) is related to the severity of the strain (IPV), (Orford & Dalton, 2005).

Social support and coping as protective factors for IPV has gained much attention in the literature. However, besides coping and social support, Canady and Babcock (2009) argue that there are many variables that affect the link between IPV and mental health. For example, less attention has been given to the protective role of economic resources such as stable housing and health insurance that improve the financial stability and health outcomes of victims of IPV (Postmus et al., 2012). Specifically, Postmus and colleagues state that economic hardship is most often related to psychological and economic abuse. As a result, social support, coping, and economic resources can be viewed as protective factors that empower women to cope or leave an abusive relationship. Empowerment, in its broadest sense, is viewed as a woman's ability to possess and access resources (internal and external) for effective coping and personal development (Johnson, Worell, & Chandlers, 2005). IPV intervention studies that incorporate empowerment as a central component have shown that empowering resources reduce IPV and

depressive symptoms (Dutton, 2006; Samuels-Dennis, Bailey, Killian, & Ray, 2013; Wright, Perez, & Johnson, 2010). However studies on how victims' strengths and resources empower women in preventing IPV and psychological distress have been mixed and scarce because of the conceptualization of empowerment. Nevertheless, Samuel-Dennis et al. (2013) suggested that effective empowerment must focus on reducing stressors and enhancing women's capacity to access and utilize needed personal and social resources.

Consequences of IPV

Research has extensively analyzed the consequences of IPV on women. IPV has been established as having significant negative effect on women's physical, emotional, mental, sexual, and reproductive health (Campell, 2002; Golding, 1999; Mechanic et al., 2008; Nathanson et al., 2012). The majority of research on health effects has shown that IPV is associated with adverse mental health effects (Coker et al., 2005). Women victims of IPV are significantly more likely to report mental health disorders such as post-traumatic stress disorder (PTSD), depression, anxiety, suicidal ideation, and substance use disorders (CDC, 2011; Devries et al., 2013; Golding, 1999; Johnson, Zlotinick, & Perez, 2008; Mechanic et al., 2008; Postmus et al., 2012; Pico-Alfonso et al., 2006; Scott-Tilley, Tilton, & Sandel, 2010). Additionally, IPV has been found to lead to cognitive dysfunction, diminished cognitive abilities, difficulties with memorization, and concentration problems (Wong, Fong, Lai, & Tiwari, 2014). Women experiencing IPV report significantly higher mental health service use than women not victimized by IPV (Rivara et al., 2007). Research further suggests that mental health problems may increase the chances that women will remain with their abusive partners and, in turn, endure continued abuse (Bell &

Goodman, 2001). Victims of IPV also suffer from physical injury, gynecological problems associated with forced sex, increased risk for unintended pregnancy, sexually transmitted infections including HIV/AIDS, and miscarriages (Campbell, Garcia-Moreno, & Sharps, 2004). IPV has also been linked to lower initiation and/ or early termination of breastfeeding (Lau & Chan, 2007).

IPV violates human rights and has a profound effect on the overall social well-being of individual families (World Health Organization [WHO], 2010; Campbell, 2002). Children who grow up witnessing IPV are predisposed to numerous social and physical problems. Exposure to IPV teaches children that violence is a normal way of life, therefore, increasing their risk of becoming societies' next generation of victims and abusers (WHO, 2010).

Ongoing abuse is also associated with significantly higher health service use (Rivara et al., 2007). It has been established as a community crime that costs the US more than $ 5.8 billion every year (CDC, 2012).These costs included nearly $ 4.1 billion in the direct costs of medical and mental health care and nearly $ 1.8 billion in the indirect costs of lost productivity in the environment (CDC, 2012). It is a major drain on law enforcement resources involving a high volume of calls and repeated calls to the same location, consuming large amount of time and often resulting in major health problems and death (Department of Justice, 2012). These immense consequences of IPV at both micro and macro levels call for a comprehensive approach towards its prevention.

Response to IPV

Women Violence Shelters. Much of our current knowledge base on responses to IPV comes from research on samples drawn from battered women's shelters, batterer intervention programs (BIP) and emergency rooms (or other medical clinics). Much of this research focuses on the impact of outreach advocacy on victims' revictimization, quality of life, depression, and social support (Breiding et al., 2010; Ramsay et al., 2009). Research suggests many positive outcomes for IPV victims who use shelter services. For instance, studies conducted in shelters found that women who sought shelter services reported less revictimization by their abusers (Bybee & Sullivan, 2002, 2005), a better quality of life (Sullivan, Bybee, & Allen, 2002), fewer psychological distress/ mental health symptoms (Costantino, Kim, & Crane, 2005), more social support (Bybee & Sullivan, 2005) and more effectiveness in accessing resources (Constantino et al., 2005) than women who do not use shelters.

Police Department Victim Assistance Programs. IPV related police calls have been found to constitute the single largest category of calls received by police, accounting for 15% to 50% of all calls for police service (Friday, Lord, Exum, & Hartman, 2006). As a result of the high volume of police calls and the small percentage of IPV victims who enter shelters, police department victim assistance programs have been developed. These programs exist to provide services to victims and family members with the goal of lessening the short and long-term trauma experienced as a direct result of their victimization (Texas Victims Assistance Manual [TVAM], 2008). These interventions engage staff who respond to a police-reported incident on IPV. In addition to providing immediate services such as crisis intervention and IPV counseling, they also focus on educating and connecting victims to existing community services such as

emergency shelters, support groups, legal advocacy, protective order filing, and advocacy (Kernic & Bonomi, 2007).They also provide emotional support, assist in development of a safety plan, identify needed services and explain the next steps in the criminal justice response (Kernic & Bonomi, 2007). In order to accomplish provision of such services, these programs provide victims with a coordinated multi-disciplinary team that meets once a month to discuss options for assisting victims with a particular situation (Goodman & Epstein, 2005; TVAM, 2008). These programs define success by focusing equally on the victim's safety and offender accountability (Mitchell & Anglin, 2009).

An important first step, prior to studying the effectiveness of such programs, is understanding the recipient of such interventions. Additionally, evaluation of these programs provide important information to the criminal justice system about the importance of responding to IPV (Stover, 2012). However, there are still limited IPV studies that have utilized samples of women who seek assistance from police department victim services. The few that have focused on this select sample of women have examined issues such as batterers arrest in reducing revictimization (Cho & Wilke, 2010; Nichols, 2012), crisis intervention, referrals to services for victims and their children (Corcoran & Allen, 2005; Ditcher & Gelles, 2012; Hovell, Seid, & Liles, 2006; Kernic & Bonomi, 2007; Stover, 2012; Zaykowski, 2014), ethnic group differences in police notification about IPV (Ackerman and Love, 2014) and number and nature of police calls (Thomas et al., 2010). None of these studies specifically explored the role of risk and protective factors for IPV and how this impacts psychological well-being among women seeking assistance from police department victim services. Hence, our knowledge on the pathways that lead to mental health symptoms in this population is still incomplete. It is assumed that police

department victim services can have an impact on women's well-being since the first contact the victim has with the criminal legal system is likely to be the police. Furthermore, Dichter and Gelles, (2012) suggested that women who seek help from police are likely to have endured severe ongoing violence and are likely to report more needs.

Purpose and Significance of this Study

The link between IPV and mental health symptoms among women is complex and deserves attention. The future research agenda in IPV victims needs to focus on responses that attempt to address the individualized needs of the victim (Mitchell & Anglin, 2009). Further, more research is needed to explain the link between IPV and mental health outcomes among abused women who choose to seek help from the police. It is assumed that women seeking help from police potentially represent the most vulnerable and high risk group for health consequences due to their experiences with severe and ongoing violence (Dichter & Gelles, 2012). Many studies have focused on the mental health outcomes of women in shelters and health care facilities but we know much less about the outcomes of women victimized by IPV who do not seek shelter service. This study will therefore examine how demographic risk factors, victim referral needs, and protective factors of social support, coping strategies, and economic resources are related to the self-reported mental health symptoms among women seeking help from a city police station.

Incidences of IPV remain high in communities across the country and negatively impact women well-being. Evidence increasingly shows that no single factor can explain why some women are at a higher risk for IPV. There exists an interaction of factors at individual,

relationship, community, and societal levels (Mitchell & Anglin, 2009). Focusing on demographic risk factors; victim referral needs; and protective factors of social support, coping, and economic resources will offer insights at both micro and macro levels that impact women's mental health outcomes.

This dissertation extends previous work on IPV in multiple ways. First, the study seeks to examine demographic factors that contribute to women at risk for IPV and mental health symptoms. Studies suggest that women of low socio-economic status, ethnic minority background, and younger age report higher rates of IPV and mental health problems compared to others (Certain et al., 2007; Kim et al., 2008; Thompson et al., 2006). Yet other research suggests that older age may protect women against IPV in adulthood. Specifically, physical aggression of men towards women has been established to decline with age where older women experience less physical violence than younger women (Kim et al., 2008). Researchers have shown that understanding such demographic characteristics, and differences among victims may help to predict which interventions will be successful in specific groups (Dugan, Nagin, & Rosenfeld, 2003). Empirical studies often control for the demographic characteristics such as ethnicity (Lilly & Grahan-Bermann, 2009), which may lead to the loss of clinically relevant information of working with diverse populations. Furthermore, research results on some of these demographic characteristics including racial/ethnicity differences in IPV are not only inconclusive but also limited and provide mixed results. (Ackerman & Love, 2014; Cho, 2012). For example, a community-based study found that Asian victims of IPV reported fewer IPV incidents to the police and service providers than non-Asian victims (Bhaumik, 1998). Their low rates of reporting have been attributed to their traditional values which discourage individuals seeking

outside help (Lee, 2002). Yet, a recent study by Ackerman and Love, (2014) found that minority groups notified the police about IPV events more than non-minority. Socioeconomic status differences between minorities and non-minorities explained a statistically significant proportion of reasons underlying the differences in notification. Consequently, this dissertation may provide useful insights on how best to intervene with diverse populations with the goal of enhancing effective approaches within the police department, often an entry point for the victim of abuse.

Secondly, this dissertation will assess the impact of protective factors of social support, coping strategies, and economic resources among women victims of IPV seeking help from the police. As Dichter and Gelles, (2012) suggest, women who seek police intervention are likely to have endured severe and ongoing violence and, hence, their source of social support, coping strategies and economic resources may vary from those seeking help from women shelters. Additionally, social support in different ethnic groups or cultures may vary and might help to lessen the effects of IPV on mental health outcomes (Lacey, McPherson, Samuel, Powell, & Head, 2013). Moreover, the relationship between social support and IPV remains inconclusive as researchers have operationalized it differently and cultural differences prevail. Studies have shown that the impact of IPV on mental health outcomes may be fully or partially determined by social support (Beeble et al., 2009; Coker et al., 2002) while others propose that social support only functions as a moderator in the IPV-mental health relationship (Carlson et al., 2002), suggesting that social support does not play a direct role in this system but instead modifies the extent of the relationship between IPV and mental health. This study therefore, examines this relationship in a unique sample of women who sought help from the police.

Another significant aspect of this study is its focus on victim referral needs and how this impacts mental health. Access and referral to needed resources decreases the risk of psychological problems such as depression, PTSD and anxiety (Adams, Bybee, Tolman, Sullivan, & Kennedy, 2013; Brush, 2000; Kimerling et al., 2009; Samuels-Dennis et al., 2013;Yoshihama, Hammock, & Horrocks, 2006). Factors found to be associated with a greater likelihood of remaining in an abusive relationship include lack of financial resources, limited employment opportunities, limited awareness of available resources, and difficulties in accessing and navigating systems to take advantage of existing resources (Bell & Goodman, 2001) and mental health issues.

Having a theoretical framework to guide service provision may help to better understand the mechanisms that are responsible for the improved outcomes. By recognizing the need to address the broad range of resources needed for battered women to successfully leave the abusive relationship, helping to bridge connections to those services, and doing so at a time when victims are likely to be more ready to accept help is vital. Therefore, another significance of this study is the focus on empowerment, social support, and stress and coping theories. These theories provide a basis for understanding the micro and macro context of battered women's responses. These theories also offer a multifaceted way of examining the psychological effects of abuse. Overall, victims of IPV may individually differ in the extent to which they evidence mental health problems, depending on the type of abuse, empowerment resources, the structure of their social support network, and their demographic characteristics. Guided by the frameworks of these theories, this study will examine the demographic risk and protective factors as predictors of mental health among women victims of IPV.

A final strength of this study is its focus on women seeking help through the police departments Victims Assistance Program. As gatekeepers to the criminal justice system, police officers are usually the first point of contact for victims and, therefore, play a crucial role in determining how IPV is resolved (Ditcher & Gelles, 2012). Therefore, if social services for the victims are coordinated through the police department system, victims of IPV could benefit from a range of services that could enhance interventions at the entry point. Davies, Lyon, and Monti-Catania (1998) proposed an approach called "woman-defined advocacy," which starts from the client's perspective on her own needs and goals rather than from a menu options. Victim advocates including the police can then work creatively within and outside of traditional systems to help women in ways that are consistent with these needs and goals.

CHAPTER 2

LITERATURE REVIEW

Introduction

This chapter provides an overview of various aspects of the literature related to the relationship between IPV and self-reported mental health symptoms among women. The organization of the variables of interest is guided by the suggested direct impact of IPV on mental health outcomes by various studies, followed by the factors that impact the variation in mental health symptoms as a result of IPV. Based on these suggested links, this section begins with a discussion of different forms of IPV. Second, the relationship between experiences with IPV and mental health symptoms is discussed; followed by risk and protective factors that are associated with the variation in mental health symptoms as a result of IPV. Third, IPV victim referral needs reported to victim assistance programs in the police station and their relationship with mental health is discussed. The chapter ends with a summary of the literature and how this literature review describe the theory guiding the study, questions asked and measures used for this study.

Forms of Intimate Partner Violence

Women who experience IPV are often subjected to multiple types of victimization such as physical violence, sexual violence, psychological aggression, stalking, and economic abuse. These forms of IPV often begin in adolescence and early adulthood and most often in the context of marriage or cohabitation, and usually include physical, sexual, and emotional abuse as

controlling behaviors (Krebs, Breiding, Browne, & Warner, 2011). Physical violence is typically defined as the intentional use of force with the potential to cause death, disability, injury, or harm (CDC, 2012; Saltzman, Fanslow, McMahon, & Shelley, 2002). Sexual violence includes using physical force to compel a person into sexual activity against his or her will and attempted or completed sexual acts with a person who is unable to understand the nature of the act, declines participation, or communicates unwillingness (CDC, 2012; Saltzman et al., 2002).

Psychological aggression involves acts, threats of acts and coercive tactics such as humiliation, control, and isolation from friends and family (Follingstad, Rutledge, Berg, Hause, & Polek, 1990; Saltzman et al., 2002). Although past research findings often include emotional or psychological aggression by intimate partners as components of physical or sexual assault (Follingstad et al., 1990; Saltzman et al., 2002), the occurrence of psychological aggression with or without other types of IPV has evolved into a distinct area of study (Coker et al., 2002). Also, stalking by intimate partners as well as economic abuse has also become a distinct foci of study (Postmus et al., 2012; Tjaden & Thoennes, 1998). In The National Violence Against Women Survey (NVAWS), Tjaden and Thoennes, (1998) defined stalking as repeated harassing or threatening behavior, such as following a person, appearing at a person's home or place of business, making harassing phone calls, leaving unwelcomed written messages or objects, or vandalizing a person's property. Economic abuse is one of the tactics commonly used by an abuser to control his partner (Tjaden & Thoennes, 1998). Economic abuse is accomplished by maintaining complete control over the victim's money and other economic resources by making all financial decisions, reducing victims ability to acquire or use and maintain money and forcing

the victim to rely on the partner for all of her financial needs (Adams, Sullivan, Bybee, & Greeson, 2008; Postmus et al., 2012).

Experiences with different types of IPV may occur within a single intimate relationship or at different points in time with different assailants over the life span. Research has begun to document that many IPV victims experience several or all of these types of victimization (Follingstad et al., 1990; Miller & Meloy, 2006; Thompson et al., 2006). For example, Miller and Meloy (2006) found that, of women in the general population indicating that they had experienced physical violence by an intimate partner as an adult, nearly one third had also experienced rape by a current or former partner. Among women who had experienced physical violence by a partner as an adult, 23% had also been stalked by a current or former intimate partner.

A study by Krebs et al. (2011) found that almost all women who experienced stalking by an intimate partner (96.2%) also reported psychological aggression by an intimate partner. In addition, 86.9% of women who experienced stalking by an intimate partner also experienced physical violence by an intimate partner, and 53.2% of those who experienced stalking by an intimate partner also experienced sexual violence. Similar percentages of those who experienced sexual violence (89.3%) and physical violence (93.0%) by an intimate partner also experienced psychological aggression. Similarly, 70.3% of those who experienced sexual violence by an intimate partner also experienced physical violence by an intimate partner (Krebs et al., 2011). These prevalence rates are a clear indication that there is an overlap in the occurrence of different

forms of violence with a possibility of an individual experiencing one, two or all of them, which Hegarty (2006) and Black et al. (2011) refers to as combined or multiple forms of violence.

IPV and Mental Health Symptoms

The impact of IPV on women's mental health outcome has been extensively examined. There is a consistent consensus among researchers that IPV has significant implications for women's mental health, including PTSD, anxiety, depression, lower self-esteem, suicidality, substance abuse, shame, somatic problems, hopelessness, anger, and distress (Babcock, Roseman, Green, & Ross, 2008; Devries et al., 2013; Golding, 1999; Pico-Alfonso et al., 2006; Scott-Tilley et al., 2010). Immediate mental health effects include fear, anxiety, and depression and long-term mental health effects include PTSD, depressive and anxiety disorders, suicidality, substance use, and addiction (Plitcha-Beth, 2007). Additionally, IPV may lead to cognitive dysfunction where abused women may experience diminished cognitive abilities, difficulties with memorization, and concentration problems (Wong et al., 2014).

Although other trauma related symptoms were found in the literature, it is noteworthy that the most commonly associated with IPV are PTSD and depression. The following sub-sections will review the major findings regarding IPV and mental health symptoms or trauma related symptoms of PTSD and depression.

Post-traumatic Stress Disorder

One of the major mental health issues thought to be related to IPV is post-traumatic stress disorder (PTSD). In this literature review, PTSD refers to self-reports of PTS symptoms and formal diagnosis of PTSD made with assessment screening tools and clinical diagnostic

interviews during studies of IPV. Overall abused women seem to be significantly more likely to report PTSD symptoms (Coker et al., 2005; Johnson, Zlotnick, & Perez, 2008; Pico-Alfonso et al., 2006; Scott-Tilley et al., 2010), and to be much more likely to meet criteria for a formal PTSD diagnosis.

Coker et al. (2005) used a subsample of 554 couples from the National Violence Against Women Survey to examine current symptoms of PTSD among women and men experiencing IPV. The authors found that 24% of women had current moderate-to-severe PTSD symptoms. PTSD scores were higher for women than men. Additionally, it was suggested that PTSD symptom severity may moderate psychosocial impairment in this population. Johnson et al.(2008) conducted a study with 177 sheltered battered women and found that PTSD severity accounted for poorer social adjustment, less effective use of community resources, and greater loss of personal and social resources (Johnson et al., 2008). Pico-Alfonso et al. (2006) conducted a study using a sample of 127 women who were physically and psychologically abused in their lifetimes and compared findings with non-abused control women (n=52). The authors found that the incidence of PTSD was significantly associated with IPV.

The severity of partner abuse has also been found to be significantly associated with PTSD symptoms (Babcock et al., 2008; Coker et al., 2005; Pico-Alfonso et al., 2006). For example, women who have been sexually assaulted, raped or threatened with weapons are more likely to develop PTSD following IPV than women who have experienced milder forms, such as verbal abuse (Babcock et al., 2008). There is also evidence that physical violence may be a stronger predictor of PTSD than psychological violence (Babcock et al., 2008). However, other

findings suggest that psychological abuse, specifically the power and control aspects of it, seems to be associated with increased PTSD symptoms and plays a significant role in the development of PTSD (Coker et al., 2005; Pico-Alfonso et al., 2006).

Other factors that determine the extent to which women exhibit PTSD symptoms include the context, availability of their support network, and the woman's individual ability to control and adjust her own emotional responses (Babcock et al., 2008). For example, women who are able to regulate their emotional responses successfully are less likely to develop severe PTSD as they are able to control their reaction to environmental triggers (Babcock et al., 2008). This is due to several factors ranging from upbringing, environmental conditioning and physiological factors such as blood flow within the brain (Babcock et al., 2008; Pico-Alfonso et al., 2006; Scott Tilley et al., 2010). Women experiencing symptoms of PTSD can also be faced with physical consequences that include an impaired immune system, difficulty sleeping, blood sugar problems, obesity, and other physical problems (Scott-Tilley et al., 2010). Studies examining PTSD symptoms often use the Posttraumatic Diagnostic Scale, PTSD Checklist-Civilian Version (PCL-C) (Babcock et al., 2008), and Echeburua's Severity of Symptom Scale of Posttraumatic Stress Disorder which is a structured interview based on DSM-IV criteria (Pico-Alfonso et al., 2006).

Depression

Depression is another mental health disorder frequently associated with IPV survivors. Literature has consistently documented a higher likelihood of reporting mild to severe depressive symptoms by women with IPV experiences than those with no IPV history (Bonomi et al., 2006;

Devries et al., 2013; Golding, 1999; Zahnd, Aydin, Grant, & Holtby, 2011). For example, in a telephone interview that was conducted with 3429 women aged 18 to 64 in Washington State and Northern Idaho, Bonomi et al. (2006) found that compared to women who never experienced IPV, women with any recent IPV exposure had higher rates of minor and severe depressive symptoms. Further, one of the largest health surveys conducted in 2009 among 50,000 households across California found that women victims of IPV were more likely to report psychological distress such as anxiety and depression than men and non-victims in the past year (Zahnd et al., 2011).

In a meta-analysis of 18 studies examining IPV as a risk factor for mental disorders, it was reported that the mean prevalence of depression among victims of IPV was 47.6% (Golding, 1999). A systematic review by Devries et al. (2013) of 16 published longitudinal studies (ten from the US) involving more than 36,000 participants offered more recent evidence on how IPV increased the likelihood of depression among women. The findings from this systematic review showed clear evidence of an association between IPV and depressive symptoms, with 12 of 13 studies showing a positive association with 11 studies reaching statistical significance. Devries and colleagues contributed to this body of literature by only including longitudinal studies which examined the temporal relations between IPV and depression.

All forms of IPV have been found to be significantly associated with current depressive symptoms among women. However, the examination of the associations between length of the abusive relationship and depressive symptoms seems inconclusive. For example, it is still unclear whether recent victims of IPV exhibit more depressive symptoms compared to victims who have been in abusive relationship for a long time (Devries et al., 2013). Lastly, there is some

suggestion that depression may also be a risk factor that makes it harder for victims to leave an abusive relationship (Hien & Ruglass, 2009). Overall more research seems to be needed to better determine the possible relationship between the length of an abusive relationship and depression.

There evidence of a co-morbidity between PTSD and depression was shown by Pico-Alfonso et al. (2006) who found that the incidence of PTSD without depression was rare. Depressive symptoms were found in (90.3%) of physically/psychologically abused women with PTSD, and 89% of psychologically abused women with PTSD. Additionally, the association of IPV and mental health burden among pregnant women has been found to have additional impact on women's mental health. In a cross-sectional study of 188 mothers of infants under 14 months, mothers reporting IPV were more likely to be diagnosed with mood or anxiety disorders, depression, panic disorder and PTSD compared to mothers who did not report IPV (Cerulli, Talbot, Tang, & Chaudron, 2011). Additionally, using the first four waves of the Fragile Families and Child Wellbeing Study (FFCWS), Postmus et al. (2012) study demonstrated that economic and psychological abuse at one year of child's age had significant effects on the likelihood of mothers' experiencing depression and spanking their children at year five. The Center for Epidemiologic Studies Depression Scale (CES-D) and Beck Depression Inventory (BDI) have been used by some studies to screen depression and anxiety respectively (Devries et al., 2013; Pico-Alfonso et al., 2006). Overall, studies assessing the presence of multiple mental health symptoms have utilized Structured Clinical Interview for DSM-IV (SCID) and Composite International Diagnostic Interview, Short Form (CIDI-SF) (Cerulli et al., 2011; Postmus et al., 2012). It is noteworthy that some of these studies have also utilized a generalized measure of self-perceived mental health. For example, the study by Bonomi et al. (2006) measured mental

health outcomes using the Short Form-36 survey (SF-36), CES-D scale, and the National Institute of Mental Health Presence of Symptoms Survey. A common finding in all these studies is that women who had experienced IPV (physical, sexual, or psychological) had lower mental health than women who had not experienced IPV.A summary of these studies is shown in Table 2-1.

Notably, mental health symptoms vary depending on the type of abuse, context of the abuse, social support network, and individual strengths that help regulate a person's emotional responses (Coker et al., 2005). The following section discusses some of the factors that help explain the variation in mental health symptoms as a result of IPV.

Risks and Protective Factors of IPV and Mental Health

A range of risk and protective factors for IPV perpetration has been studied (Abramsky et al., 2011; Capaldi et al., 2012; Huang et al., 2010; Johnson et al., 2008; Kim et al., 2008; Sabina & Tindale, 2008; Stith et al., 2004) and incorporated into the development of specific risk assessment tools (Kropp, Hart, Webster, & Eaves, 1999) for IPV. Although these factors have varied across study sites, evidence suggests that the likelihood of experiencing current abuse increases as the number of risk factors increases and decreases as the number of protective factors increases (Schei, Guthrie, Dennerstein, & Alford, 2006).

Research studies on IPV and mental health identify the risk and protective factors as social support, coping, education, belonging to a minority group, high or low socio-economic status, formal marriage, alcohol abuse, cohabitation, young age, attitudes supporting wife beating, outside sexual relationships, child abuse, growing up with domestic violence, and

perpetrating or experiencing other forms of violence (Abramsky et al., 2011; Benson & Fox, 2004; Capaldi et al., 2012; CDC, 2011; Huang et al., 2010; Kim et al., 2008; Sabina & Tindale, 2008; Stith, Smith, Penn, Ward, & Tritt, 2004). These factors are associated with IPV. First, age, race/ethnicity, financial dependence, and marital/relationship status as risk factors will be discussed. This will be followed by a discussion of protective factors of social support, coping strategies, and economic resources. Presence or absence of these factors have been found to be associated with the severity and a greater likelihood of remaining or leaving an abusive relationship (Bell & Goodman, 2001; Certain et al., 2007; Kim et al., 2008; Thompson et al., 2006).

Risk Factors

Age. Findings are relatively consistent that IPV is not limited to a certain age group (Abramsky et al., 2011; Kim et al., 2008). The reported mean age of those experiencing IPV usually falls between 26 and 35, and the largest number of victims is often between early 20s and late 40s. Existing literature also suggests that older age may be a protective factor against IPV in adulthood. Findings of Kim et al. (2008) from a 10 year panel study with 194 young couples indicated that IPV, specifically physical aggression by men towards women, declined with age. This may be because the power dynamics in the relationship became more established with time (Kim et al., 2008). However, research seems to be limited when addressing IPV among older adults, and hence difficult to ascertain IPV in this population. Therefore, more research might be needed to explore IPV among older adults.

Race/Ethnicity. Although women from all race and ethnic groups experience IPV, studies have identified that women from certain ethnic groups are at an increased risk of IPV. Findings indicate that being a member of a minority group is a risk factor for IPV with findings of high risk being most consistent for African Americans. For example, Huang et al. (2010) found that controlling for prior IPV, being African American, was associated with higher levels of IPV three years later than Non- Hispanic Whites, Hispanics, and other races. Within ethnic groups, rates are higher for persons born in the United States compared to those who migrated here (CDC, 2011). For example, the rate was 17.9 % for US-born Latinos but 10.5% for foreign-born Latinos (CDC, 2011). However, there might be low reporting rates of IPV for foreign born Latinos and other immigrants due to fear of revealing their immigration status to avoid deportation (Amanor-Boadu et al., 2012). In fact, a recent study by Ackerman and Love (2014) sheds some light on ethic group differences in notifying the police about IPV. The study used data from the National Crime Victimization Survey (NCVS) (N=3534) to test whether culture best explained a group difference in IPV police notification. The model significantly confirmed that minority victims (Latina, non- Latinos, and Blacks) notify the police more often than do majority group members. Further, the study found that high socio-economic status (SES) victims were less likely to notify the police than were low SES victims (43.4% vs. 62.5%). The results of this study are consistent with the reality that minority and lower SES victims, who are often disadvantaged in different ways, are more likely to notify the police than majority and higher SES groups (Ackerman & Love, 2014). Overall, current literature on IPV and ethnicity finds that minority group membership increases a woman's risk for IPV experiences.

Although literature provides evidence that women from minority populations such as African American, Hispanic, and Native American are associated with an elevated risk of IPV, associations between women IPV in these minority groups and how mental health disorders appear, vary depending on the sample. One study by Nathason et al. (2012) using a community sample of women recruited from the local court and YWCA offering support groups for battered women from the community, found that European American women had higher rates of PTSD in comparison to African American women (Nathason et al., 2012). Additionally, European American women were more likely to have depression than African American women. However, these results tend to differ from the findings of Huang et al. (2010), who found that being a member of minority group is a risk factor for psychological distress. Findings on risk factors for IPV among immigrant women, and other minority groups such as Asians and Hispanics remain inconsistent. As a result, further exploration of the relationship between IPV and mental health outcomes among different ethnic groups is needed.

Financial dependence. Women of all levels of socio-economic status (SES) may have histories of IPV. Financial dependence is one of the main reasons that women remain in or return in abusive relationships (Postmus et al., 2012). Financial dependence has consistently been found to be a risk factor for IPV. Researchers report that IPV is disproportionately concentrated in low-income or financially disadvantaged populations (Benson & Fox, 2004; Rodriguez, Lasch, Chandra, & Lee, 2001; Thompson et al., 2006). Unemployment creates stress and strain in intimate relationships (Benson & Fox, 2004) and may inhibit a victim's ability to establish financial autonomy. In couples who report feeling high levels of financial strain, the IPV rate is (9.5%) compared with (2.7%) for couples who report feeling low levels of financial strain

(Benson & Fox, 2004). Victims often lack self-esteem, as well as the knowledge and economic resources needed to leave an abusive relationship (Renzetti, 2009).

Marital/relationship status. Research has consistently found a strong positive relationship between marital status and IPV. Aspects of marital status that have been examined in association with risk for IPV include being married, cohabiting, divorced, and dating or single. Cui, Durtschi, Donnellan, Lorenz, and Conger (2010) found that cohabiting couples were more likely to engage in IPV than were married couples. The National Crime Victimization Survey reports that the rate of IPV is higher among never married, separated, and divorced individuals compared to married individuals (Bureau of Justice Statistics, 2005). In contrast, Huang et al. (2010) found that married or cohabiting mothers were less likely to be victims of IPV compared to mothers who did not live with their child's father. In general, although literature shows evidence of associations of types of relationship status with IPV victimization, with separated women being particularly vulnerable, more studies need to examine the role of relationship status for more conclusive results, especially for women seeking help from police stations.

Protective Factors against IPV

Protective factors related to IPV reduce the risk of further exposure to IPV and hence increase the well-being of victims of IPV. Many of these protective factors are the reverse of the risk factors just discussed in the previous section. Studies identify protective factors as belonging to high-income groups with high levels of education, often belonging to the dominant ethnic group, employment, financial assistance, access to resources and skills, social support, and coping strategies (Benson & Fox, 2004; Certain et al., 2007; Jewkes, 2002; Kim et al., 2008;

Sabina & Tindale, 2008; Wilson et al., 2013). One major cause of IPV among women is lack of power or autonomy in an intimate relationship. Protective factors are considered resources that empower women and enable women to leave or survive abusive relationships and hence reduce their risk for mental health symptoms (Cattaneo & Goodman, 2015; Samuels-Dennis et al., 2013; Wilson et al., 2013). Empowerment can be derived from many sources such as education, income, social support and access to resources (Jewkes, 2002). In this study, these resources are identified as social support, coping strategies and economic resources. These resources were included in this study with the understanding that lack of employment and financial resources, limited awareness and access to community resources , lack of social support and coping skills have been found to be associated with a greater likelihood of remaining in abusive relationships (Bell & Goodman, 2001). The relationship between these protective resources and IPV as well as mental health symptoms is discussed in the following section.

Protective Factors of IPV and Mental Health Symptoms

In women exposed to IPV, protective factors such as increased social support, certain coping styles and economic well-being have been identified as buffers against mental health outcomes, including PTSD and depression (Adams et al., 2013; Carlson et al., 2002; Nuruis et al., 2003; Postmus et al., 2012). Thus, the development of negative mental health outcomes as a result of IPV is likely to be influenced by the absence of certain protective factors. In contrast the absence of mental health outcomes, can result from the presence of certain protective factors that promote resilience.

Social Support

Fowler and Hill, (2004) define social support as the availability of components of support from interpersonal relationships that are multidimensional and diverse due to the influence of different background factors of an individual. Social support has been found to act as a protective resource in IPV and mental health symptoms. Beeble et al. (2009) conducted a longitudinal study that involved interviewing 160 survivors recruited from a diverse group of women from three community-based sources: a community-based agency providing immediate support to survivors of IPV following police intervention (42%), a local domestic violence program (32%), and the county prosecutor's personal protection order office (26%). Women were interviewed six times over two years to examine the role of perceived emotional support, advice, and companionship in buffering negative psychological consequences of depression. Using longitudinal multilevel modeling, findings from this study indicated that perceived social support was associated with higher quality of life and lower depression as a main effect. Social support also acted as moderator in buffering the effects of psychological abuse on quality of life. Finally, effects of physical abuse on quality of life and depression were mediated by satisfaction with social support. Findings from this study indicated that social support was an important protective factor for IPV and depression among women experiencing IPV over time especially if perceived.

Coker et al. (2002) conducted a cross-sectional survey with 1152 women who reported physical assaults, sexual assaults, and current psychological or past emotional abuse. Women were recruited from a family practice clinic. The study's aim was to examine the protective role of social support from friends, family, and partner on PTSD, current depression, anxiety, and suicide ideations/actions when disclosing abuse. Controlling for IPV frequency, the researchers

found that higher scores of social support was associated with a significantly reduced risk of perceived mental health symptoms. These findings suggest that abused women with higher social support were significantly less likely to report anxiety, depression, PTSD symptoms, and suicide ideation and actions than were abused women reporting lower social support. The authors concluded that the amount of social support women perceived they had was an important determinant of psychological health.

Carson et al. (2002) examined the role of social support from partner and non-partner support (support from a confidante other than their intimate partners) along with other protective factors of education, employment, self-esteem, health, and absence of economic hardship in relation to depression, anxiety, and three types of lifetime abuse (recent IPV, past IPV, and child abuse) among 557 women in a domestic violence screening intervention. Interviews indicated that abused women with depression or anxiety were significantly less likely to report partner and non-partner support compared to non-abused women. This suggests that social support from partners provided a buffer for abused women from developing anxiety and depression. In this study, total protective factors of social support, education, employment, self-esteem, health, and absence of economic hardship provided a buffer for abused women from developing anxiety and depression but appeared less effective at severe levels of lifetime abuse.

The importance of social support and other protective factors for risk of repeated abuse has also been examined among ethnic groups. Goodman, Dutton, and Vankos (2005) conducted a longitudinal study to examine the strategies used by women to protect themselves from being re-abused. This study was conducted among 406 African American women victims of IPV from

a community agency. Using multivariate analysis, the study found that women with the highest level of social support had a 20 percent risk of re-abuse and those with lowest levels of social support had a 65% risk of re-abuse following the research. The researchers identified the principal source of social support as friends and families who provided resources and emotional support (Goodman et al., 2005).

Similarly, using a secondary data set analysis of women recruited from diverse agencies including churches, public housing apartments, outpatient medical centers, domestic violence agencies, and a substance abuse treatment program, Fowler and Hill, (2004) examined social support, mental health and coping in a sample of 126 African American women survivors of IPV. Results indicated that the presence of social support was a significant predictor of lower levels of depression. However, after controlling for the effect of social support, PTSD symptoms remained significantly related to partner abuse

A recent study by Stevens et al. (2013) examined how emotional regulation, social support, and interpersonal violence mediated the relationship between childhood abuse and post traumatic symptoms (PTS) in adults. The study used a multiple mediated model with 139 socio-economically disadvantaged women (85% African American) at an outpatient obstetric-gynecological clinic. Findings from the mediated model indicated that child abuse had a direct impact on PTS symptoms and an indirect effect through lower social support.

As discussed above, several studies have found that social support reduces the adverse effect of IPV on mental health. However, the relationship between social support and IPV remains complex as researchers use different definitions. With these variances, some propose

that the impact of IPV on mental health is fully determined by social support (Beeble et al., 2009). Others suggest that social support partially affects the relationship between IPV and mental health of the victim (Coker et al., 2002; Steven et al., 2013) yet others propose that social support only functions as a moderator in the IPV-mental health relationship (Carlson et al., 2002), suggesting that social support does not play a direct role in this system but instead modifies the extent of the relationship between IPV and mental health. Since social support has been recognized as an important protective factor, additional research is needed to specifically examine the role of social support in alleviating the impact of abuse on mental health, especially with a more diverse sample of female survivors.

Coping

Butt and Katz (1988) view coping as efforts made in response to stimuli experienced as threatening or stressful and state that, "Coping are efforts aimed both at reducing the anxiety that those stimuli create and at reducing the interference of the stimuli with one's capacity to function" (p.345). Coping strategies include a broad diversity of thoughts and behaviors used to manage the demands of a taxing situation (Lazarus & Folkman, 1984) such as avoidance, nervousness and anxiety-related behaviors, self-destructive behaviors, cognitive approaches, and expressive responses (Burgess & Holmstrom, 1979; Lazarus & Folkman, 1984). These are all related to problem-focused and emotion-focused coping (Runtz & Schallow, 1997).

Coping in the context of IPV is conceptualized as attempts to mediate the effects of IPV with goal of a reduction of overall psychological stress (Lazarus & Folkman, 1984).The commonly used distinctions of coping strategies include problem-focused coping and emotion-

focused coping, (Calvete et al., 2015). Problem-focused coping are conceptualized as behaviors that are directed externally and aim to change the environment that causes distress (Heckhausen & Schulz, 1995). An example might include seeking outside assistance through social service and legal aid agencies. Emotion focused coping constitutes emotional reactions which often accompany those demands (Thoit, 1995) and help reduce the negative effect of the stressor (Heckhausen & Schulz, 1995). An example includes engaging in prayer and meditation. Primary control coping includes active efforts to solve the problem and seeking support to express and regulate emotions (Calvete et al., 2015).

Foster et al., (2015) conducted a qualitative study with a sample of 42 women recruited from six primary care clinics. Individuals were instructed to complete a baseline survey, which included the COPE scale designed by Carver, Scheier, and Weintraub (1989); which is the most commonly used coping scale (Kato, 2013). Using a template approach to qualitative analysis, coping as a theme emerged independently and was categorized into 14 subcategories. The most common themes from the interviews were "avoidance" and "active coping". Other coping methods that emerged from interviews not listed in the COPE scale were "preventing escalation", "ignoring", "inner strength", "self-protection" and "self-blame". Among a sample of 143 economically disadvantaged African American women, 65 of whom had experienced IPV and mental health outcomes of depression, anxiety and parenting stress, Mitchell et al. (2006) found that multiple ways of coping (escape avoidance, confrontive coping and self-controlling, distancing, problem solving, and self-controlling) mediated the relationship between IPV and three mental health symptom (depressive symptoms, anxiety, and parenting stress). The study

also found significant results on the mediating role of social support in the IPV and mental health relationship.

A similar study by Lee, Pomeroy, and Bohman (2007) examined the role coping strategies and social support played on the relationship between IPV and psychological distress. A sample of 100 Caucasian women and 61 Asian women were recruited from domestic violence agencies. Using structural equation modeling to test the model, findings indicated that there was a significant, indirect effect by the level of violence on psychological outcomes via the mediating role of coping strategies and perceived social support. Ethnic group comparisons indicated that among Caucasian women, the level of violence had an indirect effect on psychological outcomes via the mediating variables of perceived social support and passive coping strategies but not for Asian women. However, direct effect of the level of violence on psychological outcomes was strong and significant. To protect the family face and the family unit, Lee et al. (2007) suggested that Asian women may internalize the problem of violence and were less likely to seek support.

There still seems to be a lack of consensus about the structure of coping responses and this has hindered our understanding on its impact, especially among battered women (Waldrop & Resick, 2004). Furthermore, the moderation and mediation for coping responses in the context of abusive relationships have not been extensively studied, in fact, Calvete et al. (2015) is the first known study to test these relationships but in a different context other than the US, China.

Social support and coping theoretically and statistically appear to have an interactive effect on adjustment and well-being (Tan, 2007). However this is not surprising as the effective use of a social support system can also be viewed as a coping strategy. In fact, many measures of

coping include aspects of social support such as sharing feelings with friends or talking to others about a problem. Also, based on a review of social support and stress and coping theory, there may be some conceptual overlap in these two constructs, justifying why studies have examined both together. The above discussion of current literature on mental health outcomes among victims of IPV suggest that intervening variables of social support and coping strategies may be relevant in the study of current functioning of victims. A summary of empirical studies examining the relationship between IPV, social support, coping strategies, and mental health outcomes are shown in Table 2-2.

Economic Resources

As previously discussed, studies identify economic resources as belonging to high-income groups, high levels of education, employment, financial assistance, insurance status, work training, and other related skills and asset ownership (Benson & Fox, 2004; Canady & Babcock, 2009; Certain et al., 2007; Ford-Gilboe et al., 2009; Gonzalez-Guarda et al., 2009; Jewkes, 2002; Kim et al., 2008; Nurius et al., 2003; Sabina & Tindale, 2008; Wilson et al., 2013). These resources are often measured as one composite score that is equivalent to an indicator of socioeconomic status (Waldrop & Resick, 2004). In this study these resources will be discussed as economic resources that act as protective factors for women experiencing IPV and mental health outcomes.

Employment. One of the most studied economic resources related to IPV is employment status. At its worst, lack of employment or unstable employment can propel female victims of IPV into poverty, stress and resulting mental health problems. This is because women become

more vulnerable and susceptible to violence if they need to rely on their intimate partner for financial support to fulfill their basic needs. However, there is overwhelming evidence corroborating the notions that the relationship between IPV and employment is complex because access or successful employment may also lead to increased IPV, not only in the US, but also in other developed and developing nations (Dalal, 2011; Terrazas-Carrillo & McWhirter, 2014; Villarreal, 2007). For example, in a sample of 83,159 Mexican women victims of domestic violence, Terrazas-Carrillo and McWhiter (2014) found that employment of women was a significant predictor of domestic violence. Support for this proposition comes from additional studies that found that income disparities favoring women, rather than overall family resources, predicted men's violence toward their wives (McCloskey, 1996; Renzetti, 2009).

When and if employment is disrupted, women often experience financial stress that can further erode their mental health. Employment provides not only important financial resources, but also may raise a woman's self-esteem, thereby providing her with psychological resources to cope with or end an abusive relationship (Brush, 2000). Studies have demonstrated a positive relationship between employment for women victims of IPV and psychological wellbeing. Adams et al. (2013) used five waves of the Women's Employment Study to examine economic pathways from IPV to mental health outcomes. Results established an indirect effect of IPV on mental health through job stability. The authors further reported that anxiety was fully explained by lower job instability when comparing women who were recently abused by an intimate partner with women who had not been victimized in the last seven years. These effects were significant after controlling for education, age, and having a child under age 14 (Adams et al., 2013).

A different kind of relationship is exhibited in a population based survey of women in California. Findings from this study indicated that psychological violence was a stronger predictor of unemployment than physical violence. Results also indicated that unemployed women experiencing IPV were significantly more likely to report current PTSD (Kimerling et al., 2009).

Financial assistance/welfare receipt. Loss of economic resources like stable and sustainable employment and the barriers to economic independence caused by abusers compel victims to seek public welfare and other government benefits (Lyon, 1997). Further, women victims have been found to be at heightened risk of abuse when seeking economic self-sufficiency (Tolman & Raphael, 2000) compound women to in the general population. In fact, research indicates that 20 to 32 percent of welfare recipients report current IPV and between 55 and 65 percent of recipients have experienced recent or past IPV (Browne & Bassuk, 1997; Lyon, 1997; Raphael, 1995). Additionally, Tolman (2011) states that IPV is associated with an increased likelihood of welfare receipt, welfare dependency and cycling on and off welfare which in turn makes it difficult for women to adhere to work requirements outlined by the Personal Responsibility Work Opportunity Act (PRWORA). This finding is also true for poor women who receive other kinds of social services. For example, an early study of poor homeless and housed women in Massachusetts found that 60% of the total sample of 436 women had experienced domestic abuse by a male partner during adulthood (Brown & Bassuk, 1997). Consequently, many women who receive social welfare and other social services are subject to unintended consequence of "social control" via program requirements for work versus the violence they experience in the hands of an intimate partner.

Across several studies, welfare receipt or participation is measured as a binary variable of whether an individual is receiving any social welfare assistance from the government and the duration they have received the assistance (Cheng, 2012; Romero, Chavkin, Wise, Smith, & Wood, 2002; Seefeldt & Orzol, 2005; Yoshihama et al., 2006). Research on IPV direct relationship to welfare has yielded mixed findings. Some studies purport that the relationship may be causal; women may utilize welfare benefits as their means of support in the process of escaping their abusive partners. However, in their attempt to show this causal relationship, Seefeldt and Orzol (2005) found no significant association between IPV and welfare participation in a cross-sectional analysis of more than 500 participants. In contrast, a small longitudinal study, sampling 40 TANF recipients of low-income African Americans in an urban Midwestern County found that previous experience of IPV increased the women's odds of receiving welfare benefits in a given year, but previous welfare did not predict IPV (Yoshihama et al., 2006). Similarly, a longitudinal study with a sample size of 571 women whom records were extracted from the study "Violence Against Women and the Role of Welfare Reform (VAWRWR) showed that experiencing controlling behaviors significantly reduced the likelihood of subsequent welfare participation whereas physical abuse increased it (Cheng, 2012).

Other studies have tested associations between IPV, welfare receipt, and mental health status. The mental health consequences of IPV among women receiving welfare can act as potential barrier in transition from welfare to work (Brush, 2000; Yoshihama et al., 2006). In a study of 40 randomly selected African American women, Yoshihama et al. (2006) found that cumulative IPV was associated with PTSD in the past 12 months but not cumulative welfare

receipt. Similarly, in a sample of 122 welfare recipients in Pennsylvania, women who reported experience of IPV in their current or most recent relationship were more likely than non-abused women to have at least three PTSD symptoms (Brush, 2000).

Studies that have simultaneously examined the role of SES variables as protective factors for IPV and mental health have established that these protective factors provided a buffer for abused women from developing anxiety and depression (Carlson et al., 2002; Gonzalez-Guarda et al., 2009). Using a sample of 557 females who had experienced IPV, Carlson et al., (2002) found that SES when conceptualized as employment and absence of economic hardship, a significantly decreased, negative effect of IPV on mental health outcomes was seen. Additionally, a study by Gonzalez-Guarda et al. (2009) examined the relationships among resource availability, IPV, and depression among Hispanic women. Resource availability was conceptualized in this study as SES and access to health care variables. Findings from this study indicated that lack of education, employment, and health insurance did not predict IPV. However, participants with less education reported higher depression scores.

It is noteworthy that not many studies have looked at the relationship between IPV, total score of economic resources and mental health. Therefore, results remain inconclusive prompting the need for further examination. Table 2-3 summarizes key findings from empirical studies examining the relationships between IPV, economic resources, and mental health.

IPV and Victim Referral Needs

Given that millions of women are victimized by partners and ex-partners each year, and that even more children witness violence, communities throughout the US have created a broad

range of services that may be helpful in addressing victims' needs and protecting them from future violence. Victims commonly use or are referred to services such as criminal legal system, shelters, advocacy programs, transitional housing, support groups, supervised visitation centers, outreach, and counseling services (Ditcher, 2009; Sullivan, 2012). Most of these services are built on a philosophy of empowerment of helping the survivors achieve personal, interpersonal, and social power as well as freedom from violence (Sullivan, 2012). Access to services has commonly been associated with higher quality of life, especially when resources are relevant to an individual's personal needs and goals (Diener & Fujita, 1995). Since IPV has been constructed as a crime, the criminal legal system has been identified as the first response source for victims of IPV. Individuals victimized by violence may turn to the police for protection and to hold the offender accountable for his or her actions (Ditcher, 2009).

The two most common crisis oriented services for IPV victims are shelter and the first response team (Sullivan, 2006). This section discusses the first response team whose focus is to provide immediate safety and support at the time of violence. This is followed by a discussion on different types of victim referral needs that women often report. Lastly, a discussion on the relationship between IPV and victim referral needs and how these needs may further aggravate poor mental health is provided.

First Response Team

Many police departments have implemented a community-based, victim component in their response to domestic violence calls (Hovell et al., 2006). This often involves citizens trained in domestic violence or victim advocates, often collectively referred to as a first response

team (Sullivan, 2006). A first response team consists of trained advocates and social workers accompanying police officers on domestic violence calls (or shortly after violence has occurred). The goal of such teams is to: (1) let abusers know of the legal consequences for the violent behavior and (2) inform victims of resources available to them (Sullivan, 2006). A first response team represents a positive approach with the aim to reduce the incidence of repeat domestic violence and improve psychological well-being of women (DePrince, Belknap, Labus, Buckingham, & Gover, 2012). Experiencing IPV is associated with needing legal, social, and job services which may further cause psychological distress (Eisenman et al., 2009). Longitudinal study by Eisenman and colleagues followed 210 pregnant Latina women, 92 of whom had a lifetime adult history of IPV exposure and 118 who had no lifetime IPV exposure. Legal needs reflected legal services such as child custody, immigration, family violence or other legal problems. Perceived social services need was determined by a need for housing services, child care or other child services, support groups, or alcohol/drug treatment. Perceived job services need was determined by a need for job preparation such as language or computer skills or a GED program. Other items assessed in the study were demographic characteristics and general health status. Findings in this study indicated that IPV was associated with legal and social service needs. However, there was no significant relationship between IPV and need for job services. Furthermore, marriage and good health status were found to associate with reduced need for legal services and greater income was associated with a reduced need for social services (Eisenman et al., 2009).

Green, Miranda, and Daroowalla (2005) examined perceived needs of services among 100 female jail inmates, 71% of whom reported IPV. Responses were grouped into categories of

drug or alcohol related problems, family (being away from family), need for life direction, job training and miscellaneous. Apart from incarceration, the most common perceived needs reported by these women was substance abuse, followed by family issues, lack of skills and direction, lack of a job or appropriate job training. Mental health problems was also significantly associated with the need for individual or group treatment.

Once victim needs are identified by victim advocates, many police departments contract with community agencies, such as domestic violence shelters for victim referral (DePrince et al., 2012; Sullivan, 2006; Shorey, Tirone, & Stuart, 2014).These agencies seek out victims and offer their services based on their needs. Victim's assistance through referral to needed resources has been shown to be potentially important for IPV survivors. DePrince et al. (2012) found that victims referral to resources within the community had a positive impact on the overall well-being of women (N=236) showing lower levels of PTSD and greater readiness to leave abusive relationships. However, no effects on revictimization or social support was reported.

Stover's study (2012) of 52 women who reported to police department domestic violence unit and received Domestic Violence Home Visit Intervention (DVHI) found that victims felt safer and had increased comfort with police and resulted in more accurate reporting of repeat violence to police when an incident occurred (Stover, 2012) compared to the IPV victims in a control group. Ditcher and Gelles, (2012) examined perception of safety and risk among women victims of IPV following police intervention and found that having social support and distance from the partner produced feelings of safety.

Prior, Kernic and Bonomi (2007) asserted that an important first step (prior to studying the effectiveness of victim assistance programs) is understanding who the recipients of their interventions are and their needs. Few studies have explored the different needs of victims of IPV seeking help from police departments' victims assistance programs and their relationship with mental health symptoms. Instead, most studies have examined arrest of batterers in reducing revictimization (Cho & Wilke 2010; Nichols, 2012); crisis intervention and referrals to services for victims and their children (Corcoran & Allen, 2005; Ditcher & Gelles, 2012; Hovell et al., 2006; Kernic & Bonomi, 2007; Stover, 2012; Zaykowski, 2014), ethnic group differences in police notification about IPV (Ackerman and Love, 2014) and number and nature of police calls (Thomas et al., 2010). Table 2-4 summarizes key findings from empirical studies examining the relationship between IPV, perceived needs, and mental health.

Summary of Literature Review

The current understanding that we have on IPV is a product of decades of tremendous scientific, technical, and social research. Although many studies have assessed the relationship between IPV and mental health symptoms (Babcock et al., 2008; Cerulli et al., 2011; Coker et al., 2002; Devries et al., 2013; Golding, 1999; Johnson et al., 2008; Pico-Alfonso et al., 2006; Scott-Tilley et al., 2010), the complex relationship of intervening variables in the relationship between IPV and mental health outcomes warrants further investigation.

Of most import is the examination on the relationship between IPV, mental health and victims' strengths or resources (social support, coping skills, and economic resources), which in this study are considered as protective factors; as well as potential victim needs. To this

researcher's knowledge, no previous studies have examined this relationship among women from diverse populations; especially those seeking help from a police station. Accounting for the influence of these variables may provide a comprehensive framework for examining the effects of IPV on mental health symptoms; especially through mediation models that statistically test for direct and indirect effect. Women may also differ in the extent to which they report mental health symptoms depending on the type of abuse, type of their social support and their individual ability to regulate their emotional response to IPV.

The role of coping in the relationship between IPV and mental health symptoms seems to be largely missing from the US literature on IPV. Coping is often operationalized using a variety of measures and hence, providing varied results. The lack of consensus about the structure of the coping response has hindered our understanding of its impact on battered women (Waldrop et al., 2004). On the other hand, the relationship between social support and IPV remains complex as researchers have operationalized this differently. Some propose that the impact of IPV on mental health is fully determined by social support (Beeble et al., 2009). Others suggest that social support partially affects the relationship between IPV and mental health of the victim (Coker et al., 2002) while others state that social support only functions as a moderator in the IPV mental health relationship (Carlson et al., 2002), suggesting that social support does not play a direct role in this system but instead modifies the extent of the relationship between IPV and mental health settings. The protective role of social support and coping strategies may differ especially among women who seek help from the police.

Overall, current literature on IPV and ethnicity finds that minority group membership increases a woman's risk for IPV experiences. Although literature provides support that women from minority populations such as African American, Hispanic, and Native American are associated with elevated risk of IPV, associations between IPV of women in minority groups and mental health symptoms appear to vary depending on the sample of study. For instance in their study that used a community sample of women recruited from the local court and YCWA offering support groups for battered women from the community, Nathason et al. (2012) found that Caucasian women had higher rates of PTSD and depression in comparison to African American women. However, these results tended to differ from the findings of (Huang et al., 2010), who found that being a member of a minority group is a risk factor for psychological distress. Literature remains largely sparse in examining risk factors for IPV for Asians, another minority population. Many studies also control for ethnicity, which may lead to a loss of clinically important information. Further exploration of the relationship between IPV and mental health symptoms among different ethnic groups is needed.

Most studies discussed in the literature do not measured the type and frequency of abuse but use dichotomous questions to measure IPV categories. Therefore, future studies should measure the type and frequency of IPV based on the number of times victims report abuse with former or current partner so as to provide the level of intensity of IPV.

In summary, the high prevalence of IPV world-wide calls for an exploration of additional ways to understand the context of IPV and women's mental health well-being. This requires consideration of research on different samples of women and responses to the phenomena.

Therefore, this study examines how various empowering factors of social support, coping, and economic resources impact the mental health outcomes of IPV victims seeking assistance from police department Victim Assistance Programs. Such data may contribute to not only an understanding of diverse responses to violence and the needs of women, but provide further evidence on factors that impede IPV victims' positive mental health and well-being.

Having a theoretical framework to guide research examining the mental health symptoms of women seeking help from police may help us understand the mechanisms that are responsible for the improved outcomes. Therefore, having explored the current state of literature on the pathways to mental health outcomes among women victims of IPV, the next chapter discusses the theoretical basis guiding this dissertation.

Table 1-1 Selected Peer Reviewed Journal Articles for IPV and Mental Health symptoms

Author	Sample Size	Research Design	Exposure	Outcome variable	Findings
Babcock et al., (2008)	Couples, 202	Quantitative and Cross-sectional	Psychological and Physical	PTSD symptoms	Both physical and psychological abuse were significantly related to PTSD symptoms. physical and psychological abuse were highly correlated but psychological abuse did not predict PTSD symptoms on its own.
Bonomi et al., (2006)	3429, women	Quantitative	Physical, sexual and non-physical.	Depressive symptoms	Compared to women who never experienced IPV, women with any recent IPV had higher rates of severe and minor depressive symptoms.
Cerulli et al., (2011)	Women188	Quantitative and Cross-sectional, women	IPV	Anxiety, depression, panic disorder, PTSD	Greater prevalence of mental health disorders among women/mothers experiencing IPV.
Coker et al., (2005)	369 women and 185 men (554)	Cross-sectional	IPV	PTSD symptoms	24% of women reported as having moderate-to severe PTSD symptoms.
Devries et al., (2013)	Women or men	Systematic review of 16 longitudinal studies	IPV	Authors definition of depression or suicide attempts	Pooled odds ratio for depression among women was 1.97(Six studies, while pooled odds ratio for incident IPV among women was 1.93 (four studies.
Golding, 1999	Women	Systematic review of 36 cross-sectional studies	Physical Violence	Depression, Suicidality, PTSD, substance use	Greater prevalence of outcomes among victims of violence
Johnson et al., (2008)	177 women	Longitudinal Study	IPV	PTSD severity	PTSD severity was significantly related to social adjustment, number of cormobid disorders, effective use of community resources and resource loss.
Pico-Alfonso et al., (2006)	Women, 127	Quantitative and Cross-sectional	Psychological and Physical	PTSD, Depression, Anxiety, Suicide	Women exposed to physical/psychological and psychological IPV had a higher incidence and severity of depressive and anxiety symptoms, PTSD, and thoughts of suicide than control women
Postmus et al., (2012)	Women and men	Quantitative Longitudinal study	Economic, psychological and physical abuse	Depression	Economic and psychological abuse at year 1 had significant impact on outcome at year 5
Scott-Tilley et al., (2010)	Women	Review of Literature	IPV	PTSD	Female victims of IPV develop PTSD and related consequences at a rate of 74-92% compared to 6-13% in non-abused women.
Zahnd et al., (2011)	Women and men	Cross-sectional study(2009 California Health Survey	IPV	Depression and anxiety	Women exhibit high percentage of the outcome compared to men and women in the general population.

Table 2-2 Selected Peer-Reviewed Journal Articles Social Support and Coping

Author	**Sample Size**	**Research Design**	**Type of Abuse**	**Outcome**	**Findings**
Beeble et al.,(2009)	Women, 160	Quantitative and longitudinal	Physical and psychological abuse	Physical and psychological abuse, Quality of life	Experiences with IPV decreased over time as social support increased. Social support was a protective factor for depression.
Carson et al., (2002)	557 women	Quantitative and cross-sectional	IPV	Depression and anxiety	Social support potentially provided a buffer for abused women from developing anxiety and depression but appear less effective at severe levels of lifetime abuse.
Coker et al., (2002)	1152 women	Quantitative and cross-sectional study	IPV	PTSD, current depression, anxiety, suicide ideations/actions.	Higher social support scores were associated with a significantly reduced risk of poor perceived mental health.
Foster et al., (2015)	42 women	Qualitative	IPV	Coping	Coping as a theme emerged independently and was categorized into 14 sub-themes.
Fowler & Hill, (2004)	126 African American women survivors of partner abuse	Quantitative and cross-sectional	IPV	PTSD and Depression	PTSD symptoms remain significantly related to partner abuse after controlling for the effects of social support and spirituality
Goodman et al.,(2005)	406 African American women	Quantitative and longitudinal	IPV	Staying safe (risk of re-abuse)	Social support served as a protective factor and resistance strategies as risk factors for re-abuse during a 1-year period. Social support did not serve.
Lee at al., (2007)	161 (100 Caucasian and 61 Asian women	Quantitative and cross-sectional	IPV	Psychological distress	There was a significant indirect effect on psychological outcomes via the mediating variables of perceived social support and passive coping strategies but not for Asian women. Direct effect of the level of violence on psychological distress was significant.
Mitchell et al., (2006)	143 economically disadvantaged African American women	Quantitative and cross-sectional	IPV	Depression, anxiety and parenting distress	Multiple ways of coping (escape avoidance, confrontive coping, self-controlling, distancing, problem solving and self -controlling) mediated the relationship between IPV and mental health symptoms
Stevens, et al., (2013)	139 socio-economically disadvantaged women	Quantitative cross-sectional	Child abuse	PTS symptoms	The model accounted for 63% of the variance in adult PTS symptoms. Child abuse had a direct effect on PTS symptoms, through lower social support.

Table 2-3 Selected Peer-reviewed journal articles on IPV, economic resources and mental health

Author	Sample Size	Research Design	Type of Abuse	Outcome	Findings
Adams et al.,(2013)	503 women welfare recipients	Quantitative and longitudinal Study	IPV	Job stability, Mental health (major depression and generalized anxiety disorder).	Job stability is partially responsible for mental health consequences of abuse (indirect effect). These effects were significant after controlling for education, age and having a child under age 14.
Brush, (2000)	Women 122	Cross sectional	Physical,and emotional abuse	PTSD symptoms	More than half of the participants reported PTSD symptoms that interfered with program participation.
Carlson et al., (2002)	557	Quantitative, Cross- sectional	IPV	Mental health outcomes	Absence of economic hardship significantly decreased negative effects of IPV on mental health outcomes.
Kimerling et al., 2009.	Women, 6698	Quantitative and Cross sectional	IPV	IPV as a predictor of PTSD.	Unemployed women experiencing IPV were significantly more likely to report current PTSD.
Yoshihama et al., (2006)	Women, 40 TANF recipients.	Quantitative and longitudinal	IPV	PTSD.	Current and cumulative IPV increased the odds reporting PTSD.

Table 2-4 Selected Peer-reviewed journal articles on IPV, victim referral needs and mental health

Author	Sample Size	Research Design	Type of Abuse	Outcome	Findings
Eisenman et al., (2009)	210 pregnant Latina women, 92 with a history of IPV.	Quantitative and longitudinal Study	IPV	Perceived need for services.	IPV was significantly associated with needing legal and social services at most points.
Green et al., (2005)	100 female jail inmates, 71% who had experienced IPV.	Cross sectional	Physical,emotional abuse	Perceived needs	Most common perceived needs reported was substance abuse problems, family issues, lack of skills and direction, lack of job and job training. Mental health problems was significantly associated with need for individual and group treatment.
DePrince et al., (2012)	236 women who had experienced IPV	Quantitative, Cross-sectional	IPV	Well-being (PTSD and likelihood of leaving an abusive relationship)	Referral to resources within the community had a positive impact on the overall well-being with women showing lower levels of PTSD and readiness to leave abusive relationships.

CHAPTER THREE

Theoretical Framework

Introduction

This chapter focuses first on elements of the main theories guiding this study: empowerment theory, social support, and stress and coping theories. These theories guide the understanding of the mental health symptoms of women who are victims of IPV experience. (See Figure 3-1). Second, application of these theories to the present study is discussed by reviewing concepts, assumptions, empirical support, and critiques of the application of these theories. Third, a path diagram that illustrates the hypothesized conceptual model and the concepts from these theories applied to the present study is provided. The hypothesized model shows the relationships between IPV, risk and protective factors, victim referral needs, and mental health symptoms among women reporting IPV to a city police station. (See Figure 3-2).

What is Empowerment?

Several definitions have been put forth to establish what the concept of empowerment means. For example, as explained by Cox and Pawar, (2006), Gandhi defined empowerment as a personal transformation, which embraces consciousness raising and self-reliance in search of self- realization and self- fulfillment. In social work practice, the concept of empowerment refers to the process by which individuals and groups gain power to access resources and to control the circumstances of their lives (Adams, 2008). On the other hand, Corrigan (2006) defines

empowerment in its broadest sense to mean personal control over decisions in all domains of life. As a process, "empowerment actively engages people in decisions about their well-being, potential, life satisfaction, and the outcome of realizing to the extent possible, control over their lives" (Hepworth, 2010, p. 414).These definitions provide the components of what comprises the empowerment theory; personal control, decision making, accessing resources, and overall well-being among the oppressed individuals.

The widespread use of empowerment has weakened its meaning such that it has generally come to mean any action intended to help a person or community. Actually, a quick google search for the word empowerment produces about 55 million hits. In fact, in the context of social justice and development studies, Cattaneo and Goodman (2015) stated that empowerment has become a buzz word today. Despite its overuse, the empowerment approach continues to be a key concept in the field of community psychology, human, and social sciences that share common values of helping others to help themselves, focusing on strengths and coping rather than deficiencies.

Why Empowerment Theory

Empowerment theory is used to guide this study for several reasons. First, the philosophical underpinnings of empowerment theory have been widely used in assessing the existing structures in our societies as sources of women subordination and control, and this approach puts a strong emphasis on the necessity of challenging women's subordination in all areas and at all levels (Aiken & Goldwasser, 2010). Second, empowerment is a major process and goal within the mainstream domestic violence movement. In fact, early recognition of IPV

arose from stories of women who came together and found common ground in their descriptions of being controlled by their partners, who exerted their power through psychological, sexual, economic, and physical abuse (Kasturirangan, 2008).Third, using empowerment theory, researchers have been able to understand and better assess the phenomena and interventions for IPV that can increase the safety and personal control of victims and enhance improved physical and psychological well-being by concentrating on the inherent strengths of individuals while working with vulnerable populations. As a result, Robbin, Chatterjee, and Canda (2012) note that empowerment theory and strength based theory are similar because both operate on the assumption that people have strengths and resources for their own empowerment. This belief helps us to honor their resources, assets, wisdom, and knowledge that facilitate the process of healing and ensure that their full potential is brought out. Thus, using victim resources as personal strength is the first and most basic step in ensuring their self-recovery. Considering that the strengths based perspective is used to build on people's aspirations, strengths, resources, and resiliency to engage in actions of pursuing social justice and personal well-being, it can be considered a theory of empowerment (Robbin et al., 2012). Furthermore, client empowerment is central to a strengths based practice and the discovery of a client's strengths nurtures that empowerment (Cowger, 1994). Finally, intervention studies that incorporate personal and social empowerment as a central component of a program have consistently shown that empowerment intervention reduces mental health symptoms, such as PTSD and depression (Samuel-Dennis et al., 2013; Wilson et al., 2013)

The Empowerment Theory

Empowerment theory is central to the work of improving human lives. Several theories are considered to be grounded in empowerment theory principles, including feminist theory, social work empowerment and the previously mentioned strengths based theory. These theories identify social, political, and material resources and inequities in the environment, strengths in individuals and communities and enhancement of well-being (Cowger, 1994; Zimmerman, 1984). Empowerment theory also helps us to understand women's vulnerability to IPV. The following section focuses specifically on feminist theory to understand the dynamics of IPV, especially the causes.

Feminist theory. Feminist theory is an important empowerment theory. First, the origins of women's empowerment are derived from feminist writings and grassroots organization for the women in developing and developed countries (Moser, 1993). Feminist theorists such as hooks (2000) and Hartsock (1981) contend that women's subordinate roles in society are due to their lack of power. Feminist activists have used models of empowerment to intervene with women's oppression and gender inequality in society and to specifically document women's movement towards equality (Kabeer, 1998; Robbins et al., 2012).

Feminist theory involves ways of thinking and acting to eliminate oppression of women in society (Hartsock, 1981). Different feminist theorists have used different definitions of feminism. Hooks (2000) defines feminism as a movement to end sexism, sexist exploitation and oppression. Second wave feminist, Hartsock (1981), sees feminism as a mode of analysis, a method of approaching life and politics rather than a set of conclusions about the oppression of

women. Over time the concepts of feminism have deepened and broadened to include gender, racism, classism, and heterosexism (Jones & Hodges, 2001; Sharma, 2001; Raja, 1998; Zinn & Dill, 1996). Feminism and gender are often viewed as synonymous with women, but men have gender too and can also be feminist (Robbins et al., 2012). Feminism is an ideology that seeks to transform men and women from rigid stereotypes of what it means to be a man and a woman (Robbins et al., 2012).

Various forms of feminism exist today. One form of feminism, radical feminism, asserts that women are an oppressed class and that patriarchy is at the root of this oppression. Patriarchy and andocentricity are enforced through violence against women, and society must be completely altered to eliminate male supremacy and other hierarchies (Sauliner, 1996). Patriarchy intersects with other systems of oppression including class, race, ethnicity, and sexual identity to exert the feeling of powerlessness, self-blame, and worthlessness among women through IPV. Hence, one may argue that if abusers are taking power from victims of IPV, healing entails restoring it so that victims may experience a sense of personal control. Researchers have, therefore, identified the overarching structure of patriarchy and the oppression of women as the root cause of violence against women; restoring it entails focusing on empowering the victim and structural changes to gain power for women as a group (Cattaneo & Goodman, 2015). As a result, the development of empowerment model of intervention for victims of IPV arose from the early feminist movements of the 1970s (Straus, 1977). This model framed domestic violence within a social, cultural and historical framework of inequality between the sexes (Straus, 1977) and the violence by men in intimate relationships as a result of power differentials that served to keep the woman subordinate.

The Concepts of Empowerment Theory

Important concepts of empowerment theory include empowerment, power, powerlessness, social stratification, and consciousness raising. This study specifically focuses on the concepts of empowerment, powerlessness, and social stratification**.**

Empowerment. The concept of empowerment refers to the "process by which individuals and groups gain power, access to resources, and control over their own lives"(Robbins et al., 2012, p.91). Central to the empowerment process are actions that link individual strengths and competencies, natural helping systems, and proactive behaviors to positive change (Rappaport, 1981). Interestingly, Rappaport noted that it is easy to define empowerment by its absence but difficult to define it in action as it takes on different forms in different people and contexts.

Studies have found that factors associated with remaining in abusive relationships include limited awareness of available resources, and difficulties in accessing and navigating systems to take advantage of existing resources (Bell & Goodman, 2001; Patzel, 2001). Much of the assistance with women victimized by IPV focuses on helping them access needed resources. For women reporting IPV to police stations, the victim support model , which also focuses on individual resources and providing resources, is often used (Kernic & Bomoni, 2007). Victim assistance counselors provide services by examining existing needs and resources and through educating and connecting women to existing community resources, such as emergency shelters, support groups, legal advocacy, and protective order filing (Kernic & Bonomi, 2007), to assist them in their decision making process as well as improve their safety and well-being.

Empowerment in this study will be considered as the process that mediates the relationship between the incident of IPV and mental health symptoms. Emphasis will be on the personal and social empowerment which recognizes the client's uniqueness and it's analogous to self-determination (Robbins et al., 2012); that is, "clients' (victim) personal empowerment provide direction to the process, take control of their lives, while clients' social empowerment provides resources to play an important role in shaping the environment (p.263). Similarly, Johnson, Worell, and Chandler (2005) describes the empowerment process as women's ability to successfully access skills and utilize personal resources for effective coping with current and future trauma as well as personal development. Components of personal and social empowerment in this study will be conceptualized as victim resources of coping, social support, and economic resources as identified on the Repeat Domestic Violence Victim Assessment Form (RDVVA). (See Appendix A).

Power and Powerlessness. Central to empowerment is the idea of power and powerlessness. Society includes individuals, groups and communities who lack the power of self-determination. The powerless are more likely to have significant authority exerted upon them by those with power due to poor resources (material and emotional resources and knowledge). Within the social sciences, “power” was first assessed as “power over” (Dahl, 1957), that is, “A has power over B to the extent that she or he can get B to do something that B would not otherwise do” (Dahl, 1957, p.202-203).

Women in abusive relationships lack power and experience feelings of powerlessness, self-blame, and worthlessness. This feeling of powerlessness restricts them from leaving an

abusive relationship due to many factors previously discussed including economic hardships and limited legal, social, and emotional resources. In fact, those close to them like family and friends may blame the woman for the incident of violence which further leaves them powerless (Kernic & Bonomi, 2007). The concept of powerlessness in this study will therefore be conceptualized as the different forms of violence that women experience in intimate relationships as a result of power and control exhibited by their abusive partners and how this impacts their mental health well-being due to lack of needed resources.

Social Stratification. Related to power is the concept of stratification, which refers to "the way in which human groups in society are differentiated from each other and placed in hierarchical order" (Robbins et al., 2012, p.91). Stratification is commonly based on differences in demographic characteristics such as gender, age, race, ethnicity, religion, and class. Such differences automatically exclude some individuals and groups from access to valuable resources, power, and control over their own lives. In this study, the concept of social stratification will help to explain unique characteristics that individual women victims of violence may experience. Hence, social stratification will be conceptualized as the demographic risk variables that automatically exposes women to IPV. Social stratification factors have also been shown to exclude some women, especially minority women from access to valuable resources, power, and control over their own lives (CDC, 2011).

Basic Assumptions of Empowerment Theory

A basic assumption of empowerment theory is that oppression is a structurally based phenomena with far-reaching effects on individuals and communities (Turner, 2011).The effects

of oppression range from "child mortality, adolescents and young adult violence, drugs, suicide, incarceration to the death of hope" (Turner, 2011, p.165). Chestang (1976) suggested that two societal institutions mitigate against the individual internalizing the oppressor's view of the self, a strong family unit and a strong community. Hence strong social support, emanating from the family and community, is essential for women experiencing IPV to develop a positive sense of identity and self-direction. Another basic assumption of the empowerment approach is that people are capable of solving their own problems and moving beyond them. They are able to do this by utilizing their personal strengths, strengthening their social supports and accessing other resources in their environment. The pathways or the process towards and manifestation of empowerment will vary significantly depending on the social supports and resources available (Foster-Fishman, Salem, Chibnall, Legler, & Yapchai, 1998). Solving one's own problems and coping with the stressful situation such IPV, depends on materials and emotional social supports that are available to victims.

Finally, another assumption of empowerment theory is that power is not solely a psychological phenomenon but involves interactions between individuals and their social context (Christens, 2012). Empowerment researchers have begun to explore the importance of context in understanding empowerment processes and outcomes for women victims of IPV (Cattaneo & Goodman, 2015; Peled, Eisikovits, Enosh, & Winstok, 2000). IPV occurs within a relationship, and empowerment often involves victims trying to reach out to informal and formal social systems who may respond in a variety of ways. The experiences created through the interactions with formal and informal social systems may result in psychological consequences which may in turn shape the social interactions (Peled et al., 2000). For instance, empowerment for women

who choose to stay in abusive relationships may mean the processes of staying with an abusive partner in a variety of contexts (Peled et al., 2000). Empowerment for women receiving services from domestic violence shelters may mean access to resources, skills building and staying away from the abuser (Peled et al., 2000).

Empirical Support for Empowerment Theory

Empowerment theory has been widely written about but its lack of empirical support has limited our understanding of its conceptualization. Some of the concepts of empowerment are abstract, hence making it difficult to operationalize or test (Robbins et al., 2012). For example, Robbins and colleagues state that political power and patriarchy are very real existentially, but they are very difficult to operationalize precisely. In addition, Kabeer, (1998) notes the fact that, there is no consensus among researchers that empowerment can be clearly defined and measured because changes resulting from empowerment are difficult to capture with a single measurement at different levels and dimensions. For instance, empowerment at the individual and social/collective levels cannot be measured with the same indicators. Similarly, we need different indicators to measure local and national empowerment. Consequently, empirical studies that have used empowerment theories seem to pick from a list of empowerment "menu" and adapt it to fit their own study. Further refinement of empowerment theory needs to continue in order to more clearly understand the process of empowerment in different contexts and if the interventions designed to empower individuals are effective or ineffective based on different context.

Although measuring empowerment is difficult, Oxaal and Baden (1997) asserts that one may divide the indicators of empowerment into two categories: those which measure empowerment at a broad societal level such as Gender Empowerment Measure (GEM) and Human Development Index (HDI), and those which measure the empowerment in specific project and programs. This study measures empowerment by looking at the needs, personal, and social resources for women seeking help from Victim Assistance Programs in police stations.

Empowerment as a Process for Victims of IPV

Empowerment can either be measured as a process or an outcome. As previously discussed, this study focuses on the concept of empowerment as a process. This is because the main goal of Victims Assistance Programs is to capitalize on individual resources and act as a bridge that links individuals to resources that can help reduce psychological distress, increase safety and empower them in their current situations (Kernic & Bonomi, 2007;TVAM, 2008).

For women previously exposed to violence, Johnson et al. (2005) defined the empowerment process as women's ability to successfully access skills and resources for effective coping with current and future trauma as well as personal development. In their study of the mediating effect of empowerment and PTSD among African American women experiencing IPV, Wright et al. (2010) found that African American women who had more empowerment reported less PTSD symptoms compared to European American women. Empowerment in this sense was conceptualized as an internal coping mechanism that facilitated psychological resilience (p.531).

The empowerment model created by Dutton (1992) and modified by Cattaneo and Chapman (2010) also helps in understanding how the process of empowerment mediates the relationship between IPV and psychological distress. In Dutton's model, empowerment is conceptualized as a process that enables women to cope more effectively with current, as well as, future stress and trauma through the mediating factors of social support; personal strengths, inner resources and institutional response. Dutton's empowerment model further suggests that the severity of psychological distress is shaped by depletion of protective resources like social support and or by interpersonal stressors that arise as a direct consequence of violence. Resources categorized as; (1) legal services such as calling police, seeking protective order, (2) economic resources such as financial stability, seeking employment and health, and (3) social services such as access to battered women shelters, mental health services and food banks have been shown to offer an empowerment framework for primary interventions to prevent detrimental mental health effects from occurring (Dutton, 1992; Postmus et al., 2012; TVAM, 2008; Wright et al., 2010)

Riger's (1993) conceptualization of the empowerment process suggests that it needs to be considered within the existing social context, where the process of empowerment not only requires a shift by those who seek power, but also for those who are in power and those who wish to facilitate empowerment. Within the context of IPV, the widely varying goals of advocates, researchers should be congruent with the goals of women victims of IPV (Cattaneo & Calton, 2015). For instance, ending physical violence may be only one goal for victims' priorities; other priorities may include housing stability, financial stability, legal services, food or securing services for children (Cattaneo & Calton, 2015). Further, a victim may not view leaving

the abusive relationship as the best plan (Peled et al., 2000). Therefore, programs that have used empowerment models have assessed the process of empowerment by focusing on needed resources and the aims of the survivors, such as communication skills, anger control, and management. However, in an IPV situation, advocates may argue that safety and legal actions are a priority for the victim and this may not be in line with a victim's understanding of her or his own priorities and options (Cattaneo & Goodman, 2015). In most cases, women victims of IPV seeking help from police stations are presented with different problems and they may not realize safety as a priority for them (Kernic & Bonomi, 2007). Hence, programs designed to address IPV should be flexible to accommodate differences in views and interpretations of the current situation.

In addressing the social context of IPV, Cattaneo and Chapman (2010) created an empowerment process model that takes into account the influence of social context where structures of class, race/ethnicity, and socio-economic status exist to perpetuate the advantage of some over others. Empowerment in this model was conceptualized as the process by which an individual who lacks power sets a meaningful goal and takes action to increase power by achieving specific goals while drawing on community resources, self-efficacy, competence, and knowledge.

As previously discussed few studies have explicitly measured the constructs of empowerment theory in general and as it relates to the phenomena of women experiencing and reporting IPV. It still seems unclear what variables accurately make up the construct of empowerment in this context because the empowerment process, in general, assumes different

forms, meanings, and is contextually defined and changes over time (Rappaport, 1984; Zimmerman, 1984). Related to empowerment theory is social support theory and stress and coping theory (Gutierrez, 1995). Both theories help to illuminate and conceptualize different aspects of empowerment that relate to IPV. Social support and stress and coping theory are discussed in the following section.

Social Support Theory

Social support theory is generally used by researchers to explain the role of social support in health maintenance and disease prevention (Dekeseredy, 1990). Social support is considered a coping resource, a social "pool" from which people may draw from while handling stressors (Thoits, 1995). Moreover, social support is most effective when it matches the particular stress being experienced (Cohen & Wills, 1985). Past and present studies have consistently shown that individuals with friends, family members, and coworkers who furnish psychological and material resources are healthier than persons with few or no supportive social contacts (Cohen & Wills, 1985). Furthermore, research reveals a strong positive association between social support and well-being (House, 1981; Turner, 1983) in the general population. Based on these associations, researchers have established a main effect model and the buffering model (Cohen & Wills, 1985). The buffering model maintains that social support leads to well-being but, only for persons under stress. On the other hand, evidence for the main effect model is found when the support measure assesses a person’s degree of integration in a large social network which leads to increase in wellbeing regardless of whether people are under stress.

For women experiencing IPV, similar associations of social support in buffering the effects of IPV and reducing the effects of IPV (main effect) on psychological distress have been found (Beeble et al., 2009; Canady et al., 2009; Carlson et al., 2002; Coker et al., 2002; Huang et al., 2010; Lanier & Maume 2009; Renzetti, 2009). This study will consider social support as a buffering/protective factor for women experiencing the stressful event of IPV.

Concepts in Social Support Theory

Studies in IPV have conceptualized and measured social support as a function of supports that are provided by social relationships during stressful situations (Carlson et al., 2002; Fowler & Hill, 2004; Kocot & Goodman, 2003). Three broad categories of social support have been identified as: social connectedness, perceived social support and actual or received social support (Cohen & Hoberman 1983; Gottlieb, 1983; Thoit, 1995). Most available measures attempt to measure one or more of these types of supports (Lopez & Cooper, 2011). For example, Interpersonal Support Evaluation List comprises a four-factor structure of social support as tangible, emotional, informational, and belongingness (Katerndahl, Burge, Ferrer, Becho, & Wood, 2013). This study will focus on the concept of perceived social support to conceptualize social support.

Perceived social support refers to the belief or perception that love and caring, sympathy and understanding, esteem, and value are available from significant others (Cohen & Wills, 1985; Thoit, 1995). It also portrays one's potential access to social support which helps to promote coping and thereby reduce stress and the negative effects of stress on outcome (Thoit, 1995). Despite some concerns about potential self-reporting biases of respondents' measures of

perceived social support, studies have shown consistent and strong relations to mental health symptoms (Lopez & Cooper, 2011).

This study will consider the concept of perceived social support for several reasons. First, the quality, satisfaction, and responsiveness of social support structure is beyond the scope of this study and so the concepts of social connectedness and received social support may not be applicable. Second, Lazarus and Folkman, (1984) suggests that the perception that one has social support even when they are not actually receiving it is the first step in emotionally coping with the stressful situation such as IPV. For instance, women experiencing IPV often report the social relationships they emotionally perceive to have (Bauman, Haaga, Kaltman, & Dutton, 2012; Goodman et al., 2005). Third, social support in IPV situations involves access to and direct contact with people or agencies whose assistance is perceived as supportive (Bauman et al., 2012). Fourth, measures of perceived social support especially from friends and family have been found to have the strongest relationships with measure of reduced stress among women victims of domestic violence (Lanier & Maume 2009; Renzetti, 2009).

Stress and Coping Theory

The stress and coping theory is an important theory that is related to social support theory and empowerment theory (Lakey & Cohen, 2000). Specifically, stress and coping theory predicts that individual health outcomes can be predicted by personal resources, social resources, cognitive appraisal, coping behaviors, and socio-demographic factors (Lazarus & Folkman, 1984). Research on coping has identified and conceptualized two main coping processes; coping resources and coping strategies (Thoits, 1995). Individuals' typical use of coping resources and

coping strategies develops through an interactive or transactional process with their environment and is impacted by the social support one receives from his or her social network, such as information and appropriate ways to handle current situations (Lazarus & Folkman, 1984).

The concept of coping resources refers to social and personal characteristics upon which people may draw when dealing with stressors (Pearlin & Schooler, 1978). In addition to social support, which has been discussed above, the two most frequently studied coping resources are a sense of control or mastery over life and self-esteem (Thoit, 1995).

The concept of coping strategies on the other hand consist of behavioral and or/cognitive attempts to manage specific stressors which are assumed as exceeding one's ability to adapt (Lazarus & Folkman, 1984). Coping efforts may be directed at the demands themselves (problem-focused strategies) or at the emotional reactions which often accompany those demands (emotion-focused strategies) (Thoit, 1995). Researchers assume that individuals with more coping resources, that is, social support, sense of control and self-esteem, are more likely to use problem-focused coping responses (DeLongis & Holtzman, 2005).Those with few coping resources are more likely to use more passive or avoidant emotion-focused coping. Studies have established that individuals typically use both problem and emotion focused strategies when dealing with stress (DeLongis & Holtzman, 2005; Lazarus & Folkman, 1984).

According to stress and coping theory, IPV is a stressor to intimate partners. The stressor results in intimate partners experiencing strain, defined as psychological distress such as depression or anxiety, physical health problems, economic insecurity and other negative consequences. In response to the stress of IPV, victims use coping strategies and seek out

support. Consequently, use of effective coping strategies such as problem solving skills can reduce the strain experienced by victims of IPV. Overall use of coping strategies (number and frequency) is related to the severity of the strain (IPV), (Orford & Dalton, 2005). Studies using stress and coping theory have focused on coping resources and coping strategies as moderators and mediators of IPV and mental health (Calvete et al., 2015; DeLongis & Holtzman, 2005; Folkman & Lazarus, 1988; Lee et al., 2007). In these studies respondents are asked to report the coping response used in response to a specific stressor (DeLongis & Holtzman, 2005; Folkman & Lazarus, 1988). Other measures especially in qualitative studies ask respondents to report what they do to cope with stress (Carver et al., 1989; Foster et al., 2015). These studies demonstrates that women increase their use of varying coping strategies in response to increasing violence, and hence, affirming the necessity of assessing multiple coping strategies. Problem focused coping will be used to conceptualize coping strategies in this study.

Proposed IPV Victim Empowerment Process Model

Drawing from the concepts of empowerment theory, feminist theory, social support, and stress and coping theory: (i.e., empowerment, powerlessness, social stratification, perceived social support, and coping strategies), this study creates a model depicting the mediating role of empowerment in self- reported mental health symptoms relationship among women victims of IPV (See Figure 3-2). A mediator establishes how or why one variable predicts an outcome variable (Jaccard & Jacoby, 2010). In this model, overall empowerment is conceptualized as the victim's strengths or resources of social support, coping strategies and economic resources.

Powerlessness is conceptualized as experience with IPV and victim referral needs .Social stratification is conceptualized as demographic risk factors.

In this study, empowerment will be hypothesized as a mediator in the IPV and mental health symptoms relationship. To test this hypothesis, the proposed model will examine how IPV victims' resources/strengths (social support, coping, and economic resources) predict and mediate self-reported mental health symptoms. This is based on the theories of empowerment, social support and stress and coping theories, that the presence of these resources act as a buffer for mental health among victims of IPV or increases individuals ability to cope with psychological distress. This hypothesis will be examined within the social context of demographic risk factors. In addition, the model will examine the relationship between demographic risk factors and mental health symptoms.

This model contributes to literature on IPV and empowerment for women in abusive relationships (e.g. Cattaneo & Chapman, 2010; Cattaneo & Goodman, 2015; Dutton, 1992) by filling gaps in our knowledge base. The first gap is that although studies (Abramsky et al., 2011; Capaldi et al., 2012; Huang et al., 2010; Johnson et al., 2008; Kim et al., 2008; Sabina & Tindale, 2008; Stith et al., 2004) show a relationship between IPV and demographic risk factors as well as protective factors, few studies have explored how these factors impact IPV and mental health symptoms among women who do not seek shelter services and in this case, report to the police station.

The second gap is that previous studies have controlled for the demographic risk factors for IPV such as ethnicity, age, financial dependence, and marital status (Lacey et al., 2013; Lilly

& Grahan-Bermann, 2009) which may lead to the loss of clinically relevant information of individual characteristics while working with diverse populations. Recognizing this gap, this study examines the relationship between demographic risk factors for IPV and mental health symptoms because women victims of IPV may share the same experiences but their lives may differ in many ways such as family structure, immigration status, acculturation, and histories of oppression, which may result to varying mental health symptoms and experiences with IPV. Inclusion of individual demographic risk factors is also in congruence with the theoretical definition and measurement of empowerment which takes into account the individual characteristics, contextual, and multicultural differences among battered women (Cattaneo & Goodmann 2015; Foster-Fishman et al., 1998).

The third gap is that no studies known to the author have defined and measured the relationship between empowerment and mental health outcomes among women victims of IPV who report incidents to a police department Victims' Assistance Program. Studies' populations most often come from domestic violence shelters. A summary of the concepts to be used in this study is shown in Figure 3-1 and the proposed model is shown in Figure 3-2.

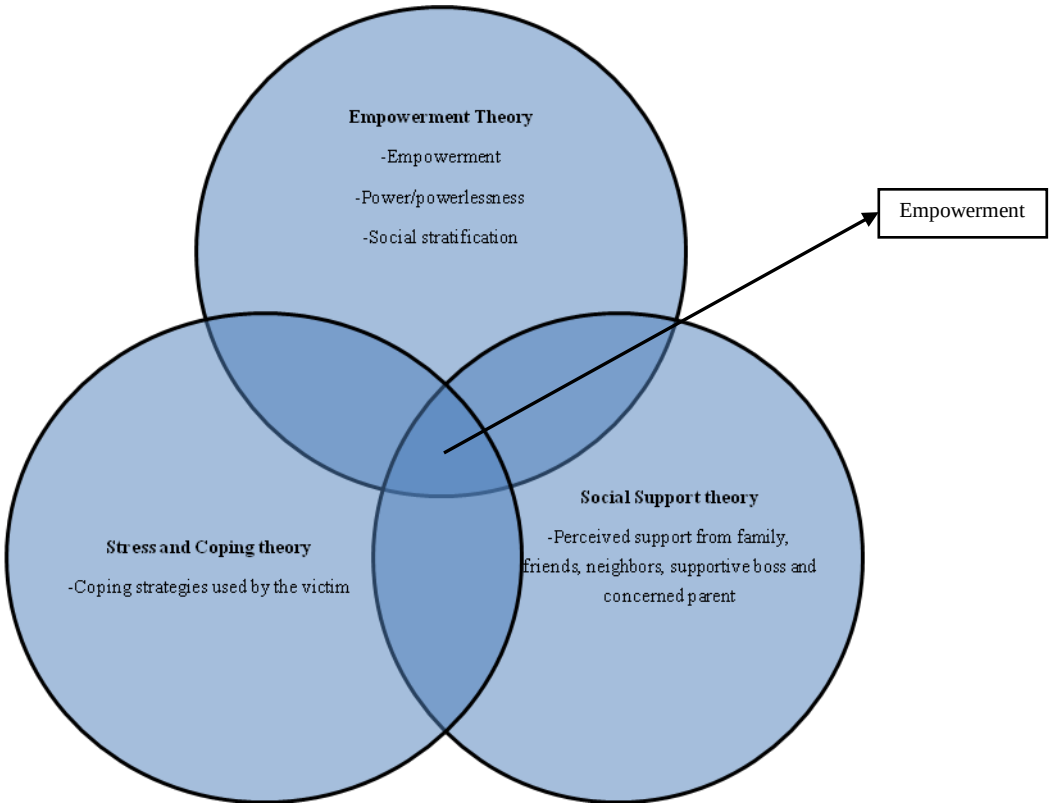


Figure 3-1 Summary of concepts for empowerment, social support and stress and coping theories

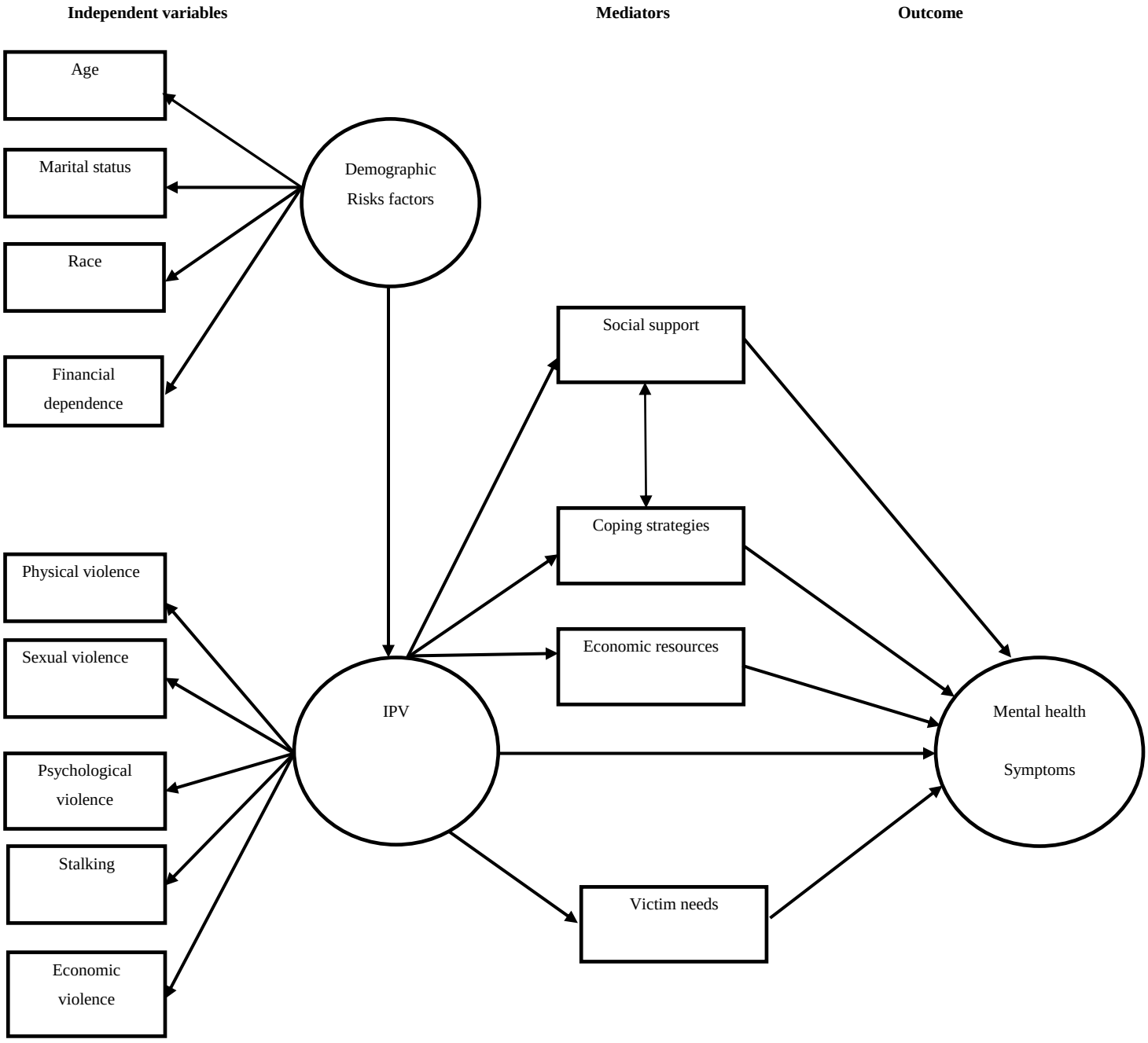


Figure 3-2 A conceptual model derived from empowerment, social support and stress and coping theories

Chapter 4

Methods

Introduction

This chapter provides an overview of the research design and methods for this study as well as the research questions and hypotheses to be tested. The study's sample, setting, and sources of data are discussed. The measures utilized for the study are explained. Finally, data analysis procedures are presented. This is a retrospective analysis of case records of women victims of IPV seeking help from a domestic violence victims' assistance program located in a police department in the southwestern part of the United States. The overall goal of the analysis is to examine the relationship between self-reported IPV and self-reported mental health symptoms for women victims of IPV.

Data used to address the research questions have already been collected. A copy of the Repeat Domestic Violence Victim Assessment (RDVVA) instrument used to collect this data is attached (See Appendix A). Victim assistant advocates employed by the local victim assistance program gathered these data during the assessment process when individuals report an incident of IPV to the police. Data from the case files of all women victims of IPV between 2008 and November 2015 were reviewed and analyzed for this study. Random numbers were assigned for each case to ensure anonymity of participants; no identifying information was entered into the database for analysis.

Research questions

Overall, this study had two aims. First, it examined how demographic risk factors, victim referral needs and protective resources of social support, coping strategies, and economic resources were associated with IPV and self-reported mental health symptoms. Second it examines whether and how victim referral needs, protective factors of social support, coping strategies, and economic resources mediate the relationship between IPV and mental health. Deriving from these two aims, the specific research questions addressed in this study are:

1. How do demographic risk factors among women victims of IPV seeking help from a police station, relate to type and number of IPV incidents and self-reported mental health symptoms?

2. How is type and number of IPV incidents related to self-reported mental health symptoms?

3. How are protective factors of social support, coping strategies and economic resources among women victims of IPV seeking help from a police station related to type and number of IPV incidents and self-reported mental health symptoms?

4. How are victim referral needs associated with type and number of IPV incidents and self-reported mental health symptoms?

Research Hypotheses

Hypothesis 1

a. Being young and/or belonging to a minority group (Black/African American, Hispanic/Latino, Asians and others), having financial dependence, and marital status (single, cohabiting couples, separated, and divorced) will positively correlate with more types and number of IPV incidents. Specifically, African American women seeking help from police will show more IPV incidents compared to white women and women from other minority groups. Also, single and divorced/separated women will experience more IPV incidents compared to married women.

b. Being young age and/or belonging to a minority group (Black/African American, Hispanic/Latino, Asian), having financial dependence and marital status (single, cohabiting couples, separated, and divorced) will positively correlate with more self-reported mental health symptoms. However, White women are likely to self -report more mental health symptoms than African American women.

Rationale. Research on IPV victimization has focused on factors that are related to both risk for IPV and risk for those problems that co-occur with IPV such as substance abuse and psychological distress (Sullivan et al., 2012). For instance, financial dependence is consistently found to be a risk factor for IPV and mental health outcomes among women (Goodman, Smyth, Borges, & Singer, 2009). Researchers report that IPV is disproportionately concentrated in unemployed (Benson & Fox, 2004) and low-income or financially disadvantaged populations (Rodriguez et al., 2001; Thompson et al., 2006). Unemployment creates stress and strain in

intimate relationships (Benson & Fox, 2004) and may inhibit a victim's ability to establish economic independence. Economic hardship is most often related to psychological distress. However, less attention has been given to economic factors such as financial stability and health outcomes of victims of IPV (Postmus et al., 2012).

Additionally, aspects of relationship status that have been examined in association with risk for IPV include married, cohabiting, divorced, and dating or single (Cui et al., 2010).The National Crime Victimization Survey reports that the rate of IPV is higher among never married, separated and divorced individuals compared to married individuals (Bureau of Justice Statistics, 2005). Although women from all race and ethnic groups experience IPV, studies have identified that women from certain ethnic groups are at an increased risk of IPV. Findings indicate that being a member of a minority group is a risk factor for IPV with high risk being most consistent with African Americans. Huang et al. (2010) found that controlling for prior IPV, African American ethnicity was associated with higher levels of IPV three years later than Non- Hispanic Whites, Hispanics, and other races. Findings also indicate that being a member of a minority group such as African American, Hispanics, and other races are risk factors for IPV and psychological distress compared to white women (Huang et al., 2010). Young age has also consistently been found to be a risk factor for a woman experiencing IPV (Harwell & Spence, 2000; Kim et al., 2008). Specifically, young women have been found to be more at risk of rape and other forms of sexual assault than older women (Black et al., 2011).

Understanding the impact of demographic risk factors among victims of violence helps to focus which prevention and interventions will be successful in specific groups (Dugan et al.,

2003; Lacey et al., 2013; Lilly & Grahan-Bermann, 2009). However, empirical studies often control for the demographic characteristics, which may lead to the loss of clinically relevant information of working with diverse populations. My study, therefore, examined the relationship between individual demographic risk factors of age, race, marital status, and financial dependence with IPV and mental health symptoms.

Operational Definitions

Independent Variable: Demographic risk factors of young age, belonging to a minority group (Black/African American, Hispanic/Latino, Asian), financial dependence, marital status (single, cohabiting couples, separated, and divorced).

Operational definition: Measured by self- report of victims' age, race, marital status, and question number 16 of RDVVA stated as: Does victim depend on suspect for financial support? The options for the response to this question were "yes" (financial dependence) and "no" (no financial dependence).

Dependent variable: Type (s) of IPV and number of IPV incident reports

Operational definition: Measured by the number of abuse reports made (physical, sexual, emotional, economic abuse, stalking) or two or more types of IPV (combined IPV).

Dependent variable: Mental health symptoms

Operational definition: Measured by self -report of victim's number of crisis/ trauma related symptoms checked, out of the total number of listed symptoms on the RDVVA.

Hypothesis 2

a. Victims of IPV who have more protective factors of social support, positive coping strategies, and economic resources will report fewer IPV incidences and self-reported mental health symptoms.

b. Specifically, African American women will report more social support and coping strategies compared to other ethnicities and thus less mental health symptoms.

Rationale. Social and economic resources have been found to be important in supporting well-being and decision-making of battered women (Nurius et al., 2003). Studies identify factors such as belonging to high-income groups, having high levels of education, employment, financial assistance, access to resources and skills, social support, and coping as resources that buffer women from IPV and pyschological distress (Benson & Fox, 2004; Canady & Babcock, 2009; Certain et al., 2007; Kim et al., 2008; Sabina & Tindale, 2008). Being in an abusive relationship restricts women's economic dependence, making employment difficult (Swanberg, Macke, & Logan, 2006), limiting access to income and hence jeopardizing women's economic sufficiency and mental health.

Perceived social support from family and wider friendships are associated with improved mental health well-being (Cattaneo & Goodman, 2015; Lopez & Cooper, 2011; Samuels-Dennis et al., 2013). Lack of social support has been found to be predictive of psychological distress for women experiencing IPV (Babcock et al., 2008). Also, effective coping strategies such as problem-solving skills can reduce the psychological strain experienced by victims of IPV (Calvete et al., 2015; Orford & Dalton, 2005). Hence, it is anticipated that perceived social

support, coping strategies, and economic resources will have an impact on IPV incidents and mental health status.

Operational Definitions

Independent variable: Perceived social support.

Operational definition: Measured by self-report of victims' number of sources of support (1) from family, (2) supportive friends/neighbors, (3) supportive boss, (4) supportive attorney, and (5) concerned parents.

Independent variable: Coping strategies.

Operational definition: Measured by self-report of victims coping strategies of: (1) problem-solving skills, (2) courage, (3) willing to ask for help, and (4) surviving past trauma.

Independent variable: Economic resources

Operational definition: Measured by self-report of victims economic resources of: (1) employed, (2) has a vehicle, (3) stable housing situation, (4) has attorney, (5) insurance (6) receiving financial assistance (food stamps, SNAP, Medicaid) (7) work history/skills/training, and (8) education.

Dependent variable: Self-reported mental health symptoms

Operational definition: Measured by self-report of victim's number of crisis/ trauma related symptoms checked, out of the total number of listed symptoms on the RDVVA.

Hypothesis 3

a. Type and number IPV incidents will be positively correlated with number of self-reported mental health symptoms among women reporting to a police station. Specifically, psychological and sexual violence will reveal a stronger correlation with self-reported mental health symptoms compared to physical, stalking, and economic abuse.

Rationale. A review of literature in this study revealed that all forms of IPV have been found to be significantly associated with mental health symptoms among victims. The common mental health symptoms associated with IPV are depression, anxiety, and PTSD (Babcock et al., 2008; Devries et al., 2013; Golding, 1999; Pico-Alfonso et al., 2006; Scott-Tilley et al., 2010). However, there is a scarcity of research on the mental health symptoms among women victims of IPV seeking help from police stations. Moreover, some studies suggest that women seeking help from the police are likely to have endured severe violence compared to women seeking support from domestic violence shelters, friends and families (Dichter & Gelles, 2012).

Furthermore, research on IPV indicates that there is also a scarcity of quantitative data on how different types and severity of IPV (measured by the presence of two or more types of incidents) relate to women's mental health and overall well-being. (Bonomi et al., 2006; Wuest et al., 2010). There is limited data that specifically address type and number of IPV incidents in the analysis (Hegarty, 2006). Studies that have made these distinctions have found that a higher severity of incidents of abuse has been associated with poorer mental and physical health status (Dutton & Goodman, 2005; Wuest et al., 2010). For example, women who have been sexually assaulted, raped, or threatened with weapons are more likely to develop PTSD following IPV

than women who have experienced milder forms, such as verbal abuse (Babcock et al., 2008). Thus, I anticipated that different types and number of IPV incidents will have different impacts on mental health symptoms.

Operational definitions

Independent variable: Type of IPV

Operational Definition: Measured by the type of abuse reported in physical, sexual, emotional, economic abuse, stalking, and or combined IPV

Independent variable: IPV incidents

Operational Definition: Measured by the number of abuse reports made either in physical, sexual, emotional, economic abuse, stalking, and or combined IPV

Dependent variable: Self-reported mental health symptoms.

Operational Definition: Measured by self-report of victim's number of trauma-related symptoms checked, out of the 12 listed symptoms on the RDVVA.

Hypothesis 4

a. Type and number of IPV incidents will be positively correlated with victim's referral needs.

b. Victim referral needs will be positively correlated with self-reported mental health symptoms.

Rationale. Kernic and Bonomi (2007) assert that an important first step in studying the effectiveness of interventions for IPV is to understand the different needs of the victims. Women victims of IPV exhibit different needs when they seek help from victims assistance programs such as as crisis intervention and referral to services for victims and their children (Corcoran & Allen, 2005; Ditcher & Gelles, 2012; Hovell et al., 2006; Stover, 2012). Hence, I anticipated that the number of IPV incidents will be significantly correlated with different victims' needs and demand for various resources, that is, the more needs expressed by a victim, the more the incidents of IPV.

Resources used and needed by IPV victims include the criminal legal system, shelter, counseling, advocacy and other social services not specific to IPV such as child care (Ditcher, 2009). Hence, experience with IPV intersects with the lack of necessary resources required to cope with stress (IPV) (Goodman et al., 2009). Empowerment theory proposes that lack of resources is a form of oppression that leads to stress, powerlessness, and social isolation. This combines with IPV to produce PTSD, depression, and other emotional difficulties (Bell & Goodman, 2001; Goodman et al., 2009). This study anticipates that the impact of IPV on mental health is also influenced by the mediating effect of existing victim needs that may or may not be related to IPV.

Operational definitions

Independent Variable: Type and number of IPV incidents

Operational Definition: Measured by the number and type of abuse reports made either in physical, sexual, emotional, economic abuse, stalking, and or combined IPV

Dependent Variable: Victim referral needs.

Operational Definition: Victim referral needs will be measured by the quantity of expressed needs checked by the victim out of the 26 listed on the RDVVA.

Dependent variable- Self-report of mental health symptoms.

Operational Definition: Measured by self- report of victim's number of mental health symptoms checked, out of the 12 listed symptoms on the RDVVA

Study Population and Design

Research Design

Exploratory/ secondary data Analysis. The study is an exploratory/secondary analysis because it entailed a retrospective review of existing victim assistance program case records to examine the relationship between IPV and mental health among women seeking help from a police station. It is considered exploratory because no previous studies known to this investigator have examined the relationship between IPV and mental health among women in this specific sample population. Therefore, its objective was to gain insight and familiarity for later investigation. It is considered a secondary analysis because it entails a review and analysis of retrospective case records of data that were originally collected for reasons other than research (Jansen et al., 2005; Hess, 2004).

Justification for Chosen Method and Data Sources

A secondary data analysis of existing case records was chosen because of its availability, and it contained variables of interest. Using available data eliminated some potential challenges that one is likely to encounter when using a primary data analysis method. These challenges include participants' non-response or low response rate, the cost of providing incentives for participants, difficulty in gaining access to the communities, especially because this is a population that is vulnerable, and hence, not easily accessible. Also using available data prevented internal validity threats such as attrition and maturation. Most important, it was available data that needed to be explored.

Procedures

Protection of Subjects. Data for this study relied on de-identified secondary case file data that are publicly available through the Victim Assistance Unit at Arlington Police Department. No data were collected by the researcher. Therefore, the Institutional Review Board (IRB), at the University of Texas at Arlington declared the project as not qualifying as human subjects research and did not require review by the IRB. (See Appendix B). The de-identified information about the study participants has been kept confidential and managed according to the requirements of IRB and the agency. The victim assistance counselors collect this data when individuals report the incident of violence and agree to receive services from Victims Assistance Program Coordinator. Also, a letter authorizing access and use of this data was provided by the Victim Coordinator. (See Appendix C).

Before abstracting data from the case files, an initial meeting was scheduled between the researcher and victim advocates' to obtain their perspectives on the best procedure to examine the case files. Based on the discussions of the meeting, inclusion and exclusion criteria was established (See Figure 4-3). To ensure the required variables were correctly captured, a data capture sheet was designed to collect information on demographic risk factors, protective factors of social support and coping strategies, IPV, victim referral needs and mental health symptoms (See Appendix D). Consultation was done with the victim assistance counselors to clarify any unclear issues and information in the case files. De- identified data has been securely stored and maintained digitally in an individual password-protected user file belonging to the principal investigator for three years.

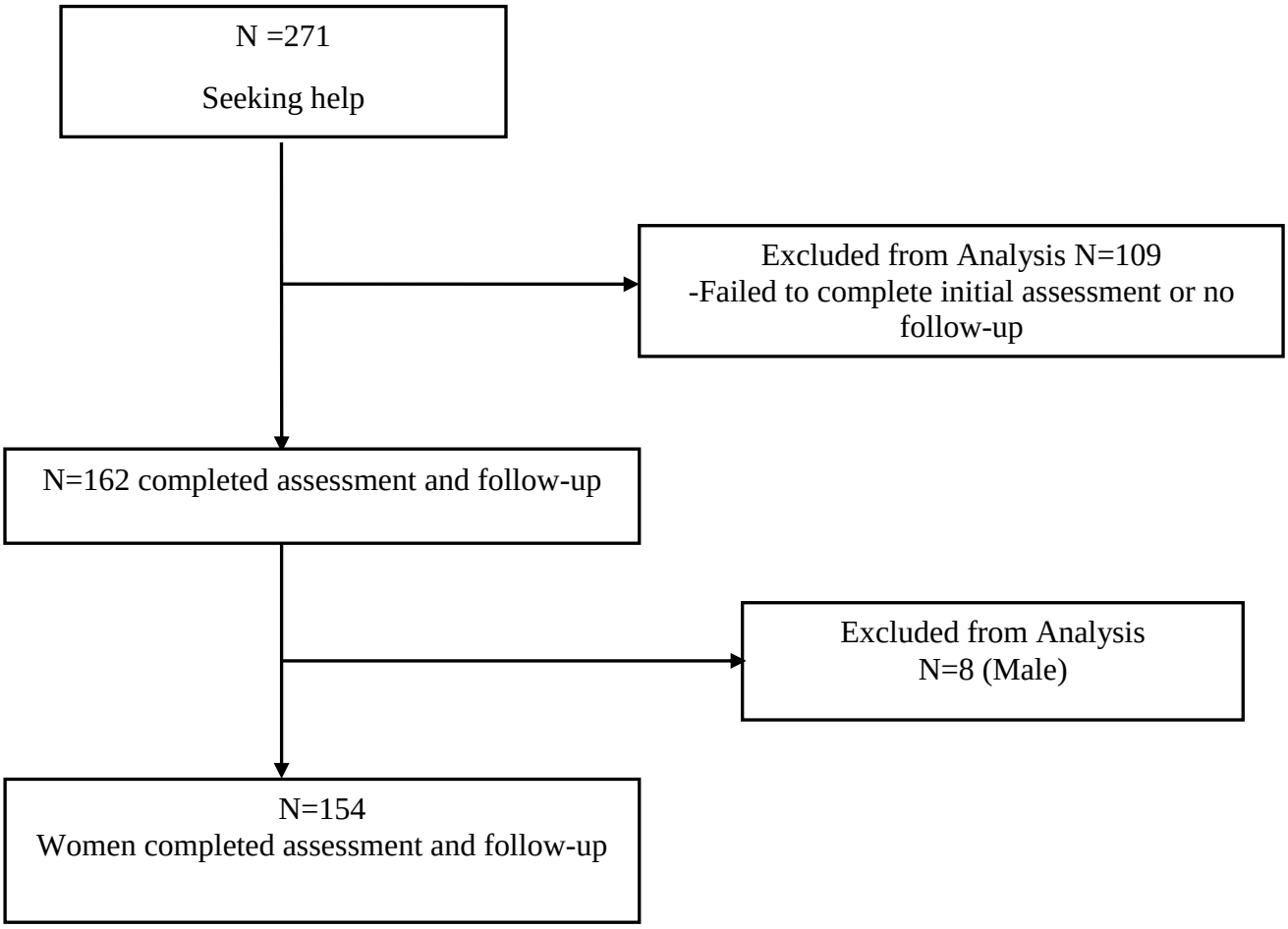


Figure 4-3 Inclusion and exclusion criteria for the case files

Study Sample Size

Determining an adequate sample size a priori is always important so as to increase the statistical power of a study. Without a large enough sample, the probability of obtaining a type II error (or failing to reject a false null hypothesis) is much higher (Mertler & Vannatta, 2010). Generalizability of results to the population is also at risk without an adequate sample size (Abu-Bader, 2010).The recommended sample size in multiple regression for model validation is about 10 to15 subjects for every predictor (Steven, 2001). Through the use of G* Power, a software

program that can be utilized to perform a prior power analysis for multiple regression, the sample size estimation for this study was calculated using the methods outlined by Cohen (1988). Based on a two-tail test, a medium effect size of 0.5, power of .90, an alpha level of 0.05 with approximately six predictors, the minimum sample size required to detect an effect for the prediction models is 42 (f=2.37, df=6). The estimated sample size for this study was 200 case records of women victims of IPV, who report incidents of violence to a city police station in a city in the southwestern part of USA. Using the inclusion and exclusion criteria shown in Figure 4-3, the resulting sample size for this study included women only (N=154). The study met the criteria to attain a strong statistical power. Each case was reviewed to obtain data on the variables of interest (demographic risk factors, protective factors, IPV, victim referral needs, and mental health symptoms). (See Appendix D).

Study Setting

Victim services program. The central purpose of victim services programs is to decrease future domestic violence and to increase victims' access and use of resources (Corcoran & Allen, 2005). Specifically, the programs serve to meet the immediate needs of victims following an incident of police-reported IPV such as providing emotional support, assisting in the development of a safety plan, identifying needed services and providing referrals to agencies as well as explaining the next steps in the criminal justice response and how the victim might participate in that process. First, the victim must be willing to meet with victim assistance counselors. During the meeting, victim assessment is conducted by collecting information on individual demographics, abuse history, substance use issues, medical issues, victim needs,

victim resources/strengths, crisis/trauma related symptoms, and risk assessment (See Appendix A). Once the counselor conducts this assessment, she/he responds by providing more detailed information about the services they offer. During this time, the victim has the option of accepting or declining services. Provision and referral to services are based on a case by case review. Services provided or referred to multi-disciplinary staffing are documented in victim case files. Consequently, this study reviewed cases for only those women who agreed to receive and be referred to other resources. Data on demographic risk factors, protective factors of social support and coping strategies, IPV, victim needs and mental health symptoms was abstracted from each case file and entered into a computer database.

Operationalization of Variables and Measures

Outcome Variable: Self-reported Mental Health Symptoms

The major dependent variable in this study is mental health symptoms. This was operationalized as emotional/psychological trauma related symptoms identified in this study as; (1) sleep affected, (2) appetite affected, (3) difficulty concentrating, (4) irritability, (5) isolating, (6) inability to return to normal activities, (7) avoiding thinking about it, (8) anxiety/ panic attacks, (9) avoiding activities, (10) numbness, more emotional/crying, and (11) intrusive thoughts. It is important to note that these are not a clinical diagnosis of mental health, but self-reported mental health symptoms checked by victims themselves when they report an incident of IPV.

Victims report the presence of these symptoms by checking off symptoms that they have experienced during or after victimization. Each self-reported mental health symptom was

dichotomized into No=0; Yes=1. A composite measure or index of mental health symptoms (MH score) was created by aggregating the trauma related symptoms to generate a continuous variable of mental health symptoms with response scores ranging from 0-12. Higher scores indicated higher self-reported mental health symptoms (M = 3.57, SD= 3.74, α = 0.72). To further examine differences in mental health symptoms according to the type of IPV, the outcome was further recoded into a binary variable for those with no mental health symptoms and those reporting mental health symptoms, No= 0; Yes=1.

Independent Variables

Victimization variables. The victim advocates describe multiple or one IPV incident in the case files. Based on this description, information in the records was reviewed to categorize the type of IPV and number of IPV incidents based on the previous categorization of forms of victimization in the literature. Women were categorized as having experienced physical, sexual, emotional/stalking violence, and combined violence.

IPV incidents were calculated based on the number of abuse incidents. Each case record constitutes self-reports on the nature of IPV. This includes, (1) abuse/contact history, (2) abuse history not reported to law enforcement, (3) abuse with another suspect, (4) date the incident was reported, and (6) date the assessment form was completed. Individuals were classified as having been physically assaulted if they reported the nature of abuse is related to being (a) hit, slapped or thrown something at (b) intentional use of force with the potential to cause death, disability, injury, or harm (Saltzman et al., 2002). Victims of sexual violence were categorized as those whose nature of abuse included experiences with sexual assault and rape (Saltzman et al., 2002).

Victims of psychological abuse were categorized as those whose nature of abuse included experiences with coercive tactics such as humiliation, control, and isolation from family, friends, and significant others (Coker et al., 2002; Follingstad et al., 1990; Saltzman et al., 2002). Victims of stalking were identified as those whose nature of abuse included experiences with repeated harassing or threatening behavior, such as following a person, appearing at a person's home or place of business, making harassing phone calls, leaving written messages or objects, or vandalizing a person's property (Tjaden & Thoennes, 1998). Presence of more than two or all types of violence (multiple violence) was coded as combined violence. (Black et al., 2011; Hegarty, 2006).

The presence of any of the abusive experiences was coded as type and number of IPV incidents that an individual has experienced, that is, (1) physical, (2) Sexual, (3) psychological, (4) stalking, and (5) combined violence. These categories were created based on the description by the victim advocates in the case files and previous studies. The type of IPV was recoded to, 1= physical, 2= sexual, 3= emotional/stalking violence, 4= combined violence. In data analysis, these variables were each dummy coded into 0 and 1 where zero equals that category and one equals others so as to enter them in the regression analysis. The frequency of IPV incidents ranged from 1 to 22.

Demographic variables

The independent variables related to demographic risk factors in this study include victim's age, race, marital status, and financial dependence.

Age was included in the analysis as both a continuous and a categorical variable. To determine differences in self-reported mental health symptoms and IPV incidents based on different age groups, age was recoded into four categories: where 1=20-30, 2=21-40, 3=41-50 and 4=51-70. Ethnicity was initially categorized based upon current categories from the US Census: where 1= whites; 2= Black/African Americans; 3= Hispanic, Latino, or Spanish origin; 4 =others. Since race is a categorical variable, each category was dummy coded into 0 and 1 where zero equals that category and one equals other, and this allowed the variable to be included in regression analysis. Marital status was categorized as those who indicate being married, divorced, cohabiting, single, and separated. This variable was recoded as 1= married; 2 = Single; and 3 = divorced/separated. Marital status was further dummy coded where zero equals that category and one equals other. Financial dependence was measured using question number 16 in the RDVVA: Does victim depend on suspect for financial support?. The options for the response to this question is yes or no. Responses were coded as zero for "no" (no financial dependence) and one for "yes" (financial dependence).

Empowerment Resources Variables

Social support. Social support in this study refers to the perceived availability of components of support from interpersonal relationships that help to promote coping and thereby reduce the negative effects of IPV on mental health symptoms (Fowler & Hill, 2004; Lopez & Cooper, 2011). Perceived social support in this study was measured using the following indicators as checked on RDVVA: (1) supportive family, (2) supportive friends/neighbors, (3) supportive boss, (4) supportive attorney; and, (5) concerned parent. A composite score of

perceived social support was created with values ranging from 0 to 5. Higher scores indicated higher levels of perceived social support and lower scores indicated a sense of isolation (*M* = 1.53, SD= 1.40, Cronbach's a = 0.89). A median split was used to create a categorical variable for those with 1=zero/few social supports and 2= more social supports.

Coping strategies. The role of coping as a protective factor for IPV and mental health has been studied (Calvete et al., 2015; Orford & Dalton, 2005; Waldrop et al., 2004). These studies suggest that use of effective coping strategies such as problem-solving skills can reduce the strain and psychological stress experienced by victims of IPV. The commonly used distinctions of coping strategies include problem-versus and emotion-focused coping (Calvete et al., 2015). Problem-focused coping is conceptualized as behaviors that are directed externally and aim to change the environment that causes distress (Heckhausen & Schulz, 1995). An example might include seeking outside assistance through social service and legal aid agencies. Emotion-focused coping constitutes emotional reactions which often accompany those demands (Thoit, 1995) and helps to reduce the adverse effect of the stressor (Heckhausen & Schulz, 1995). Examples of emotion-focused coping include factors such as humor, acceptance, seeking emotional support, and positive reframing, all of which provide abused women with active ways of managing their emotional reactions to abuse (Canady & Babcock, 2009).

Coping strategies in this study were limited to problem-focused coping skills that victims utilized. These were measured using the following indicators as listed on the RDVVA as (1) coping skills in the past, (2) willingness to ask for help, (3) courage, (4) problem-solving skills, and (5) surviving past trauma. A composite score of these variables was created with scores response ranging from 0 to 5. Higher scores indicated more coping strategies and lower scores

indicated less coping strategies (*M* = 2.17, SD= 1.68, α = 0.77). A median split was used to create a dummy/categorical variable for those with 1=zero/few coping strategies and 2= more coping strategies.

Economic resources. As listed in the RDVVA section on victim resources/strengths of RDVVA, monetary and material assets that are tied to financial stability (Ford-Gilboe et al., 2009) were measured using the following indicators: (1) employed, (2) has a vehicle, (3) stable housing situation, (4) has attorney, (5) insurance, (6) receiving financial assistance (food stamps, SNAP, Medicaid) (7) work history/skills/training, and 8) education. These variables were selected because they are closely aligned with the operationalization of personal empowerment through access to economic resources as described in empowerment theory and the strengths perspective. A composite score of economic resources was used with scores ranging from 0 to 8. Higher scores represent more economic resources, and lower scores represent less or fewer resources. (*M* = 2.94, SD= 1.90, α = 0.61). A median split was used to create a dummy/categorical variable for those with 1=zero/few economic resources and 2= more economic resources.

Intervening or Mediating Variables

It is noteworthy here that the variables of social support, coping strategies and economic resources discussed above were also considered as mediating variables. Theoretically, their presence is suggested to influence mental health symptoms among women victims of IPV.

Victim referral needs. The common mandate of Victim Assistance Programs across the U.S. is to offer services in crisis intervention, emergency assistance and referral and counseling

to agencies within the community which are appropriate to meet the victim's needs. (United States Department of Justice [USDJ] 2013; TVAM, 2008). Victim Assistance Programs have the ability to provide referrals to civil legal aid, immigration services, shelter, and mental health services, safe at home programs, and other resources that may be necessary in meeting the needs of a victim after an experience with IPV.

According to empowerment theory, psychological distress experienced by victims of IPV is as a result of lack of needed resources to deal with IPV, and other challenges in life (Goodman et al., 2009). Furthermore, when the two phenomenon intersect (IPV and victim needs) women are more unlikely to break free because of the multiple barriers that are created to accessing needed resources leading to further psychological distress (Goodman et al., 2009). Access to these resources has commonly been associated with higher quality of life, especially when these resources are relevant to an individual's personal needs and goals (Diener & Fujita, 1995). In addition, factors associated with remaining in an abusive relationship include limited resources and difficulties in accessing and navigating systems to take advantage of existing resources (Bell & Goodman, 2001). Much of the assistance with women victimized by IPV focuses on helping them access needed resources. However, when women are depressed, they are unable to take action and use the resources that do exist, hence a victims cycle.

Victims of IPV identify a broad range of needs while completing the RDVVA forms (See Appendix A), section on victim needs. The presence of victim needs was identified by those who checked specific items on the list of needs. Response to victim needs was coded as yes or no. A composite score of these variables was created with scores responses ranging from 0 to 26.

Higher scores indicated more needs and lower scores indicated less needs (M = 7.86, SD= 5.14, α = 0.86). A summary of continuous variable measures used in this study is shown in Table 4-5. The overall data coding sheet that shows individual items of independent and dependent variables as used in this study is shown in Appendix D.

Table 4-5 Levels of social support, economic resources, coping resources and self-reported mental health symptoms among women reporting IPV (N=154)

Variable	**Range**	***M* (*SD*)**	**(α)**
Social support	0-5	1.53 (1.40)	0.89
Economic resources	0-8	2.94 (1.90)	0.61
Coping resources	0-5	2.17 (1.68)	0.77
Victim referral needs	0-26	7.86 (5.14)	0.86
Mental health symptoms	0- 12	3.57(3.74)	0.72

Data Analysis

Data analysis was conducted using the Statistical Package for Social Sciences Software (SPSS), version 21.0 (IBM, 2012). To answer the research questions and test the proposed hypotheses, a four-phase statistical analysis was completed. First, descriptive analysis, such as frequency distributions and percentages, were used to describe the sample. Second, T-tests analysis were computed to determine if there were statistical mean differences in mental health symptoms and IPV incidents according to demographic risk variables and empowerment resources of social support, coping strategies, and economic resources. Third, a Hierarchical Multiple Regression (HRA) was run to determine predictors of mental health symptoms for this study. Fourth, four step mediation analysis, (Baron and Kenny 1986) was conducted to examine

the mediating role of victim needs, social support, coping strategies, and economic resources on women mental health. The mediating variable helps to understand "why" or "how" IPV predicts or causes the mental health symptoms. Also, it helps to understand "why" and "how" the mediating variables of social support, coping strategies, and economic resources predict or protect individuals from mental health symptoms. Baron and Kenny's (1986) article on distinguishing mediators and moderators provided the approach for the current study. Before running any analysis, and so as to, increase statistical power and accuracy in variable relationships, data were cleaned and examined for any errors, missing values, outlier cases, and normality.

Missing Data and Outliers

When using secondary data, and especially data from retrospective case records, one is likely to experience problems with missing data on some variables that are of interest to the study (Hess, 2004; Jansen et al., 2005). Missing data in case records might occur especially in situations where a victim fails to complete the assessment. To ensure that missing data was accounted for in this study, inclusion and exclusion criteria were used (See Figure 4-3). Only cases that had complete information on the variables of interest were included in the final analysis. Since the RDVVA assessment forms were administered by the victim advocate themselves, they ensured that all the required information was entered. The inclusion and exclusion criteria ensured that there was minimal missing data in the study. If missing data had exceeded 5%, I would have used regression imputation to replace them (Mertler & Vannatta,

2010). Regression imputation is considered to be more rigorous and robust for calculating a uniform variable for missing data (Abu-Bader, 2010; Mertler & Vannatta, 2010).

Outliers

Multiple regression is very sensitive to extreme cases, and hence, one or two outliers can have an adverse effect on the interpretation of the regression results (Stevens, 2001). Outliers for multivariate variables in this study were identified using the statistical procedure of Mahalanobis distance. Mahalanobis distance uses the chi-square distribution for the statistic to examine the distance of each score from the centroid of the distribution. Mahalanobis distance in this study was evaluated as a chi-square (χ^2) statistic with degrees of freedom equal to the number of variables in the analysis (Tabachnick & Fidell, 2007). The accepted criterion for outliers is a value for Mahalanobis distance that is significant beyond $p < .001$, determined by comparing the obtained value for Mahalanobis distance to the chi-square critical value. This process produced one outlier. Further, an evaluation of outliers was conducted for each variable using standardized z-scores. Any z-score that was greater than 3 or smaller than -3 was considered an outlier (as suggested by Abu-Bader, 2010). This process produced 2 outliers for IPV incidents, but since these outliers did not affect normality, they were retained (Abu-Bader, 2010). A detailed analysis of this process is discussed in the results section.

Multicollinearity

To ensure there are no problems with multicollinearity, correlations among all variables of interest was calculated. The assumption of multicollinearity exists when two independent variables (predictor variables) are highly correlated to the point that the differences between the

two may not be large. Increase in multicollinearity complicates the interpretation of relationships because it is harder to ascertain the effect of any single variable constructs owing to their relationships (Hair et al., 2010; Mertler & Vannatta, 2010). Pearson Correlation Coefficient (r) was conducted between all the independent variables in this study. Values greater than 0.7 were deemed to have multicollinearity problems. Other statistical methods that were used to assess for multicollinearity are tolerance and variance inflation factor (VIF). A value for tolerance close to zero is an indication of multicollinearity (Mertler & Vannatta, 2010). VIF for each predictor indicated whether there exists a strong linear association between it (the predictor) and all remaining predictors (Stevens, 2001). Although there is no rule of thumb, values of VIF that are greater than 10 are a cause for concern (Stevens, 2001).

There are several ways of dealing with multicollinearity. The simplest method is to delete the problematic variable from the analysis (Sprinthall, 2007). A second approach is to create a single measure that addresses a single construct (Stevens, 2001). Based on stress and coping theory, I had anticipated that the variables of social support and coping strategies would be likely to have a collinearity problem, but this was not the case as (r (152) = .050, p = .000). In this study, there were no major issues with multicollinearity.

Hierarchical Regression Analysis

Hierarchical regression analysis involves theoretically based decisions for how predictors are entered into the analysis (Cohen & Cohen, 2010). In this study, the order in which variables are entered in the analysis is a major point of interest and was based on the order of variables in the proposed theoretical framework shown in Figure 3-2. HRA is considered for this study

because it measures the incremental variance accounted for by each predictor set to the variance of the outcome variable (mental health symptoms). The most important thing to assess here is on the change in predictability associated with predictor variables entered later in the analysis over and above that by predictor variables entered earlier in the analysis (Wampold & Freund, 1987). The primary outcome measure in this study is the perception of mental health symptoms measured by MH scores. Predictor variables for MH scores in this study are identified as demographic risk factors (victim's age, race, marital status, and financial dependence), type and number of IPV incidents, victim referral needs, victim resources in social support, coping strategies, and economic resources. The primary objective is to examine the extent of change in the variance of mental health symptoms over and above demographic risk factors, IPV, victim needs and empowerment resources. The ΔR^2 and its corresponding change in F (ΔF) were the statistics of greatest interest (Wampold & Freund, 1987) and was examined as a measure of the contribution of each predictor set in the models. Based on the hypothesized conceptual framework, demographic risk factors and IPV were regressed first on mental health because theory and review of literature suggested that they have a significant impact on mental health symptoms among women victims of IPV. This was followed by type and number of IPV incidents, victim referral needs, and victim resources of social support, coping strategies, and economic resources.

Mediation Analysis

Relation between variables are often more complex than simple bivariate relations between a predictor and a criterion (Fairchild & MacKinnon, 2009). These relations may be

modified by, or informed by, the addition of a third variable such as a moderator and mediator. In this study, the importance of investigating the mediating effects of victim referral needs, social support, coping strategies, and economic resources would help to understand their effects on mental health symptoms and explain the process by which this occurs (Fairchild & MacKinnon, 2009). Using Baron and Kenny four step mediation analysis, multiple regression was used to test the effect of mediating variables of victim referral needs, social support, coping strategies, and economic resources on the IPV mental health symptoms relationship (See Figure 4-4 and 4-5). This mediation model assumes " a three variable system such that there are two different causal paths feeding into the dependent variable" (Baron & Kenny, 1986, p.1177): first the direct impact of the independent variable (IPV) on the dependent variable (mental health symptoms) [Path c]; second, the impact of the mediator variable on the dependent variable (mental health symptoms) [Path b]. Additionally, there is a path from the independent variable (IPV) to the mediator (victim referral needs) [Path a] as shown in Figure 4-4. The same sequence applies to Figure 4-5.

To test the mediating effect of victim referral needs, social support, coping strategies, and economic resources in the relationship between IPV and mental health symptoms, the mediation models shown in Figure 4-4 and 4-5 were estimated using Preacher and Hayes (2004) and Baron and Kenny's (1986) four-step-regression analyzes approach:

1. Victim referral needs, social support, coping strategies, and economic resources were each regressed on IPV incidents to show that the variables can be causally linked.
2. Self-reported mental health symptoms were regressed on IPV incidents to show that this causal relationship is also possible.

3. Victim referral needs, social support, coping strategies, and economic resources were each regressed on mental health symptoms to show that the variables can be causally linked.
4. Mental health symptoms were simultaneously regressed on both IPV incidents and victim referral needs, social support, coping strategies, and economic resources to show how these mediators are significantly related to the DV (Mental health symptoms), even when the IV (IPV incidents) is statistically controlled.

Further, to evaluate if a variable mediates the relationship between an independent variable and dependent variable, the following three criteria must be met (Barron & Kenny, 1986; Fields, 2012; Hair et al., 2010; Tabachnick & Fidell, 2007):

1) Variations in levels of the independent variable significantly account for variations in the presumed mediator;
2) Variations in the mediating variable significantly account for variations in the dependent variable ;
3) Variations in the independent variable significantly account for variations in the dependent variable; and,
4) When both the independent variable and mediating variable appear in the model, a previously significant relation between the IV and DV is no longer significant.

Lastly, bootstrap was assessed and a Sobel test performed to test the significance of this mediation effect (Baron & Kenny 1986).

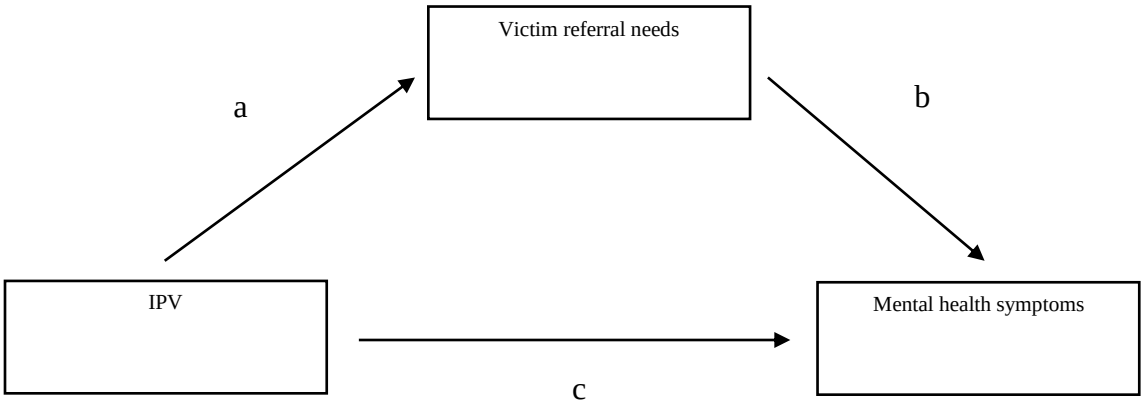


Figure 4-4 Victim referral needs mediation model

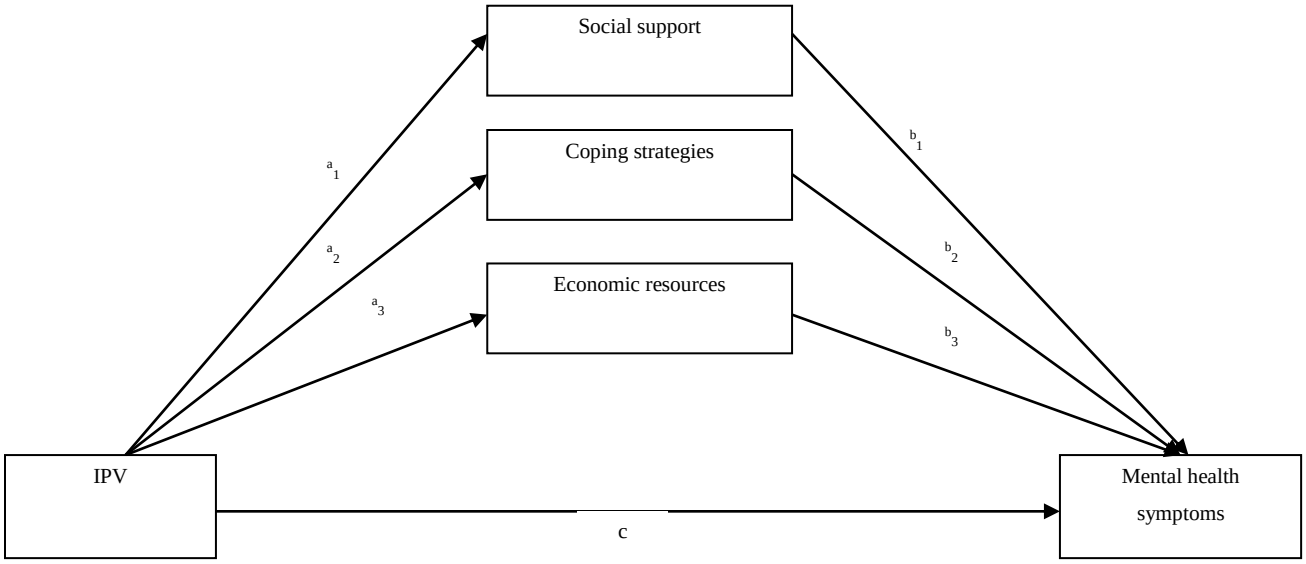


Figure 4-5 Victim resources mediation model

Chapter 5

Results

Introduction

This chapter presents the results of the quantitative data analysis methods described in Chapter 4. The primary research questions were as follows: (1) How are demographic risk factors among victims of IPV seeking help from a police station, related to type and number of IPV incidents and self-reported mental health symptoms? (2) How is type and number of IPV incidents related to self-reported mental health symptoms? (3) How are protective factors of social support, coping strategies and economic resources among victims of IPV seeking help from a police station related to type and number of IPV incidents and self-reported mental health symptoms?, and 4) How are victim referral needs associated with type and number of IPV incidents and self-reported mental health symptoms?.

Data analysis was conducted using SPSS. First, a description of the sample is provided. Next, univariate and bivariate analysis were carried out to examine the relationship between main variables and any differences within the population. This was followed by reporting of results for each research question and hypothesis. Finally, a summary of findings is provided.

Demographic Characteristics

The sample for this study consisted of 154 women victims of IPV who seek help from a city police station. As shown in Table 5-6 the average age was 36.4 years (*SD* = 9.0, range 31-40) and the majority of the women were married (51.9%); 39.6% were divorced or separated, and 8.4% were single. About 45.5 % of the women were White, 28% were Black/African

American, 18.8% were Hispanic/Latino, and 7.1% were categorized as others. More than half of the women experienced physical violence (70.1%), followed by sexual violence (9.1%), psychological/stalking violence (14.9%) and combined violence (5.8%). The average number of IPV incidents reported was 5.0 (S*D* = 3.5). About 55.2 % did not depend on their partners for financial support while 44.8% depended on their partners. Those who reported being employed were 46.8% while 53.2% were not.

Table 5-6 Socio-Demographic Characteristics of women victims of IPV seeking help from police station

Characteristics	**Frequency (*N*=154)**	***M* (%)**	***SD***
Age		36.4	9.0
Age Group			
20-30	38	24.7	
31-40	66	42.9	
41-50	39	25.3	
51-70	11	7.1	
Ethnicity			
White	70	45.5	
Black/African American	44	28.6	
Hispanic/Latino	29	18.8	
Others	11	7.1	
Marital Status			
Married	80	51.9	
Single	13	8.4	
Divorced/ separated	61	39.6	
Type of IPV			
Physical	108	70.1	
Sexual	14	9.1	
Psychological/Stalking	23	14.9	
Combined	9	5.8	
IPV incidents		5.0	3.5
Financial Dependence			
No	85	55.2	
Yes	69	44.8	
Employment			
No	82	53.2	
Yes	72	46.8	

Data Examination and Transformation of Variables

The dependent and independent variables were examined independently to check for normality of the distribution so as to include them in the regression models. This section provides the mean, range, standard deviation, and distribution of each variable and describes the efforts to improve the distribution of variables by addressing outliers and transforming data.

Frequency distributions were used to examine the shape of the dependent variable and its readiness for use in the analysis. To begin with, an evaluation of outliers was conducted for each variable. Any z-score that was greater than 3 or smaller than -3 was considered an outlier (as suggested by Abu-Bader, 2010). In this case, IPV incidents had two outliers with z-score values greater than 3. However, after conducting a log transformation, no outliers were identified and so these two cases were retained as none of the outliers impacted the outcome of normality after log transformation (Abu-Bader, 2010). Victim referral needs, age, mental health, social support, coping resources and economic resources did not have outliers.

Normality of the distribution of variables was examined using histograms and Fischer's skewness and kurtosis coefficients for each variable. A variable was considered skewed if skewness and kurtosis z-values fell outside of the suggested + 1.96 to – 1.96 for normality (Abu-Bader, 2010; Howell, 2007; Tabachnick & Fidell, 2007). The variable of economic resources was not skewed. The victim referral needs variable was slightly positively skewed and, therefore, did not require any transformation (Abu-Bader, 2010; Howell, 2007; Tabachnick & Fidell, 2007). The variables of age, IPV incidents, mental health, social support, and coping resources were positively skewed, and so a log transformation was done for each. It is worth noting that

mental health scores, social support, and coping resources had scores of zero and so during log transformation, a constant of 1 was added to each score so that the smallest score is one; see suggestions by Tabachnick and Fidell, (2007) and Howell, (2007). In some cases, this corrected the skewness and kurtosis within the normal limits of Fischer's coefficient, however, in some cases it did not. Table 5-7 shows histograms and Fishers' coefficients for each of the variables both before and after log transformations. Further, Mahalanobis distance was used to test for multivariate outliers. Only one outlier was identified through this test and since this case did not affect normality, the case was not deleted (Tabachnick & Fidell, 2007). The transformed variables were used in regression analysis, as regression is robust to minor problems with normality (Abu-bader, 2010). Mean differences were reported using the untransformed scale because the original units were more intrinsically meaningful to translate than the transformed one (Tabachnick & Fidell, 2007). Also, both the transformed and unconverted means were examined to make sure findings were consistent (Howell, 2007). Table 5-7 shows histograms and Fishers' coefficients for each of the variables both before and after log transformations.

Table 5-7 Histograms with fischer coefficients

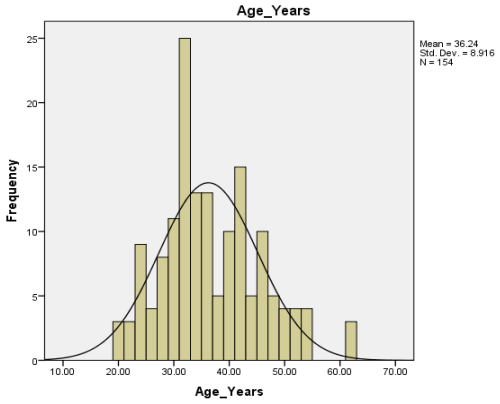
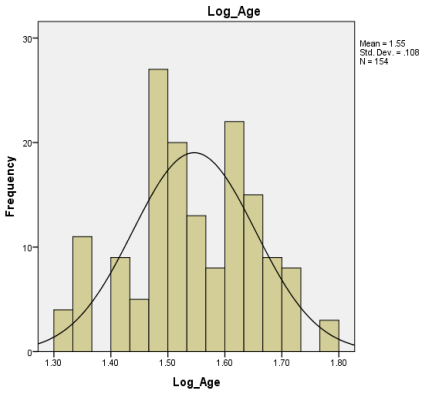
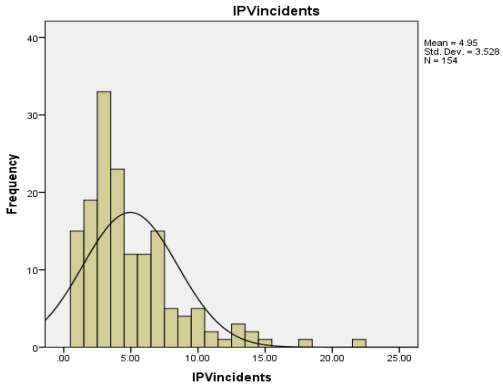
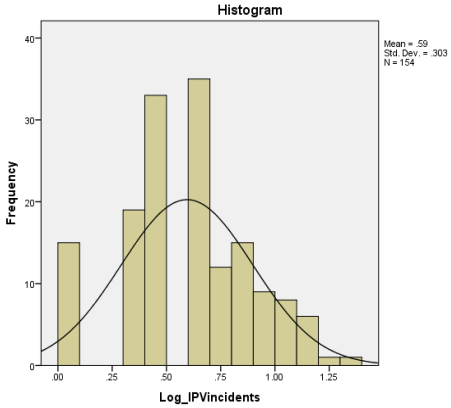
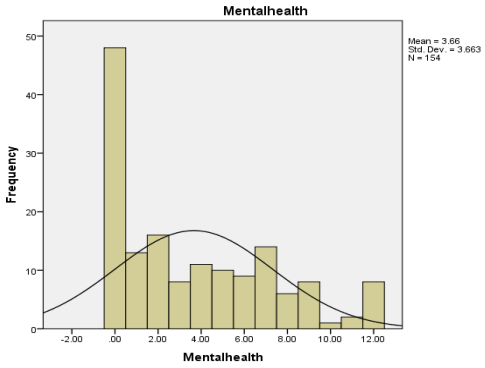
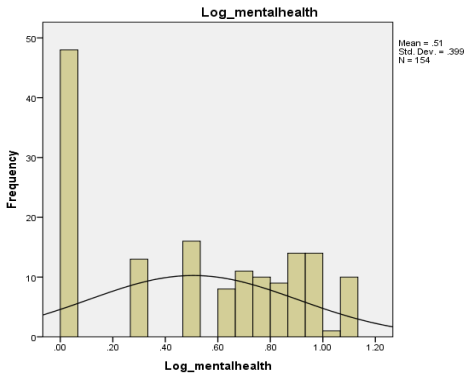
Variable	Original Histograms with fischer Coefficient	Histograms after log transfromation with fischer coefficient
Age	 2.420 (S/SEK) and 0.133 (K/SEK)	 0.636 (S/SEK) and 0.933 (K/SEK).
IPV incidents	 8.912 (S/SEK) and 10.771 (K/SEK)	 0.923 (S/SEK) and 0.637 (K/SEK)
Mental health symptoms	 3.73(S/SEK) and 1.43 (K/SEK)	 0.523(S/SEK) and 3.907 (K/SEK)

Table 5-7 continued

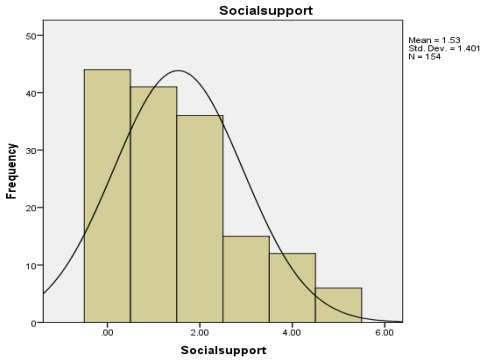
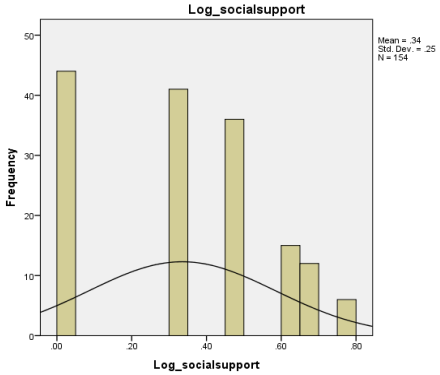
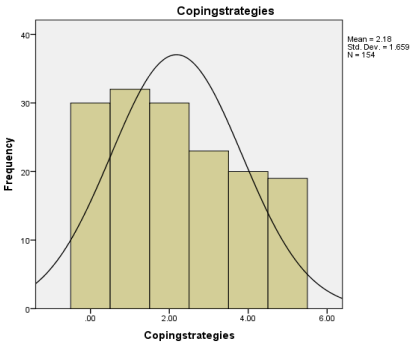
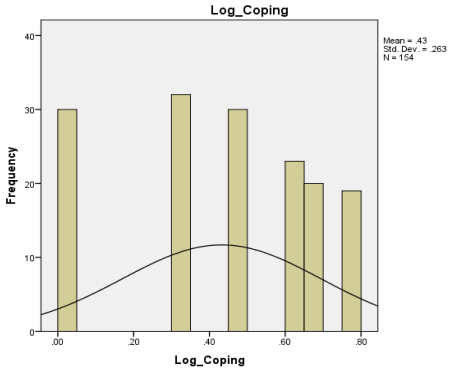
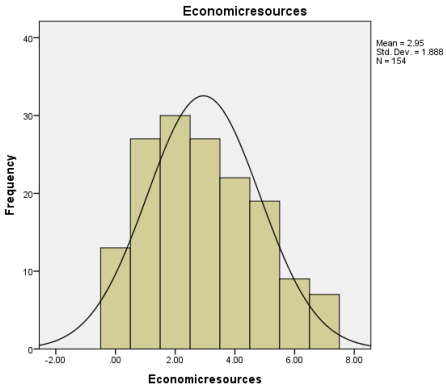
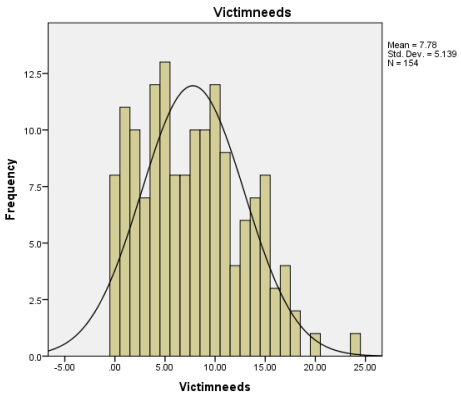
Social support		
	3.912(S/SEK) and 0.475(K/SEK)	0.369 (S/SEK) and 2.989 (K/SEK)
Coping strategies		
	1.441 (S/SEK) and 2.856 (K/SEK)	2.267 (S/SEK) and 2.565 (K/SEK)
Economic resources		
	1.779(S/SEK) and 1.781(K/SEK)	

Table 5-7 continued

Victim referral needs	 2.11(S/SEK) and 1.203(K/SEK)

Bivariate Analyses

Correlations with Outcome Variable and Self-reported Mental Health Symptoms.

As shown on Table 5-8, correlations among the dependent variable and the predictor variables varied from small to medium. Self-reported mental health symptoms was found to be moderately significantly correlated with; social support (r (152) = .27, p =001); coping skills (r (152) = .25, p = .002); economic resources (r (152) = .14, p = .039) and victim referral needs (r (152) = .26, p =.002. IPV incidents and age did not have a significant correlation with self-reported mental health symptoms. However, the interaction between victim referral needs and IPV showed a significant correlation with self-reported mental health symptoms (r (152) = .27, p = .001). Pearson's r was also used to test for multicollinearity between continuous independent variables. Multicollinearity is not a problem, as no independent variables were correlated at .80 or greater.

Table 5-8 Correlations of Empowerment Resources, Mental Health Symptoms, IPV incidents and victim needs

Variable	Social Support	Economic Resources	Coping strategies	Victim referral needs	IPV incidents	IPV x needs	Age	Mental Health Symptoms
Social Support	1							
Economic Resources	.40**	1						
Coping Resources	.50**	.35**	1					
Victim referral needs	.41	-.05	.18*	1				
IPV incidents	-.01	-.04	-.02	-.21*	1			
IPV x needs	-.03	-.11	.16*	.58*	.55**	1		
Age	-.112	-.078	-.10	-.09	.21**	.03	1	
Mental Health Symptoms	.27**	.14*	.25**	.26**	.01	.20*	-.038	1

Note. *$p \leq .05$, **$p \leq .01$

Hypothesis Testing

Several studies have suggested that demographic variables are considered risk factors for IPV and mental health symptoms among women victims. The first hypothesis, therefore, was to determine if there were significant differences in IPV incidents and mental health symptoms based on demographic characteristics.

Hypothesis 1

Hypothesis 1a stated that demographic risk factors of young age, belonging to a minority group (Black/African American, Hispanic/Latino, Asian), financial dependence and marital status (single, cohabiting couples, separated and divorced) will positively correlate with more self-reported mental health symptoms. However, White women are likely to self-report more mental health symptoms than African American women.

To test these hypothesis, Chi-square, independent samples t-Test and One Way Analysis of Variance (ANOVA) were conducted. This examined the correlations and differences between groups with regard to: (1) self-reported mental health symptoms, (2) type of IPV; and, 3) IPV incidents. A chi-square test was conducted so as to determine the relationship between categorical demographic variables (race, marital status, age and financial dependence) and binary variable mental health symptoms (No= 0, Yes=1). As shown on Table 5-9, there was a moderate significant relationship between race and mental health symptoms χ^2 (3, 154) = 10.19*, $p < .05$, Cramer's V= .257. Demographic variables of marital status, age group, financial dependence, and type of IPV were not significantly correlated with mental health symptoms. However, Asian and International women categorized as 'others' reported more mental health symptoms (86.6%) compared with White women (77.1%), Hispanic/Latino (65.5%), and Black/African American (50.0%). Only, race was significantly correlated with mental health symptoms. White women reported a higher percentage of mental health symptoms compared to Black/ African American. Hypothesis 1a, was partially supported.

Additional analysis found that, those who reported combined violence reported more mental health symptoms (77.8%) compared to those who reported sexual violence (71.4%), physical (68.5%), and psychological/stalking (56.5%) violence. However these differences were not significant (See Table 5-10).

Table 5-9 Chi-square results for socio-demographic variables and mental health symptoms

Characteristics	% Mental Health Symptoms 67.5% (n=104)	% No Mental Health symptoms 32.5% (n=50)	χ^2	Cramer's V
Ethnicity			10.19*	.257
White	54(77.1)	16(23.0)		
Black/African American	22(50.0)	22(50.0)		
Hispanic/Latino	19(65.5)	10(34.5)		
Others	9(81.8)	2(18.2)		
Marital Status			2.09	.117
Married	54(67.5)	26(32.5)		
Single	11(84.6)	2(15.4)		
Divorced/ separated	3(63.9)	22(36.1)		
Age Group			2.00	.114
20-30	23(60.5)	15(39.5)		
31-40	48(72.7)	18(27.3)		
41-50	25(64.1)	14(35.9)		
51-70	8(72.7)	3(27.7)		
Type of IPV			1.85	.110
Physical	74(68.5)	34(31.5)		
Sexual	10(71.4)	4(28.6)		
Psychological/stalking	13(56.6)	10(43.5)		
Combined	7(77.8)	2(22.2)		
Financial Dependence			.69	.067
No	55(64.7)	30(35.3)		
Yes	49(71.0)	20(29.0)		

Note. $*p \leq .05$

Further, as shown in Table 5-11, no significant mean differences in self-reported mental symptoms emerged by demographic risk factors. However, examining the mean differences in mental health symptoms, women between the age of 31-40 reported more mental health symptoms (M = 4.09, SD = 3.74) compared to other age groups. Regarding race, women from the 'other' category reported more mental health symptoms (M = 4.18, SD = 2.75) compared to women from other ethnicities. Compared to African Americans (M = 2.66, SD = 3.60), white women reported more mental health symptoms (M = 4.10, SD = 3.83). Single women reported more mental health symptoms (M = 4.69, SD = 3.22) compared to married (M = 3.58, SD = 3.57) and divorced/separated (M = 3.54, SD = 3.91) women. Women who depended on their partner

for financial support reported more mental health symptoms (M = 3.97, SD = 3.82) compared to those who did not (M = 3.40, SD = 3.53). Although there were mean differences in mental health symptoms and socio-demographic characteristics, these differences were not significant. Also, White women reported more mental health symptoms compared to Black/African Americans but these differences were not significant.

Hypothesis 1b stated that demographic risk factors of young age, belonging to a minority group (Black/African American, Hispanic/Latino, Asian and International), financial dependence, and marital status (single, cohabiting couples, separated and divorced) will positively correlate with type and number IPV incidents. Specifically, African Americans reporting to police will show more IPV incidents compared to white and other minority groups. Also, single and divorced/separated women will experience more IPV incidents compared to married women.

The associations between types of IPV according to demographic characteristics of the women are shown in Table 5-10. There were no significant association between type of IPV and race, marital status, age group, and financial dependence.

Table 5-10 Chi-square results for socio-demographic variables and types of IPV

Characteristics	**Physical**	**Sexual**	**Psychological/Stalking**	**Combined**	χ^2	**Cramer's V**
Ethnicity					10.71	.152
White	47(67.1)	8(11.4)	12(17.1)	3(4.3)		
Black/African American	28(63.6)	4(9.1)	6(13.6)	6(13.6)		
Hispanic/Latino	23(79.3)	2(6.9)	4(13.8)	0(0.0)		
Others	10(90.0)	0(0.0)	1(9.1)	0(0.0)		

Table 5-10 continued

Marital Status					5.08	.128
Married	59(73.8)	7(8.8)	12(15.0)	2(2.5)		
Single	9(69.2)	1(7.7)	1(7.7)	2(15.4)		
Divorced/ separated	40(65.6)	6(9.8)	10(16.4)	5(8.2)		
Age Group					16.1	.187
20-30	24(63.2)	4(10.5)	4(10.5)	6(15.8)		
31-40	44(67.7)	9(13.6)	11(16.7)	2(3.0)		
41-50	32(82.1)	1(2.6)	6(15.4)	0(0.0)		
51-70	8(72.7)	0(0.0)	2(18.2)	1(9.1)		
Financial Dependence					1.84	.110
No	61(71.8)	8(9.4)	10(11.8)	6(7.1)		
Yes	47(68.1)	6(8.7)	13(18.8)	3(4.3)		

Regarding IPV incidents, women between the age of 51-70 reported more incidents of IPV (M = 6.54, SD = 3.14) compared to women in other age groups. Contrary to the hypothesis, white women reported more incidents of IPV (M = 5.39, SD. = 3.64) compared to other ethnicities. Also, married women reported more IPV incidents (M = 5.14, SD = 3.92) compared to single and divorced/separated women, contrary to what was hypothesized. Women who did not depend on their partner for financial support reported more incidents of IPV (M = 5.24, SD = 3.66) compared to those who did (M = 4.61, SD = 3.53). These differences were not significant and so hypothesis 1b was not supported.

Table 5-11 Mean differences in Mental Health Symptoms, IPV incidents and Empowerment Resources According to Socio Demographic Characteristics

Variable		**Mental health**		**IPV incidents**		**Social support**		**Coping**		**Economic**	
	N	M(SD)	*F/t*	M(SD)	*F/t*	M(SD)	*F/t*	M(SD)	*F/t*	M(SD)	*F/t*
Age			0.74		2.21		1.95		2.13		1.54
20-30	38	3.40(3.91)		4.84(4.12)		1.76(1.44)		2.58(1.73)		3.18(1.80)	
31-40	66	4.09(3.74)		4.29(2.58)		1.67(1.49)		2.14(1.61)		2.98(2.00)	
41-50	39	3.49(3.52)		5.77(4.18)		1.28(1.30)		2.15(1.65)		2.97(1.88)	
51-70	11	2.55(2.77)		6.54(3.14)		0.81(0.60)		1.18(1.47)		1.82(1.25)	
Race			1.28		1.41		0.32		0.53		1.13
Whites	70	4.10(3.83)		5.39(3.64)		1.62(1.49)		2.18(1.65)		2.69(1.81)	

Table 5-11 continued

AfricanA	44	2.66(3.60)		5.07(3.79)		1.48(1.42)		2.00(1.59)		3.32(2.05)	
Hispanic	29	3.89(3.51)		4.34(2.98)		1.34(1.17)		2.21(1.74)		3.10(1.80)	
Others	11	4.18(2.75)		3.36(2.62)		1.64(1.43)		2.07(1.85)		2.73(1.90)	
Marital Status			0.57		0.35		2.50		0.41		0.79
Married	80	3.58(3.57)		5.14(3.92)		1.54(1.54)		2.29(1.67)		3.12(1.98)	
Single	13	4.69(3.22)		4.31(1.84)		2.31(0.95)		2.23(1.64)		2.92(1.98)	
Divorced	61	3.54(3.91)		4.85(3.28)		1.36(1.24)		2.03(1.66)		2.72(1.75)	
Financial dependence			-0.96		1.20		0.78		-0.24		2.21*
No	85	3.40(3.53)		5.24(3.66)		1.61(1.50)		2.15(1.67)		3.25(1.90)	
Yes	69	3.97(3.82)		4.61(3.53)		1.43(1.28)		2.21(1.66)		2.58(1.84)	

Note. *$p \leq .05$

Hypothesis 2

Hypothesis 2a, stated that victims of IPV who have more protective factors of social support, coping strategies and economic resources will report fewer mental health symptoms. Specifically, African American women will report more social support and coping strategies compared to other ethnicities.

Overall results of independent samples t-test indicate that there were statistically significant mean differences in mental health symptoms t (152) = -3.47, p<.01 and social support. Women who had few sources of social support reported fewer symptoms of mental health (*M* = 2.76, *SD* = 3.58) compared to those who had more social support resources (*M* = 4.75, *SD* = 3.48). Similarly, women with few coping resources reported fewer mental health symptoms (*M* = 3.09, *SD* = 3.67) compared to those with more coping resources (*M* = 4.50, *SD* = 3.51). This difference was statistically significant t (152) = -2.28 p<.01. Also, women who had fewer economic resources reported fewer mental health symptoms (*M* = 3.37, *SD* = 3.64)

compared to those who had more resources (*M* = 4.14, *SD* = 3.69). This difference was not statistically significant (See Table 5-12).

In regard to ethnic differences, African American women reported fewer coping strategies (*M* = 2.00, *SD* = 1.59) compared to white women (*M* = 2.18, *SD* = 1.65), Hispanic/Latino women (*M* = 2.21, *SD* = 1.74), and others (*M* = 2.07, *SD* = 1.85). This difference was not statistically significant. In addition, those who were categorized as others reported more social support (*M* = 1.64, *SD* = 1.43) compared to whites (*M* = 1.62, *SD* = 1.49), African Americans (*M* = 1.48, *SD* = 1.42) and Hispanic/Latino (*M* = 1.34, *SD* = 1.17). However, this difference was not statistically significant. (See Table 5-11).

Overall, there was an inverse significant relationship between mental health symptoms with those who had few and more social support and coping resources. In contrast to what was hypothesized, Black/African Americans reported fewer social support resources and coping strategies compared to other ethnicities and these differences were not significant. Therefore, hypothesis 2a was not supported.

Hypothesis 2b, stated that victims of IPV who have more protective factors of social support, coping strategies and economic resources will report fewer IPV incidents. Results on the differences in IPV incidents between those who had zero/few resources reveal that those with fewer social support resources reported more IPV incidents (*M* = 5.32, *SD* = 4.07) compared to those with more social support resources (*M* = 4.51, *SD* = 2.68). However, the difference was not statistically significant. Similarly, those with few coping resources reported more IPV incidents (*M* = 5.09, *SD* = 3.54) compared to those with more resources (*M* = 4.74, *SD* = 3.52). This

difference was also not statistically significant. Lastly, those with few economic resources reported more IPV incidents (M = 5.02, SD = 3.74) compared to those with more resources (M = 4.84, SD = 3.16). This difference was not significant (See Table 5-12). Therefore hypothesis 2b was not supported. These findings suggest that protective factors of social support, coping strategies and economic resources did not buffer women from mental health symptoms or IPV incidents.

Table 12 Mean differences in few or more empowerment resources according to mental health symptoms and IPV incidents (N=154)

		Mental Health			**IPV incidents**	
Variable	*n*	*M(SD)*	*t*	*n*	*M(SD)*	*t*
Social support			-3.47**			1.42
Few	85	2.76(3.58)		85	5.32(4.07)	
More	69	4.75(3.48)		69	4.51(2.68)	
Coping strategies			-2.28**			0.61
Few	92	3.09(3.67)		92	5.09(3.54)	
More	62	4.50(3.51)		62	4.74(3.52)	
Economic resources			-1.26			.38
Few	97	3.37(3.64)		97	5.02(3.74)	
More	57	4.14(3.69)		57	4.84(3.16)	
Victim referral needs			-2.39*			2.88**
Few	87	2.98(3.40)		87	5.55(4.01)	
More	67	4.53(3.81)		67	4.18(2.61)	

Note. *$p \leq .05$, **$p \leq .01$

Also, understanding differences in social support and coping strategies is an important factor to consider among women who have been victimized (Bauman et al., 2012; Calvete et al., 2008; Katerndal et al., 2013; Wong et al., 2015). As shown in Table 5-13 and 5-14, supportive

family (49.4%) and supportive friends/neighbors (31.8%) were the most reported sources of social support. In addition, women utilized more coping strategies of willingness to ask for help (56.5%) and surviving past trauma (54.5%).

Table 5-13 Sources of social support of women victims of IPV seeking help from a police station

Source of social support	**Frequency (n)**	**%**
Supportive Family	76	49.4
Supportive Friends /neighbors	49	31.8
Supportive Boss	28	18.2
Has attorney	15	9.7
Concerned parent	68	44.2

Note. Percentage (%) of social support is based on number of respondents who reported social support in each category.

Table 5-14 Sources of coping strategies of women victims of IPV seeking help from a police station

Coping strategies	**Frequency (n)**	**%**
Coping skills in the past	54	35.1
Willingness to ask for help	87	56.5
Courage	71	46.1
Problem solving skills	40	26.0
Surviving past trauma	84	54.5

Note. Percentage (%) of coping strategies is based on number of respondents who reported coping strategies in each category.

Hypothesis 3

Hypothesis 3 stated that type and number IPV incidents will be positively correlated with number of self-reported mental health symptoms among women reporting to a police station. Specifically, psychological, and sexual violence will reveal a stronger correlation with self-reported mental health symptoms compared to physical, sexual, psychological/stalking, and combined violence.

As shown in Table 5-8, there were no statistically significant correlations between IPV incidents and mental health symptoms. However, when IPV incidents were interacted with victim needs, a moderate significant positive correlation was revealed (r (152) = .26, p =.002). On the other hand, chi-square results showed that there were no significant associations between those with and with no mental health symptoms and type of violence. However, those who reported combined violence (77.8%) and sexual violence (71.4%) reported more mental health symptoms compared to physical (68.5%) and psychological/stalking (56.6%) (See Table 9.2). However, these differences were not significant and therefore, hypothesis 3 was not supported.

Hypothesis 4

Hypothesis 4a stated that number of IPV incidents will be positively correlated with victims' referral needs. In addition, hypothesis 4b stated that victims' referral needs will be positively correlated with self-reported mental health symptoms.

An examination of IPV incidents and victim referral needs shows that, victims' referral needs were negatively correlated with IPV incidents (r (152) = -.21, p=.025) and positively correlated with mental health symptoms (r (152) = .26, p =.002). Further, the interaction between IPV and victim referral needs (IPV x victim referral needs) was positively correlated with mental health symptoms (r (152) = .20, p =.014) (See Table 5-8). Additional analysis show that those who reported more victim referral needs had more mental health symptoms (M = 4.53, SD = 3.81) compared to those who reported fewer victim referral needs (M = 4.53, SD = 3.81) and this difference was significant t (152) = -2.39 p<.05. On the other hand, those who reported fewer

needs had more IPV incidents (M = 5.55, SD = 4.01) compared to those with more needs (M = 4.18, SD = 2.61). This difference was significant as well t (152) = 2.88 p<.01. (See Table 5-12).

In summary, these findings indicated that there was an inverse significant relationship between IPV incidents and victim referral needs. As the number of IPV incidents increased, victims' referral needs decreased. Also, victim referral needs were significantly positively associated with mental health symptoms indicating that mental health symptoms increased as victim referral needs increased. Therefore, hypothesis 4 was fully supported.

Additional Analysis to Test Hypotheses

Hierarchical Regression Analyses

To test the predictive nature of demographic risk factors, type and number of IPV incidents, victim referral needs and empowerment resources; social support, coping strategies and economic resources, hierarchical regression analyses were run. Only significant variables from bivariate analysis were entered in the analyses. These variables were race, IPV x victim referral needs, victim referral needs, social support, coping strategies and economic resources. The results of the analyses, including values of change in ΔR^2, ΔF along with unstandardized regression coefficients (B), standard errors ($SE\ B$), and standardized coefficients (β) for the predictor variables at each step and in the final model are presented in Table 12.1.This analysis tested all the hypotheses.

Overall, four significant models were identified. (See Table 5-15). In the first model of the regression analysis, using White women as the reference category, being African American,

Hispanic or other accounted for 5.4% of the variance in self-reported mental health symptoms (R^2=0.054, F (3, 150)= 2.846, p <.05). Being African American (β=-.225, p < .05) was found to significantly predict self-reported mental health symptoms. These results indicate that being Black/African American was inversely associated with self-reported mental health symptoms, indicating that mental health symptoms decreased if one was categorized as Black/African American. However, being Hispanic and other ethnicities were not statistically significant predictors (β = -.030, p = .721); (β = .048, p = .558) of mental health symptoms.

When the interaction variable of IPV and victim referral needs (IPV x victim referral needs) was added in Model 2, being African American was still significant (β=-.213, p < .05) and IPV x victim referral needs (β= .196, p < .05) was statistically significant as well, suggesting that increased IPV x victim referral needs were associated with higher levels of mental health symptoms. IPV x victim referral needs accounted for 9.1% of the variance in self-reported mental health symptoms, (R^2=.091, F (4, 149) = 3.750, p <.01) and added an additional incremental variance over and above that explained by race in Model 1 [$\Delta R^2 = 0.038$, ΔF (1, 149) = 6.167, p <.01]. In this model, however, being Hispanic/Latino and other ethnicities were not found to be significant.

In Model 3, victim referral needs was added to the model. Once this variable was added, being African-American was still statistically significant (β = -.220, p = <.01).Victim referral needs accounted for 12.2% of the variance in self-reported mental health symptoms, (R^2=.122, F (5, 148) = 4.094, p <.01) and added an additional incremental variance over the demographic variables of race and IPV x victim referral needs in Model 2 [$\Delta R^2 = 0.030$, ΔF (1, 148) = 5.063, p <.05]. Victim referral needs were also found to contribute significantly to change in the

variance of mental health symptoms (β = .232, p = <.05), indicating that increased victim needs was associated with higher levels of mental health symptom scores. Being Hispanic, other ethnicities and IPV x victim referral needs were significant contributors to the change in variance in mental health symptoms.

In the final model, social support, coping strategies and economic resources were added. The addition of this set of empowerment variables accounted for a significant additional variance of 19.9% of the variance in mental health symptoms (R^2=.199, F (8, 145) = 4.510, p <.01). It also added an additional incremental variance over race, IPV x victim referral needs and victim referral needs in model 3 [$\Delta R^2 = 0.078$, ΔF (3, 145) = 4.693, p <.01]. In this model, only social support was found to significantly contribute to variance in mental health symptoms (β = .184, p = <.05) indicating that increased social support was associated with increased mental health symptoms. This finding was contrary to the expectations of this study. Coping strategies and economic resources were not found to be significant contributors of the variance in mental health symptoms (β = .073, p = .414); (β = .089, p = .297). Being African American remained statistically significant (β = -.225, p = <.0) as well as victim referral needs (β = .232, p = <.05). However, being Hispanic, other ethnicities, IPV x victim referral needs were not significant in this final step.

In summary, being Black/African American, the interaction of IPV and victim referral needs, victim referral needs and social support were found to be significant predictors of mental health symptoms in this study. Specifically, being Black/African American negatively predicted mental health symptoms and social support positively predicted mental health symptoms.

Table 5-15 Predictors of Mental Health Symptoms among women seeking help from a police station

Variable	B	SE	β	*t*	p	95% CI	
Model 1							
African-A	-.198	.075	-.225	-2.625	.010	-.347	-.049
Hispanic	-.031	.087	-.030	-.358	.721	-.202	.140
Other	.075	.127	.048	.588	.558	-.177	.326
R^2	.054						
ΔR^2	.054						
F	2.846**						
Model 2							
African-A	-.188	.074	-.213	-2.531	.012	-.335	-.041
Hispanic	-.001	.086	-.000	-.006	.995	-.170	.169
Other	.106	.126	.069	.846	.399	-.142	.355
IPV x needs	.021	.008	.196	2.483	.014	.004	.037
R^2	.091						
ΔR^2	.038						
F	6.167*						
Model 3							
African-A	-.194	.073	-.220	-2.643	.009	-.339	-.049
Hispanic	-.004	.085	-.004	-.046	.963	-.172	.164
Other	.057	.126	.037	.456	.649	-.191	.306
IPV x needs	.004	.011	.043	.412	.681	-.017	.026
Victim needs	.018	.008	.232	2.250	.026	.002	.034
R^2	.122						
ΔR^2	.030						
F	5.063*						
Model 4							
African-A	-.198	.072	-.225	-2.753	.007	-.340	-.056
Hispanic	-.005	.082	-.004	-.055	.956	-.167	.158
Other	.041	.122	.026	.335	.738	-.200	.282
IPV x needs	.003	.011	.026	.254	.800	-.018	.024
Victim needs	.018	.008	.232	2.324	.022	.003	.033
Social support	.294	.142	.184	2.072	.040	.014	.575
Coping strategies	.111	.136	.073	.819	.414	-.158	.380
Economic resources	.019	.018	.089	1.047	.297	-.017	.055
R^2	.199						
ΔR^2	.078						
F	4.693**						

*$p \leq .05$, **$p \leq .01$

Mediation Analysis

Finally, mediation analyses were conducted to explain further the relationship of IPV, empowerment resources, and mental health symptoms. As previously discussed, to evaluate if a

variable mediates the relationship between an independent variable and dependent variable, the following four criterial must be met (Barron & Kenny, 1986; Fields, 2012; Hair et al., 2010; Tabachnick & Fidell, 2007):

1) Variations in levels of the independent variable significantly account for variations in the presumed mediator;
2) Variations in levels of the independent variable significantly account for variations in the dependent variable;
3) Variations in the mediating variable significantly account for variations in the dependent variable and
4) When both the independent variable and mediating variable appear in the model, a previously significant relation between the IV and DV is no longer significant.

To test the mediating effect of victim referral needs, social support, coping strategies, and economic resources in the relationship between IPV and mental health symptoms, the mediation models shown in Figure 4-4 and 5-4 were estimated using Preacher and Hayes (2004) and Baron and Kenny's (1986) four-step-regression analyses approach. However, in this analysis, the relationship between IPV and self-reported mental health symptoms was not significant (β = -.019, p = <.813) and this violated the key criteria of mediation analysis. With this violation, these mediation models could not be tested.

From the regression analysis shown in Table 5-15 the relationship between IPV x victim referral needs and self-reported mental health symptoms was significant (β=0.190, $p < .05$) and so the three models were tested using IPV x victim referral needs as the independent variable. Justification for using IPV x victim referral needs as the independent variable in this mediation

model is drawn from theory and other studies that have statistically examined the interaction of IPV and victim needs (Goodman et al., 2009; Kothari, 2014). Theoretically, IPV and victim needs have been hypothesized to interact and lead to increased mental health symptoms (Goodman et al., 2009). The effect of this interaction may be mediated by resources such as social support and coping strategies (Goodman et al., 2009; Kothari, 2014). Hence, social support, coping strategies, and economic resources were individually regressed on IPV x victim referral need to show that each of these variables can be causally linked. Second, self-reported mental health symptoms were regressed on IPV x victim referral needs to show that this causal relationship is also possible. Third, social support, coping strategies, and economic resources were individually regressed on mental health symptoms to show that the variables can be causally linked; and lastly, mental health symptoms were simultaneously regressed on both the intraction of IPV and victim referral needs, social support, coping strategies and economic resources to show how these mediators were significantly related to the dependent variable (mental health symptoms), even when the IV (IPV x victim referral needs) was statistically controlled.

Results of the multiple regression analysis indicated that IPV x victim referral needs significantly predicted coping strategies (β=0.202, $p < .05$) but not social support (β=0.33, p = 688) or economic resources (β = -.052, p = 522). Second IPV x victim referral needs significantly predicted self-reported mental health symptoms (β=0.190, $p < .05$). Because the relationships between IPV x victim referral needs with social support and economic resources were not significant, mediation analysis was not run for these models as it violated the criteria for mediation testing. Only coping strategies as a mediator was added into the regression.

When coping strategies as a mediator was added to the regression, the beta weight of IPV x victim referral needs to self-reported mental health symptoms decreased from 0.190 to 0.145 (t=2.088, p = 0.070) and this relationship was not significant; coping resources significantly predicted self-reported mental health symptoms (β=0.223, p < .01). The results suggest that coping resources mediated the relationship between IPV x victim referral needs and self-reported mental health symptoms. To formally test the mediational effect of coping strategies, both the Sobel test and the bootstrap procedure recommended by Preacher and Hayes (2004) were computed. The Sobel test was significant (z= 1.980, p < .05) and the bootstrapped estimate of the indirect effect, with 1,000 resamples lie between 0. 001 and 0.010 with 95% CI. Because zero is not in the 95% CI, it can be concluded that the indirect effect is significantly different from zero, p < .05. The results of this mediator analysis indicate that coping strategies fully mediated the association between IPV x victim needs. The results of the mediator analysis are summarized in Table 5-16.

Furthermore, the results showed that at the first step, coping resources, the mediator, accounted for 4.1 % of the variance in self-reported mental health symptoms (R^2=.0.041, F (1, 152)= 6.444, p <.05). At the second step, IPV x victim referral needs accounted for 3.6% of the variance in mental health symptoms (R^2=.036, F (1, 152) = 5.693, p <.05). Further, when adding coping strategies into the regression model, both IPV x victim referral needs and coping resources accounted for 8.4% of the variation in mental health symptoms (R^2=.0.084, F *(*2, 151) = 6.908, p <.01).

Table 5-16 Mediating effect analysis of coping resources on IPV, Victim Referral Needs and Self-Reported Mental Health Symptoms (N=154)

	Variable	B	SE	*β*	*t* (*p*)
1	Independent: IPV-victim needs Dependent: Coping resources R^2=0.041 Adj R^2=0.034 F=6.444**	0.014	0.005	.202	2.538**
2	Independent: IPV-victim needs Dependent: Mental health symptoms R^2=0.036 Adj R^2=.030 F=5.693*	0.020	0.008	0.190	2.386*
3	Independent: Coping resources Dependent: Mental health R^2=0.064 Adj R^2=0.057 F=10.333	.383	.119	.252	3.215**
4	Independent: IPV-victim needs Dependent: Mental health symptoms Independent: Coping resources Dependent: Mental Health symptoms R^2=.084 Adj R^2=.072 F=6.908**	.015 0.339	0.008 0.121	0.145 0.223	1.823 2.805**

*$p \leq .05$, **$p \leq .01$

Summary of the Results

Hypothesis 1

Hypothesis 1a stated that demographic risk factors of young age, belonging to a minority group (Black/African American, Hispanic/Latino, Asian), financial dependence and marital status (single, cohabiting couples, separated and divorced) will positively correlate with more

self-reported mental health symptoms. However, White women were likely to self-report more mental health symptoms than African American women. Consistent with the hypothesis, there was a significant association between race and mental health symptoms. Mean differences in mental health symptoms according to socio-demographic characteristics emerged but they were not significant. Also, white women reported more mental health symptoms compared to Black/African Americans but these differences were not significant. Overall, this hypothesis was not supported.

Hypothesis 1b stated that demographic risk factors of young age, belonging to a minority group (Black/African American, Hispanic/Latino, Asian and International), financial dependence, and marital status (single, cohabiting couples, separated and divorced) will positively correlate with type and number IPV incidents. Specifically, African Americans will report more IPV incidents compared to white women and other minority groups. Also, it was hypothesized that single and divorced/separated women will experience more IPV incidents compared to married women. However, no significant associations between type of IPV and race, marital status, age group, and financial dependence. Also contrary to the hypothesis, white women reported more incidents of IPV compared to other ethnicities. Married women reported more IPV incidents compared to single and divorced/separated women, contrary to what was hypothesized. These differences were not significant, and thus, hypothesis 1b was not supported.

Hypothesis 2

Hypothesis 2a stated that victims of IPV who have more protective factors of social support, coping resources and economic resources will report fewer mental health symptoms.

Specifically, Black/African Americans will report more social support and coping strategies compared to other ethnicities. Contrary to the expectations of this study, those who had fewer resources reported fewer mental health symptoms. Those who were categorized as others reported more social support compared to other ethnicities. On the other hand, Hispanic/Latino reported more coping strategies compared to other ethnicities. Social support was also found to be a significant predictor of mental health symptoms, in that, increase in social support predicted an increase in mental health symptoms.

Hypothesis 2b, postulated that victims of IPV who have more protective factors of social support, coping strategies and economic resources will report fewer IPV incidences and mental health symptoms. This hypothesis was not supported. However mean differences show that, those with few resources reported more IPV incidents.

Hypothesis 3

Hypothesis three stated that type and number of IPV incidents will be positively correlated with self-reported mental health symptoms. There were not significant associations between type of IPV and mental health symptoms. However, those who reported combined and sexual violence reported more mental health symptoms. There were also no significant correlations between IPV incidents and mental health symptoms. This hypothesis was not supported.

Hypothesis 4

The final hypothesis, postulated that type and number of IPV incidents will be correlated with victim's referral needs. Also, victim referral needs were hypothesized to correlate with

mental health symptoms. This hypothesis was fully supported. Further, victim referral needs positively predicted mental health symptoms. When IPV incidents was interacted with victim referral needs, significant correlations with mental health were revealed as well. Also, the interacted variable (IPV incidents x victim referral needs) was a significant positive predictor of mental health symptoms.

Chapter 6

Discussion, Implications and Conclusions

Since the pervasiveness of IPV influences various domains of mental health, the impact of IPV on mental health has received a great deal of attention. Although much evidence finds IPV is related to mental health symptoms, few studies have examined this relationship among women who are seeking help from a police station. The purpose of the study was to fill this existing gap in the literature. The study explored the associations between demographic risk factors, type and number of IPV, victim referral needs, social support, coping strategies and economic resources with mental health symptoms. Overall, findings in this study revealed that IPV and mental health symptoms was associated with victim referral needs, social support, coping strategies, and economic resources.

Discussion of Research Findings

Demographic Risk Factors Findings

Demographic risk factors for IPV and mental health that were examined in this study are age, race/ethnicity, marital status, and financial dependence. It was hypothesized that these risk factors would positively correlate with type and number of IPV incidents, as well, as mental health symptoms. Further it was hypothesized that African Americans would report more IPV incidents compared to other minorities. Overall, significant associations were found between race and mental health symptoms. However, no significant associations were found between

demographic risk factors of age, marital status, and financial dependence with type and number of IPV incidents, or mental health symptoms.

Age. There was no significant association between age and type and number of IPV incidents. Women from all age groups reported IPV experiences with the largest number of victims between 31 and 40 years. Women between 50 and 70 years old reported more IPV incidents and higher percentage of physical violence (90.9%) compared to women from other age groups. This may have to do, in part, with the fact that they are more likely to be married for a longer time and cumulatively they would report more incidents of violence. Other studies have found higher rates of IPV among middle aged women (Black et al., 2011; Kaukien & DeMaris, 2009; Kim et al., 2008) and that physical aggression declines with age among married couples due to more established roles in the relationship which minimizes conflicts (Kim et al., 2008). Hence, age may be a protective factor (Rodriguez et al., 2001). In this study however, higher rates of physical violence among women 50 years and older were reported.

The percent of women between the age of 50 and 70 who reported high rates of mental health symptoms (72.7%) were similar to that of women aged 31 to 40 years (72.7%). A possible explanation for this is that mental health problems among women who are 65 years and older seem to increase (Hutchison, 2011) and experience with IPV is likely to result in increased mental health problems. In support of these findings, a review of literature on IPV among older adults finds that older women reported higher rates of mental health problems than younger women (Roberto, McPherson, & Brossoie, 2013). Although scholars and practitioners recognize that IPV is also likely to occur among older adults, there is a dearth of literature informing this

issue (Roberto et al., 2013). Future research should continue to explore IPV across the life span, and especially, among older women.

Race/Ethnicity. Although women from all race and ethnic groups experience IPV, studies have identified that women from certain ethnic groups are at an increased risk of IPV. Specifically, higher incidents of IPV among ethnic minorities have been reported for African Americans and Native Americans (Black et al., 2011; Catalano, 2008; Huang et al., 2010). Consequently, this study hypothesized that Black/African Americans would report more IPV incidents compared to other minorities. In contrast to this hypothesis, more IPV incidents were reported for White women compared to other ethnicities but these differences were not significant. Other studies, including national surveys, have consistently found higher incidents of IPV among Black/African Americans and Hispanics than Whites (Black et al., 2011; Caetano et al., 2005; Cho, 2012; Field & Caetano, 2005; Huang et al., 2010). However, there is also research (Cheng & Lo, 2015) to suggest that Whites and African American women experience similar IPV rates. The finding that Whites reported more IPV incidents in this study may be due to the fact that majority of the women who sought help from the police in this sample were whites. This finding is consistent with the Kaukien (2004) study who found that victims of IPV who are White more often call the police and engage in increasing levels of help-seeking from family, friends and psychiatrics compared to other ethnicities. This extends conversations and research on ethnic differences in notifying police or seeking help after an incident of IPV. Scholars who explain such differences from a cultural perspective have noted that ethnic communities differ in whether victims of violence are likely to seek help or notify the police after an incident of violence or not. Beliefs regarding outside interventions, family privacy,

marital permanence, and government incompetence are some of the factors that may explain why this difference occurs (Kelly, 2003; Liang, Goodman, Tummala-Narra, & Weintraub, 2005).

Some studies have implied that police notification after IPV is lower among Hispanic/Latinos due to their lack of familiarity with the U.S law (Menjivar & Salcido, 2002). Other ethnographic studies have noted that majority of Hispanic/Latino families are Catholic, a religion that emphasizes the indissolubility of marriage in most cases (Ackerman & Love, 2014; Perrilla, 1999), and thus, may explain the low numbers of Hispanic women reporting IPV to the police station. On the other hand, scholarly explanations that are based on structural factors suggest that many minorities live in areas where there is diminished social services such as police posts and this might predict that victims would be less likely to notify the police (Ackerman & Love, 2014). Amanor-Boadu et al. (2012) also suggest that low reporting rates especially for foreign born minorities may be as a result of fear of revealing immigration status. Structural explanations continue to suggest that police notification may actually be higher among ethnic minorities because the most alternatives to law enforcement agencies that are considered effective agencies may be less accessible to minorities pushing them to seek help from law enforcements agencies; that are easily accessible to them (Ackerman & Love, 2014). However, such an argument is inconclusive without further empirical support. Future research is needed to disentangle these relationships by including comprehensive set of variables related to police notification such as, race, social class, and police notification after an IPV incident.

Those who were categorized as others, reported fewest numbers of IPV incidents compared to other ethnicities but this was not significant. This finding is supported by other

studies (e.g. Cho, 2012) who found that Asian women reported less victimization than women of other ethnicities. National surveys on IPV such as National Violence Against Women Survey (NVAWS) have also reported less incidents of IPV among Asians compared to other ethnicities (Catalano, 2008; Tjaden & Thoennes, 2000). However, Cho (2012) stated that Asians have always been underrepresented in the national data and they are typically excluded or combined with other racial minorities which might be the reason why fewer incidents of violence are reported for this particular ethnic group. Others argue that Asian women's low rates of reporting IPV are attributed to their traditional values which place the family and community first and discourage the victim from seeking outside help (Bhaumik, 1988; Yoshihama et al., 2012). Overall, White women in this study reported more IPV incidents compared to other ethnicities.

This study had also hypothesized that belonging to a minority group would be associated with mental health symptoms. It was hypothesized that White women are likely to self -report more mental health symptoms than African American women. Contrary to the hypothesis, this study found no significant associations between ethnicity and mental health symptoms. However, compared to Black/Africans Americans, White women in this study reported more mental health symptoms but the differences were not statistically significant. Other studies have found the same (Lilly & Graham-Bermann, 2009; Nathason et al., 2012). Further, using White as the reference category, being Black/African American was a negative predictor of mental health symptoms. This suggests that mental health symptoms declined if an individual was an African American. It may be that women victims who are African American in this study may have different mental health symptoms than those listed in the RDVVA or may be using other ways to deal with their adversity. In fact, Fowler and Hill (2004) found that compared to other

ethnicities, the African American community are likely to turn to their social networks and spirituality which may help them to cope with the psychosocial problems including mental health problems arising from IPV.

Those who were categorized as others reported more mental symptoms compared to other ethnicities but this difference was not significant. This is an interesting finding because the same ethnic group reported few incidents of violence but more mental health symptoms. This may be due to the fact that they are discouraged from seeking outside help, and therefore, have little or no social networks to rely on; which may lead to increased stress and mental health symptoms as a result of IPV. This also seems to be particularly true for immigrants who experience the loss of social networks they had in their home countries (Amanor-Boadu et al., 2012). Additionally, it appears that being a member of minority group is a risk factor for psychological distress (Huang et al., 2010). Future research might explore in depth the strategies women from different ethnicities utilize to cope with adversity such as IPV especially the differences in social support networks among women who are born in the US and foreign born women.

Marital Status. Aspects of relationship status that were examined in this study include married, single and divorced/separated. It was hypothesized that marital status would be positively correlated with type and number of IPV incidents as well as mental health symptoms and that single and divorced/separated women would report more IPV incidents compared to married women. This hypothesis was not supported, a significant correlation was not found between these variables. Also, the hypothesis that single and divorced women would experience more IPV incidents was not supported. On the contrary, married women reported more IPV

incidents compared to single and divorced women. Other studies including The National Crime Victimization Survey Reports have consistently shown higher rates of IPV among never married, separated and divorced individuals compared to married women (BJS, 2005; Cui et al., 2010; Huang et al., 2010). This finding may be due to the fact that there may be legal issues that prompt women who are married to seek help from the police such as child custody, joint assets and financial bank accounts. Such issues are likely to escalate conflicts in relationships.

Although married women reported more IPV incidents, single women reported more mental health symptoms than married women but the difference was not significant. There are a few possible explanations for this finding. First, it may be that the impact of IPV on single women may be more detrimental on their psychological well-being than married women as single women are considered to be more vulnerable (Capaldi et al., 2012). Secondly, married women are likely to remain with their abusive partner because of several factors such as joint property ownership and children. Perhaps they may have learned to cope with IPV because leaving is not an option for them (Peled et al., 2000), and are therefore, likely to endure or be less psychologically reactive to violence (Lewis et al., 2006). Thirdly, even in abusive relationships, some married women may be receiving emotional support from their partner. In fact, a study by Carson et al. (2002) found that support from partner provided a buffer for abused women from developing anxiety and depression.

Financial dependence. In this study, financial dependence was neither associated with type and number of IPV incidents, nor was it associated with mental health symptoms. However, women who responded “no” when asked if they depended on their partner for financial support,

reported more IPV incidents compared to those who did not. Thus, women who did not require any financial help from their partner reported more incidents of violence compared to those who did require financial help. There is evidence corroborating the notions that having financial freedom may lead to increased IPV among women especially in communities where patriarchy is engrained in a society where men believe that women should be dependent on them (Dalal, 2011;Villarreal, 2007). On the other hand, this finding is different from other studies that have found that financial dependence leads to increased rates of IPV (Benson & Fox, 2004; Thompson et al., 2006) because women become more vulnerable and susceptible to violence.

Those who responded 'yes' when asked if they depend on their partners for financial support reported more mental health symptoms but this was not significant. This finding is expected because financial strain has been found to lead to increased psychological distress especially among victims (Benson & Fox, 2004; Goodman et al., 2009; Thompson et al., 2006).

Taken together, the findings of correlations between demographic risk factors with IPV and mental health symptoms are not significant with an exception of decrease in mental health symptoms for those women who are African Americans. However, it does appear that there are mean differences in IPV and mental health symptoms based on demographic risk factors. This means that these findings are inconclusive and should be interpreted with caution.

IPV and Self-Reported Mental Health Outcomes

There has been a consistent consensus among researchers that IPV negatively impacts women's mental health and well-being. Surprisingly, no significant relationship was found between type and number of IPV incidents and mental health outcomes in this study. This is in

contrast with many studies that have consistently found that women who experience IPV are more likely to report psychological distress (Babcock et al., 2008; Devries et al., 2013; Golding, 1999; Pico-Alfonso et al., 2006; Scott-Tilley, Tilton, & Sandel, 2010). However, the findings of this study are supported by Lewis et al., (2006) who found that the frequency of physical battering for women seeking help in an emergency shelter was unrelated to depressive symptoms. This surprising finding may be related to the fact that high exposure to violence may have led to desensitization effect in which participants are less psychologically reactive to violence (Lewis et al., 2006). It may also be that by the time they are seeking help from the police, they are taking action steps to seek help from other sources versus trying to psychologically cope with IPV. However, such information was not available in the RDVVA.

Another explanation of the non-significant effect of IPV on mental health in this study is that, almost all the studies that have examined associations between IPV and mental health symptoms have used standardized measures to collect data on different symptoms that victims report and the frequency and severity of these symptoms. For example, studies examining PTSD often use the Posttraumatic Diagnosis Scale and PTSD Checklist-Civilian Version (PCL-C) (Babcocock et al., 2008), and Echeburua's Severity of Symptom Scale of Posttraumatic Stress Disorder which is structured interview based on DSM-IV criteria (Pico-Alfonso et al., 2006). Depression is another mental health symptom that is frequently associated with IPV and many studies assess for symptoms using SCID, CES-D and BDI. Current psychological distress in the past 7 days have been measured using The Brief Symptoms Inventory (BSI) (Derogatis, 1993). The measure of mental health in this study relied on data that had already been corrected and hence it was not possible to adapt a standardized measure. Also, about one-third of the victims in

the sample did not report mental health symptoms and the average mean of symptoms reported was (M = 3.57, SD= 3.74). It may be possible that they are experiencing mental health problems but the measure of mental health symptoms used in the study was not able to clearly capture such symptoms. However, it is noteworthy that the measure for mental health symptoms in this study was reliable as Cronbach's α equaled 0.72.

This study relied on the victim advocates' description of the number of abuse reports made and the nature of abuse described in those reports so as to determine the type of IPV and the number of incidents. Thereafter, individuals were classified as having experienced physical, sexual, emotional/stalking and combined violence using previous definitions of abuse (Saltzman et al., 2002). The descriptions of the nature and type of abuse may have been subjective and varied based on how the victim advocate viewed the incident reported; posing some challenges in finding significant associations with mental health symptoms. Previous studies have used established instruments such as Sexual Experience Survey Scale (Campbell & Raja, 2005) and the most commonly used measure of IPV; The Conflict Tactics Scale-Revised (CTS-R; Straus, Hamby, Boney-McCoy, & Sugarman, 1996). CTS-R is a 78-item measure that assess the perpetration and experience of IPV. This scale is used to determine the extent to which negotiation, psychological aggression, physical assault, injury, and coercion were used against a respondent in the last year, as well as to generate a score for the total IPV exposure in that year.

In spite of the non-significant effect of IPV on mental health, it appears that in this study, women who were categorized as experiencing combined and sexual violence reported a higher percentage of mental health symptoms compared to those who were categorized as experiencing physical and psychological/stalking violence but these differences were not significant. This

finding is congruent with other studies that have made distinctions on type of violence experienced and mental health outcomes. These studies have found that women who have been sexually assaulted, raped or threatened with weapons are more likely to develop mental health symptoms compared to women who have experienced milder forms such as verbal abuse (Babcock et al., 2008; Black et al., 2011). The impact of combined violence on mental health symptoms was increased when compared to other forms of violence. This finding is consistent with other studies that have found that women who experience more than one form of violence report higher rates of psychological distress (Dillon, Hussain, Loxton, & Rahman, 2013; Edwards, Black, Dhingra, McKnight-Eily, & Perry, 2009).

Overall, women in this sample reported more physical violence compared to other forms of violence but these differences were not significant. However, combined and sexual violence seem to be more detrimental on women's mental health. This finding stimulates much needed thinking on the heterogeneity of IPV experiences and specific interventions needed for each form of violence. Overall women in this sample reported more severe mental health symptom (67.5%) compared to the national sample 22.3% (Black et al., 2011) and samples of women in domestic shelters (45%) (Helfrich, Fujira, & Rutkowski-Kmitta, 2008).

Victim Referral Needs

This study had hypothesized that number of IPV incidents and mental health symptoms will be positively correlated with victim referral needs. However, findings suggest the opposite. Victim referral needs negatively associated with the number of IPV incidents, meaning that a decrease in victim referral needs increased IPV incidents. It appears that the abuser might be

providing some of the resources that the victim needs in order to manipulate, coerce, gain power and control over them. Other scholars have suggested the same (Campbell, 2002; Ditcher, 2009). Also, in support of this finding, women may choose not to seek help because they believe that doing so will cause them to lose emotional or financial support that they are receiving from their partners (Fleury-Steiner, Bybee, Sullivan, Belknap, & Melton, 2006; Fugate, Landis, Riordan, Naureckas, & Engel, 2005). Victims might also be afraid of their safety to an extent that they do not want to seek services as their partners might become aware that they are planning to leave the abusive relationship (Fleury et al., 2006). Issues of power and control may be related to this finding.

This study also found that victim referral needs was positively correlated with mental health symptoms. Those who reported more needs also reported more mental health symptoms. In support of this finding, other studies have found that women victims of IPV report higher rates of perceived needs (Eisenman et al., 2009; Goodman et al., 2009; Green et al., 2005). Also, an additional analysis shows that when IPV was interacted with victim needs, this interaction variable was also significantly associated with mental health symptoms. This finding is not surprising and is also supported by Goodman et al. (2009) and Eisenman et al. (2009) who urge that experiencing IPV is associated with victim referral needs such as legal, social, and job services which may further cause psychological distress. It would be effective to emphasize on responses that can address all the needs of women who (in addition to stopping IPV) to reduce mental health symptoms.

Protective Factors Findings

Social support. Social support has been found to act as a protective factor for IPV and negative mental health symptoms (Beeble et al., 2009; Carson et al., 2002; Coker et al., 2002). In this study, social support was defined as social support networks that women perceive to have and was measured as: (1) supportive family, (2) supportive friends/neighbors, (3) supportive boss, (4) supportive attorney, and (5) concerned parent. Overall, women perceived to have more social support from family, having a concerned parent, and support from friends/neighbors compared to other sources of social support such as a supportive boss and supportive attorney. Several studies have found similar principal sources of social support as friends and families who are perceived to provide resources and emotional support (Goodman et al., 2005; Katerndahl et al., 2013; Lee et al., 2007).

This study had hypothesized that women who have more protective factors of social support will report fewer IPV incidents and mental health symptoms. There were no significant differences in IPV incidents based on having few or more social support. However, mean differences show that women who reported more social support reported fewer IPV incidents and those who reported fewer social support reported more IPV incidents, though the differences are not statistically significant. Perhaps this lack of significance may be due to other factors that might be influencing this relationship such as ethnicity (Katerndahl et al., 2008). Also, it is likely that use of a standardized measure of IPV incidents would have improved the accuracy of this relationship. Nevertheless, studies have found that social support is a protective factor on risk for re-abuse (Beeble et al., 2009; Coker et al., 2004; Goodman et al., 2005).

There were significant differences between those who had fewer or more social support resources and mental health symptoms. However, contrary to the hypothesis of this study, those who had more social support resources reported more mental health symptoms than those who had few resources. Also, social support was found to significantly predict mental health symptoms. This finding is unexpected considering the fact that studies have consistently found social support to be a protective factor for mental health symptoms (Beeble et al., 2009; Carson et al., 2002; Fowler & Hill., 2005). However, the finding that social support is inversely related to mental health symptoms suggests that women in abusive relationships may have small networks with many weak connections (Kalish & Robins, 2006) that are likely to offer less support leading to negative mental health well-being. In some situations, friends and family may avoid the victim because they fear the abuser or see the abuse as a private matter. The abuser may also intentionally isolate the victim from her support network as a method of control (Levendosky et al., 2004). This is likely to impact their mental health well-being. Other studies have argued that it is not the number of sources of social support but rather the quality of social support networks (Katerndal et al., 2013). In this study, the perceived social support that women report; especially from friends, family and a concerned parent, did not appear to buffer them from developing mental health problems. Future studies should include measures that can examine the quality of social support women perceive to have and how this support matches with the victim needs. For example, it is likely that formal support from mental health professionals, counselors, and clergy (Lopez & Cooper, 2011) might reduce psychological distress for women similar to the sample in this study.

It was also hypothesized that African Americans would report more social support compared to other ethnicities. Findings on ethnic differences in levels of social support were not significant. In contrast to the hypothesis, those who were categorized as others and whites reported more social support compared to other ethnicities. Studies suggest that women who are White and experiencing IPV are more likely to engage in help seeking behaviors such as support from family, friends and mental health therapist compared to women from other ethnicities (Ackerman & Love, 2014; Kaukien, 2004). Although White women and others in this group reported more social support networks, it is important to note that they reported more mental health symptoms. Thus, it is likely that this social support may not be buffering them from poor mental health. Although these findings are not significant, it would be plausible to examine differences in help-seeking behaviors and quality of support received using a similar sample of women.

Studies that have examined the mediating role of social support on IPV and mental health outcome have found that social support fully or partially mediate this relationship buffering them from negative mental health outcomes (Beeble et al., 2009; Lee et al., 2007; Stevens et al., 2013). However, mediation analysis in this study showed that, social support was not a significant mediator of IPV- mental health symptoms relationship.

A conceptual explanation to the relationship between social support and mental health symptoms in this study may be due to differences in the population under study. Most studies have looked at women in domestic violence shelters and community samples. This interpretation suggests the possibility that the kinds of social support women require may change based on the

context and different stressors that women experience. This may in turn affect their mental health well-being (Cohen & Hoberman, 1983). Also there are other factors such as race and other life events that might be influencing this relationship. However, the influence of these variables was not hypothesized in this study, and therefore, it was not tested.

Coping Strategies. Coping among women victims of violence has been described in different ways. The commonly used distinctions of coping strategies include problem and emotion-focused coping (Calvete et al., 2015). Problem-focused coping are conceptualized as behaviors that are directed externally and aim to change the environment that causes distress (Heckhausen & Schulz, 1995). An example might include seeking outside assistance through social service and legal aid agencies. Emotion focused coping constitutes emotional reactions which often accompany those demands (Thoit, 1995) and help reduce the negative effect of the stressor (Heckhausen & Schulz, 1995). An example includes engaging in prayer and meditation. Coping strategies in this study were referred to as problem focused coping skills that victims utilized. Study results demonstrate that women utilized multifaceted coping strategies, with most of them reporting willingness to ask for help (56.5%), surviving past trauma (54.5%) and courage (46.1%). Contrary to the expectation of this study, women who had more coping strategies reported more mental health symptoms. Similarly, coping strategies positively predicted more mental health symptoms. Other studies have also found that problem focused coping predicted more depressive symptoms (Ferreira & Matos, 2013; Folkman 1984; Kocot & Goodman, 2003; Wong et al., 2015). Folkman (1984) has suggested that problem-focused coping may create emotional burdens, particularly when one does not see a clear way to alter the problem. Also, Ferreira and Matos, (2013) state that if a partner stalks a victim after a break-up,

or there was likelihood of further abuse after break up , a victim is likely to experience increased psychological distress. It may also be that for women who are seeking help from the police station, the process of participating or accessing services such as protection order, child related legal issues, and prosecution of a current or former partner may affect their use of coping strategies, and this, may impact the mental health well-being.

In the mediation analysis, coping did not mediate the effect of IPV on mental health symptoms. Perhaps contextual factors such as social support and economic resources would be crucial in predicting or moderating the relationship between coping strategies and mental health symptoms, but such relationships were not tested in this study. Similar to the findings of this study, Calvete et al. (2015) failed to find the path of problem focused coping mediating the effect of IPV on mental health problems.

An important finding of this study is that, when IPV was interacted with victim referral needs, this interaction predicted coping strategies. Coping strategies also mediated the effect of IPV x victim referral needs on mental health symptoms. This finding suggest that it is almost impossible to examine coping strategies without taking into consideration other contextual factors such as lack of variety of resources, social isolation, past trauma and substance abuse (Goodman et al., 2009; Waldrop & Resick, 2004). In fact, Goodman et al. (2009) suggest that poverty may take the toll in a victim's life such that they even forget to identify IPV as a problem. Indeed, one study of low-income women IPV victims found that when asked about the most stressful or upsetting event they had to cope with in the last month, over half of the sample reported something other than IPV, such as homelessness; problems with their children, family,

or friends; lack of coordination among services; or substance abuse related problems (Eby, 2004). Therefore, one may argue that being in poverty and experiencing IPV may create equally difficult problems producing a series of multiple issues to address (Goodman & Epstein, 2005) and making tradeoffs is almost impossible to make; what Fine (1982) refers to as social powerlessness (Fine, 1982). For these women, attempting to "take control" of their current situation by dealing with an overtaxed and under-resourced human service system may result in psychological distress. Goodman and colleagues suggest that women are in fact utilizing a third type of coping called "survival focused coping" which is aimed at surviving in the short term, meeting the basic needs, and keeping oneself and their loved ones as safe as possible. Survival focused coping may entail small steps, negotiations and tradeoffs while staying open to opportunities (Goodman et al., 2009). The authors continue to argue that a woman using survival-focused coping may appear passive to those not in her circumstances because she would rather endure another beating but be assured that she can survive another eviction (Goodman et al., 2009, p. 319). This limits her ability to leave that abusive relationship, which means that an advocate will need to work with her to find solutions that are empowering in her current situation while ensuring her safety (Peled et al., 2000). This may be viewed as an empowerment-based feminist perspective which promotes women's strengths, autonomy and control over their lives in the context of multiple constraints (Burstow, 1992; Lampert, 1996).

There were mean differences in coping strategies based on demographic factors but these differences were not significant. Specifically, ethnic group comparisons indicated that Hispanic/Latino women reported more coping strategies compared to White women, Black/African Americans and Others. On the other hand, married women also reported more

coping strategies compared to single and divorced women. Future studies should explore individual and ethnic differences in coping strategies utilized by women who seek help from police.

This study relied on the retrospective accounts of coping strategies. There is evidence that self- reports of long-past coping strategies tend to be plagued by memory biases and distortions (DeLongis, Hemphill, & Lehman, 1992; Waldrop & Resick, 2004). Individuals' memories are clouded by their current knowledge of their coping efforts and if these efforts are poor, they may only recall higher levels of stress, lower support or less efficacious coping efforts (DeLongis & Holtzman, 2005). Such distortions become less likely as the time frame which an individual is expected to recall is reduced.

Economic Resources. Economic resources in this study were operationalized as : (1) employed, (2) has a vehicle, (3) stable housing situation, (4) has attorney, (5) insurance (6) receiving financial assistance (food stamps, SNAP, Medicaid) (7) work history/skills/training, and (8) education. These individual items are measured as a composite score that is equivalent to an indicator of social economic status (SES) (Waldrop & Resick, 2004). Studies that have examined the role of SES variables as protective factors for IPV and mental health have established that these protective factors provided a buffer for abused women from developing mental health symptoms such as anxiety and depression (Carlson et al., 2002; Gonzalez-Guarda et al., 2009). However, in this study, even though economic resources were significantly correlated with mental health symptoms, they did not signficantly predict mental health symptoms and neither did they mediate the relationship between IPV and mental health

symptoms. A possible explanantion to these insignificant results might be because the measure of economic resources in this study was not reliable; the Cronbach α equalled 0.61. It is likely possible that additional measures of economic resources such as income levels, education levels would have improved the reliability of the scale but these variables were not included in the RDVVA.

Also, there were no significant differences in mental health symptoms between those who had few or more economic resources.Contrary to previous studies, results of this study found that women with more economic resources reported more IPV incidents and mental health symptoms compared to women with fewer resources but the differences were not significant. An explanation to these insignificant results is that previous studies that have examined various economic resources among victims of IPV have looked at proxy variables of economic resources such as employment (Adams et al., 2013; Brush, 2000; Kimerling et al., 2009) welfare receipt (Seefeldt & Orzol, 2005; Yoshihama et al., 2006) and stable housing (Rollins et al., 2012). These studies found significant relationships between the proxy variables of economic resources and women mental health. Indeed, an additional analysis of proxy variables for economic resources in this study with mental health symptoms indicate that welfare receipt and education were positively correlated with mental health symptoms while stable housing was negatively correlated with mental health symptoms. These individual variables may require further analysis to determine which variable may impact IPV and mental health symptoms among women who are seeking help from police.

In summary, it appears that women who had more protective factors experienced more mental health symptoms which is in opposite direction from that predicted by the theories in this study. These findings might be because this study is exploring these factors in a unique sample of women. Therefore, more research to further explore these unexpected results is necessary; using a similar sample of women. It is also clear that there are differences in protective factors based on ethinicity. It is important to explore these differences using a larger sample of women as it may help reveal information that can guide prevention and intervention programs for IPV and mental health for each ethinicity.

Study contributions and Limitations

The current study reviewed case files of women victims of violence who seek help from a city police using retrospective research design. These files were originally meant for other uses other than research (Hess, 2004; Jansen et al., 2005). Inherent in such a research design are certain strengths and limitations.

A strength of this study is that data were available and contained variables that were needed to be explored. Using available data eliminates some potential challenges that one is likely to encounter if using primary data. These challenges include participants' non-response or low response rate, cost of providing incentives for participants, difficulty in gaining access to the communities, especially because this is a population that is vulnerable, and hence, not easily accessible. Also, using available data prevents internal validity threats such as attrition and maturation.

Another strength of this study is the use of three theories to examine the relationship between IPV and mental health symptoms. Empowerment theory, social support and stress and coping theory provided a multidimensional approach in which we can examine the complex relationship between IPV and mental health. The proposed conceptual framework tested several mechanisms operating on the relationship between IPV and mental health symptoms such as demographic risk factors, victim referral needs, coping strategies, economic resources and social support. Many studies that examine IPV and mental health relationship may only use one to two of these variables.

The use of a sample of women seeking help from a police station can be seen as both a strength and a limitation of the study. The majority of research on women victims of IPV has been conducted in battered women-shelters and have found that women have fewer reported mental health symptoms (Helfrich et al., 2008) than women in this study. Results of this study cannot be generalized beyond women seeking help from police stations and within geographic location of the Dallas-Fort worth area. Also, women in this study had come to the attention of the police and their current and cumulative experiences could be qualitatively different from women who do not seek police attention.

This is a cross-sectional study design where all the case files were reviewed at the same time. So drawing any conclusions about causality or sequential development of mental health symptoms is limited. For example, the cause of mental health problems is likely not limited to IPV and the extent to which these symptoms may have existed prior to IPV is unknown. Only

longitudinal research can assess the development of mental health problems in relation to IPV over time.

The information in the case records was recorded without research intent and this posed some methodological challenges as it limited a robust and rigorous analysis due to limited flexibility with the variable measures. In fact, the measure of economic resources was not reliable as Cronbach's α equaled 0.61. Various items that would have been important to include so as to improve reliability of this measure such as income levels, education levels and nature of employment (Carson et al., 2002; Renzetti, 2009) were missing from the case files. Although the scale used to measure perceived social support was reliable in this study, the quality of social support received would have been important to examine as well. Theoretically, the coping strategies measure should include both emotion and problem focused coping but variables of emotion focused coping were not included. The type and number of IPV incidents was based on the description of nature of abuse as indicated by victim advocates in the case files. Even though important information on the abuse was present, there was some variation on how each case was described which likely interfered with the measure of IPV in this study. Also, given the repetitive nature of IPV, one can anticipate that a portion of the incident reports were as a result of some victim's repeated calls for assistance and so the count of IPV incidents may not be accurate. In summary, the lack of breadth of data posed some ambiguity in terms of theoretical constructs compromising the multidimensionality of constructs and measurement scales that were used in this study.

Another limitation is that out of 271 cases identified for review, about 109 cases were eliminated due to incomplete documentation, including missing information that is unrecoverable or unrecorded. This reduced the sample and hence small cells that resulted to insignificant results. It is likely that future studies may find significant results using larger sample sizes. There were also problems with verifying information on nature of abuse provided in the case files because some of the case records have already been closed. In addition, there was variation in the quality of information recorded by victim advocates, especially on the nature of abuse, as advocates may have assessed victims differently. However, to address this limitation, clarity in unclear data was resolved with regular consultation with victim advocates.

Overall, this dissertation examines a sample of abused women that we know relatively little about. I anticipate that findings from this dissertation will expand and extend knowledge on IPV and mental health well-being by contributing to prevention and intervention strategies for women reporting to police stations.

Implications and Recommendations for Future Research

Given the fact that this study addresses a sample of women that we know little about. There are several initiatives that can be undertaken in the future to build on the results of this study.

Implications for Future Research

The findings of this dissertation support and extend previous research on the complex relationship between IPV and mental health symptoms among women. First, use of longitudinal data from the case files can help explore how the relationships between IPV and mental health

symptoms can vary over time and other plausible factors other than IPV may contribute to a victims' mental health status. This is specifically important for women whose abuse is brought to the attention of the police multiple times. With retrospective research design like the one used in this study, victim assessment forms may be assigned information in the reporting system that alerts the victim advocates on individuals who report repeat violence.

The protective factors explored in this study can be improved with interventions (Sullivan, 2006). It is, therefore, important to more broadly consider these factors and how they can be modified while conducting future research on IPV and mental health. For example, social support and coping have been shown to consistently impact women IPV and mental health well-being and they are both an integral part of the victim's response to IPV. Specifically, related to the findings of this study, is the mediating role that coping plays in IPV and mental health. In addition, future studies, should further explore differences in social support networks and the quality of support received. Also, coping strategies utilized by women who are seeking help and those whose abuse has not been brought to the attention of the police would be important to examine. While exploring these differences, a variety of dimensions of coping responses may be examined such as problem and emotion focused coping; engagement versus disengagement coping (DeLongis & Holtzman, 2005). This should be examined using different research methods with ethnically diverse populations such as college students, immigrants and refugees, and low-income women. This would help reveal possible mechanisms on how protective factors of social support and coping continue to impact various women experiencing IPV and their mental health symptoms.

It would be useful to explore other modifiable risk factors for IPV in this sample other than demographic risk factors. IPV is a complex issue with multiple determinants. Such risk factors might include personality disorders such as antisocial behavior, substance abuse, alcohol, history of past abuse (including child abuse), immigration status, acculturative stress, and income levels (Capaldi et al., 2012). In addition, the effects of moderators such as race, age, employment, financial dependence and the role the presence of children in a relationship plays were not tested in this study. Future studies should examine such moderators.

Another important aspect that was not examined in this study is the severity of abuse. Future research should explore the level of abuse and how this relates to social support, coping strategies and economic resources as well as mental health symptoms. This study found that women with more protective factors reported more mental health symptoms; especially White women and those who were categorized as Others. Also, White women reported more IPV incidents. It is possible that resources cease to be helpful with increase in severity of abuse (Carlson et al., 2002). In addition, it would be important to explore some of the factors that were associated with women who did not report any mental health symptoms.

Another important finding of this dissertation is the number of IPV incidents among women between 50 to 70 years. Although scholars and practitioners recognize that IPV occurs in older adults, there is a dearth of literature informing this issue (Roberto et al., 2013). Future research should continue to explore IPV among older women using a diverse population.

The finding that women who do not depend on their partners for financial support report more IPV incidents should be explored further. It is likely that there are issues of power and

control by the abuser to the victim. One way to capture variables of power and control is to include questions or categories of coercion in the assessment form. Additionally, future studies may utilize in-depth qualitative analysis or quantitative measures that can capture attitudes or dynamics of power in the relationship as some women, especially immigrant women coming from male-dominated cultures where cultural practices shape relationships. Such studies may be grounded in theories (e.g. feminist theories) that offer a framework for examining attitudes and beliefs of the patriarchy.

Finally, there is a need for continued evaluation of programs that provide services to victims of IPV seeking help from the police using quasi-experimental research designs. Such research designs explore the outcomes and effectiveness of the services being offered by victim assistance programs such as access to information, access to treatment, victim safety, (Stover, 2012) and what might be improved.

Implications for Theory

Empowerment theory. From an empowerment perspective, the most common explanation for IPV is found in the interplay between power and powerlessness (Peled et al., 2008). The powerless (victims of IPV) are likely to have significant authority exerted upon them by those with power due to poor resources. Women in abusive relationships lack power and experience feelings of powerlessness, self-blame, and worthlessness. A basic assumption of empowerment theory is that people are capable of solving their own problems and moving beyond them by utilizing their personal strengths, strengthening their social supports, and accessing other resources in their environment. This will vary depending on their available

resources and their individual interpretations of what empowerment means to them. Results of this study indicate that availability of resources may or may not buffer women from IPV and from developing mental health symptoms. Empowerment frameworks with this population of women should capitalize on victims' interpretations of empowerment and how this impacts their experience with IPV and well-being. In fact Goodman et al. (2014) argues that despite the use of empowerment perspective in IPV programs, the ability to link it to well-being has been hampered by the absence of lack of ways to measure it from the survivors' perspectives.

Also, using the lens of empowerment theory, global and national programs designed to address IPV should see IPV as a form of women oppression and work to end it. For some women, IPV may not be the only form of oppression she experiences, nor her main priority. Women may prioritize goals and needs related to other forms of oppression such as racism, classism, heterosexism or ableism (Kasturirangan, 2008). Once goals are established, women can realistically determine what resources they might need to achieve these goals and barriers to resource access (Kasturirangan, 2008).

Social support theory. Social support theory assumes interpersonal relationships protect one from stress induced pathology (Cohen & Hoberman, 1983). This hypothesis may operate by "intervening between stressful event and victim's reaction by influencing the cognitive valuation of the experience, thereby reducing or eliminating the victims' reaction" (Hyman, Gold, & Cott, 2003, p.295) hence improving their quality of life. Findings in this study show the opposite, in that those with more social support resources reported more mental health symptoms. It is possible that, theoretically, social support differs depending on the sample at hand, and does not

contain a single underlying factor. Alternatively, it is possible that there exists both positive and negative consequences of social support for women experiencing IPV. In fact, Wills and Shinar (2000) state that there are both supportive aspects and potentially distressing and burdensome aspects of interpersonal relationships. Therefore, similar to coping constructs, certain types of social support or ways that support is provided may increase the stress a woman experiencing IPV feels. It may be valuable for future studies to theoretically examine individual variables to determine what aspects are positive and what aspects are negative for individual women. Related to social support theory is stress and coping theory. Besides stressors and the context under which stress occurs, such as social support network, the personal characteristics of an individual is also a key determinant of how an individual responds to a stressor. Although, women's individual characteristics such as self-efficacy, competence, emotional strength were not examined in this study, it is possible that they might have impacted the coping strategies utilized by women.

Implications for Methodology

Many violence intervention and prevention programs are used with minimal evidence supporting their effectiveness and methodological flaws are common in this area of research (Guterman, 2004; Hickman, Jaycox, & Aronoff, 2004). In many ways, researching IPV is very sensitive because of the potentially threatening and traumatic nature of the subject matter which presents numerous practical and ethical challenges especially in cases where the safety and even the lives of women participating in research may be at risk. Thus, reviewing case records is a significant method to study this hard to reach population. In addition to ethical challenges,

Murray and Graybeal, (2007) states that methodological challenges are common such as varying definitions of key constructs, measurement issues with long-term follow-up, and validity issues like the use of psychometrically sound measurement instruments. In addition, financial resources to support extensive research are very limited.

Use of already existing data such as the one used in this dissertation becomes extremely important as it may reduce risks such as secondary trauma. However, as previously discussed, use of such data may also pose some challenges especially if the data collection instrument was not designed for research purposes, and hence, not psychometrically sound. Efforts must therefore be made to ensure that the interviews during the assessment of the victim are used as both an intervention and a data collection instrument. This requires that such survey instruments be designed in a way that they utilize the best existing psychometric measures as well as variables of interest that can help inform future interventions and practice in IPV and mental health. Variables such as the ones examined in this dissertation as well as cultural, structural, and political level factors, should all be integrated in a single survey as a nested issue so as to ensure a multiple level assessment. In other words, there needs to be collaborative efforts between researchers and practitioners, especially when designing the questionnaires or assessment forms.

Finally, researchers must collaborate more closely with victims of IPV, victim advocates and mental health providers to ensure that they are framing meaningful questions and producing knowledge that can be useful to the providers and participants they aim to support. For example, use of community based participatory research with victims of IPV may help identify and prioritize their needs and interventions that align with such needs. Such interventions should

incorporate the views of the victims of IPV, practitioners, and researchers to enhance sustainability.

It is noteworthy that the victim assessment form used to collect data for this study was designed by a victim advocate program director who has over 20 years of experience working with victims of domestic violence.

Implications for Social Work Practice

The results of this study provide useful information regarding women who are seeking help from a police station. This information is useful to social workers who are working with this population to develop and implement programs that can help reduce incidents of violence and improve mental health and well-being. Specifically, these findings illuminate the complexity of IPV and the need for a multi-dimensional approach. Such an approach should take into account simultaneous effects of IPV and mental health problems and resources that can be prioritized to address these phenomena such as coping resources and supportive networks that are meaningful to the victims.

The study also provides useful information to practitioners indicating that many variables affect the link between IPV and mental health. Consequently, practitioners should not only focus on the problem but also the context surrounding that specific problem. Victim advocates should also move beyond symptom-focused interventions to capture innate capabilities, such as self – efficacy and competence, that women have and how they might utilize them to stay safe and get out of an abusive relationship.

The finding that women reporting combined and sexual violence are likely to report more mental health symptoms, indicates the necessity for victim advocates to ask about various forms of violence and their frequency when conducting assessments because there may be different interventions, such as provision of immediate mental health counseling or referral to specific mental health counseling services, based on types of violence which might impact mental health well-being.

Implications for Policy

Goodman and Epstein (2005) state that "one of the key questions facing researchers regarding IPV in the coming decade is how the real-life context of victims including their safety, advocacy and support should affect state policy" (p. 149). Results from this study echo a similar perspective in that there is need to look at IPV from the lens of victims and their contexts. However, our criminal justice system has not been designed this way in the approach to intervention with victims. Within the criminal justice system, there is more focus on arresting and prosecuting the perpetrator over victim empowerment, safety and security (Goodman & Epstein, 2005). Nationally, there is still a limited number of victim service centers (TVAM, 2008). Therefore, findings from this dissertation emphasize the need for increase of such centers.

Police act as gate keepers within the criminal justice system and are most often the first responders to women who are seeking help. It is, therefore, important for policy programs to allocate more resources in training police departments and victim assistance advocates on how to best assist women seeking help. Notably, within the current VAWA, 2013, programs have been created to train such first responders so as to offer better services such as law enforcement,

responding to crisis calls, focusing on the needs of underserved communities and coordinated community responses that bring together different stakeholders (Modi, Palmer, & Armstrong, 2014; VAWA, 2013). This push has led to a positive outcome such as a decline in victimization rates (Modi et al., 2014). However prevalence rates still remain high. Developing successful strategies will entail collaboration with researchers, victim advocates, and policy makers to conduct extensive research that can improve victim –centered programs that recognize the unique needs of women and how these differences can be reflected in policy and training. Such strategies should be grounded in the principles of strengths based policy making processes that seek to enhance the strengths and resources of individuals' environments to help them better achieve their goals (Saleeby, 2006). For example, a section of VAWA might address goals related to assessing the context under which IPV occurs by taking into consideration factors such as the ones addressed in this dissertation. Such components can be developed by conducting community based participatory research with diverse populations; where women shape their own reality of experience with IPV and what empowerment means to them. Findings from such studies may be used to create programs and interventions at all levels (macro, mezzo and micro) that align with women needs.

Implications for Social Work Education

In their study that examined social work students' perspective on domestic violence Black, Weisz, and Bennet (2010) found that only a small percentage of MSW students were aware of specific interventions for domestic violence. In fact, most of them continued to attribute

domestic violence to mental health and substance abuse problems. This study, therefore, provides useful information to such future social workers.

First, it provides information that can help social work students understand the complex relationship between IPV and mental health symptoms and that IPV is not the singular problem, but other problems arise as well, such as mental health problems, victims' needs and lack of resources. An important aspect that would be added to social work education is the co-occurrence of IPV and mental health and how the occurrence of IPV increases based on victim needs. Also, as a phenomena that is prevalent in every society, it is the responsibility of social work academic educators to ensure that students are well equipped to understand the complexity of the problem and how they can facilitate resources for the victims. Stemming from the findings of this dissertation, a key component of evidence informed practice for victims of IPV would be added to the social work curriculum or class syllabus. With such information, students are able to use research based knowledge to create interventions tailored for IPV with diverse population such as the sample in this study, so as to implement appropriate services for the welfare of women experiencing IPV.

Second, the study provides information for students working with diverse populations of victims of IPV such as women, ethnic minorities and older adults. Furthermore, the ethnic diversity in this sample calls for more training and integration of cultural competence tools in working with clients who are victims of IPV. Students need to go beyond the stereotypes associated with IPV such as use of alcohol, financial strain, and anger management issues (Worden & Carlson, 2005) to a better understanding of more complex issues such victim's risk and protective factors, victim needs as well as power and control dynamics in a relationship. In

addition, the findings emphasize on the importance of teaching students to utilize multidimensional approach while conducting assessments and interventions with victims of abuse. Social work educators should include IPV examples and scenarios when teaching practice, policy, and research since all students will face IPV in all settings in which they work.

Findings from the study suggest that students specializing in different areas of direct practice or focusing on the development of policies and programs might design interventions to assist victims of IPV, in collaboration with community agencies and police departments. For example, they might suggest interventions that can promote a supportive social support network or design assessments that capture the innate strengths of women and how they can be enhanced to help them cope with violence. However, students need to be aware that the development of programming, needs to consider variation in the needs of women seeking help from a police station compared to women seeking help from shelters or other samples. Students may also participate in evaluating such interventions to determine their impact on mental health well-being.

Conclusion

IPV has major impacts on women mental health that have the potential to persist over the life course. Moreover, for women seeking help from the police, the mental health problems appear to be more compared to other samples of women experiencing IPV. Specifically women who have experienced sexual and multiple forms of violence are likely to even report more mental health symptoms. Studies of IPV in the US have relied on samples of women in shelters, community samples, primary healthcare, mental health settings, court systems or samples of men

in batterer intervention programs (Dillon et al., 2013; Goodman et al., 2005). We still know less about experiences with IPV among women reporting at police stations. The findings from this dissertation, therefore, provide a new perspective on the impact of IPV on the mental health well-being for this group of women. Specifically, the findings reveal the complexity of this relationship by examining demographic risk factors, victim referral needs and buffering effects of protective factors of social support, coping strategies, and economic resources.

These findings open a fertile field for future research in prevention and intervention programs specifically focusing access to resources that are available in a woman's context (especially within police stations) and harnessing those resources to improve their mental health well-being. Prevention and interventions efforts should move beyond the pathological perspective of mental health symptoms to embracing the overlap of different factors that are interrelated so as to offer more services to victims most at risk of developing long-term mental health consequences.

Appendix A

Repeat Domestic Violence Victim Assessment

1**. Victim's Name**: ___DOB:__Race: Sex:_____

2. Address: _____

3. Beat:_____Sector:____District:_____

4. Phone: _____Alternate Phone:_____

5. SSN:_____Email:_____

6. Employer:_____Work Phone:_____

7**. Suspect Name/DOB:_____Relationship**:____ _____

8. Length of relationship: _____Relationship ended? □ Yes □ No If yes, Date:

9**. Current suspect location:**_____

10. □ **Probation** □ **Parole Parole/probation officer &county: _____**

11. **Suspect substance abuse history: _____**

12**. Does victim reside w/ suspect? _____**

13**. Does suspect know where victim lives?** □ Yes □No

14. **Does victim plan on leaving suspect? __**□Yes □No

15. **Does victim have a home or work address for suspect?** □ Yes □ No

16**. Does victim depend on suspect for financial support?** □ Yes □ No

17**.Has the victim already initiated a divorce (if applicable**)? □ Yes □ No □ **N/A**

18**. Has PO?** □ Yes □ No Type: □EPO □ Temp Ex Parte □ Final PO Date PO Expires:_____

19**. Does the victim have pending charges with the Tarrant County DA?** □ Yes □ No

20**. Abuse/Contact History:**

Reports, 911 Calls For Service (include agency if not APD)

Abuse History not reported to law enforcement –

Abuse History with another suspect – Name: _____ Dates/Nature of relationship

21**. VICTIM COOPERATION-**

Summary victim follow through in past incidents –

Barriers to cooperation (past and present) –

Children: Names/ages:

Children also suspect's children? □□Yes □ No □ Not all are suspect's

Where are children now?

Children witness violence?□□Yes □ No **Children victims or at risk?** □ Yes □ No

CPS Involved? □Current □ Past □Never **CPS report needed?** □ Yes □ No

Current Caseworker name & #:_____

If CPS report made- report #_____

Assessment conducted on (date) **_____ on scene _ __ in office _____ phone _ ___**

22. **CVC requested** □yes □no If approved, Claim manager/ph: Claim #:_____

23**. MHMR CLIENT? _ __VICTIM _ _ SUSPECT**

24**. SUBSTANCE ABUSE ISSUES? _ __ VICTIM _ _ SUSPECT**

25**. OTHER MEDICAL ISSUES? _ __VICTIM _ _ SUSPECT**

26**. IS THE VICTIM SUICIDAL ?** □ YES □ NO **PAST ATTEMPTS?** □ YES □ NO

27**. RECENT THOUGHTS OF SELF HARM**? □ Yes □ No **PAST THOUGHTS OF SELF HARM**? □ Yes □No

Notes:

28**. History of exposure to family violence as a child: ___VICTIM ___ SUSPECT**

29**. Victim Needs?** (check identified needs, circle those you addressed)

□ Case Status	□ Food Bank	□ Coping Skills
	□ Food Stamps	
	□ MHMR	
□ Financial / TANF	□ CVC	□ Safety Plan
□ Housing	□ PO	□ VINE
□ SSI/ SSDI	□ CPS/APS	□ CV Rights
□ Transportation		
	□ Legal	□ Parenting/YFS
		□ Substance abuse/ prevention services
□ Medical/ JPS Connection	□ Child Care/CCMS	□ Employment assistance
□ Emergency Shelter	□ Future Reporting	□ Other:
□ Counseling	□ Crisis Reaction Assist	

Notes:

30**. Victim Resources/Strengths:**

□ Employed	□ Receiving financial assistance	□ Willing to ask for help
□ Has vehicle		□ Courage
□ Stable housing situation	(food stamps, SNAP, Medicaid,	□ Problem solving skills
□ Supportive family		□ Survived past trauma
	housing)	
□ Supportive friends/neighbors		□ Other
□ Supportive boss	□ + Work history/skills/training	
□ Has attorney	□ +coping skills in past	
□ Insurance	□ Education	
	□ Concerned Parent	

31. **CRISIS/TRAUMA RELATED SYMPTOMS**

□ **Sleep affected**
□ **Appetite affected**
□ **Difficulty concentrating**
□ **Irritability**
□ **Isolating**
□ **Inability to return to normal activities**
□ **Avoiding thinking about it**
□ **Anxiety/Panic attacks**
□ **Avoiding activities**
□ **Numbness (psychological/emotional)**
□ **More emotional/crying**
□ **Intrusive thoughts/dreams**
□ **Other**

32. **RISK ASSESSMENT:** -

□ Past Violence

□ Access to Weapons

□ Threats of Homicide

□ Use of Weapons/Threats of Use of Weapons

□ Suicidal Threats
□ Suicide Attempts
□ History of Mental Illness

□ History of Serious Injury
□ Increased Frequency and/or Severity

□ Substance Abuse

□ Abuse Under the Influence
□ Public Violence
□ Strangulation
□ Violence Toward Children
□ Victim is Pregnant
□ Suspect Isolation/Emotional Dependence
□ Jealousy/Possessiveness
□ Violence Associated with Victim Leaving
□ Victim Has Recently Left the Suspect

□ Forced Sex
□ Previous Law Enforcement

□ Recent Job Loss/Chronic Unemployment
□ Violence Toward Pets
_____ # of boxes checked

33. ISSUES FOR FOLLOW UP CONTACT:

X Assess ongoing/identify emerging needs

X Assess continued risk

X Assess victim follow up with action plan

X Re-contact with new/developing information

X Re-contact with case information

X Provide answers to questions that were not available/answered in the initial contact

□ Research new resources

Staffing dates/Staffing Attended By:

_____

NOTES:

Follow up Notes:

Date of Follow Up Contact: _____ Counselor: _____

Follow up Notes:

Date of Follow Up Contact: _____ Counselor: _____

Follow up Notes:

Date of Follow Up Contact: _____ Counselor: _____

Follow up Notes:

Appendix B

Institutional Review Board Research Approval Letter

UNIVERSITY OF TEXAS ARLINGTON | OFFICE OF RESEARCH ADMINISTRATION
REGULATORY SERVICES

February 26, 2016

Cecelia Mengo
Dr. Beverly Black
School of Social Work
University of Texas at Arlington

IRB Approval Inquiry

Ms. Mengo,

Thank you for contacting the Office of Research Administration; Regulatory Services regarding a study to be conducted using secondary case file data that are publically available through the Victim Assistance Unit at Arlington Police Department. Upon reviewing the procedures involved with the study, it appears they would not meet the definition of, "research with human subjects" as defined by the Office for Human Research Protections (OHRP) and would therefore not be subject to review or approval by the Institutional Review Board (IRB) at UT Arlington. OHRP defines research as:

- A systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge. A human subject in research is defined as, "A living individual about whom an investigator conducting research obtains data through intervention or interaction with the individual, or identifiable private information."

From the description of procedures provided, it appears that the existing dataset to be used for your analysis from the Victim Assistance Unit at Arlington Police Department is publicly available. Since you will not be intervening nor interacting with any human subjects due to the exclusive use of pre-existing data, and the dataset itself contains no identifiable private information about specific individuals, your study does not meet the above definition and is not subject to IRB review. However, you are responsible for ensuring that your project is still conducted within any legal and ethical guidelines specific to your department and your field.

I have included the link for decision charts provided from OHRP from which this determination is made for your reference. If the procedures that have been outlined and provided to our office change such that IRB approval might be necessary or you have any questions regarding this determination please do not hesitate to contact me at astearns@uta.edu .

Thank You,

Digitally signed by Alyson Stearns
DN: cn=Alyson Stearns, o=The University of Texas at Arlington, ou=Regulatory Services, email=astearns@uta.edu, c=US
Date: 2016.02.26 11:19:38 -06'00'

Alyson Stearns
Regulatory Services Specialist
Office of Research Administration;
Regulatory Services

OHRP reference: http://www.hhs.gov/ohrp/policy/checklists/decisioncharts.html

Appendix C

Letter From Victim Services Program Coordinator

04-0350
Victim Services
Arlington Police Department
620 W. Division
P.O. Box 1065
Arlington, TX 76004-1065
Phone 817-459-5339/5340

February 22, 2016

To

The Institutional Research Review Board
University of Texas at Arlington.

Victim Services Program

Re. Intimate Partner Violence and its impact on mental health symptoms for women seeking help from Arlington city police department.

Studies document that prevalence of intimate partner violence (IPV) is the highest among women in the United States. IPV has been established as having a significant negative effect on women's physical, emotional, mental, sexual and reproductive health .In order for the victim assistance program to better serve victims of violence, we need to understand the impact of violence on women's mental health. Thus, the Victim Assistance Program very much supports Cecilia Mengo's research on the impact of IPV on a victim mental health. Cecilia is a doctoral candidate in the School of Social Work who is being supervised by Dr. Beverly Black, a national expert on dating violence and sexual assault prevention. In an effort to conduct this important research, I approve of Ms. Mengo's review of our department case files. Because of the nature of these files, they are maintained in our office, with secure and limited access. In addition, as the Victim Services Coordinator, I do not hold privileged confidentiality with victims and I make a point to inform victims that the information they provide and that I collect may be shared with others. It is not in our practice for women to sign an informed consent form for release of information. I will monitor Ms. Mengo's access to the files and have approved her extracting relevant information from the files and creating a data base with de-identified case numbers. The files and data base will be maintained in our office. This study is crucial in providing information that can help better address IPV and its impact on women mental health. The results of the study will provide a framework for creating interventions that will enhance the prevention and protection of women from IPV. We are excited about this innovative project and we will offer the necessary support.

Sincerely,

Derrelynn Perryman, LCSW
Victim Services Coordinator
Arlington Police Department

Appendix D

Data Coding Sheet of Selected Variables from RDVVA

Variable Name	Question Number	Measures	Coded
Age	1	Age	Continuous
Race/Ethnicity	2	-European American -Black/African American -Hispanic/Latino -Others	Categorical (1,2,3,4)
Marital Status	7	-Married -Divorced/Separated -Single	Categorical (1,2,3)
Financial dependence	16	Does victim depend on suspect for financial support?	Binary (0/1)
IPV	20	-Physical -Sexual -Psychological/Stalking -Combined	Categorical (1,2,3,4)
Victim Needs	29	-Case Status -Financial/TANF -Housing -SSI/SSDI -Transportation -Medical/JPS Connection -Emergency shelter -Counseling -Food bank -Food stamps -MHMR -CVC -PO -CPS/APS -Legal -Child Care/CCMS -Future reporting -Crisis reaction -Coping skills -Safety plan -VINE -CV rights -Parenting -Substance abuse/prevention services -Employment assistance -Other	Binary (0/1)
Victim Resources/ Strengths Social support	30	-Supportive family -Supportive friends/neighbors -Supportive boss -Concerned parent	Binary (0/1)
Coping skills		- Coping skills in the past -Willing to ask for help -Courage -Problem solving skills -Survived past trauma	Binary (0/1)

Economic resources		-Employed -Has a vehicle -Stable housing situation -Has attorney -Insurance -Receiving financial assistance (food stamps, SNAP, medicaid -Work history/skills/training -Education	Binary (0/1)
Self-reported mental health symptoms	31	-Sleep affected -Appetite affected -Difficulty concentrating -Irritability -Isolating -Inability to return to normal activities -Avoiding thinking about it -Anxiety/panic attacks -Avoiding activities -Numbness -More emotional crying -Intrusive thoughts/dreams -Other	Binary (0/1)

References

Abramsky, T., Watts, C. H., Garcia-Moreno, C., Devries, K., Kiss, L., Ellsberg, M., Heise, L. (2011). What factors are associated with recent intimate partner violence?. Findings from the WHO multi-country study on women's health and domestic violence. BMC Public Health, *11*(1), 109-109. doi:10.1186/1471-2458-11-109.

Abu-Bader, S. H. (2010). *Advanced and multivariate statistical methods for social science research with a complete SPSS guide*.

Ackerman, J., & Love, T. P. (2014). Ethnic group differences in police notification about intimate partner violence. *Violence against Women*, *20*(2), 162–85. http://doi.org/10.1177/1077801214521327

Ackerson, L. K., Kawachi, I., Barbeau, E. M., & Subramanian, S. V. (2008). Effects of individual and proximate educational context on intimate partner violence: A population-based study of women in india. *American Journal of Public Health*, *98*(3), 507-514. doi:10.2105/AJPH.2007.113738

Adams, A. E., Sullivan, C. M., Bybee, D., & Greeson, M. R. (2008). Development of the Scale of Economic Abuse. *Violence Against Women*, *14*(5), 563.

Adams, A., Bybee, D., Tolman, R., Sullivan, C., & Kennedy, A. (2013). Does job stability mediate the relationship between intimate partner violence and mental health among low-income women? *American Journal of Orthopsychiatry*, *83*, 600–608.

Adams, R. (2008). *Empowerment, participation and social work (4th ed.).* New York: Palgrave Macmillan.

Amanor-Boadu, Y., Messing, J. T., Stith, S. M., Anderson, J. R., O'Sullivan, C. S., & Campbell, J. C. (2012). Immigrant and nonimmigrant women: Factors that predict leaving an abusive relationship. *Violence Against Women, 18*(5), 611-633. doi:10.1177/1077801212453139

Babcock, J. C., Roseman, A., Green, C. E., & Ross, J. M. (2008). Intimate partner abuse and PTSD symptomology: Examining mediators and moderators of the abuse-trauma link. *Journal of Family Psychology, 22*(6), 809-818. doi:10.1037/a0013808.

Baron, R.M., & Kenny, D.A. (1986). The moderator-mediator variable distinction in psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*(6), 1173-1182.

Basile, K.C., & Smith, S.G. (2011). Sexual violence victimization of women: Prevalence, characteristics, and the role of public health and prevention. *American Journal of Lifestyle Medicine, 5*, 407−417.

Bauman, E.M., Haaga, D.A.F., Kaltman, S., & Dutton, M.A. (2012). Measuring social support in battered women: Factor structure of the Interpersonal Support Evaluation List (ISEL). *Violence Against Women, 18*(1), 30-43.

Beeble, M. L., Bybee, D., Sullivan, C. M., & Adams, A. E. (2009). Main, mediating, and moderating effects of social support on the well-being of survivors of intimate partner

violence across 2 years. *Journal of Consulting and Clinical Psychology*, 77(4), 718-729. doi:10.1037/a0016140.

Bell, M. E., & Goodman, L. (2001). Supporting battered women involved with the court system: An evaluation of a law-based advocacy intervention. *Violence Against Women*, *7*(12), 1377-1404

Benson, M.L., & Fox, G.L. (2004). *When violence hits home: How economics and neighborhood play a role.* Washington, DC: U.S. Department of Justice, National Institute of Justice.

Bhaumik, M. (1988). A study of wife abuse in two cultures: The American and the Asian American. Unpublished doctoral dissertation, University of Southern California, Los Angeles

Black, M. C., Basile, K. C., Breiding, M. J., Smith, S. G., Walters, M. L., Merrick, M. T., Stevens, M. R. (2011). The National Intimate Partner and Sexual Violence Survey (NISVS): 2010 Summary Report. Atlanta, GA: National Center for Injury Prevention and Control, Centers for Disease Control and Prevention.

Black, B., Weisz, A., & Bennett, L. (2010). Graduating social work students' perspectives on domestic violence. *Affilia-Journal of Women and Social Work, 25*(2), 173-184. doi:10.1177/0886109910364824

Bonomi, A. E., Thompson, R. S., Anderson, M., Reid, R. J., Carrell, D., Dimer, J. A. et al. (2006). Intimate Partner Violence and Women's Physical, Mental, and Social Functioning. *American Journal of Preventive Medicine, 30*(6), 458- 466. doi: http://dx.doi.org/10.1016/j.amepre.2006.01.015

Breiding, M. J., Chen, J., Black, M.C. (2010). Intimate partner violence in the United States—2010. Atlanta, GA: US Department of Health and Human Services, CDC, National Center for Injury Prevention and Control.

Browne, A., & Bassuk, S. S. (1997). Intimate violence in the lives of homeless and poor housed women: Prevalence and patterns in an ethnically diverse sample. *American Journal of Orthopsychiatry, 67*, 261-278. doi:10.1037/h0080230

Brush, L. D. (2000). Battering, traumatic stress, and welfare-to-work transition. *Violence Against Women, 6*, 1039–1065. doi:10.1177/10778010022183514.

Bureau of Justice Statistics. (2005). Crime victimization in the United States, 2005 Statistical Tables. Bureau of Justice Statistics, U.S. Department of Justice. Washington D.C.U.S. Government Printing Press (NCJ 215244).

Burgess, A. W., & Holmstrom, L. L. (1979). *Rape: Crisis and recovery*. Bowie, MD: Brady Publishing.

Burstow, B. (1992). *Radical feminist therapy. Working in the context of violence*. Newbury Park, CA: Sage Publications.

Butt, M. R., & Katz, B. L. (1988). Coping strategies and recovery from rape. *Annals of the New York Academy of Sciences, 528*, 345-358.

Bybee, D.I., & Sullivan, C.M. (2002). The process through which an advocacy intervention resulted in positive change for battered women over time. *American Journal of Community Psychology*, *30*(1), 103-132.dx.doi.org/10.1023/A:1014376202459

Bybee, D.I., & Sullivan, C.M. (2005). Predicting re-victimization of battered women 3 years after exiting s shelter program. *American Journal of Community Psychology, 36*(1-2), 85-96.

Calvete, E., Corral, S., & Estévez, A. (2015). Coping as a mediator and moderator between intimate partner violence and symptoms of anxiety and depression. *Violence Against Women, 14*(8), 886-904. doi:10.1177/1077801208320907

Canady, B. E., & Babcock, J. C. (2009). The protective functions of social support and coping for women experiencing intimate partner abuse. *Journal of Aggression, Maltreatment, & Trauma, 18,* 443-458. doi:10.1080/10926770903051009.

Campbell, J., Garcia-Moreno, C., & Sharps, P. (2004). Abuse during pregnancy in industrialized and developing countries. *Violence Against Women, 10* (7), 770-789. doi:10.1177/1077201204265551

Campbell, R., & Raja, S. (2005). The sexual assault and secondary victimization of female veterans: Help-seeking experiences in military and civilian social systems. *Psychology of Women Quarterly, 29*(6), 97–106.

Campbell, J.C. (2002). Health consequences of intimate partner violence. *Lancet 359* (9314): 1331-1336.

Capaldi, D. M., Knoble, N. B., Shortt, J. W., & Kim, H. K. (2012). A systematic review of risk factors for intimate partner violence. *Partner Abuse*, *3*(2), 231-280. doi:10.1891/1946-6560.3.2.231.

Carlson, B. E., McNutt, L., Choi, D. Y., & Rose, I. M. (2002). Intimate partner abuse and mental health: The role of social support and other protective factors. *Violence Against Women. Special Issue: Health Care and Domestic Violence*, *8*(6), 720– 745. doi:10.1177/10778010222183251.

Catalano, S. (2008). Intimate partner violence in the United States. Washington, DC: U.S. Department of Justice.

Cattaneo, L. B., & Goodman, L. A. (2015). What Is Empowerment Anyway? A Model for Domestic Violence Practice, Research, and Evaluation. *Psychology of Violence*, *5*(1), 84–94. http://doi.org/10.1037/a0035137

Cattaneo, L. B., & Chapman, A. R. (2010). The process of empowerment: A model for use in research and practice. *American Psychologist, 65*(7), 646–659. doi:10.1037/a0018854

Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology*, *56*, 267–283. http://dx.doi.org/ 10.1037/0022-3514.56.2.267

Centers for Disease Control and Prevention. (2014). *Intimate Partner Violence: an Overview*. Retrieved February 15, 2015, from http://0-www.cdc.gov.milll.sjlibrary.org/ncipc/factsheets/ipvfacts.htm.

Centers for Disease Control and Prevention. (2012). Promoting respectful, nonviolent intimate partner relationships through individual, community and societal change: Strategic direction for intimate partner violence prevention. Atlanta, GA.

Centers for Disease Control and Prevention. (2011). *Intimate Partner Violence: an Overview*. Retrieved April 15, 2014, from http://0-www.cdc.gov.milll.sjlibrary.org/ncipc/factsheets/ipvfacts.htm.

Centers for Disease Control and Prevention. (2008). National Violent Death Reporting System (NVDRS) coding manual revised [Online]. National Center for Injury Prevention and Control, Centers for Disease Control and Prevention (producer). Available from URL: www.cdc.gov/injury.

Certain, H., Mueller, M., Jagodzinski, T., & Fleming, M. (2007). Domestic abuse during the previous year in a sample of postpartum women. *Journal Obstet Gynecol Neonatal Nursing*, *37,* 35–41.

Cerulli, C., Talbot, N. L., Tang, W., & Chaudron, L. H. (2011). Co-occurring intimate partner violence and mental health diagnoses in prenatal women. *Journal of Women's Health 20*(12), 1797-1803. doi:10.1089/jwh.2010.2201.

Cheng, T., & Lo, C. (2015). Racial disparities in intimate partner violence and in seeking help with mental health. *Journal of Interpersonal Violence, 30*(18), 3283-3307. doi:10.1177/0886260514555011.

Cheng, T.C. (2012). Intimate partner violence and welfare participation: A longitudinal causal analysis. *Journal of Interpersonal Violence, 28*(4), 808-830. doi:10.1177/0886260512455863.

Chestang, L. (1976). Environmental influences on social functioning: The Black experience. In P. Cafferty & L. Chestang (Eds.), The diverse society (pp. 59-74). Washington, DC: National Association of Social Workers.

Cho, H. (2012). Racial Differences in the Prevalence of Intimate Partner Violence Against Women and Associated Factors. *Journal of Interpersonal Violence, 27*(2), 344–363. http://doi.org/10.1177/0886260511416469

Cho, H., & Wilke, D. J. (2010). Does police intervention in intimate partner violence work? estimating the impact of batterer arrest in reducing revictimization. *Advances in Social Work, 11*(2), 283-302.

Christens, B. D. (2012). Toward Relational Empowerment. *American Journal of Community Psychology*, *50*(1-2), 114–128. http://doi.org/10.1007/s10464-011-9483-5

Cohen & Cohen, P. (2010). Applied multiple regression/correlation analysis for the behavioral sciences (2th ed.). New Jersey: Lawrence Erlbaum Associates, Inc., Publishers.

Cohen, S., & Wills, T. A. (1985). Stress, Social Support, and the Buffering Hypothesis. *Psychologkal Bulletin Cassel*, *98*(31).

Cohen J. (1988). *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Cohen, S., & Hoberman, H. (1983). Positive events and social supports as buffers of life change stress. *Journal of Applied Social Psychology*, *13*, 99–125. http://doi.org/10.1111/j.1559-1816.1983.tb02325.x

Coker, A. L., Smith, P. H., Thompson, M. P., McKeown, R. E., Bethea, L., & Davis, K. E. (2002). Social support protects against the negative effects of partner violence on mental health. *Journal of Women's Health and Gender-Based Medicine, 11*(5), 465-476. doi:http://dx.doi.org/10.1089/15246090260137644.

Coker, A. L., Weston, R., Creson, D. L., Justice, B., & Blakeney, P. (2005). PTSD symptoms among men and women survivors of intimate partner violence: The role of risk and protective factors. *Violence and Victims, 20*(6), 625-643. doi.org/10.1891/vivi.20.6.625

Constantino, R., Kim, Y., & Crane, P.A. (2005). Effects of a social support intervention on health outcomes in residents of a domestic violence shelter: A pilot study. *Issues in Mental Health Nursing, 26*, 575-590.

Corcoran, J., & Allen, S. (2005). The effects of a police/victim assistance crisis team approach to domestic violence. *Journal of Family Violence, 20*(1), 39-45.

Corrigan, P.W. (2006). Impact of Consumer-Operated Services on Empowerment and Recovery of People with Psychiatric Disabilities. *Psychiatric Services*. *15*(10):1493–1496

Cowger, C. (1994) Assessing client strengths: Clinical assessment for client empowerment, *Social Work*, 39, 262–268

Cox, D. R., & Pawar, M. S. (2006). *International social work: issues, strategies, and programs*. Thousand Oaks, Calif.: SAGE Publications.

Cui, M., Durtschi, J. A., Donnellan, M. B., Lorenz, F. O., & Conger, R. D. (2010). Intergenerational transmission of relationship aggression: A prospective longitudinal study. *Journal of Family Psychology, 24*(6), 688-697. doi:10.1037/a0021675

Dahl, R. A. (1957). The concept of power. *Behavioral Science*, *2*(3), 201.

Dalal, K. (2011). Does economic empowerment protect women from intimate partner violence? *Journal of Injury & Violence Research*, *3*, 35-44. doi:10.5249/jivr.v3i1.76.

Davies, J. M., Lyon, E., & Monti-Catania, D. (1998). *Safety planning with battered women: Complex lives/difficult choices.* Thousand Oaks, CA: Sage.

DeLongis, A., & Holtzman, S. (2005). Coping in context: The role of stress, social support, and personality in coping. *Journal of Personality*, *73*(6), 1633–1656. http://doi.org/10.1111/j.1467-6494.2005.00361.x

DeLongis, A., Hemphill, K. J., & Lehman, D. R. (1992). A structured diary methodology for the study of daily events. In F. B. Bryant, J. Edwards, L. Heath, E. J. Prosanac, & R. S. Tindale (Eds.), *Methodological issues in applied social psychology* (pp. 83–108). New York: Plenum Press.

Department of Justice, Bureau of Justice Statistics (2012). Intimate Partner Violence [online]. [cited 2011 Jan 07]. Available from URL: http://bjs.ojp.usdoj.gov/index.cfm?ty=tp&tid=971#summary.

Dekeseredy, W. S. (1990). Woman Abuse in Dating Relationships : The Contribution of Male Peer Support. *Sociological Inquiry*, *60*(1) 236-243.

DePrince, A. P., Belknap, J., Labus, J. S., Buckingham, S. E., & Gover, A.R. (2012). The impact of victim-focused outreach on criminal legal system outcomes following police reported intimate partner abuse. *Violence Against Women, 18*(8), 861–881. http:// dx.doi.org/10.1177/1077801212456523.

Devries, K., J. Mak, L., Bacchus, J., Child, G. Falder et al. (2013). Intimate partner violence and incident depressive symptoms and suicide attempts: A systematic review of longitudinal studies, *PLoS Med 10* (5): a 1001439. Doi:10.1371/journal.pmed.1001439

Dichter, M. E., & Gelles, R. J. (2012). Women's Perceptions of Safety and Risk Following Police Intervention for Intimate Partner Violence. *Violence Against Women*, *18*(1), 44–63. doi.org/10.1177/1077801212437016

Dichter, M. E. (2009). Safety risks and service needs among women who have experienced police intervention for intimate partner violence. *ProQuest Dissertations and Theses*, 4048. Retrievedfrom:http://search.proquest.com/docview/304979625?accountid=14553\n

Diener, E., & Fujita, F. (1995). Resources, personal strivings, and subjective well-being: A nomothetic and idiographic approach. *Journal of Personality and Social Psychology, 68*(5), 926-935.

Dillon, G., Hussain, R., Loxton, D., & Rahman, S. (2013). Mental and physical health and intimate partner violence against women: A review of the literature. *International Journal of Family Medicine, 2013*, 313909-15. doi:10.1155/2013/313909

Dugan, L., Nagin, D., & Rosenfeld, R. (2003). Exposure reduction or retaliation? The effects of domestic violence resources on intimate partner homicide. *Law and Society Review*, *37*(1) 169-198.

Dutton, D. G. (2006). *Rethinking domestic violence*. Vancouver: UCB Press.

Dutton, D. G., & Corvo, K. (2006). Transforming a flawed policy: A call to revive psychology and science in domestic violence research and practice. *Aggression and Violent Behavior, 11*(5), 457−483. doi:10.1016/j.avb.2006.01.007.

Dutton, M. A., & Goodman, L. A. (2005). Coercion in intimate partner violence: Toward a new conceptualization. *Sex Roles, 52*(11), 743-756. doi:10.1007/s11199-005-4196-6.

Dutton, M.A. (1992). *Empowering and healing the battered woman*. Springer publishing company, New york.

Eby, K. (2004). Exploring the stressors of low-income women with abusive partners: Understanding their needs and developing effective community responses. *Journal of Family Violence, 19*, 221-232

Edwards, V., Black, M., Dhingra, S., McKnight-Eily, L., & Perry, G. (2009). Physical and sexual intimate partner violence and reported serious psychological distress in the 2007 BRFSS. *International Journal of Public Health, 54*(S1), 37-42. doi:10.1007/s00038-009-0005-2

Eisenman, D. P., Richardson, E., Sumner, L. A., Ahmed, S. R., Liu, H., Valentine, J., & Rodriguez, M. A. (2009). Intimate Partner Violence and Community Service Needs among Pregnant and Post-partum Latina Women. *Violence and Victims*, *24*(1), 111–121.

Ellsberg, M., Jansen, H. A., Heise, L., Watts, C. H., Garcia-Moreno, C., & WHO Multi-country Study on Women's Health and Domestic Violence against Women Study Team. (2008). Intimate partner violence and women's physical and mental health in the WHO multi-country study on women's health and domestic violence: An observational study. *The Lancet*, *371*(9619), 1165-1172. doi:10.1016/S0140-6736(08)60522-X.

Fairchild, A.J., & MacKinnon, D.P. (2009). A general model for testing mediation and moderation effects. *Prevention Science, 10, 87-99.*

Ferreira, C., & Matos, M. (2013). Post-relationship stalking: The experience of victims with and without history of partner abuse. *Journal of Family Violence, 28*(4), 393-402. doi:10.1007/s10896-013-9501-5.

Folkman, S., & Lazarus, R. (1988). Coping as a mediator of emotion. *Journal of Personality and Social Psychology,* 54, 466-475.

Ford-Gilboe, M., Varcoe, C., Noh, M., Wuest, J., Hammerton, J., Alhalal, E., & Burnett, C. (2015). Patterns and predictors of service use among women who have separated from an abusive partner. *Journal of Family Violence, 30*(4), 419–431. doi.org/10.1007/s10896-015-9688-8

Foster, E. L., Becho, J., Burge, S. K., Talamantes, M. A., Ferrer, R. L., Wood, R. C., … Hospital, A. L. M. V. A. (2015). Families, Systems, & Health Coping With Intimate Partner Violence : Qualitative Abuse Coping With Intimate Partner Violence : Qualitative Findings From the Study of Dynamics of Husband to Wife Abuse.

Foster-Fishman, P. G., Salem, D. A., Chibnall, S., Legler, R., & Yapchai, C. (1998). Empirical support for the critical assumptions of empowerment theory. *American Journal of Community Psychology*, *26*(4), 507–536. doi.org/10.1023/a:1022188805083

Fowler, D. N., & Hill, H. M. (2004). Social support and spirituality as culturally relevant factors in coping among African American women survivors of partner abuse. *Violence Against Women, 10*(11), 1267-1282. doi:10.1177/1077801204269001

Fox, J. & Zawitz, M. (2007). Homicide Trends in the United States. Washington, DC: US Department of Justice, Bureau of Justice Statistics.

Field, C. A., & Caetano, R. (2005). Intimate partner violence in the U.S. general population: Progress and future directions. *Journal of Interpersonal Violence, 20*(4), 463-469. doi:10.1177/0886260504267757.

Fine, M. (1982). When non-victims derogate: Powerlessness in the helping professions. *Personality and Social Psychology Bulletin, 8*, 637-643.

Flake, D.F. (2005). Individual, family, and community risk markers for domestic violence in Peru. *Violence Against Women, 11*(3):353–373.

Fleury-Steiner, R. E., Bybee, D., Sullivan, C. M., Belknap, J., & Melton, H. C. (2006). Contextual factors impacting battered women's intentions to reuse the criminal legal system. *Journal of Community Psychology, 34*, 327-342.

Follingstad, D.R., Rutledge, L.L., Berg, B.J., Hause, E.S., & Polek, D.S. (1990). The role of emotional abuse in physically abusive relationships. *Journal of Family Violence, 1*, 37–49.

Friday, P.C., Lord, V.B., Exum, M.L, & Hartman, J. L. (2006). Evaluating the Impact of Domestic Violence Police Unit. Report No. 215916.

Fugate, M., Landis, L., Riordan, K., Naureckas, S., & Engel, B. (2005). Barriers to domestic violence help seeking: Implications for intervention. *Violence Against Women, 77*, 290-310.

Golding, J. M. (1999). Intimate partner violence as a risk factor for mental disorders: A Meta-analysis. *Journal of Family Violence, 14*, 99–130. doi:10.1023/A:1022079418229

Gonzalez-Guarda, R., Peragallo, N., Vasquez, E., Urrutia, M., & Mitrani, V. (2009). Intimate partner violence, depression, and resource availability among a community sample of Hispanic women. *Issues in Mental Health Nursing*, *30*(4), 227-236. doi:10.1080/01612840802701109.

Goodman, L. A., Smyth, K. F., Borges, A. M., & Singer, R. (2009). When crises collide: How intimate partner violence and poverty intersect to shape Women's mental health and coping? *Trauma, Violence, & Abuse*, *10*(4), 306-329. doi:10.1177/1524838009339754

Goodman, L., & Epstein, D. (2005). Refocusing on women: a new direction for policy and research on intimate partner violence. *Journal of Interpersonal Violence*, *20*(4), 479–487. doi.org/10.1177/0886260504267838

Goodman, L., Dutton, M. A., & Vankos, N. (2005). Women's resources and use of strategies as risk and protective factors for reabuse over time. *Violence Against Women*, *11*(3), 311-336. doi:10.1177/1077801204273297

Green, B. L., Miranda, J., & Daroowalla, A. (2005). Trauma exposure, mental health functioning, and program needs of women in jail. *Crime & Delinquency, 51*(1), 133-151. doi:10.1177/0011128704267477

Gottlieb, B. H. (1983). *Social support strategies.* Beverly Hills, CA: Sage.

Gutierrez, L. (1995). Understanding the empowerment process: does consciousness make a difference?. *Social Work Research, 19*(4), 229-237.

Guterman, N. B. (2004). Advancing prevention research on child abuse, youth violence, and domestic violence: Emerging strategies and issues. *Journal of Interpersonal Violence, 19*, 299-321.

Hair, J. F., Black, W.C., Babin, B.J., Anderson, R.E. (2010) Multivariate Data Analysis (Seventh Edition). Pearson Prentice Hall

Hamberger, L. (2005). Men's and women's use of intimate partner violence in clinical samples: Toward a gender-sensitive analysis. *Violence and Victims, 20*, 131-151.

Hartsock, N. (1981). Fundamental feminism: Prospect and perspective. In C. Bunch (Ed.). Building feminist theory (pp.22-43). New York: Longman.

Harwell, T. S., & Spence, M. R. (2000). Population surveillance for physical violence among adult men and women, Montana, 1998. *American Journal of Preventive Medicine, 19*, 321-324.

Heckhausen, J., & Schulz, R. (1995). A life-span theory of control. *Psychological Review, 102*, 284 –304.

Hegarty, K. (2006). What is intimate partner abuse and how common is it? In G. Roberts, K. Hegarty, & G. Feder (Eds.), Intimate partner abuse and health professionals: New approaches to domestic violence (pp. 19-40). London, UK: Elsevier

Helfrich, C. A., Fujiura, G. T., & Rutkowski-Kmitta, V. (2008). Mental health disorders and functioning of women in domestic violence shelters. *Journal of Interpersonal Violence, 23*(4), 437-453. doi:10.1177/0886260507312942.

Hepworth, D. (2010). Direct social work practice: Theory and skills (8th ed.). Belmont, Calif.: Brooks/Cole, Cengage Learning.

Hess, D. R. (2004). Retrospective studies and chart reviews. *Respiratory Care, 49*(10), 1171.

Hickman, L. J., Jaycox, L. H., & Aronoff, J. (2004). Dating violence among adolescents: Prevalence, gender distribution, and prevention program effectiveness. *Trauma, Violence, & Abuse, 5*, 123-142.

Hien, D., & Ruglass, L. (2009). Interpersonal partner violence and women in the United States: An overview of prevalence rates, psychiatric correlates and consequences and barriers to help seeking. *International Journal of Law and Psychiatry, 32*(1), 48-55. doi.org/10.1016/j.ijlp.2008.11.003

Hooks, B. (2000). *Feminism is for everybody*. Cambridge, MA: South End Press.

House, J. S. (1981). *Work stress and social support.* Reading, MA: Addison-Wesley.

Howell, D. C. (2007). Statistical methods for psychology (6th ed.). Belmont, CA: Thomson

Hovell, M. F., Seid, A. G., & Liles, S. (2006). Evaluation of a Police and Social Services Domestic Violence Program. *Violence against Women, 12*(2), 137–159.

Huang, C., Song, E., & Wang, L. (2010). Prevalence and factors of domestic violence among unmarried mothers with a young child. *Families in Society, 91*(2), 171-177. doi:10.1606/1044-3894.3978.

Hutchison, D.E. (2011). *Dimensions of Human Behavior*. Person and Environment (4th ed). Boston. Mass Pearson.

Hyman, S. M., Gold, S. N., & Cott, M. A. (2003). Forms of social support that moderate PTSD in childhood sexual abuse survivors. *Journal of Family Violence, 18*(5), 295-300. doi:10.1023/A:1025117311660

Jaccard, J., & Jacoby, J. (2010). *Theory construction and model-building skills: a practical guide for social scientists*. New York: Guilford Press.

Jansen, A. C. M., van Aalst-Cohen, E. S., Hutten, B. A., Buller, H. R., Kastelein, J. J. P. & Prins, M. H. (2005). Guidelines were developed for data collection from medical records for use in retrospective analyses. *Journal of Clinical Epidemiology, 58*, 268-274.

Jewkes, R. (2002). Intimate partner violence: Causes and prevention. *The Lancet, 359*(9315), 1423-1429. doi:10.1016/S0140-6736(02)08357-5

Jewkes, R. Sen, P. & Garcia-Moreno, C. (2002). Sexual violence. In: Krug EG et al., eds. World report on violence and health, pp. 149–181. Geneva, World Health Organization.

Johnson, D.M., & Zlotnick C. (2009). HOPE for battered women with PTSD in domestic violence shelters. *Professional Psychology, Research, and Practice*. *40*:234–241

Johnson, D. M., Worell, J., & Chandler, R. K. (2005). Assessing psychological health and empowerment in women: The personal progress scale revised. *Women & Health, 41,* 109–129. doi:10.1300/J013v41n01_07

Johnson, D. M., Zlotnick, C., & Perez, S. (2008). The relative contribution of abuse severity and PTSD severity on the psychiatric and social morbidity of battered women in shelters. *Behavior Therapy, 39*(3), 232-241. doi: http://dx.doi.org/10.1016/j.beth.2007.08.003

Jones, L.V., & Hodges, V.G. (2001). Enhancing psychosocial competence among black women: A psycho educational group model approach. *Social Work With Groups, 24*(3/4), 33-52.

Kabeer, (1998). "Resources, Agency, Achievements: Reflections on the Measurement of Women's Empowerment" *Development and Change 30*: 435-464.

Kalish, Y., & Robins, G. (2006). Psychological predispositions and network structure. *Social Networks, 28,* 56-84.

Kasturirangan, A. (2008). Empowerment and programs designed to address domestic violence. *Violence against Women, 14*(12), 1465–1475. doi.org/10.1177/1077801208325188

Katerndahl, D., Burge, S., Ferrer, R., Becho, J., & Wood, R. (2013). Differences in social network structure and support among women in violent relationships. *Journal of Interpersonal Violence, 28*(9), 1948-1964. doi:10.1177/0886260512469103.

Kato, T. (2013). Frequently used coping scales: A meta-analysis. Stress and Health. http://dx.doi.org/ 10.1002/smi.2557.

Kaukinen, C., & DeMaris, A. (2009). Sexual assault and current mental health: The role of help-seeking and police response. *Violence Against Women, 15*, 1331–1357.

Kaukinen, C. E. (2004). The help-seeking strategies of female violent-crime victims. *Journal of Interpersonal Violence, 19*, 967-990.

Kelly, K. A. (2003). *Domestic violence and the politics of privacy*. Ithaca, NY: Cornell University Press

Kelly, J. B., & Johnson, M. P. (2008). Differentiation among types of intimate partner violence: Research update and implications for interventions. *Family Court Review, 46*(3), 476–499.

Kernic, M., & Bonomi, A. E. (2007). Female victims of domestic violence: which victims do police refer to crisis intervention? *Violence and Victims, 22*(4), 463–473. doi.org/10.1891/088667007781553991

Kimerling, R., Alvarez, J., Pavao, J., Mack, K. P., Smith, M. W., & Baumrind, N. (2009). Unemployment among women: Examining the relationship of physical and psychological intimate partner violence and posttraumatic stress disorder. *Journal of Interpersonal Violence.24*: 450-463. doi:10.1177/0886260508317191.

Kim, H.K., Laurent, H.K., Capaldi, D.M., & Feingold, A. (2008). Men's aggression toward women: A 10-year panel study. *Journal of Marriage and Family,70* (5):1169–1187.

Kocot, T., & Goodman, L. (2003). The roles of coping and social support in battered women's mental health. *Violence Against Women, 9*(3): 323-346. doi:10.1177/1077801202250075

Kothari, C. L. (2014) The intersection of depression, partner violence and poverty during the Perinatal Period. *Dissertations.* Paper 252.

Krebs, C., Breiding, M. S., Browne, A., & Warner, T. (2011). The association between different types of intimate partner violence experienced by women. *Journal of Family Violence, 26*, 487-500. doi:10.1007/s/10896-011-9383-3

Kropp, P. R., Hart, S. D., Webster, C. D., & Eaves, D. (1999). *Spousal Assault Risk Assessment Guide (SARA)*. Toronto, Ontario, Canada: Multi-Health Systems.

Lacey, K. K., McPherson, M. D., Samuel, P. S., Powell, S. K., & Head, D. (2013). The impact of different types of intimate partner violence on the mental and physical health of women in different ethnic groups. *Journal of Interpersonal Violence*. *28*(2):359–385

Lampert, L.B. (1996). Women's strategies for survival: developing agency in abusive relationships. *Journal of Family Violence, 11*, 269-289.

Lanier, C., & Maume, M.O. (2009). Intimate partner violence and social isolation across the rural/urban divide. *Violence Against Women, 15*, 1311-1330

Lakey, B., & Cohen, S. (2000). Support theory and measurement. In S. Cohen, L. Underwood, & B. H. Gottlieb (Eds.), Social support measurement and interventions: A guide for health and social scientists (pp. 29–52). New York: Oxford University Press.

Lau, Y., & Chan, K. S. (2007). Influence of intimate partner violence during pregnancy and early postpartum depressive symptoms on breastfeeding among chinese women in Hong Kong. *Journal of Midwifery & Women's Health*, *52*(2), 15–20.

Lazarus, R. S., & Folkman, S. (1984) *Stress, appraisal, and coping*. New York: Springer.

Lee, J., Pomeroy, E. C., & Bohman, T. M. (2007). Intimate partner violence and psychological health in a sample of Asian and Caucasian women: The roles of social support and coping. *Journal of Family Violence*, *22*(8), 709–720. doi.org/10.1007/s10896-007-9119-6

Lee, M. Y. (2002). Understanding Chinese battered women in North America: A review of the literature and practice implications. *Journal of Multicultural Social Work*, 8, 215-241.

Lewis, M.A., McBride, C.M., Pollak, K.I., Puleo, E., Butterfield, R.M., Emmons, K. M. (2006) Understanding health behavior change among couples: An interdependence and communal coping approach. *Social Science & Medicine*. *62*:1369–1380.

Levendosky, A. A., Bogat, G. A., Theran, S. A., Trotter, J. S., von Eye, A., & Davidson, W. S. (2004). The social networks of women experiencing domestic violence. *American Journal of Community Psychology*, *34*(1-2), 95-109.

Liang, B., Goodman, L., Tummala-Narra, P., & Weintraub, S. (2005). A theoretical framework for understanding help-seeking processes among survivors of intimate partner violence. *American Journal of Community Psychology*, *36*, 71-84.

Linder, J.R., & Collins, W.A. (2005). Parent and peer predictors of physical aggression and conflict management in romantic relationships in early adulthood. *Journal of Family Psychology, 19*(2): 252-262.

Lilly, M. M., & Graham-Bermann, S. A. (2009). Ethnicity and risk for symptoms of posttraumatic stress following intimate partner violence: Prevalence and predictors in European American and African American women. *Journal of Interpersonal Violence, 24*, 3-19.

Lopez, M. L., & Cooper, L. (2011). Social support measures review: National Center for Latino Child & Family Research.

Lyon, E. (1997). Poverty, welfare, and battered women: What does the research tell us? Harrisburg, PA. National Resource Center on Domestic Violence.

McCloskey, L. A. (1996). Socioeconomic and coercive power. *Gender and Society, 10,*449-463. doi:10.1177/089124396010004006

Mechanic, M. B., Weaver, T. L., & Resick, P. A. (2008). Mental health consequences of intimate partner abuse: A multidimensional assessment of four different forms of abuse. *Violence Against Women*, *14*(6), 634-654. doi:10.1177/1077801208319283.

Menjivar, C., & Salcido, O. (2002). Immigrant women and domestic violence: Common experiences in different countries. *Gender & Society, 16*, 898-920.

Mertler, C. A., & Vannatta, R. A. (2010). *Advanced and multivariate statistical methods: Practical application and interpretation* (4th ed.). Los Angeles: Pyrczak

Miller, S. L., & Meloy, M. L. (2006). Women's use force: Voices of women arrested for domestic violence. *Violence Against Women, 12*, 89-115

Mitchell, C. & Anglin, D. (Eds.), (2009). Intimate partner violence: A health based perspective. New York: Oxford University Press

Mitchell, M. D., Hargrove, G. L., Collins, M. H., Thompson, M. P., Reddick, T. L., & Kaslow, N. J. (2006). Coping variables that mediate the relation between intimate partner violence and mental health outcomes among low-income, African American women. *Journal of Clinical Psychology*; *62*, 1503–1520. doi: 10.1002/jclp.20305

Moser, C O. (1993). *Gender Planning and Development: Theory, Practice and Training*, New York: Routledge.

Modi, M. N., Palmer, S., & Armstrong, A. (2014). The role of violence against women act in addressing intimate partner violence: A public health issue. *Journal of Womens Health, 23*(3), 253-259. doi:10.1089/jwh.2013.4387

Murray, C. E., & Graybeal, J. (2007). Methodological review of intimate partner violence prevention research. *Journal of Interpersonal Violence, 22*, 1250-1269.

Nathanson, A. M., Shorey, R. C., Tirone, V., & Rhatigan, D. L. (2012). The prevalence of mental health disorders in a community sample of female victims of intimate partner violence. *Partner Abuse, 3*(1), 59-75. doi:10.1891/1946-6560.3.1.59

Nichols, A. J. (2012). Survivor-Defined practices to mitigate revictimization of battered women in the protective order process. *Journal of Interpersonal Violence*, *28*(7), 1403–1423. http://doi.org/10.1177/0886260512468243

Nurius, P.S., Macy, R.J., Bhuyan, R., Holt, V.L., Kernic, M.A., & Rivara, F.P. (2003) Contextualizing depression and physical functioning in battered women: Adding vulnerability and resources to the analysis. *Journal of Interpersonal Violence*, *18, 1411–* 1431

Orford, J., & Dalton, S. (2005). A four year follow-up of close family members of Birmingham untreated heavy drinkers. *Addiction Research and Theory*, *13*, 155–170. doi: 10.1080/16066350500056029

Oxaal, Z., & Baden, S. (1997): *Gender and Empowerment: Definitions, Approaches and Implications for Policy* (Briefing prepared for the Swedish International Development Office – SIDA), SIDA report No. 40.

Patzel, B. (2001). Women's use of resources in leaving abusive relationships: a naturalistic inquiry. *Issues in Mental Health Nursing*, *22*, 729–747.

Pearlin, L. I., & Schooler, C. (1978). The structure of coping. *Journal of Health and Social Behavior*, *19*(1), 2-21.

Peled, E., Eisikovits, Z., Enosh, G., & Winstok, Z. (2000). Choice and empowerment for battered women who stay: Toward a constructivist model. *Social Work, 45*(1), 9–25. Retrieved from http://www.ncbi.nlm.nih.gov/pubmed/10634083

Pico-Alfonso, M., Garcia-Linares, I., Celda-Navarro, N., Blasco-Ros, C., Echeburua, E., & Martinez, M. (2006). The impact of physical, psychological, and sexual intimate partner violence on women's mental health: Depressive symptoms, posttraumatic stress disorder, state anxiety, and suicide. *Journal of Women's Health*, *15*(5), 599–61. doi:10.1089/jwh.2006.15.599

Postmus, J., Huang, C., & Mathisen-Stylianou, A. (2012). The impact of physical and economic abuse on maternal mental health and parenting. *Children and Youth Services Review*, *34*(9), 1922-1928. doi:10.1016/j.childyouth.2012.06.005

Plichta, S. B. (2007). Interactions between victims of intimate partner violence against women and the health care system: Policy and practice implications. *Trauma, Violence, & Abuse*, *8*(2), 226-239. doi:10.1177/1524838007301220

Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers*, *36*(4), 717-731.

Raja, S. (1998). Culturally sensitive therapy for women of color. *Women & Therapy*, *21*(4), 67.

Ramsay, J., Carter Y., Davidson, L., Dunne, D., Eldridge, S., Feder G., Hegarty, K., Rivas, C., Taft, A., & Warburton, A. (2009). Advocacy interventions to reduce or eliminate

violence and promote the physical and psychosocial wellbeing of women who experience intimate partner abuse. Cochrane Database of Systematic Reviews, Issue 3. Art. No.: CD005043.

Raphael, J. (1995). Domestic violence: Telling the untold welfare-to-work story. Chicago: Taylor Institute.

Raphael, J. (2000). *Saving Bernice: Battered women, welfare, and poverty*. Boston: Northeastern University Press.

Rappaport, J. (1981). In praise of paradox: a social policy of empowerment over prevention. *American Journal of Community Psychology, 9,* 1-25.

Rappoport, J. (1984). Studies in empowerment: Introduction to the issue. *Prevention in Human Services, 3,* 1-7.

Renzetti, C. M. (2009). Economic Stress and Domestic Violence. Applied Research Forum, National Online Resource Center on Violence Against Women. Available at hhttp:// www.vawnet.org/category/Main_Doc.php?docid=2187i

Riger, S. (1993). What's wrong with empowerment. *American Journal of Community Psychology, 21*(3), 279–292. doi:10.1007/BF00941504

Rivara, F. P., Anderson, M. L., Fishman, P., Bonomi, A. E., Reid, R. J., Carrell, D., & Thompson, R. S. (2007). Healthcare utilization and costs for women with a history of intimate partner violence. *American Journal of Preventive Medicine*, *32*(2), 89-96. doi:10.1016/j.amepre.2006.10.001.

Robbins, S.P., Chatterjee, P., & Canda, E.R. (2012). *Contemporary human behavior theory: A critical perspective for social work* (3rd ed.). Boston: Allyn and Bacon

Roberto, K. A., McPherson, M. C., & Brossoie, N. (2013). Intimate partner violence in late life: A review of the empirical literature. *Violence Against Women, 19*(12), 1538-1558. doi:10.1177/1077801213517564

Rodriguez, E., Lasch, K. E., Chandra, P., & Lee, J. (2001). Family violence, employment status, welfare benefits, and alcohol drinking in the united states: What is the relation*?. Journal of Epidemiology and Community Health, 55*(3), 172-178. doi:10.1136/jech.55.3.172

Romero, D., Chavkin, W., Wise, P. H., Smith, L. A., & Wood, P. R. (2002). Welfare to work? Impact of maternal health on employment. *American Journal of Public Health, 92*(9), 1462-1468. doi:10.2105/AJPH.92.9.1462.

Romans, S., Forte, T., Cohen, M. M., Du Mont, J., & Hyman, I. (2007). Who is most at risk for intimate partner violence? A Canadian population-based study. *Journal of Interpersonal Violence, 22*(12), 1495–1514. http://doi.org/10.1177/0886260507306566.

Rollins, C., Glass, N. E., Perrin, N. A., Billhardt, K. A., et al. (2012). Housing instability is as strong a predictor of poor health outcomes as level of danger in an abusive relationship: Findings from the SHARE Study. *Journal of Interpersonal Violence 27*:623–643.

Runtz, M. G., & Schallow, J. R. (1997). Social support and coping strategies as mediators of adult adjustment following child maltreatment. *Child Abuse and Neglect, 21*, 211–226.

Sabina, C., & Tindale, R. (2008). Abuse characteristics and coping resources as predictors of problem-focused coping strategies among battered women. *Violence Against Women, 14*(4), 437-456. doi: http://dx.doi.org/10.1177/1077801208314831

Saltzman, L. E., Fanslow, J. L., McMahon, P. M., & Shelley, G. A. (2002). Intimate partner violence surveillance: Uniform definitions and recommended data elements. Centers for Disease Control and Prevention. [on-line]. Available: http://www.cdc.gov/Ncipc/pubres/ipv_surveillance/Intimate%20Partner%20Violence.pdf

Samuels-Dennis, J., Bailey, A., Killian, K., & Ray, S. L. (2013). The mediating effects of empowerment, interpersonal conflict, and social support on the violence–PTSD process among single mothers. *Canadian Journal of Community Mental Health, 32*(1), 109–124. http://doi.org/10.7870/cjcmh-2013-009

Saleebey D. (2006). *The strengths perspective in social work practice*. NY: Allyn & Bacon.

Scott-Tilley, D., Tilton, A., & Sandel, M. (2010). Biological correlates to the development of post-traumatic stress disorder in female victims of intimate partner violence: implications for practice. *Perspectives in psychiatric care, 46*(1), 26-36. doi:10.1111/j.1744-6163.2009.00235.x

Schei, B., Guthrie, J., Dennerstein, L., & Alford, S. (2006). Intimate partner violence and health outcomes in mid-life women: A population-based cohort study. *Archives of Women's Mental Health, 9*(6), 317-324. doi: http://dx.doi.org/10.1007/s00737-006-0156-6

Seefeldt, K. S., & Orzol, S. M. (2005). Watching the clock tick: Factors associated with TANF accumulation. *Social Work Research, 29*(4), 215-229.

Sharma, A. (2001). Healing the wounds of domestic violence: Improving the effectiveness of feminist therapeutic interventions with immigrant and racially visible women who have been abused. *Violence Against Women, 7*(12), 1405-1428

Shorey, R. C., Tirone, V., & Stuart, G. L. (2014). Coordinated community response components for victims of intimate partner violence: A review of the literature. *Aggression and Violent Behavior*, *19*(4), 363–371. http://doi.org/10.1016/j.avb.2014.06.001

Skinner, E., Edge, K., Altman, J., & Sherwood, H. (2003). Searching for the structure of coping: A review and critique of category systems for classifying ways of coping. *Psychological Bulletin*, *129*, 216-269.

Sprinthall, R.C. (2007). *Basic statistical analysis* (8th ed.). Boston: Allyn & Bacon.

Stover, C.S. (2012). Police–Advocacy Partnerships in Response to Domestic Violence. *Journal of Police Crisis Negotiations*, *12*(2), 183–198. doi.org/10.1080/15332586.2012.717031

Stevens, J. (2001).Applied multivariate statistics for the social sciences (4th ed.). Hillsdale, NJ: Lawrence Erlbaum Associates.

Stevens, N. R., Gerhart, J., Goldsmith, R. E., Heath, N. M., Chesney, S. A., & Hobfoll, S. E. (2013). Emotion Regulation Difficulties, Low Social Support, and Interpersonal Violence

Mediate the Link Between Childhood Abuse and Posttraumatic Stress Symptoms. *Behavior Therapy*, *44*(1), 152–161. http://doi.org/10.1016/j.beth.2012.09.003

Stith, S. M., Smith, D. B., Penn, C. E., Ward, D. B., & Tritt, D. (2004). Intimate partner physical abuse perpetration and victimization risk factors: A meta-analytic review. *Aggression and Violent Behavior, 10*(1), 65-98. doi:10.1016/j.avb.2003.09.001.

Straus, M. A., Hamby, S. L., Buncy-McCoy, S. & Sugarman, D. B. (1996). The revised Conflict Tactics Scalcs (CTS2): Development and preliminary psychometric data .*Journal of' Family Issues*, *17*(3). 283-316.

Straus, M. A. (1977). Sexual inequality, cultural norms, and wife-beating. Victimology: *An International Journal, 1*, 54-76.

Sullivan, C. M., Bybee, D. I., & Allen, N. E. (2002). Findings from a community-based program for battered women and their children. *Journal of Interpersonal Violence, 17*(9), 915–936. http://dx.doi.org/10.1177/0886260502017009001

Sullivan, C. M. (2012). Examining the Work of Domestic Violence Programs Within a "Social and Emotional Well-Being Promotion" Conceptual Framework. *Domestic Violence Evidence Project*, 1–34. Retrieved from papers2://publication/uuid/6C85D731-C84C-43EE-AF3A-9D470DC90DD4

Sullivan, C. M. (2006). Mission-focused management and survivor-centered services: A survival guide for executive directors of domestic violence victim service agencies. Harrisburg, PA: Pennsylvania Coalition Against Domestic Violence.

Swanberg, J., Macke, C., & Logan, T. (2006). Intimate partner violence, women and work: A theoretical integration. In Burr, W. R., Hill, R., Nye, F. I., and Reiss, I. L. (eds.).

Tabachnick, B.G., & Fidell,L.S. (2007). Using multivariate statistics (5th ed.). Boston: Allyn & Bacon.

Tan, M. (2007) Social support and coping in Turkish patients with cancer. *Cancer Nursing*, *30*, 498–504.

Terrazas-Carrillo, E.C., & McWhirter, P.T. (2014) Employment Status and Intimate Partner Violence Among Mexican Women. *Journal of Interpersonal Violence.1-25.* doi: 10.1177/0886260514539848.

Texas Victim Assistance Manual (2008). Crime victim services division annual report.

Thompson, R.S., Bonomi, A.E., Anderson, M., et al. (2006) Intimate partner violence: Prevalence, types, and chronicity in adult women. *Am J Prev Med;30*, 447–457.

Thomas, K. A, Sorenson, S. B., & Joshi, M. (2010). Police-documented incidents of intimate partner violence among young women. *Journal of Women's Health*, *19*(6), 1079–1087. doi.org/10.1089/jwh.2009.1612

Thoits, P. A. (1995). "Stress, Coping, and Social Support Processes: Where Are We? What Next? *Journal of Health and Social Behavior 35*, 53-79

Tjaden, P., & Thoennes, N. (2000). *Extent, nature, and consequences of intimate partner violence: Findings from the National Violence Against Women survey*. Retrieved from https://www.ncjrs.gov/pdffiles1/nij/181867.pdf.

Tjaden, P., & Thoennes, N. (1998). Stalking in America: Findings from the National Violence Against Women Survey (Research in Brief NCJ 169592). Washington, DC: National Institute of Justice and Centers for Disease Control and Prevention

Tolman, R. (2011) *Impact of Intimate Partner Violence on Economic Well-Being*. Center for Financial Security, University of Wisconsin-Madison: Issue Brief -5.6. U.S. Department of the Treasury, Washington, D.C., 2011, available online at http://cfs.wisc.edu/DV_Workshop/Tolman_Research_Brief.pdf

Tolman, R. M., & Raphael, J. (2000). A review of research on welfare and domestic violence. *Journal of Social Issues, 56*(4), 655-682. doi:10.1111/0022-4537.00190

Turner, F. J. (2011). Social Work Treatment: Interlocking Theoretical Approaches, 5th edition. Oxford: Oxford University Press.

Turner, R. (1983). Direct, indirect and moderating effects of social support upon psychological distress and associated conditions. In H. B. Kaplan (Ed.), *Psychosocial stress: Trends in theory and research* (pp. 105-155). New York: Academic Press.

United States Department of Justice. (2013).Transforming victim services. Washington: Office of Justice Programs.

U.S. Department of Health and Human Services. (2010). Healthy people 2020. National Health Promotion and Disease Prevention Objectives. Washington D.C. Retrieved on September 20th 2015 http://www.health.org/healthy people.

U.S. Census Bureau. (2008). Table 4. Projections of the population by Sex, Race, and Hispanic Origin for the United States: 2010 to 2050 (NP2008-T4). Retrieved from http:// www.census.gov/population/www/projections/summarytables.html

Villarreal, A. (2007). Women's employment status, coercive control, and intimate partner violence in Mexico. *Journal of Marriage and Family*, *69*, 418-434.

Violence Against Women Reauthorization Act of 2013, S.47 (2013). In www.GovTrack.us. Retrieved August 13th, 2015, from http://www.gpo.gov/fdsys/pkg/BILLS-113s47enr/pdf/BILLS-113s47enr.pdf

Waldrop, A. E., & Resick, P. A. (2004). Coping among adult female victims of domestic violence. *Journal of Family Violence*, *19*(5), 291–302. doi.org/10.1023/B:JOFV.0000042079.91846.68

Wampold, B. E., & Freund, R.D. (1987). Use of multiple regression in counseling psychology research: A flexible data-analytic strategy. *Journal of counseling psychology*, *34*, 372-382.

Wilson, J. S., West, J. F., Messing, J. T., Brown, S., Patchell, B., & Campbell, J. C. (2013). Factors related to posttraumatic stress symptoms in women experiencing police-involved intimate partner violence. *ANS. Advances in Nursing Science*, *34*(3), E14–E28. http://doi.org/10.1097/ANS.0b013e318227241d.

Wills, T. A., & Shinar, O. (2000). Measuring perceived and received social support. In S. Cohen., L. G. Underwood., & B. H. Gottlieb (Eds.), *Social support measurement and*

intervention: A guide for health and social scientists (pp 86–135). Oxford: Oxford University Press.

World Health Organization (2010). Preventing intimate partner and sexual violence against women: taking action and generating evidence. Geneva/London, World Health Organization/ London School of Hygiene and Tropical Medicine.

Worden, A. P., & Carlson, B. E. (2005). Attitudes and beliefs about domestic violence: Results of a public opinion survey. *Journal of Interpersonal Violence, 20*, 1219-1243

Wong, J. Y., Fong, D. Y., Lai, V., & Tiwari, A. (2014). Bridging intimate partner violence and the human brain: A literature review. *Trauma, Violence, & Abuse, 15*(1), 22-33. doi:10.1177/1524838013496333.

Wright, C.V., Perez, S., & Johnson, D.M. (2010). The mediating role of empowerment for African American women experiencing intimate partner violence. Psychological Trauma: *Theory, Research, Practice, and Policy, 2*(4), 266.

Wuest, J., Ford-Gilboe, M., Merritt-Gray, M., Wilk, P., Campbell, J.C., Lent, B., & Smye, V. (2010). Pathways of chronic pain in survivors of intimate partner violence. *Journal of Women's Health. 19*(9):1665–1674

Yoshihama, M., Hammock, A. C., & Horrocks, J. (2006). Intimate partner violence, welfare receipt, and health status of low-income African American women: A life-course analysis. *American Journal of Community Psychology, 37*(1-2), 95-109.

Zahnd, E., Aydin, M., Grant, D., & Holtby, S. (2011). *The Link Between Intimate Partner Violence, Substance Abuse and Mental Health in California*. UCLA Center for Health Policy Research News Release (August 30,) available from http://healthpolicy.ucla.edu/NewsReleaseDetails.aspx?id=91.

Zaykowski, H. (2014). Mobilizing victim services: the role of reporting to the police. *Journal of Traumatic Stress, 27*(3), 365–369.

Zimmerman, M. A. (1984). Taking aim on empowerment research: On the distinction between individual and psychological conceptions. *American Journal of Community Psychology, 18*(1): 169-177.

Zinn, M.B., & Dill, B.T. (1996). Theorizing difference from multicultural feminism. *Feminist Studies, 22*(2), 321-331.

Biographical Information

Cecilia Mengo, PhD, MSW, is a May 2016 graduate of The University of Texas at Arlington (UTA). During her time at UTA, Dr. Mengo was the recipient of an award on Who's Who among Students in American Universities and Colleges for her dedication to leadership and community engagement. She was also the recipient of the Spring 2015 Dissertation Fellowship. Dr. Mengo received her Bachelor's in Human Geography from Moi University in Eldoret, Kenya. She completed her Masters of Social Work from Western Kentucky University in Bowling Green Kentucky, where she received the 2012 Outstanding Graduate Student award. Dr. Mengo has also received certificate trainings in Community Based Participatory Research from City University of New York and poverty reduction strategies from Weitz Center for Development Studies in Rehovot, Israel.

Dr. Mengo's personal life experiences, social work practice with diverse populations, and formal and informal mentors in the academic have shaped her research interests and research agenda. Dr. Mengo's research interest examines the factors that inhibit women empowerment to include Intimate Partner Violence, HIV/AIDs, and economic hardships. Dr. Mengo is exploring these issues using both quantitative and qualitative methods to uncover the impact of social, political, and economic factors among marginalized women in the U.S., Sub-Saharan Africa and other parts of the world. This will help lead to innovative pathways of understanding these phenomena as social problems. Dr. Mengo is also cognizant of the importance of education as a key avenue for empowering the most marginalized individuals in our society.