

DEMOGRAPHIC AND MENTAL HEALTH PREDICTORS FOR ABUSIVE
RELATIONSHIP DURATION AMONG WOMEN SEEKING HELP FOR INTIMATE
PARTNER VIOLENCE (IPV): A MULTIVARIATE MODEL

APPROVED BY SUPERVISORY COMMITTEE

Carol S. North, M.D., M.P.E. (chair)

Osman Ali, M.D.

Anna Brandon, Ph.D.

Carroll Hughes, Ph.D.

Alina Suris, Ph.D.

Lisa Thoman, Ph.D.

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by

CHONG “CRESSY” WANG

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CHONG “CRESSY” WANG, B.A.

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Supervising Professor: CAROL S. NORTH, M.D., M.P.E.

Intimate partner violence (IPV) has long been considered a serious social and public health issue. However, there is limited research on what determines how long women stay in abusive relationships. This study examines the associations between IPV duration and other abuse-related variables in a sample of help-seeking women at an outpatient counseling center affiliated with a local domestic violence agency (n = 230). Data were obtained from existing intake forms designed and collected by the agency. Multiple regression analyses identified independent variables significantly associated with longer IPV duration,

including older age, having children, and being white. Childhood trauma, medical concerns, and reported psychiatric symptoms were not associated with IPV duration. Subgroup analyses also revealed that for older women (50 or above) in this sample, parental history of IPV was significantly associated with shorter IPV duration, while none of the other variables showed statistical significance. Implications of these results were discussed and directions for future research were explored.

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CHAPTER 1

STATEMENT OF THE PROBLEM

Intimate partner violence (IPV) is a serious public health concern around the world. The World Health Organization (WHO) described IPV as any physical, psychological, or sexual abuse as well as deprivation, committed by a current or former partner, and as a major aspect of interpersonal violence (Krug, Mercy, Dahlberg, & Zwi, 2002). The organization noted that though global rates are difficult to estimate, IPV is a pervasive social and human rights issue around the world, regardless of a country's culture, economic status, or political stability. In a more recent study conducted by WHO, the rate of IPV against women was investigated at 15 sites in 10 countries. The lifetime prevalence of physical and/or sexual IPV among women ranged from 15% to 71%, and most sites reported lifetime prevalence between 30% and 60% (Garcia-Moreno et al., 2006). The same study also estimated prevalence during the past year for IPV to be between 4% and 54%. It is evident from these findings that IPV against women is a current and worldwide issue.

In the United States, a Centers for Disease Control and Prevention (CDC) workgroup formally coined the term "intimate partner violence" over a decade ago (Saltzman, 1999), and research has steadily been conducted to study this problem since then. Though IPV by definition is not limited to male-on-female violence, current literature suggests that IPV is the predominant type of violence

perpetrated against women, that women are more likely than men to be victimized by an intimate partner, and are more likely to report suffering from injuries due to IPV (Garcia-Moreno, et al., 2006; Saltzman, 1999; Saunders, 2002; Tjaden & Thoennes, 2000). In an extensive review of accumulating research on female-on-male violence, Saunders (2002) noted that there is strong scientific consensus that violence against women by their intimate partners constitutes a major social problem, justifying the emphasis on providing social and legal services for women. On the contrary, no such consensus has been reached for violence against men in intimate relationships. The review suggested that many studies showing equal rates of violence by female and male partners failed to take into account women's use of self-defense or include sexual assault and stalking in assessing violence. Similarly, in discussion of battered woman syndrome, Walker (2009) concluded that IPV is still considered a learned behavior used mostly by men to obtain and maintain power and control over women. Her most recent study found that women who were physically assaulted by an intimate partner were more likely than their male counterparts to report being injured, receiving medical and/or mental health treatment, losing time from work, and seeking legal interventions for the victimization. In summary, existing evidence clearly suggests that male-on-female IPV is associated with serious consequences and deserves the focus that it has received in the past few decades.

Estimated prevalence of male-on-female IPV in the U.S. appears at a moderately high level across various groups. Lifetime prevalence has been shown to be between 24% and 30% in population-based samples (Centers for Disease & Prevention, 2000; Tjaden & Thoennes, 2000), 21% in a random primary care patient population (McCauley et al., 1995), 55% in adult women attending a family clinic (Coker, Smith, McKeown, & King, 2000), and 23-25% in a sample of nurses and nursing personnel (Bracken, Messing, Campbell, La Flair, & Kub, 2010). Prevalence of IPV in the past 12 months have been estimated to be between 2% and 12% in a population-based sample (Tjaden & Thoennes, 2000), and 20% in a family clinic sample (Coker, et al., 2000). In a community-based sample, 22% of women reported having physical injuries from IPV experience (Centers for Disease & Prevention, 2000). When specific types of IPV were studied in a clinical sample, it was found that 20% of the women experienced some form of IPV in a current or most recent relationship, and about 10% experienced physical abuse and 8% experienced sexual violence in a current relationship (Smith, Thornton, DeVellis, Earp, & Coker, 2002).

Economically, IPV has a negative impact on women's health and seems to increase survivors' healthcare expenses significantly. Studies across the world have found that lifetime IPV by a male partner can lead to self-reported current poor health and exacerbated health problems for women (Ellsberg, Jansen, Heise, Watts, & Garcia-Moreno, 2008; Thomas, Joshi, Wittenberg, & McCloskey,

2008). Police records of men and women who had called for assistance with domestic violence noted that the most common types of injuries reported were bruises, scratches, swelling or bumps, and pain, and that the most common sites of injuries were to the head and face (Duncan, Stayton, & Hall, 1999; Tjaden & Thoennes, 2000). Ongoing abuse is also associated with significantly higher mental health service use (Bonomi, Anderson, Rivara, & Thompson, 2009; Rivara et al., 2007).

It is not surprising that, given the increased rates of physical and mental health problems, IPV survivors tend to spend much more money on healthcare than never-abused women. A review of national surveys revealed that IPV against women cost over \$5.8 billion in 1995, which translated roughly to over \$8.3 billion in 2003, when the study was conducted (Max, Rice, Finkelstein, Bardwell, & Leadbetter, 2004). The estimate included costs for medical and mental health services, value of lost productivity for time away from job and household activities, and productivity loss resulting from lives lost. The largest component of total cost, however, was medical care, which contributed to 45% (\$2.6 billion) of the total amount. IPV survivors had increased utilization across all types of health services, leading to \$19.3 million in “excess” annual health care costs, 19% higher than the costs for women without a history of IPV (Rivara, et al., 2007). More specifically, it seems that physical abuse is associated with the highest health care costs, especially if there is ongoing instead of remote abuse (Bonomi,

et al., 2009). Physically abused women appear to utilize hospital and pharmacy resources more and spend significantly more on various aspects of care (e.g., primary care, specialty care, laboratory) than never-abused women. In addition, longitudinal research indicates that increased health care costs persist for more than five years after IPV has stopped, and hospital outpatient visits and inpatient admissions may actually increase after ending IPV (Bonomi, et al., 2009). Even for women whose IPV ended more than five years before the date of utilization, healthcare use is found to still be higher in nearly all categories compared to those with no IPV exposure. These data seem to indicate that IPV is associated with survivors' health and mental health status regardless of the acuity of the abuse. Furthermore, we should keep in mind that many women who are experiencing IPV may not wish to seek services for some reason. For instance, Hispanic women who are injured during an IPV incident are not likely to consent to medical care (Duncan, et al., 1999). Therefore, current cost estimates may reflect only a proportion of the additional money and resources used by this population, and the cost of unmet needs has not been estimated (Rivara, et al., 2007).

Despite the high cost of IPV and its established negative impact on women's health and mental health, women have consistently reported an average length of four to eight years of being in an abusive relationship (Johnson, Zlotnick, & Perez, 2008; Sabina & Tindale, 2008; Thompson et al., 2006). Yet, a review of the literature revealed that factors that may be associated with the

different durations of abusive relationships have not been adequately investigated.

The proposed study will be one of the first to examine characteristics related to IPV duration in a sample of help-seeking women at an urban agency providing counseling services to female IPV survivors.

CHAPTER 2

REVIEW OF THE LITERATURE

There are various risk factors found to be associated with Intimate Partner Violence (IPV) exposure and evidence suggests that the likelihood of experiencing current abuse increases as the number of risk factors increases (Schei, Guthrie, Dennerstein, & Alford, 2006). Some of the major factors and their associations with various aspects of IPV are reviewed in the following sections.

Contextual Vulnerabilities

Age & Ethnicity

The experience of IPV among adults is not limited to a certain age group. Existing literature suggests that the age range of IPV survivors who have been the focus of research spans from 18 to 68 years (Fugate, Landis, Riordan, Naureckas, & Engel, 2005; Johnson, et al., 2008; Martinez-Torteya, Bogat, von Eye, Levendosky, & Davidson, 2009; Postmus, Severson, Berry, & Yoo, 2009; Sabina & Tindale, 2008; Wolf, Ly, Hobart, & Kernic, 2003). The reported mean age usually falls between 26 and 35, and the largest cluster of participants is often between early 20s and late 40s. In other words, the group of women who report IPV and/or seek help for it consists of young adults and middle-aged women, with a smaller portion of older adults. Age has typically not been found to be an

indicator of IPV type, severity, or frequency, but it is often included in the analyses as a control or descriptive variable.

Ethnically, this is a diverse group and all major ethnicities have been represented in various studies conducted so far. White/Caucasian survivors usually make up a substantial portion of participants, about one-third to over 70% (Martinez-Torteya, et al., 2009; Postmus, et al., 2009). Some studies were conducted with groups mainly composed of Black/African American participants, from 53% to 81% (Fugate, et al., 2005; Henning & Klesges, 2002; Johnson, et al., 2008; Sabina & Tindale, 2008). In addition, there have been an increasing number of studies that included Hispanic/Latina participants, usually ranging from 5% to 25% (Fugate, et al., 2005; Martinez-Torteya, et al., 2009; Postmus, et al., 2009). Lastly, in most studies, the Asian American, Native American, and Other categories together consist of less than 10% of the total sample (Martinez-Torteya, et al., 2009; Postmus, et al., 2009).

Unlike age, current literature suggests that there may be some evidence for ethnic differences in the experience of IPV, though results are not conclusive. One recent review noted that IPV rates were greater among ethnic minority women compared to rates among Caucasian women (Hien & Ruglass, 2009). Specifically, African American women showed a 35% higher reported rate of IPV than Caucasian women between the years 1993 and 1998, according to the National Crime Victimization Survey (NCVS). They also found that Hispanic women

reported a greater frequency of rapes and Native American women reported experiencing more violent victimization, compared with their Caucasian counterparts. Additional information from a different study delineated that battered Hispanic women were significantly younger, less educated, and more likely to live below the poverty level than their Caucasian, non-Hispanic counterparts (West, Kantor, & Jasinski, 1998). Though no significant ethnic differences have been found in severity of abuse, limited evidence shows that IPV-related injuries seem most common among Hispanics compared to other ethnic groups (West, et al., 1998).

In a sample of nurses and nursing personnel, it was found that being of Asian ethnicity decreased the likelihood of IPV, while being white or Hispanic increased the risk of intimate partner abuse without physical violence (Bracken, et al., 2010). However, the protective nature of being Asian may be challenged by a review that examined rates of IPV in Asian American women (Y.-S. Lee & Hadeed, 2009). The review noted that the most common cluster of lifetime prevalence reported for Asian communities falls between 30% and 55% for physical, sexual and/or psychological abuse, comparable to rates in the general population. The authors also stated that culturally accepted patriarchal values and attitudes in these communities might actually condone IPV. A possible explanation for the seemingly low representation of Asian Americans in population-based studies is that values such as collectivism and an emphasis on

dealing with family matters privately may lead to underreporting of IPV experiences as well as underutilization of services by Asian American women. Therefore, it is still premature to assume that Asian ethnic group membership may be a protective factor against IPV experiences. More research is needed in this area before further conclusions can be drawn.

Overall, current literature suggests that minority group membership may slightly increase women's risk for IPV experiences. In particular, African American and Hispanic memberships seem to be associated with this elevated risk. Associations between other minority group memberships and IPV appear to be inconclusive at this moment.

Socioeconomic Status (SES)

Women with IPV history appear to show some variability in their socioeconomic (SES) status, which in this study will be considered to include household income level, women's educational level, and women's employment status. Studies have not reached a consensus on the typical SES characteristics of female survivors of IPV. Some studies found that the survivors were predominantly poor individuals who received welfare at least once, and had completed a high school education or less (Fugate, et al., 2005; Postmus, et al., 2009; Sabina & Tindale, 2008), whereas others found that nearly half or more of their samples completed at least some college, and most reported a low average household income level or higher (Johnson, et al., 2008; Martinez-Torteya, et al.,

2009). There is evidence that severe violence seems to be of higher proportion in more traditional rural settings with low empowerment of women (Garcia-Moreno, et al., 2006), and that low education and low income were found to be associated with increased risk for IPV in some samples (Centers for Disease & Prevention, 2000; Harwell, Moore, & Spence, 2003). One study which examined a sample of nurses found that having a college education was indeed protective and decreased the likelihood of experiencing IPV (Bracken, et al., 2010).

Additional data are available for the association between IPV and women's employment status. Previous research suggests that about one-third of the female IPV survivors studied were employed either part- or full-time and were slightly more likely to be working than non-abused women (Postmus, et al., 2009; Rivara, et al., 2007). Additionally, there is evidence noting that abused women's income level is lower than that of women without a history of IPV, especially if physical abuse has occurred (Bonomi, et al., 2009). A review of IPV and women's employment patterns stated that the associations are inconclusive at the moment, with some survivors struggling to be employed, others obtaining employment but unable to maintain it for an extended period of time, and still others unable to obtain employment at all (Swanberg, Logan, & Macke, 2005). The authors of the review did indicate that female survivors seem more likely to report lower productivity, higher rates of absences, and higher job turnover rates, compared to non-abused women. In other words, though many women may

continue to work while in an abusive relationship, their income level and financial status may or may not deteriorate depending on aspects of the abuse.

It is important to note the correlations between SES and ethnicity in regards to IPV experience. As previously mentioned, certain ethnic groups have been associated with higher rates of IPV. One study with a diverse sample concluded that low SES was linked with increased risk of IPV but the relative influence of SES on the probability of IPV varied across racial/ethnic groups (Field & Caetano, 2003). They found that mean annual household income was significantly lower among Black and Hispanic couples with IPV than those without IPV, but this difference was not found between White couples with and without IPV experiences. Another study indicated that SES contributes more to women's vulnerability to abuse and stress symptoms than does ethnicity (Vogel & Marshall, 2001), after comparing major ethnic groups on measures of violence and psychiatric symptoms.

Motherhood

There is some evidence suggesting that having children may be an augmenting factor for IPV experience in women, though results are mixed. While a study with nurses and nursing personnel found that having children at home increased the risk for partner violence and abuse (Bracken, et al., 2010), another study with a sample of shelter women concluded that having a child in the home was not associated with IPV (Johnson, et al., 2008). A study with help-seeking

women focused on IPV and motherhood and pregnancy found that being a mother increased the risk for longer duration of physical, psychological, and sexual IPV (Bo Vatnar & Bjorkly, 2010). These conflicting results may be due to sample differences and future replications of similar studies are needed to further clarify the issue.

One possible explanation for presence of children at home being a risk factor is that mothers may have to dedicate more resources to ensure the well-being of their children, thus limiting options for seeking help for IPV-related issues or leaving the abusive partner (Bonomi, Holt, Martin, & Thompson, 2006; Henning & Klesges, 2002). It is also possible that women with children may be more reluctant to break up the family by leaving the abuser. Additionally, women with children may be more likely to be homemakers and evidence suggests that homemakers seem significantly less likely to stay away from the abuser compared to their work-outside-home counterparts (Sabina & Tindale, 2008). It is important to investigate how motherhood may be related to IPV experiences, because it is highly likely that children will witness partner violence between parents (Henning & Klesges, 2002), which could lead to negative effects on the children.

Psychiatric Difficulties

Current literature shows strong evidence that abused women may be more likely than non-abused women to experience various psychiatric symptoms and disorders. Women with IPV experience have been found to seek psychiatric and

psychological treatment more than would be expected by chance, and the magnitude of associations between IPV and mental health problems is substantially consistent (Golding, 1999; Pico-Alfonso, 2005). Compared to non-abused women, those with an IPV history seemed to have higher levels of psychopathology, reported more current relational aggression, and functioned more poorly (McCauley, et al., 1995). IPV survivors have reported mental illness as one of their major health concerns and were more likely to report having more days with mental health problems in the past month compared to non-abused counterparts (Bracken, et al., 2010; Coker et al., 2002; Wilson, Silberberg, Brown, & Yaggy, 2007). Physical IPV has been especially linked to increased risk of current poor health, depressive symptoms, substance use, and developing chronic mental illness (Coker, et al., 2002). The following sub-sections will review the major findings regarding IPV and psychiatric issues.

Post-traumatic Stress Symptoms

One of the major mental health issues thought to be related to IPV is post-traumatic stress disorder (PTSD) or post-traumatic stress (PTS) symptoms. In this literature review, PTSD refers to a formal diagnosis made with assessment tools and clinical interviews during studies of IPV. The presence of PTS symptoms refers to assessments of psychiatric symptoms indicative of responses to traumatic events without a formal diagnosis. Overall, abused women seem to be significantly more likely to report PTS symptoms (Coker, Weston, Creson,

Justice, & Blakeney, 2005), and to be much more likely to meet criteria for a formal PTSD diagnosis (Fedovskiy, Higgins, & Paranjape, 2008). The prevalence of PTS symptoms in this population appears high, with the most recent National Violence Against Women Survey (NVAWS) reporting 24% of female IPV survivors endorsing moderate-to-severe PTS symptoms (Coker, et al., 2005). In addition, it is suggested that PTS symptom severity may moderate psychosocial impairment in this population. Namely, the severity of PTS symptoms seems to better account for poorer social adjustment, less effective use of community resources, and greater loss of personal and social resources than trauma alone (Johnson, et al., 2008).

The severity of PTS symptoms or PTSD reported by IPV survivors seems to be associated with several specific factors. The severity of the partner abuse has been found to be significantly and positively correlated with the number and severity of PTS symptoms (Bradley, Schwartz, & Kaslow, 2005; Johnson, et al., 2008; Pico-Alfonso, 2005). For example, use of a weapon and sexual victimization, both considered severe forms of IPV, have been shown to predict higher PTSD severity (Hien & Ruglass, 2009). There is also evidence that physical violence may be a stronger predictor of subjective distress and PTS symptoms than psychological violence (Babcock, Roseman, Green, & Ross, 2008; Kemp, Rawlings, & Green, 1991). However, other findings suggest that psychological abuse, specifically the power and control aspect of it, seems to be

associated with increased PTS symptoms and to play a significant role in the development of PTSD (Coker, et al., 2005; Pico-Alfonso, 2005). Moreover, when physical and sexual assaults are combined in an intimate relationship, the combination appears to be particularly salient in predicting subsequent psychological adjustment of victims (Hedtke et al., 2008).

There are mixed findings regarding the potential ethnic differences in reporting symptoms of PTSD among female IPV survivors. One major study with an ethnically diverse, low-income population stated that previously found ethnic differences in rates of PTSD might have resulted from a confound with SES (Vogel & Marshall, 2001). They noted that ethnic differences were not found to be significant for the severity of PTSD symptoms. Instead, they found that women with higher scores on the PTSD symptom measure were poorer and less educated than those with lower scores. However, a more recent study with African American and European American women countered that ethnicity was a significant predictor of PTS symptoms in their sample and that African American women reported fewer PTS symptoms despite the presence of more risk factors, such as lower income (Lilly & Graham-Bermann, 2009). They also noted that European American women seemed to be more affected by a long history of abusive relationships, as opposed to African American women, who seemed more traumatized by level of recent violence. These contradictory findings will require

further research to determine how ethnicity may be influencing the rates and expressions of PTSD in abused women.

Depression

Besides PTSD, depression is another psychiatric condition frequently associated with IPV survivors. Current literature has consistently documented a higher likelihood of reporting mild or severe depressive symptoms for women with IPV experiences than for those with no IPV history (Bonomi et al., 2006; Hien & Ruglass, 2009). All forms of IPV have been found to be significantly associated with current depressive symptoms in female survivors, but the association seems stronger for the abuse of power and control, a subtype of psychological violence (Coker, et al., 2002). The investigation into associations between length of abusive relationship and depressive symptoms has shown mixed results. While some studies found that women with more than 10 years of IPV exposure had almost three times the risk for experiencing severe depressive symptoms (Bonomi, Thompson, et al., 2006), others noted that length of relationship was the least predictive of current symptomatology out of all the relationship variables (Kemp, et al., 1991). 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 length of abusive relationships and depression.

Major depression and depressive symptoms have often been found to be comorbid with PTSD and PTS symptoms in female IPV survivors. An increase in PTS symptom endorsement has been linked to more depressive symptom reports (Coker, et al., 2005; Stein & Kennedy, 2001). One study found that psychological aggression by an abuser and PTSD severity accounted for over half of the variance in depressive symptoms (Nixon, Resick, & Nishith, 2004). Furthermore, some studies have shown that women who meet PTSD criteria are much more likely to report major depression and that depression usually does not occur independent of PTSD among abused women (Fedovskiy, et al., 2008; Kemp, et al., 1991; Stein & Kennedy, 2001). These results may imply that the presence of depressive symptoms could be a correlate of PTSD and occur mostly as a secondary psychiatric condition in IPV survivors after they have already developed PTSD or PTS symptoms.

Different risk factors have been found to be associated with increased likelihood to report both PTS and depressive symptoms, including multiple lifetime violence exposure (Hedtke, et al., 2008), subjective stressfulness of IPV (Martinez-Torteya, et al., 2009), and severity and duration of abuse (Golding, 1999). At the same time, some factors seem to serve as protective factors for women experiencing IPV, such as good health, self-esteem, and absence of economic hardship (Carlson, McNutt, Choi, & Rose, 2002). The presence of

protective factors is associated with fewer depression symptoms, even among the most severely abused women.

Other Problems

Rates of emotional distress and suicidal ideation or attempts among abused women are much higher than those in the general population (Ellsberg, et al., 2008; McFarlane et al., 2005). Specifically, 22% of sexually abused women reported threatening or attempting suicide within the last 90 days, compared to 4% reported by the not-sexually abused women (McFarlane, et al., 2005).

Disorders related to substance abuse constitute another set of psychiatric problems related to IPV, possibly both as a risk factor and an outcome. Female cocaine users have been found to be at greater risk of being physically abused than male users, and with greater severity than non-drug users (Hien & Ruglass, 2009). Both physical and psychological IPV are associated with heavy alcohol and recreational drug use, with psychological abuse having a stronger link to recreational drug use than physical IPV (Coker, et al., 2002). Women who have suffered more than one sexual assault by an intimate partner were found in one study to be significantly more likely to report beginning or increasing substance use, with alcohol being the most common choice (McFarlane, et al., 2005). As a risk factor, hard drug use (marijuana use alone excluded) by the survivors has shown predictive power within ongoing relationships for subsequent minor and severe IPV (Testa, Livingston, & Leonard, 2003). Besides elevating risks for

risky behaviors, IPV is also shown to be associated with increased likelihood of limited activity in voluntary groups and being less trusting of people in the community for women who have recently been abused (Bonomi, Thompson, et al., 2006).

Childhood Trauma

There is strong evidence that childhood abuse and/or witnessing IPV between adults as a child may be associated with IPV experiences in adulthood (Bonomi, Thompson, et al., 2006; Thompson, et al., 2006). Childhood trauma in itself has been found to be a risk factor for a range of difficulties later in life such as aggression, depression, substance abuse, poor health, poor academic outcomes, personality disorders, and suicidal behavior (Arias, 2004; Krug, et al., 2002). Since women with IPV history appear to report significantly higher rates of childhood physical, psychological and sexual abuse than would have been expected by chance (Pico-Alfonso, 2005; Pico-Alfonso, Echeburua, & Martinez, 2008), it seems important to investigate how these two types of trauma may be related to each other.

Women who were abused during childhood appear to be at greater risk for being exposed to IPV in adulthood (Arias, 2004; Bensley, Van Eenwyk, & Simmons, 2003; Bracken, et al., 2010; Hien & Ruglass, 2009; Romito, Crisma, & Saurel-Cubizolles, 2003; Thompson, et al., 2006). A recent review indicated that being a victim of childhood physical or sexual abuse is one of the factors most

predictive of revictimization in adulthood. In fact, it seems to raise one's risk for IPV by two to three times (Hien & Ruglass, 2009). This result is in line with another review, using data from the CDC survey on violence against women, which found that one of the significant long-term detrimental consequences of childhood abuse is subsequent victimization as adult, especially by an intimate partner (Arias, 2004). Researchers speculate that early abuse experience may have diminished the victims' opportunity to develop healthy relationships and introduced distorted expectations for some degree of victimization in relating to others (Arias, 2004; Hien & Ruglass, 2009). More longitudinal and prospective studies will need to be conducted to test this speculation.

A history of childhood trauma seems to exacerbate abused women's issues. In terms of types of abuse experienced, significant associations have been found for exposure to battering during childhood and being shaken and grabbed by an intimate male partner as an adult (Walker, 2009). The combination of both sexual and physical childhood abuse has been found to be associated with double the risk for adult victimization (Schaaf & McCanne, 1998), and there seems to be a cumulative effect of childhood maltreatment on increasing difficulties in adulthood (Lang, Stein, Kennedy, & Foy, 2004). Psychiatrically, childhood maltreatment has been linked to increased rates and severity of PTS symptoms in abused women, especially if multiple types of childhood maltreatment were experienced (Bradley, et al., 2005; Schaaf & McCanne, 1998). Specifically,

childhood sexual abuse has been associated with increased anxiety sensitivity, whereas emotional neglect during childhood was linked to more dissociative and depressive symptoms in abused adult women (Lang, et al., 2004). Socially, women abused as children have been found more likely to be childless and divorced or never married, regardless of IPV history (Romito, et al., 2003). Studies have also shown that women who have been abused both in childhood and as adults tend to have more interpersonal difficulties and endorse more problematic personality dimensions such as schizoid, antisocial, narcissistic, and compulsive traits (Arias, 2004; Pico-Alfonso, et al., 2008).

There is evidence that early types of victimization may correspond to types of abuse experiences later. Women who experienced childhood sexual abuse that included intercourse and repeated severe beatings appeared more likely to experience physical and sexual abuse as adults, whereas childhood sexual abuse without intercourse was associated with rape and attempted sexual assaults in adulthood, but not with partner abuse (Coid et al., 2001). Being sexually abused in childhood seems to also be associated with an elevated risk of being sexually revictimized by an intimate partner and to heighten the risk of psychological and physical IPV for women (Daigneault, Hebert, & McDuff, 2009). Besides increasing the risk of abuse in adulthood, childhood trauma seems to be predictive of repeated patterns of abuse later in life. In a longitudinal study where researchers followed IPV survivors, higher rates of childhood abuse history

and greater IPV severity were found at baseline for individuals who were subsequently abused again (Krause, Kaltman, Goodman, & Dutton, 2006).

All of these findings support the notion that multiple abuse experiences in childhood are likely to be associated with increased risks of multiple abuse and trauma experiences in adulthood, which are in turn associated with more severe psychiatric and social difficulties as well as a repetitive pattern of abuse. One study of a university student population showed that childhood exposure to violence was a consistent predictor of involvement in violent relationships as adults (Gover, Kaukinen, & Fox, 2008). Specifically, they found that childhood abuse was associated with increased likelihood of dating violence victimization among women. Furthermore, they found that witnessing paternally perpetrated abuse was significantly related to physical dating violence victimization for women. Another study with adults with a history of childhood abuse and adult IPV found that they reported greater disruptions in self-appraisals and increased likelihood of mental illness and substance abuse disorders, compared to those with a history of childhood abuse but not IPV (Whiting, Simmons, Havens, Smith, & Oka, 2009). The researchers speculated that negative consequences of early abuse may have contributed to a tendency to re-engage in traumatic experiences later in life.

IPV Duration

The length of abusive relationships, or in other words, duration of IPV exposure, has received rather limited attention in research. While different types of IPV have often been assessed (i.e., physical, psychological, sexual IPV), only a few studies have asked participants about the duration of their abusive relationships. Because of this, we currently do not have a good understanding of how long women may remain in abusive relationships or the factors that predict short or long IPV durations. Although as an aspect of the abuse experience, it may be expected to be associated with all the factors discussed above, there has been inadequate evidence in current literature to support definitive conclusions.

According to the limited number of studies that gathered data regarding lengths of IPV, female survivors reported being in abusive relationships for one to 15 years, with an average of five to six years (Johnson, et al., 2008; Sabina & Tindale, 2008). One study assessed duration of more specific types of IPV and found that the mean duration ranged from about four years for forced sex, to about eight years for controlling behavior (Thompson, et al., 2006). The median durations found in this study were of less than one year for forced sex, and five years for controlling behavior. These numbers seem to converge on an estimated average IPV duration of four to six years. In addition, Thompson and colleagues (2006) noted that approximately 5-9% of the participants reported being in abusive relationships for 20 years. However, no further research has been

conducted to study the subset of women who remain in abusive relationships for an extended period of time.

Besides describing the lengths of abusive relationships, some studies have included IPV duration as a predictive variable. Preliminary findings suggest that women who have been exposed to IPV for long periods of time may display certain issues and characteristics worth noting. For example, longer IPV duration has been found to be associated with incrementally worse health, and women with more than 10 years of IPV exposure seem to show the worst health outcomes compared to never-abused women (Bonomi, Thompson, et al., 2006). In a group of help-seeking participants, the length of abuse in relationships was found to be a robust predictor of minor physical injuries (Mechanic, Weaver, & Resick, 2008). Psychiatrically, Golding (1999) in a meta-analysis found that duration of abusive relationships is positively associated with prevalence and severity of both depression and PTSD. Emerging evidence seems to confirm part of this claim. IPV duration was found to be marginally significant in predicting PTSD in a group of women with previous but not current IPV experience (Koopman et al., 2005). As mentioned earlier, the results for depression seem mixed, with some claiming that over 10 years of IPV exposure triples the risk for severe depressive symptoms (Bonomi, Thompson, et al., 2006), while others finding IPV duration to be the least predictive of current depression symptomatology among relationship variables (Kemp, et al., 1991). Hien and Ruglass (2009) further speculated that

depressive symptoms may be a risk factor for women's difficulty of leaving an abusive relationship. Additionally, being a mother seemed to predict longer duration of physical, psychological, and sexual IPV in a recent study (Bo Vatnar & Bjorkly, 2010). The authors also found that duration of physical and psychological IPV was the only significant risk factor for increased likelihood of IPV during pregnancy. In sum, there appear to be some associations between IPV duration and increased health and mental health problems in female survivors that would warrant further investigation.

Although no established theories exist currently regarding the mechanism through which IPV duration is associated with other variables, researchers have begun to investigate various possibilities. For example, a model of understanding the process of continuing or terminating abusive relationships proposes that women who have a strong sense of commitment and obligation to their partners may endure more ongoing abuse compared to those who have less attachment (Kearney, 2001). This speculation is echoed by other researchers who found that the extent of a woman's love for and commitment to her partner is among several factors that seem to contribute to difficulty in leaving an abusive partner (Hedtke, et al., 2008; Hien & Ruglass, 2009; Strube, 1988). Other significant factors include low socioeconomic status (SES), younger age, economic dependence, and learned helplessness. Among these factors, economic dependence has been shown to be associated with length of abusive relationships. It has been proposed that

economic dependency and abuse influence each other bidirectionally, meaning that women may tolerate more abuse if financially dependent but also more likely to be dependent due to the abuse (Bornstein, 2006). A recent focus group study seems to confirm this idea, noting that women who suffer from illnesses or disability, sometimes as the result of physical abuse by partners, might be increasingly dependent on abusive partners for financial resources and practical support, thereby lengthening the duration of IPV exposure (Thomas, et al., 2008).

Even with the limited information currently available, one can speculate that women who tend to remain in long-term abusive relationships may have unique features compared to those with shorter IPV duration. Since IPV has been found to be associated with a host of health, psychiatric, and social issues, it is possible that women who endure longer abuse duration can develop more serious problems in these same areas. Conversely, it is also possible that women who report long IPV duration may have pre-existing characteristics that reduce the likelihood of their leaving the relationship. Thus, this study provides a valuable opportunity to examine how IPV duration may be associated with various problems in a sample of help-seeking survivors.

CHAPTER 3

RATIONALE, AIMS, AND HYPOTHESES OF THE CURRENT STUDY

Rationale

As summarized above, there has been sparse information on the duration of women's exposure to abusive relationships in IPV literature to date. Whenever it was included in the analyses, it most often served as a secondary variable, and its associations with other IPV-related variables were minimally investigated. In a review of the existing literature, this author could not find evidence of IPV duration being studied as an outcome variable. Though information on this variable is quite limited at the moment, research findings when it has been included as a variable seem to indicate that it may be significantly related to aspects of the abuse, mental health issues, and characteristics of female survivors. It could be speculated that IPV duration is a potentially valuable index of individual and contextual vulnerabilities of survivors. Therefore, it appears important that investigations be conducted with a focus on understanding IPV duration and relevant factors.

This study was one of the first to explore predictive factors for IPV duration using variables that have been associated with IPV against women. As previous literature has been lacking in describing correlates of IPV duration, the results of this study aimed to fill the gap in this area. IPV duration served as a focal point to determine whether there were significant detectable trends among

survivors who reported various lengths of abusive relationships. This study utilized an exploratory approach to investigate the associations between IPV duration and other abuse-related variables with a hypothesized multivariate regression model.

Variables tested included demographic variables (age, ethnicity, income, employment, education, number of children), childhood trauma history (childhood physical, sexual, and verbal/emotional abuse, as well as witnessing IPV between parents/caregivers), medical concerns, and psychiatric symptoms (depressive symptoms and behavioral problems).

Study Aims and Hypotheses

Hypothesized Model

The primary aim of the proposed study was to test a hypothesized multivariate model of factors that might predict IPV duration. By doing so, we hoped that this study would fill the gap of research on how IPV duration may be associated with characteristics of abused women, and would generate hypotheses that could be further tested in future studies. Different statistical methods were considered for the proposed study, and a multivariate regression model was selected to be the primary method of analysis. Below is a figure of the model that was tested:

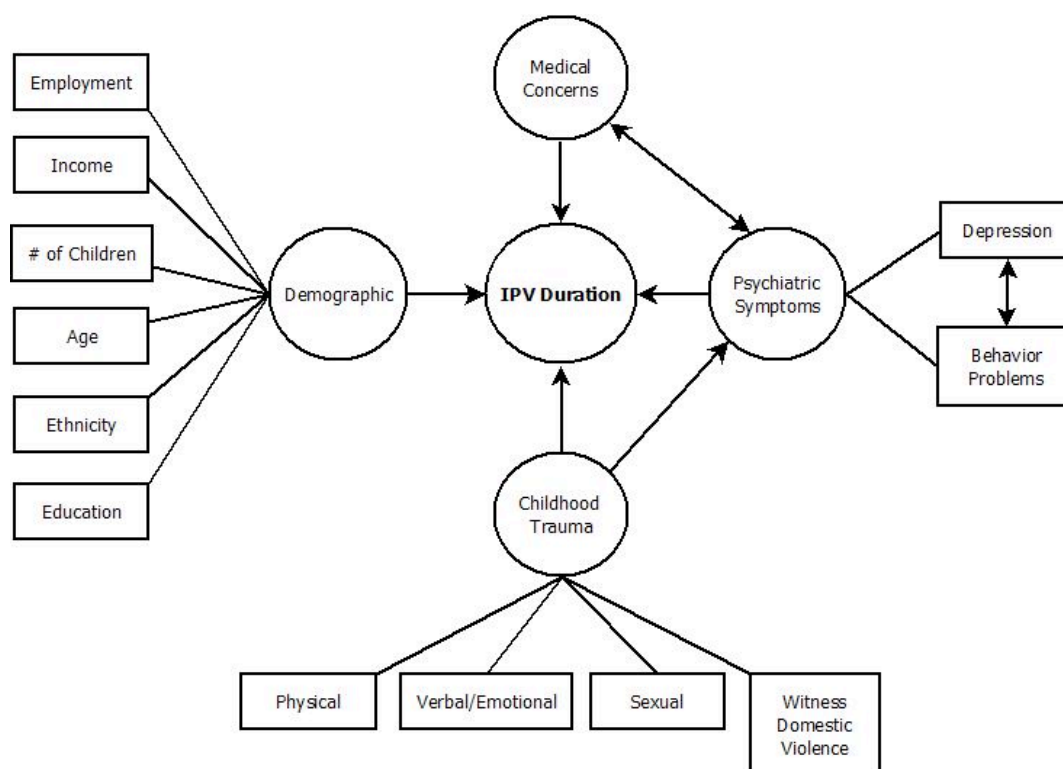


Figure 1. Hypothesized Model

Among the independent variables, a few have been linked with IPV duration as discussed earlier, albeit preliminarily. These hypothesized associations were based on existing evidence.

It was hypothesized that a larger number of depressive symptoms would predict longer IPV duration. It is possible that abused women who develop depression may be less likely to utilize resources to terminate abusive relationships. It is also possible that women who have longer IPV duration may be more likely to become depressed. PTSD or PTS symptoms were not tested as a

variable in this study, largely due to the overlapping in depressive and PTS symptoms and lack of distinction between them in this particular database.

It was hypothesized that medical concerns would predict longer IPV duration, as previous studies noted that physical illness could interfere with a woman's ability to leave her partner, who may often become the caretaker when she is sick. Additionally, it is possible that medical problems may keep a woman from being able to pay for healthcare expenses, thus may increase her reliance on an abusive partner.

It was also hypothesized that low SES (low income and low education level) would predict longer IPV duration, which could be understood in terms of women's economic dependence on the abusive partner.

It was hypothesized that number of children would predict longer IPV duration based on previous research noting that motherhood may increase the duration of all types of IPV experienced.

As for age, some data suggest that younger age was associated with longer IPV duration. However, it would be expected that older age might be positively correlated with longer IPV duration, as older participants were likely to have had more years to accumulate relationships in general. Thus, age was used as a control variable in the analyses.

For the remaining independent variables, there was a lack of information on whether and how they may be linked to IPV duration. However, it has been

established that they are associated with the experience of IPV. Therefore, in this current model, we speculated that these variables not only would predict IPV but also would predict IPV duration.

Ethnic minority group membership has been shown as a risk factor for IPV. Because minority women may be more likely to face financial, cultural, and/or language challenges, it was hypothesized that they would have less freedom to leave their abusive partners, thus prolonging the relationship duration.

Mixed results have been shown for employment and IPV, and this model hypothesized that unemployment would predict longer IPV duration. Chronic IPV experience may gradually interfere with women's ability to seek or hold jobs, and controlling partners may prevent women from working.

Childhood trauma (physical abuse, sexual abuse, verbal/emotional abuse, and witnessing domestic violence at home) has been strongly associated with increased likelihood of adult victimization by an intimate partner. This model hypothesized that childhood trauma would also predict longer IPV duration, because early trauma experience may shape women's perception of relationships and make them more tolerant of IPV, thus lengthening the amount of time they remain in abusive relationships.

Lastly, it was hypothesized that a greater number of behavioral problems, conceptualized as potentially self-damaging, acting-out behaviors (e.g., substance abuse, aggression), would predict longer IPV duration. Acting out behaviors may

reflect maladaptive coping skills and less effective decision-making abilities, which could contribute to difficulty recognizing their relationship problems and/or difficulty following through with efforts to terminate the relationship.

CHAPTER 4

METHODOLOGY

The proposed study utilized a retrospective chart review to obtain demographic and IPV-related data from intake forms completed by adult clients at the Genesis Women's Shelter Outreach Office. Genesis Shelter is a nonprofit organization dedicated to meeting the needs of survivors of domestic violence in Dallas and its surrounding communities. The shelter services include a 24-hour crisis hotline, short-term shelter (up to 6 weeks), transitional housing (up to 18 months), professional casework, a therapeutic children's program, an on-site alternative school, positive parenting classes, and group and individual therapy. Additional services for clients who are not in immediate danger are offered at the Outreach Office where 14 staff therapists provide counseling in English and Spanish to women and children who are not current shelter residents. The following section delineates the methods and procedures relevant to the proposed study.

Procedures and Participants

At the Genesis Outreach Office, every client who is seeking counseling services is asked to complete a six-page intake form prior to the first session with a counselor (see Appendix C for the form). Records from the outpatients at the Outreach Office were obtained for the study. None of the shelter residents were sampled for this study. For the purpose of this study, each counselor made copies

of their adult clients' intake forms and placed them in a designated bin on site on a regular basis. A computerized database was created to extract information from the forms, and the data entry process took place between June 2008 and December 2009. The entry data were collected from forms dated between late 2006 and summer of 2009. Identifying information from the forms (e.g., name, birth date, address, phone number, and employer) was not entered into the database to protect the clients' confidentiality. Each record was assigned a unique random number within the database. All the forms were inspected visually prior to being entered and those that were missing more than half of the data were excluded (n=6). After the data collection was completed, the database was inspected for accuracy. Two records were found to be mistakenly entered twice. Thus, the two duplicates were excluded. Another two records were found to be completed by women who had returned within the three-year period to re-initiate counseling. The two most recent records were excluded from analysis as they did not represent information provided by first-time clients. A final total number of 230 records were collected and used for this study.

Variables

All data collected for this study were self-report data, given the nature of the intake forms. Since this was also a retrospective review study, there were no interactions with clients and no additional instruments were given to them. Most open-ended questions had responses that could not be used for this study as the

answers were not systematic and could not be coded into defined variables.

Occasionally, additional comments related to a quantitative variable were written on the form by either the client or the counselor. These comments were only used to sharpen quantitative data by filling in missing information or editing existing variable values to best code the responses. When appropriate, some of the comments were used as illustrative material to supplement quantitative results. They were not used as systematic responses for qualitative research purposes for this study.

Dependent Variable:

IPV Duration. Respondents were asked to report the total number of adult intimate relationships they have had, their specific relationship with each partner, the length of each relationship, and whether the relationship was abusive. The total abuse duration was calculated by adding together reported lengths of all abusive relationships for each respondent. This numeric variable was coded in the unit of days and could therefore be easily converted to reflect durations of months or years. Records that were missing either relationship duration or whether it was abusive were excluded from the calculation for this variable.

Independent Variables:

Demographics:

Age. Age, a continuous numeric variable, was created directly from respondents' self-identified age when they completed the intake form.

Ethnicity. Respondents reported their self-identified ethnicity in text format and a categorical variable was created by grouping same/similar ethnic group descriptions. A few reported being of mixed races, and were classified in the “Other” category. The final self-identified ethnic groups were as follows: White/Caucasian, Hispanic (races unidentified), Black/African American, Asian, Native American, and Other. Dichotomous variables of ethnic group memberships were also created (e.g., White vs. non-White) and used in the analysis.

Income. Reported annual income in categories was divided into three categorical variables: low income (\$0-30,000), mid income (\$30,000-50,000), and high income (above \$50,000). The low income variable was used in the analysis, with ‘1’ indicating an income range of \$0-30,000, and ‘0’ indicating income not within \$0-30,000.

Education Level. Respondents chose the highest level of education completed from a list of options. A variable indicating whether the respondent reported being at least a college graduate was created to reflect high education level, and a variable indicating whether she reported completing high school or less was created to reflect low education level.

Employment. Respondents’ employment status was reflected with these dichotomous variables: full-time employment, part-time employment, any employment, and unemployment.

Number of Children. Respondents reported the number of living biological children they had and indicated their ages and residence (whether or not they were living with her). A numeric variable representing the total number of children for each woman was created. From this information, a dichotomous variable reflecting the presence of children (yes/no) was also created.

Childhood Trauma. This variable consisted of four types: childhood sexual abuse, childhood physical abuse, childhood verbal/emotional abuse, and witnessing domestic violence between adults during childhood. Total childhood trauma was calculated as a numeric variable between zero and four by adding together all types of reported childhood trauma. Any childhood trauma was designated as a dichotomous variable reflecting the presence or absence of any type of reported childhood trauma.

Medical Concerns. Respondents were asked to answer ‘yes’ or ‘no’ to the question of whether they had any current medical concerns. They also had the opportunity to explain in writing what these concerns were. The variable was designated as a dichotomous variable indicating whether they expressed medical concerns.

Psychiatric Symptoms:

Depressive Symptoms. This variable consisted of the sum of all the following self-identified symptoms: depression, loss of interest in important

things, feelings of worthlessness, difficulty concentrating, sleeping problems, suicidal thoughts, hopelessness, and fatigue.

Behavioral Problems. This variable consisted of the sum of the following self-identified symptoms: addictive behaviors, aggression, cutting/self-harm, drug/alcohol use or abuse, and obsessive-compulsive behaviors.

CHAPTER 5

STATISTICAL ANALYSES

Statistical Analyses

Data analyses were done with SAS 9.1 statistical software and variables were created according to the aforementioned list. First, descriptive analyses examined the distributions of all study variables. Continuous variables were examined for evidence of non-normality, skewness, and outliers.

Following descriptive analyses, bivariate analyses were used to examine correlations between IPV duration and each independent variable. The statistical significance level was set at 0.10. After this stage, each significant independent variable was entered into the multivariate regression model to investigate which combination of independent variables was most predictive of IPV duration. The statistical significance level was set at 0.05 for the multiple regression analyses.

It was hypothesized that, consistent with research, childhood trauma, a greater number of depressive symptoms, a greater number of behavioral problems, medical concerns, and low income would be the most significant in predicting longer IPV duration. Number of children and ethnic minority group membership were also hypothesized to predict longer IPV duration, though the significance of these associations would be lower. Lastly, low education level and lack of employment were hypothesized to show the weakest significance in predicting longer IPV duration.

CHAPTER 6

RESULTS

Sample Descriptions

Univariate analyses were used to describe sample characteristics, including demographics, experiences of violence, and personal history. For variables with missing data, the percentages were calculated based on the total number of available responses. The following sections describe detailed information about the characteristics of the participants in this study.

Demographics

Table 1 summarizes basic demographic variables. All of the participants were women, with a median age of 36. Nearly half of the participants identified themselves as Caucasian or white. Among non-white participants, half identified themselves as Hispanic (race unspecified), and about one-third identified as African American/Black. More than third of the participants held a college degree or higher, and about three-fourths reported that they were employed in some way. More than half of the participants earned an annual income of less than \$30,000, whereas a third of the sample earned between \$30,000 and \$75,000. Very few (4%) reported having an annual income between \$75,000 and \$150,000, and no participant reported earning more than \$150,000 per year.

Table 2 describes additional information regarding the participants' cases. Most of the participants responded to the question about their case management,

and over half of those who responded stated that they had immediate case management needs.

Table 1. Selected participant characteristics

	N	%	Mean	SD	Median	Range
Total	230					
Age	229		36.62	10.41	36	18-67
Gender						
Female	230	100				
Ethnicity	204					
Caucasian	94	46				
African American	40	20				
Hispanic	56	27				
Asian	7	3				
Native American	2	1				
Other	5	2				
Education level	224					
Less than high school	31	14				
High school grad/GED	47	21				
Some college	65	29				
College degree	48	21				
Some graduate school	7	3				
Graduate degree	26	12				
Employment	211					
Any employment	153	73				
Part-time	41	19				
Full-time	115	55				
Self-employed	4	2				
Unemployed	58	27				
Annual income	157					
\$0	16	10				
\$1 - \$30,000	90	57				
\$30,000 - \$75,000	45	29				
\$75,000 - \$150,000	6	4				

Some participants reported having more than one specific need, therefore some of the percentage columns may sum to more than 100%. The most frequently stated needs were for legal referrals, food, protective order

information, and medical/psychiatric referrals, in order of higher to lower frequencies. Most of the participants responded to questions regarding health insurance, and about half of them noted that they had some form of health insurance coverage.

Table 2. Case management information

	N	%
Total	230	
Case management needed	210	
Yes	126	60
No	84	40
Specific needs	126	
Legal referrals	69	55
Food	42	33
Protective order information	38	30
Medical/psychiatric referrals	37	29
Housing	31	25
Clothing	32	25
Work assistance	13	10
Financial assistance	8	3
Children's needs	2	2
Other	3	2
Has health insurance	226	
Yes	124	55
No	102	45

Partner Characteristics

When asked to write down the partner's age, employment status, and annual income, many participants did not respond. Due to the format of the intake form, it was impossible to determine whether a participant did not respond because she no longer considered herself to have a partner, or because she simply

chose not to provide answers to these questions. The following table summarizes characteristics of partners from available responses.

Table 3. Selected partner characteristics

	N	%	Mean	SD	Median	Range
Total	230					
Partner's age	184		38.6	11.1	38	18-72
Partner employment	161					
Any employment	128	80				
Part-time	18	12				
Full-time	109	68				
Self-employed	7	4				
Unemployed	33	20				
Partner income	117					
\$0	8	7				
\$1 - \$30,000	39	33				
\$30,000 - \$75,000	44	38				
\$75,000 - \$150,000	18	15				
\$150,000+	8	7				

On average, partners were reported to be two years older than the participants, and the oldest partner was five years older than the oldest participant. Similar to the participants, the majority of the partners were employed in some way. Compared to the participants' income level, the partners' income level was more widely distributed. About one-third reportedly earned below \$30,000 and over one-third earned between \$30,000 and \$75,000. A higher percentage of partners, compared to the participants, earned between \$75,000 and \$150,000, and a few reported earning more than \$150,000 per year.

Relationship Characteristics

All variables presented in Tables 4 and 5 refer to information about adult intimate partner relationships for each participant. The maximum allowable number of relationships to be recorded on the form was four. Because all clients qualified to receive services at the Genesis Outreach Office must have had IPV experiences, it was assumed that all participants who responded to questions about relationships had at least one previous or current abusive relationship, regardless of whether they specified as such. Some participants did not respond to these questions, or omitted information such as nature or duration of the relationships. These records were selectively excluded from calculating total numbers for relevant variables.

Table 4. Relationship characteristics

	N	Mean	SD	Median	Range
Total	230				
Number of relationships	213	2.0	1.0	2	1 – 4
Number of abusive relationships	208	1.4	0.6	1	1 – 4
Total duration of all relationships (years)	206	12.7	8.7	11	0.33 – 42
Total duration of all abusive relationships (years)*	193	11.2	8.6	9	0.08 – 42
Average duration of all relationships (years)	206	8.1	7.9	5.5	0.16 – 42
Average duration of all abusive relationships (years) *	193	8.7	8.1	6.5	0.08 – 42

*If a participant reported having an abusive relationship but did not provide the duration, her response was excluded from calculating duration of abusive relationships.

On average, each participant had a total of abusive relationship duration of more than eight years and the longest abusive relationship lasted 42 years. The

proportion of abusive relationships was not presented in these tables, but 60% of the participants ($n=125$) reported that all of their intimate partner relationships have been abusive. Approximately one-third of the participants ($n=63$) reported that less than half of their relationships were abusive.

Table 5. Police contact regarding IPV

	N	%
Total	230	
Ever contacted police for IPV	221	96
Yes	138	62
No	83	38
Anyone was arrested	218	95
Yes	71	33
No	147	67
Who was arrested*	70	
Partner	62	87
Self	5	7
Other relative	3	4
Current protective order	36	16
Previous protective order	32	14

*1 participant did not specify who was arrested.

The majority of the participants responded to the question about police contact and among them, more than half indicated that they had previously contacted the police because of intimate partner violence. For those who contacted the police, about one-third reported that an arrest was made. In most cases, the partner was the one who was arrested. Five participants noted that the police arrested them instead. Less than one-fifth of the participants stated that they had a current protective order against an abusive partner, and about the same portion of participants reported having obtained a previous protective order.

Motherhood

As described in Table 6, the majority of the participants reported having children. One participant stated that one of her children passed away at two months old, and all other participants reported that their children were alive at the time when they completed the form. Only living children were included in calculating central tendencies and frequencies. Children under one year of age were entered into the database as one year old, thus the lower limit of the age range is one.

Table 6. Children information

	N	%	Mean	SD	Median	Range
Total	230					
Women with children	182	79				
Total number of children	421					
Adult children	89	21				
Children under 18	320	76				
Age unspecified	12	3				
Number of children for each woman	230					
0	48	21				
1	39	17				
2	75	33				
3	44	19				
4	20	9				
5	4	2				
Average age of children for each woman	179		10.9	8.4	9.5	1 – 40
Women with children at home	137	75				
Women with children under 18 at home	110	61				
Current CPS involvement?	164					
Yes	24	15				
No	140	85				

182 mothers reported having a total of 421 children, and about one-fifth of these children were adults (18 and older). Over half of the mothers (62%) reported having two or more children, and four of them reported having five children. On average, the mean age of children for each participant was 10.9 years and the oldest child was reported to be 40 years of age. Approximately two-thirds of the mothers noted that they had children under age 18 living with them at home. When asked about current Child Protective Services (CPS) involvement with their children, nearly three-fourths of the participants responded, and the majority of them denied any CPS investigations involving them.

Prevalence of Adult & Childhood Victimization

The prevalence of different types of intimate partner violence (IPV) and childhood trauma is summarized in Table 7. Because each participant was allowed to select multiple forms of abuse for adult IPV experiences and childhood abuse, some of the percentage columns below may sum to over 100%.

About three-fourths of all participants reported experiencing some form of IPV currently, and half of all participants reported previous experiences with IPV. The most frequently reported type of abuse was verbal/emotional violence, followed in order of frequency by physical violence and sexual violence, for both current and previous IPV experiences. Additionally, among the participants who responded to the question regarding sexual assault, one-fifth of them reported having been sexually assaulted as an adult. The perpetrators were most often

Table 7. Adult victimization & childhood trauma

	N	%
Total	230	
Current relationship abuse	174	76
Verbal/Emotional	168	73
Physical	119	52
Sexual	41	18
Previous adult relationship abuse	114	50
Verbal/Emotional	107	47
Physical	88	38
Sexual	44	19
Adult sexual assault history	201	
Yes	40	20
No	161	80
Perpetrator of adult sexual assault	31	
Stranger	3	10
Acquaintance	18	58
Unspecified	10	32
Total number of previous adult traumas*		
0	103	45
1	36	16
2	46	20
3	29	13
4	16	7
Childhood abuse history	139	60
Verbal/Emotional	101	44
Physical	62	27
Sexual	79	34
Witnessed IPV as child	100	43
Verbal/Emotional	23	23
Physical	37	37
Unspecified	40	40
Total number of childhood traumas**		
0	74	32
1	49	21
2	48	21
3	39	17
4	20	9

*Includes previous adult verbal/emotional abuse, physical abuse, sexual abuse, and adult sexual assault history

**Includes childhood verbal/emotional abuse, physical abuse, sexual abuse, and witnessing IPV as child

identified to be acquaintances of the participants. Forty percent of the participants ($n=91$) reported experiencing two or more forms of previous adult trauma, and 7% reported experiencing all four types of previous adult trauma. In this sample, previous verbal/emotional abuse was the most likely form of adult trauma to be found alone.

Regarding childhood victimization, the most frequently reported form of childhood abuse was verbal/emotional abuse, followed in order of frequency by sexual abuse, and physical abuse. Close to half of the participants reported that they witnessed IPV between parents/caregivers at home during childhood. More than a third of these participants did not specify the type of violence witnessed. For those who did specify, they reported witnessing more physical violence than verbal/emotional violence. Nearly half of the participants ($n=97$) reported experiencing two or more forms of childhood trauma, and 9% reported experiencing all four types of childhood trauma. In this sample, childhood verbal/emotional abuse was the most likely form of abuse to be found alone.

Medical and Psychiatric Issues

Table 8 summarizes medical issues reported by participants. Percentage columns may sum to more than 100% due to some participants reporting multiple medical problems. The majority of all participants responded to the question asking about current medical concerns, and almost half of them reported having some concerns about their medical conditions. When asked to specify their

problems, the most frequently reported issues were psychiatric conditions, followed by pain, and cardiovascular problems or hypertension. All other medical conditions were each endorsed by less than 10% of the participants expressing medical concerns. Thirty-nine percent of all participants reported having one or more medical problems.

Table 8. Medical concerns

	N	%
Total	230	
Any medical concerns?	204	
Yes	90	44
No	114	56
Types of medical problems		
Psychiatric	22	24
Pain	11	12
Cardiovascular/Hypertension	9	10
Gastrointestinal/Urology	8	9
OB/GYN	8	9
Hormonal	7	8
Dental/Vision	6	7
Respiratory/Allergies	5	6
Extremities	5	6
Neurological	4	4
Infectious diseases	4	4
Cancer	2	2
Skin	2	2
Other/Unspecified*	23	26
Number of medical problems	230	
0	140	61
1	70	30
2	16	7
3	2	1
4	2	1

*Includes symptoms with no clear cause or diagnosis

Table 9. Frequencies of reported psychiatric symptoms

Symptom	N	%
Worrying	137	60
Depression	134	58
Anxiety	129	56
Sleep problems	129	56
Fatigue	117	51
Loneliness	115	50
Fear	104	45
Avoiding people	101	44
Hopelessness	99	43
Feelings of worthlessness	97	42
Anger	90	39
Feelings of emptiness	86	37
Difficulty concentrating	84	37
Loss of interest	84	37
Mood shifts	67	29
Memory problems	66	29
Irritability	65	28
Withdrawal	64	28
Fear of abandonment	63	27
Feelings of numbness	57	25
Flashbacks	56	24
Panic attacks	54	23
Racing thoughts	51	22
Distractibility	49	21
Nightmares	41	18
Aggression	32	14
Eating disorders	30	13
Sick often	28	12
Suicidal thoughts	28	12
Obsessive-compulsive behavior	27	12
Addictive behaviors	24	10
Impulsivity	23	10
Substance use	20	9
Disorientation	18	8
Excessive energy	12	5
Phobias	11	5
Self-cutting behaviors	8	3
Hallucinations	4	2

Participants were also asked to check all psychiatric symptoms listed that bothered them more often than they would like. Table 9 summarizes the frequencies of these reported symptoms. Almost two-thirds of all participants reported being worried, followed closely in frequency by depression and anxiety. Sleeping problems, fatigue, and loneliness were all reported by half or more than half of the participants. The least frequently reported symptoms (5% or lower) were excessive energy, phobias, self-cutting behaviors, and hallucinations.

Table 10. Family history

	N	%
Total	230	
Depression	107	76
Parent	65	61
Sibling	39	36
Child	9	8
Other relative	26	24
Domestic violence	100	77
Parent	57	57
Sibling	31	31
Child	7	7
Other relative	27	27
Mental illnesses	59	61
Parent	26	44
Sibling	18	31
Child	3	5
Other relative	25	42
Sexual abuse	46	48
Parent	22	48
Sibling	25	54
Child	6	13
Other relative	11	24
Alcohol/drug abuse	85	71
Parent	52	61
Sibling	35	41
Child	1	1
Other relative	26	31

Family Background

Lastly, Table 10 summarizes family history reported by participants for various conditions. The percentage columns may not sum to 100% because multiple family members could have been reported for each condition. For all except sexual abuse, parents appeared to be the most frequently reported family members with a history of these problems. For sexual abuse, the most frequently reported family members were participants' siblings.

Predictors for IPV Duration

Bivariate and multivariate analyses were conducted to test the proposed model in predicting IPV duration. All analyses were performed with the SAS program, version 9.1. The following sections present the results of these analyses and rationale for various statistical procedures performed.

Bivariate Analyses

The first step in this series of analyses was to investigate whether proposed predictors showed significant relationships with the dependent variable, total IPV duration. Pearson's r was calculated for correlations between continuous variables and point-biserial correlations were conducted for pairs with one dichotomous variable. A p value less than .10 was considered statistically significant for this stage in order to minimize the chance of a Type I error.

Table A presents all the variables of interest that were significantly correlated with total IPV duration ($p < 0.10$). Contrary to the proposed

hypotheses, childhood verbal/emotional abuse, childhood sexual abuse, witnessing IPV as child, total number of childhood traumas, medical concerns, total number of medical problems, high school graduate, depressive symptoms, and behavioral symptoms were all found to not be significantly correlated with IPV duration (for a detailed table, please refer to Appendix A). Due to the lack of significance in their relationships with the outcome variable, they will not be entered into the multivariate model.

Table A. Significant correlations

Variable	N	<i>r/r_{pb}</i>	<i>p</i>
Age	192	0.69	< .001
Number of children	193	0.31	< .001
College graduate	190	0.21	0.004
Low income	193	-0.13	0.063
Childhood physical abuse	193	-0.13	0.069
Parental IPV history	193	-0.14	0.054
Non-white ethnicity	171	-0.20	0.011
Unemployment	193	0.15	0.039

A few of these variables warrant some explanation. The author investigated the possibility of combining income, education, and occupation of the participants to create an overall SES variable. However, upon further examination of the methods to generate such an SES variable, it became clear that the lack of information regarding participants' current living situation and their partners' education levels made it difficult to accurately calculate the household SES for each participant. Therefore, separate dichotomous variables reflecting only the participants' SES were used, namely, income (below \$30,000 per year),

education (high school graduate, college graduate), and employment status. High school graduate was the only variable in this group that was not significantly associated with IPV duration, and thus was not used in the multivariate model.

Similarly, a factor analysis was initially contemplated for generating clusters of psychiatric symptoms. However, further examination of the symptoms data revealed that the data collection method and the nature of the instrument were not inductive to producing the kinds of data typically needed for factor analysis. Therefore, the two originally planned symptom variables (depressive symptoms, behavioral symptoms) were retained. They were not significantly correlated with IPV duration.

Among all the childhood trauma variables, only childhood physical abuse was found to be significantly correlated with IPV duration. There were no other variables in the original proposed model that reflect personal background experiences potentially related to IPV duration. In order to better assess the influence of individual family background, family history variables of various conditions (depression, mental illnesses, domestic violence, sexual abuse, substance abuse) involving parental figures were used in the bivariate analysis. The parental history variables were found to be non-significant, except for parental history of domestic violence. This variable will be added to the multivariate model to be tested.

Multivariate Models

Once the final eight variables were selected, they were entered into a multiple regression model. Significance level was set at $p < .05$. The first iteration of this model revealed that age and number of children, the only two continuous variables, strongly predicted IPV duration, whereas none of the other variables were significantly associated with IPV duration. It is possible that due to the difference in levels of measurement, the dichotomous variables lost relative predictive power in this model when more statistically robust numeric variables were present. For the purpose of equity of analysis, these two variables were converted into dichotomous variables for use in the multivariate model.

A common way to define age groups categorically is to use cutoff ages. Only a few studies have investigated IPV in older women, and the most common cutoff age for studying abuse in older women is between 50 and 55 (Baker, Sugar, & Eckert, 2009; Grossman & Lundy, 2003; Leisey, Kupstas, & Cooper, 2009; Zink, Jacobson, Regan, & Pabst, 2004). Though this study sample has a fairly wide age range (18-67), the number of participants noticeably decreases as age increases. Therefore, the lower number (50) was chosen as the cutoff for creating a dichotomous age variable to maximize statistical power for the older group. This new variable was named “older age” and has two values: ‘0’ indicates that the participant was younger than 50 years old, and ‘1’ indicates that the participant was 50 or older.

For number of children, the goal was to retain the conceptual quality of the variable. Because the main concept behind this variable was based on existing literature about motherhood, it seemed appropriate to create a variable indicating simply whether or not a participant was a mother. Therefore, instead of using number of children, the new variable was named “any children.” A value of ‘0’ indicated lack of children for the participant, whereas a value of ‘1’ indicated that the participant was a mother.

Once these two variables were created, their correlations with IPV duration were calculated and both remained robust (older age: $r_{pb}=0.52$, $p < .0001$; any children: $r_{pb}=0.32$, $p < .0001$). They were then used in the final main multivariate model in place of the original interval variables (Table B).

Table B. Main multivariate model

Parameter	df	Estimate	Standard Error	t	p
Older age	1	5365.56	685.08	7.83	< .001
Any children	1	2628.19	451.73	5.82	< .001
College graduate	1	687.72	408.39	1.68	0.094
Unemployment	1	-145.49	459.31	-0.32	0.752
Low income	1	248.14	397.74	0.62	0.534
Non-white ethnicity	1	-872.58	390.81	-2.23	0.027
Parental IPV history	1	-823.22	436.52	-1.89	0.061

The final model showed statistical significance in predicting IPV duration ($R^2=0.45$, Adj $R^2=0.42$; $F=18.33$; $p < .001$). The variance inflation factor (VIF) for each predictor was 1.1 or below, indicating that there is a low level of collinearity among variables in this model.

It should be noted that childhood physical abuse was not included in the final model. It was initially present and was not significant in predicting IPV duration (see Appendix B). However, when investigating the subgroup models for each age group (younger vs. older), childhood physical abuse appeared highly conflated ($VIF = 4.79$) with a few other variables for older participants. Specifically, the presence of childhood physical abuse seemed to increase VIFs for variables any children, college graduate, and unemployment. Further investigation showed no significant correlations between childhood physical abuse and the affected variables. When the variable childhood physical abuse was removed from the model, all VIFs returned to less than 1.5. Because the removal of childhood physical abuse from the model did not alter the significance of other variables' predictive powers, and the variable showed no significance in the original model, it was decided that childhood physical abuse would be removed entirely from the analyses at this stage due to its unpredictable confluations with other variables.

As shown in Table B, this final model has three significant predictors, partially confirming the proposed model. Age, motherhood, and ethnic group membership were all found to be significant in predicting IPV duration. Older age and having children were found to predict longer IPV duration, as hypothesized. Ethnic minority status (non-white) was found to predict shorter IPV duration, contrary to the hypothesis that ethnic minority status would predict longer

duration. None of the variables reflecting SES (college education, unemployment, and low income) or parents' history with IPV were significant in this model.

To investigate relationships within the main model, two sets of subgroup analyses were conducted. In one subgroup division, the age variable was controlled and the model was run for younger vs. older participants. In the other subgroup division, the ethnicity variable was controlled and the model was run for white vs. non-white participants.

Table C. Younger vs. older

Parameter	df	Estimate	Standard Error	t	p
Younger					
Any children	1	2473.08	454.15	5.45	< .001
College graduate	1	632.40	413.60	1.53	0.128
Unemployment	1	-199.68	474.17	-0.42	0.674
Low income	1	386.00	401.56	0.96	0.338
Non-white ethnicity	1	-973.35	391.53	-2.49	0.014
Parental IPV history	1	-455.98	438.17	-1.04	0.300
Older					
Any children	1	4205.94	1965.99	2.14	0.065
College graduate	1	410.22	1523.47	0.27	0.795
Unemployment	1	1190.06	1591.89	0.75	0.476
Low income	1	-2863.98	1712.31	-1.67	0.133
Non-white ethnicity	1	-983.98	1712.31	-0.57	0.581
Parental IPV history	1	-5141.00	1809.16	-2.84	0.022

Table C summarizes findings from the age subgroups. For the younger group, the model was significant in predicting IPV duration ($R^2=0.197$, Adj $R^2=0.164$; $F=5.97$, $p < .0001$). Specifically, having children and being white predicted longer IPV duration. For the older group, the model was significant as

well ($R^2=0.756$, Adj $R^2=0.572$; $F=4.12$, $p=0.035$), but the only significant predictor was parental IPV history. Having parents with an IPV history predicted shorter IPV duration. The VIFs for both subgroups were 1.5 or below.

Table D. White vs. non-white

Parameter	df	Estimate	Standard Error	t	p
White					
Older age	1	5324.33	789.96	6.74	< .001
Any children	1	2813.67	626.39	4.49	< .001
College graduate	1	190.98	560.60	0.34	0.734
Unemployment	1	-612.28	612.65	-1.00	0.321
Low income	1	362.38	586.11	0.62	0.538
Parental IPV history	1	-1268.92	630.12	-2.01	0.048
Non-white					
Older age	1	6287.11	1463.59	4.30	< .001
Any children	1	2610.86	682.34	3.83	< .001
College graduate	1	1294.85	612.32	2.11	0.038
Unemployment	1	473.29	726.08	0.65	0.516
Low income	1	414.80	574.84	0.72	0.473
Parental IPV history	1	-370.27	621.36	-0.60	0.553

Table D summarizes findings from the ethnicity subgroups. For white participants, the model was significant in predicting IPV duration ($R^2=0.518$, Adj $R^2=0.480$; $F=13.62$, $p < .0001$). Older age and having children were strongly predictive of longer IPV duration, whereas parental IPV history showed a weak significance in predicting shorter IPV duration. The model was also significant for the non-white group ($R^2=0.327$, Adj $R^2=0.275$; $F=6.32$, $p < .0001$), where older age, having children, and having at least a college degree significantly predicted longer IPV duration.

Overall, significant predictors for longer IPV duration appeared to be older age, motherhood, and white ethnic identity. For older women, parental IPV history was the only significant variable and predicted shorter IPV duration. Higher education (college graduate) seemed to predict longer IPV duration only in non-white participants. Low income and unemployment were not significant in any of the multivariate models.

CHAPTER 7

DISCUSSION

Characteristics of participants

This study found a few important characteristics of those who sought counseling services at the Genesis Women's Shelter Outreach Office. This sample consisted of women with a fairly wide age range (18-67), and a mean age of 36. These numbers are consistent with previous studies that included women from all life stages (Fugate, et al., 2005; Johnson, et al., 2008; Martinez-Torteya, et al., 2009; Postmus, et al., 2009; Sabina & Tindale, 2008; Wolf, et al., 2003). The composition of different ethnic groups also seemed to be consistent with other studies with diverse samples (Martinez-Torteya, et al., 2009; Postmus, et al., 2009). The majority of the participants reported having children and children were more likely to be minors than adults, with a median age of 9.5 for an average child for each woman.

A third of the participants had completed a college education or higher and 75% were employed at the time of the intake. However, despite their employment and education, none reported having an annual income in the highest income category (\$150,000). In fact, two-thirds of those who disclosed their income reported earning \$30,000 or less per year. In comparison, partners of these participants seemed to have a slightly higher rate of employment and made more money overall, with seven reportedly earning over \$150,000 per year. It is

possible that the participants were economically disadvantaged in the relationship, which is consistent with the theory that economic dependency in women may contribute significantly to experiencing IPV (Bornstein, 2006).

Among all the immediate case management needs, the participants were more likely to indicate a need for legal assistance (referrals, protective order information), assistance with food, and medical/psychiatric referrals than other needs. This finding contradicts the results of a previous study with abused women, where the participants stated that they considered tangible material services to be the most important (e.g., food, clothing, housing) and rated legal assistance, counseling, and medical services as the least helpful services received (Postmus, et al., 2009). It is unclear as to why this study sample considered legal assistance a higher priority than other material services. It is possible that because most of them hold some type of employment and have an income, they were able to meet their material needs and to focus more on coping with other issues.

The mean abusive relationship duration in this sample was 11.5 years, about three years longer than the average length of four to eight years found in previous studies (Johnson, et al., 2008; Sabina & Tindale, 2008; Thompson, et al., 2006). However, it should be noted that this sample consisted of all help-seeking women, which may be a group that has more serious or chronic difficulties with IPV compared to the population-based samples in other studies.

The participants in this study were more likely to report psychiatric conditions than all other medical diagnoses when asked about medical concerns. This may not come as a surprise considering the fact that the most frequently reported form of IPV (current or previous) and childhood abuse was verbal/emotional abuse, rather than physical or sexual abuse. These participants appeared to readily recognize psychological abuse and be well aware of the negative impact of psychological trauma. They also seemed clear about their need for services to address psychological/psychiatric difficulties resulting from the abuse experiences. Their responses appear to echo the conclusions of a recent review, urging prevention and intervention programs to focus more on psychological IPV in addition to physical IPV (Whitaker & Lutzker, 2009).

Predictors for IPV duration

As the main aim of this study, various aspects of the proposed multivariate model were investigated to find the most suitable set of predictors for IPV duration. The final results partially confirmed the proposed model in that some demographic variables showed significant predictive power when considered together. Among all the demographic factors, low income and unemployment were significant correlates with IPV duration but failed to show significant predictive power when entered into the multivariate model. This contradicts the notion that low income was found to be associated with increased risk for IPV in some samples (Centers for Disease & Prevention, 2000; Harwell, et al., 2003) and

appeared to make a greater contribution to the probability of IPV than education or employment status (Cunradi, Caetano, & Schafer, 2002). The difference in findings may be due to sample differences. This study sample consisted of outpatients seeking mental health assistance, rather than abused women in shelters. It is possible that the sample differences contributed to the non-significant predictive power of low income and unemployment. Further research comparing different populations in regards to SES and IPV duration may provide more information in this area.

Contrary to the hypotheses and available literature, neither childhood victimization nor health and mental health variables were correlated with or predictive of IPV duration in this sample. It is possible that these variables are positively related to IPV but have no meaningful relationships with the duration of abusive relationships. It is also possible that the non-significant findings resulted from limitations in our study data, and that future studies with more rigorous experimental designs may find different outcomes. Moreover, further research may need to be conducted with similar samples (mental health outpatients with an IPV history) in order to determine the influence of childhood trauma in this particular population.

Overall, significant predictors for longer IPV duration appeared to be older age, motherhood, and white ethnic identity. As predicted, when a woman grows older, she is more likely to have experienced longer abusive relationships.

This effect of older age holds true for both white and non-white participants. In addition, being a mother was a significant predictor of longer IPV duration, as hypothesized. This confirms previous findings that being a mother increased the risk for longer duration of physical, psychological, and sexual IPV in a group of help-seeking women (Bo Vatnar & Bjorkly, 2010). This result could add to the growing evidence that presence of children may divert mothers' attention and resources from attempting to terminate an abusive relationship, and may limit mothers' options for living without a partner due to the added financial burden (Bonomi, Holt, et al., 2006; Henning & Klesges, 2002). At the same time, our finding could also mean that abused women with children may experience difficulty terminating an abusive relationship because they do not wish to separate their children from their fathers or father figures. Future studies will need to investigate both the economic dependence theory and abused women's desire to avoid family separation.

Though ethnic minority status was found to be a significant predictor, its negative relationship with IPV duration was unexpected. Given previous findings that suggested higher IPV rates among ethnic minority women compared to rates among their white counterparts (Hien & Ruglass, 2009), it was surprising to find that being white was associated with longer abusive relationships in this sample.

One way to understand this result is to consider the correlation between ethnicity and SES. Previous studies have suggested that the effects of income

varied by ethnic groups and that SES may contribute more to women's vulnerability to abuse than does ethnicity (Field & Caetano, 2003; Vogel & Marshall, 2001). This means that when ethnicity had been linked with higher rates of IPV, the apparent connection may in fact be due to lower SES in many minority groups. In this study, however, income did not vary significantly by ethnicity, and the SES variables were found to be non-significant when ethnicity was present in the multivariate model. Therefore, the SES factors that drive women to stay in abusive relationships may not apply, and this finding may indicate a previously undiscovered trend. Another way to conceptualize this result is that white women may deal with IPV in a different manner than non-white women, which may lengthens their stay in abusive relationships. One study found that compared to Asian women, Caucasian women used more passive coping and perceived social support to dampen direct psychological harm following IPV (J. Lee, Pomeroy, & Bohman, 2007). Though this seems to reduce the direct adverse psychological effects for Caucasian women, it may also delay their efforts to terminate an abusive relationship as they do not experience the emotional pain as intensely as their Asian counterparts.

Subgroup analysis of the main model may also shed light on the behavior of ethnic minority status in this model. Once we conducted the multivariate analysis separately for younger and older participants, it became apparent that being white was associated with longer IPV duration in younger women, but not

in older women. It is difficult to say why ethnic group membership had a significant relationship with IPV duration in only the younger age group. One possibility may be that this group of women is somehow more susceptible to the traditional sexism and female inequality in the mainstream culture, which was at the heart of the feminist theory of relationship violence (Lenton, 1995). Because feminist theory was developed out of research conducted predominantly with white women, the cultural factors that encourage IPV may be best applied to a sample of white women, compared to those of other ethnicities. In any case, the relationship between white ethnic identity and longer IPV duration remains a preliminary finding and warrants future investigations.

Another important finding of this study is that factors predicting IPV duration in the participants' lives seem different from one age group to the other. For older women, being a mother or being white was not associated with IPV duration, while parental history of IPV experiences predicted shorter IPV duration. Conceptually, it seems to make sense that motherhood may be less of a factor in older women's romantic relationships, as their children are more likely to be adults who do not live at home and/or do not depend on them financially. Therefore, they may have fewer concerns about their decision to terminate an abusive relationship and be able to utilize more resources in pursuing the termination. At the same time, ethnic differences seem to become less influential as women grow older. However, this result needs to be treated with caution,

because there was much less variability in ethnic composition among older participants compared to their younger counterparts, which may have prevented statistical significance due to fewer number of non-white participants in the older age subgroup.

The finding that parental IPV history predicts shorter IPV duration for older women appears to contradict the intergenerational violence transmission theory, which states that violence in the family of origin predicts more instances of adult relationship violence (Bensley, et al., 2003; Gover, et al., 2008). It is possible that IPV duration is conceptually different from rates of IPV and that this theory may not apply appropriately. On the other hand, it is also possible that this result suggests the opposite effect of parental violence in a previously overlooked sample, as most of the studies on intergenerational violence transmission have been conducted with women younger than age 50 or 55. In other words, older women may hold more negative opinions about parental IPV history and have a stronger desire to avoid such experiences personally and thus may be better able to follow through with efforts to terminate abusive relationships, compared to their younger counterparts.

These unexpected findings with the older participants confirm the notion that more research focused on older abused women is needed to be able to determine issues unique to this age group and to provide better services for them (Jasinski & Dietz, 2003; Leisey, et al., 2009; Walsh et al., 2007). Current

evidence suggests that older women are more likely to think of IPV as a younger women's problem and to lack knowledge about the definition of IPV or about available services from local agencies and the police (Leisey, et al., 2009). Given the fact that older women are equally as likely to be physically abused by an intimate partner as younger women, and that their ongoing spousal abuse may shift into other dangerous forms of elder abuse (Jasinski & Dietz, 2003; Walsh, et al., 2007), it seems important to expand our knowledge about the unique qualities of this subset of abused women.

Lastly, higher education (college graduate) was found to predict longer IPV duration only in non-white participants. This result seems to contradict previous findings that a college education was protective and decreased the likelihood of experiencing IPV for a group of ethnically diverse nurses and nursing personnel (Bracken, et al., 2010). It is difficult to speculate on how a college education may influence non-white women differently than their white counterparts, and this preliminary result will need to be further studied.

Study Strengths and Limitations

This study has a few strengths. We were able to collect data from a fairly large sample, which provided adequate power for conducting multivariate analyses. In addition, the intake form questions covered a broad range of areas, enabling the author to generate several variables of interest for this study. This was valuable to an exploratory study such as this one because it offered more

opportunities to test the relationships between different combinations of variables. Lastly, the study data were collected consecutively over a single period of time, which provided a good picture of the typical clients seen at the agency.

Limitations of this study must also be acknowledged. First of all, the instrument construction was not ideal because the forms were not originally designed for research purposes. Therefore, they sometimes did not provide the type or the quality of data that was needed. For example, if some questions on the form were left blank, it was unclear whether the participants intended to indicate that the question was not applicable to them, or they simply chose not to provide an answer. Because of this, there might have been many instances of underestimation for some variables (e.g., children's information, psychiatric symptoms, etc.) as we elected to count missing values as zeros for the analyses. Another issue was that the form did not include detailed questions about the course of abuse in relationships. This means that the IPV duration variable reflected the length of time in an abusive relationship rather than the length of time when abuse was occurring. Future studies would benefit from using standardized instruments designed to obtain quality research data.

Second, this study utilized self-report data, which is subject to participants' biases or misunderstanding. This issue is most relevant to questions regarding reported symptoms, drug and alcohol use, family history, and previous psychiatric problems. Some participants may under-report or over-report

psychiatric symptoms because they did not understand what the terms meant (e.g., eating disorder), and others may under-report previous psychiatric problems due to embarrassment or a tendency to minimize risky behaviors. As a result, some of the rates reported for these variables may not be an accurate reflection of the true rates in this sample. Moreover, this non-standardized symptoms checklist offered little beyond an arbitrary set of symptoms and did not provide clinical information that fit any particular constructs. Although it requires more resources to utilize clinicians to obtain data, the quality of the data often improves compared to collecting self-report data alone. Future studies of this kind would benefit from incorporating a clinician interview as part of the data collection process. A research interview conducted by a trained clinician may improve the assessment of participants' symptoms and enhance the information gathered regarding the nature and course of abuse in relationships.

Another limitation is that this was a cross-sectional study with a specific group of help-seekers, and the results need to be interpreted cautiously. Generally speaking, help-seekers may differ from non-help-seekers in important ways. For instance, help-seekers may experience more severe IPV, may be more motivated to engage in treatment, may be more likely to exhibit psychopathology, and may have less social support. Therefore, findings from this study may not represent the characteristics or experiences of non-help-seeking women, who may have more informal support, experience less severe abuse, perceive mental health services

negatively, or have more psychological resources to terminate abusive relationships on their own. Furthermore, there may be differences among help-seekers. This study sample was unique in that the participants were outpatients seeking mental health assistance in dealing with IPV-related issues. Their demographics and needs are likely different from abused women seeking help via other means such as shelters, medical clinics or hospitals, and legal avenues. For example, women who have not experienced physical IPV often do not qualify for shelter services. This may explain the high rates of verbal/emotional IPV reported in this sample, as women who experience only verbal/emotional abuse were more likely to seek outpatient counseling because they would not be eligible for shelter services.

Given the nature of this study sample and its cross-sectional design, findings may not be generalized to make assumptions about other groups of abused women who choose not to seek help or to seek help via other avenues, or about the longitudinal course of the associations found in this study.

CONCLUSION

In summary, this study was the first to examine predictors for intimate partner violence duration in a group of help-seeking outpatient women, using self-report data that encompasses different areas of the participants' functioning and environment. Current IPV literature has a big gap in terms of understanding what factors may be related to lengths of abusive relationships. The purpose of this

study was to address that gap since the data offered the opportunity to investigate an important variable, IPV duration, and its relations to other variables that have often been associated with IPV.

As hypothesized, certain demographic factors were significant in predicting longer IPV duration, namely older age and motherhood. On the other hand, being white, instead of an ethnic minority, predicted longer IPV duration. Future studies need to investigate the reason behind the relationship between motherhood and longer IPV duration to better understand the impact of having children on women's experience in abusive relationships. Similarly, the finding that ethnic minority status was linked to shorter IPV duration will need to be studied more in order to determine which factors may contribute to this association.

Older women in this study sample were found to be qualitatively different from younger participants, in that their motherhood status or ethnic minority status did not predict IPV duration. Instead, having parents with an IPV history predicted shorter IPV duration for these women. It is possible that when abused women age, their experience with parental IPV becomes more salient and serves as a strong motivator for them to terminate abusive relationships. These results with older participants confirm the need for further research conducted with older female IPV survivors.

Contrary to hypotheses, low SES, childhood trauma, and psychiatric symptoms were not significant predictors of IPV duration when other factors were considered in the model. These results may be due to both instrument limitations and the unusual nature of this study sample.

Unlike most other samples in the IPV literature, participants in this study were not recruited from shelters, medical clinics, hospitals, court proceedings, police records, or the general population. It is possible that these participants presented new and different characteristics previously unseen in other samples. For example, most of the participants were employed and/or had some type of income, and reported experiencing more verbal/emotional abuse than other types of IPV. Their relative financial stability and low rates of physical abuse may render these factors irrelevant in their assessment of whether to stay in an abusive relationship, compared to shelter residents who may choose to leave a partner because of repeated beatings and being prevented from working.

Future research with similar samples can begin to explore the role of SES, IPV types, childhood trauma, and psychiatric symptoms by collecting more detailed and higher quality research data to construct stronger variables. More importantly, studies that compare these factors in traditional help-seekers for IPV (e.g., shelter residents) and mental health outpatients can shed light on some of the non-significant findings from this study, and help clinicians better understand the unique needs of this group of abused women.

Last but not least, future studies need to explore the variable IPV duration in more depth to better understand how it may reflect various factors in abused women's life and relationships. Though this study conceptualized longer IPV duration as a negative outcome, it is possible that this is a variable of mixed meaning for women with IPV history. In other words, longer IPV duration may reflect strengths to persevere in spite of abuse for some women and vulnerability to being victimized by partners for others. Furthermore, women who stay for long periods in abusive relationships may have unique experiences that contribute to their choice to maintain the relationships. For instance, some women may experience abuse briefly after a long relationship without abuse, which would make it difficult for them to break away as they are less likely to perceive the abuse as reoccurring behavior. Other women may experience ongoing abuse but hold strong values that sanctify intimate relationships and thus decide to cope with the abuse to maintain important values and integrity. The complexity of the variable IPV duration should be investigated by designing studies that gather more details about abuse in relationships and about women's rationale for remaining or leaving their partners once abuse occurs.

Appendix A

Non-significant Correlations

Variable	N	<i>r/r_{pb}</i>	<i>p</i>
Childhood verbal/emotional abuse	193	0.03	0.642
Childhood sexual abuse	193	-0.02	0.812
Witnessed IPV as child	175	-0.08	0.324
Total number of childhood traumas	193	-0.06	0.378
Medical concerns	175	0.03	0.675
Total number of medical problems	193	0.03	0.697
Depression symptoms	193	-0.07	0.363
Behavioral symptoms	193	-0.11	0.147
High school graduate	190	-0.09	0.241
Parental depression history	193	-0.01	0.942
Parental mental illness history	193	0.01	0.866
Parental sexual abuse history	193	-0.11	0.138
Parental substance abuse history	193	-0.11	0.137

Appendix B

Main multivariate model with the inclusion of childhood physical abuse variable

$R^2=0.445$, Adj $R^2=0.417$; $F=15.96$; $p < .0001$

Parameter	df	Estimate	Standard Error	t	<i>p</i>
Older age	1	5359.06	687.44	7.80	< .001
Any children	1	2627.92	453.03	5.80	< .001
College graduate	1	676.36	411.53	1.64	0.102
Unemployment	1	-151.67	461.16	-0.33	0.743
Low income	1	262.37	402.03	0.65	0.515
Non-white ethnicity	1	-874.37	391.99	-2.23	0.027
Parental IPV history	1	-790.99	452.30	-1.75	0.082
Childhood physical abuse	1	-128.09	451.70	-0.28	0.777

Appendix C UT-SW IRB Approval Letter



From: [Ahamed Idris](#)
Institutional Review Board Chairperson
IRB - 8843

To: [Chong Wang](#) , [Dana Downs](#) , [Chong Wang](#)

Date: August 4, 2010

Re: Exempt

IRB Number: [STU 072010-133](#)

Title: Demographic and Mental Health Predictors for Abusive Relationship Duration among Women Seeking Help for Intimate Partner Violence (IPV): A Multivariate Model.

Documents: Exempt Memo

The UT Southwestern Institutional Review Board (IRB) determined on August 4, 2010 that this research is exempt in accordance with 45 CFR 46.101(b). Further review of this study by the IRB is not required unless the protocol changes in the use of human subjects. In that case, the study must be immediately resubmitted to the Board. Please inform the IRB when this research is completed.

If you have any questions related to this approval letter or about IRB policies and procedures, please telephone the IRB Office at 214-648-3060.

Thank You

Warning: This is a private message for authorized UT Southwestern employees only. If the reader of this message is not the intended recipient you are hereby notified that any dissemination, distribution or copying of this information is STRICTLY PROHIBITED.



University of Texas Southwestern Medical Center
Institutional Review Board
5323 Harry Hines Boulevard
Dallas, Texas 75390-8843
Room C3.206
phone: 214-648-3060
fax: 214-648-2171

Appendix D Genesis intake form
Adult Intake Form

Client's Name: _____		Date: _____
DOB: _____	Age: _____	Ethnicity: _____
Client's Address: _____		
City: _____	State: _____	Zip Code: _____
Phone Numbers:		
H: _____	Safe to call? Y N	To leave message? Y N
W: _____	Safe to call? Y N	To leave message? Y N
C: _____	Safe to call? Y N	To leave message? Y N
Email address: _____		Safe to email you? Y N
Emergency contact: <i>(Please include name, phone number, and relationship)</i>		
1. _____		
2. _____		
Are you currently safe? _____		
Partner's Name: _____		Age: _____

Partner's Address: _____ Phone: _____		
<i>(For emergency purposes only. We will not call or send information to your partner.)</i>		
How did you hear about Genesis: <i>(please circle one)</i>		
Media	Doctor	Lawyer
Police/Sheriff	Hospital	Friend
Relative	Client of Genesis	Other social service agency
Other: _____		

Reason for seeking counseling services at Genesis: <i>(Outreach clients only)</i> _____
What is your primary goal for counseling: _____
How would you like Genesis to help you at this point in your life: _____

Do you have any immediate case management needs: ____Y ____N *(please check all that apply)*

____Housing

____Food

____Clothing

____Other:

____Legal Referrals

____Protective Order

information/counseling/application

____Medical/Psychiatric Referrals

Relationship Information:

List current and past significant/intimate partner relationships:

	First Name	Status of relationship	Length of relationship	Abusive Y/N
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____

Please describe any concerns with your current relationship: _____

Information about your Children: *(if needed, please continue on back)*

	Name	Age	<u>Living</u> Y N	<u>Living with you</u> Y N
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____

Are you or any of your children currently involved with Child Protective Services? ____Y
____N

Employment Information:

Are you currently employed: ____Full-time ____Part-time ____Not employed ____Student

Occupation: _____

Current Employer: _____

Address: _____

Length of time at current job: _____

Current income level: \$0 \$1 - \$30,000 \$30,000-\$75,000 \$75,000-\$150,000 \$150,000+

Sources of income: _____

Is your partner employed: ☐ Full-time ☐ Part-time ☐ Not employed ☐ Student

Partner's occupation: _____

Partner's income level: \$0 \$1 - \$30,000 \$30,000-\$75,000 \$75,000-\$150,000 \$150,000+

Education Information:

Currently enrolled in school: ☐ Y ☐ N Where: _____

Highest level of schooling completed:

Some high school GED High school completed Some college College degree

Some graduate school Graduate degree Other: _____

Police Information:

Have you had contact with the police regarding domestic violence or assault: ☐ Y ☐ N

If so, please explain: _____

Which police department responded: _____

Was an arrest made? ☐ Y ☐ N If so, who was arrested? _____

Was your contact with the police positive or negative? Please explain: _____

Did your situation improve after police contact? _____

Do you currently have a protective order? ☐ Y ☐ N

Have you previously had a protective order? ☐ Y ☐ N

Medical Information: *(All services at Genesis are free; this information is for referrals or emergency use only)*

Do you currently have health insurance? ☐ Y ☐ N

Name of insurance: _____

Do you currently have medical concerns? ☐ Y ☐ N

Please explain: _____

Current physician: *(please list name and number)* _____

Current psychiatrist: *(please list name and number)* _____

Counseling Information:Previous counseling experience: ☐ Y ☐ N When: _____Previous suicidal thoughts: ☐ Y ☐ N Most recent: _____Previous suicide attempts: ☐ Y ☐ N Explain: _____Previous psychiatric hospitalization: ☐ Y ☐ N Explain: _____Are you taking any current medications? *(if so, please list; for more space, continue on the back)*

Name of Medication	Dosage	Prescribing MD	MD Phone #

Symptoms:

Please check if you have had any recent changes in the following:

<input type="checkbox"/> Sleep patterns	<input type="checkbox"/> Eating problems	<input type="checkbox"/> General mood
<input type="checkbox"/> Physical activity level	<input type="checkbox"/> Weight	<input type="checkbox"/> Behavior
<input type="checkbox"/> Nervousness/tension	<input type="checkbox"/> Energy level	

Please check behaviors and symptoms that occur to you more often than you would like them to take place:

<input type="checkbox"/> Addictive behaviors	<input type="checkbox"/> Feelings of fear	<input type="checkbox"/> Sick often
<input type="checkbox"/> Aggression	<input type="checkbox"/> Flashbacks	<input type="checkbox"/> Sleeping problems
<input type="checkbox"/> Anger	<input type="checkbox"/> Hallucinations	<input type="checkbox"/> Suicidal thoughts
<input type="checkbox"/> Anxiety	<input type="checkbox"/> Hopelessness	<input type="checkbox"/> Withdrawing
<input type="checkbox"/> Avoiding people	<input type="checkbox"/> Impulsivity	<input type="checkbox"/> Worrying
<input type="checkbox"/> Cutting/self-harm	<input type="checkbox"/> Irritability	<input type="checkbox"/> Difficulty concentrating
<input type="checkbox"/> Depression	<input type="checkbox"/> Loneliness	<input type="checkbox"/> Fear of abandonment
<input type="checkbox"/> Disorientation	<input type="checkbox"/> Memory problems	<input type="checkbox"/> Feelings of emptiness
<input type="checkbox"/> Distractibility	<input type="checkbox"/> Mood shifts	<input type="checkbox"/> Feelings of numbness or disconnection
<input type="checkbox"/> Drug/Alcohol use/abuse	<input type="checkbox"/> Nightmares	<input type="checkbox"/> Feelings of worthlessness
<input type="checkbox"/> Eating disorder	<input type="checkbox"/> Panic attacks	<input type="checkbox"/> Loss of interest in important things
<input type="checkbox"/> Excessive energy	<input type="checkbox"/> Phobias	<input type="checkbox"/> Obsessions/compulsive behaviors
<input type="checkbox"/> Fatigue	<input type="checkbox"/> Racing thoughts	

Other: _____

Do you have any past or current difficulties with drugs and/or alcohol? If yes, please explain:

Please indicate the types of drugs you currently or previously used: _____

Please list all close relatives (parents, grandparents, siblings, children) who have experienced any of the following:

Depression	
Domestic Violence	
Mental Illness	
Sexual Abuse	
Substance Abuse	

Abuse History:

As an **adult**, have you experienced an intimate relationship that included any of the following:

Current/recent relationship: ___ Verbal/Emotional Abuse ___ Physical Abuse ___ Sexual Abuse

Previous relationship: ___ Verbal/Emotional Abuse ___ Physical Abuse ___ Sexual Abuse

As an **adult**, have you been sexually assaulted by a stranger or a familiar person? _Y _N

Please explain: _____

As a **child**, did you experience any of the following:

___ Verbal/Emotional Abuse ___ Physical Abuse ___ Sexual Abuse

Please explain: _____

As a **child**, did you witness domestic violence between/involving your parents? _Y _N

Please explain: _____

Family Background:

Mother's Name: _____ Lived with until age: ___ Deceased: ___Y ___N

Assessment of your relationship with her: ___ Good ___ Fair ___ Poor

Father's Name: _____ Lived with until age: ___ Deceased: ___Y ___N

Assessment of your relationship with him: ___ Good ___ Fair ___ Poor

Other parents (*step-parents, primary caretakers*): _____

Assessment of your relationship with other parent: ___ Good ___ Fair ___ Poor

Siblings: Name Age Relationship (*Good, Fair, or Poor*)

<i>(Indicate if deceased, year & age of death)</i>	
1.	_____
2.	_____
3.	_____
4.	_____
Other:	_____

Significant Losses:

Please list significant losses: *(deaths of significant people or the loss of significant relationships)*

Name	Relationship	Year of loss
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Strengths and Support System:

Please list 3 things you like about yourself:

Please list 3 people or places that give you a sense of support:

Additional Information for Safety Purposes:

Do you have your own transportation? ____ Yes ____ No

What is your license plate? _____

Make and model of your car:

What is the make and model of your partner's car? _____

Please give a physical description of your partner:

Do you have any cash or valuables on hand (*for Shelter clients only*):

REFERENCES

- Arias, I. (2004). The Legacy of Child Maltreatment: Long-Term Health Consequences for Women. *Journal of Women's Health, 13*(5), 468-473. doi: <http://dx.doi.org/10.1089/1540999041280990>
- Babcock, J. C., Roseman, A., Green, C. E., & Ross, J. M. (2008). Intimate partner abuse and PTSD symptomatology: Examining mediators and moderators of the abuse-trauma link. *Journal of Family Psychology, 22*(6), 809-818. doi: <http://dx.doi.org/10.1037/a0013808>
- Baker, M. W., Sugar, N. F., & Eckert, L. O. (2009). Sexual assault of older women: Risk and vulnerability by living arrangement. *Sexuality Research & Social Policy: A Journal of the NSRC, 6*(4), 79-87. doi: <http://dx.doi.org/10.1525/srsp.2009.6.4.79>
- Bensley, L., Van Eenwyk, J., & Simmons, K. W. (2003). Childhood family violence history and women's risk for intimate partner violence and poor health. *American Journal of Preventive Medicine, 25*(1), 38-44. doi: <http://dx.doi.org/10.1016/S0749-3797%2803%2900094-1>
- Bo Vatnar, S. K., & Bjorkly, S. (2010). Does it make any difference if she is a mother?: An interactional perspective on intimate partner violence with a focus on motherhood and pregnancy. *Journal of Interpersonal Violence, 25*(1), 94-110. doi: <http://dx.doi.org/10.1177/0886260508329129>

- Bonomi, A. E., Anderson, M. L., Rivara, F. P., & Thompson, R. S. (2009). Health care utilization and costs associated with physical and nonphysical-only intimate partner violence. *Health Services Research, 44*(3), 1052-1067. doi: <http://dx.doi.org/10.1111/j.1475-6773.2009.00955.x>
- Bonomi, A. E., Holt, V. L., Martin, D. P., & Thompson, R. S. (2006). Severity of Intimate Partner Violence and Occurrence and Frequency of Police Calls. *Journal of Interpersonal Violence, 21*(10), 1354-1364. doi: <http://dx.doi.org/10.1177/0886260506291656>
- Bonomi, A. E., Thompson, R. S., Anderson, M., Reid, R. J., Carrell, D., Dimer, J. A. (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>
- Bornstein, R. F. (2006). The complex relationship between dependency and domestic violence: Converging psychological factors and social forces. *American Psychologist, 61*(6), 595-606. doi: <http://dx.doi.org/10.1037/0003-066X.61.6.595>
- Bracken, M. I., Messing, J. T., Campbell, J. C., La Flair, L. N., & Kub, J. (2010). Intimate partner violence and abuse among female nurses and nursing personnel: Prevalence and risk factors. *Issues in Mental Health Nursing, 31*(2), 137-148. doi: <http://dx.doi.org/10.3109/01612840903470609>

- Bradley, R., Schwartz, A. C., & Kaslow, N. J. (2005). Posttraumatic Stress Disorder Symptoms Among Low-Income, African American Women With a History of Intimate Partner Violence and Suicidal Behaviors: Self-Esteem, Social Support, and Religious Coping. *Journal of Traumatic Stress, 18*(6), 685-696. doi: <http://dx.doi.org/10.1002/jts.20077>
- Carlson, B. E., McNutt, L.-A., 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, 8*(6), 720-745. doi: <http://dx.doi.org/10.1177/10778010222183251>
- Centers for Disease, C., & Prevention. (2000). Prevalence of intimate partner violence and injuries--Washington, 1998. *MMWR Morbidity & Mortality Weekly Report, 49*(26), 589-592.
- Coid, J., Petruckevitch, A., Feder, G., Chung, W., Richardson, J., & Moorey, S. (2001). Relation between childhood sexual and physical abuse and risk of revictimisation in women: a cross-sectional survey. *Lancet, 358*(9280), 450-454.
- Coker, A. L., Davis, K. E., Arias, I., Desai, S., Sanderson, M., Brandt, H. M. (2002). Physical and mental health effects of intimate partner violence for men and women. *American Journal of Preventive Medicine, 23*(4), 260-268. doi: <http://dx.doi.org/10.1016/S0749-3797%2802%2900514-7>

- Coker, A. L., Smith, P. H., McKeown, R. E., & King, M. J. (2000). Frequency and correlates of intimate partner violence by type: physical, sexual, and psychological battering. *American Journal of Public Health, 90*(4), 553-559.
- 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: <http://dx.doi.org/10.1891/vivi.20.6.625>
- Daigneault, I., Hebert, M., & McDuff, P. (2009). Men's and women's childhood sexual abuse and victimization in adult partner relationships: A study of risk factors. *Child Abuse & Neglect, 33*(9), 638-647. doi: <http://dx.doi.org/10.1016/j.chiabu.2009.04.003>
- Duncan, M. M., Stayton, C. D., & Hall, C. B. (1999). Police reports on domestic incidents involving intimate partners: Injuries and medical help-seeking. *Women & Health, 30*(1), 1-13. doi: http://dx.doi.org/10.1300/J013v30n01_01
- Ellsberg, M., Jansen, H. A., Heise, L., Watts, C. H., & Garcia-Moreno, C. (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: <http://dx.doi.org/10.1016/S0140-6736%2808%2960522-X>

- Fedovskiy, K., Higgins, S., & Paranjape, A. (2008). Intimate Partner Violence: How Does it impact major depressive disorder and post traumatic stress disorder among immigrant Latinas? *Journal of Immigrant and Minority Health, 10*(1), 45-51. doi: <http://dx.doi.org/10.1007/s10903-007-9049-7>
- Field, C. A., & Caetano, R. (2003). Longitudinal model predicting partner violence among white, black, and Hispanic couples in the United States. *Alcoholism: Clinical & Experimental Research, 27*(9), 1451-1458.
- Fugate, M., Landis, L., Riordan, K., Naureckas, S., & Engel, B. (2005). Barriers to Domestic Violence Help Seeking. *Violence Against Women, 11*(3), 290-310. doi: <http://dx.doi.org/10.1177/1077801204271959>
- Garcia-Moreno, C., Jansen, H. A., Ellsberg, M., Heise, L., Watts, C. H., Health, W. H. O. M.-c. S. o. W. s. (2006). Prevalence of intimate partner violence: findings from the WHO multi-country study on women's health and domestic violence. *Lancet, 368*(9543), 1260-1269.
- Golding, J. M. (1999). Intimate partner violence as a risk factor for mental disorders: A meta-analysis. *Journal of Family Violence, 14*(2), 99-132. doi: <http://dx.doi.org/10.1023/A:1022079418229>
- Gover, A. R., Kaukinen, C., & Fox, K. A. (2008). The relationship between violence in the family of origin and dating violence among college students. *Journal of Interpersonal Violence, 23*(12), 1667-1693. doi: <http://dx.doi.org/10.1177/0886260508314330>

- Grossman, S. F., & Lundy, M. (2003). Use of Domestic Violence Services Across Race and Ethnicity by Women Aged 55 and Older: The Illinois Experience. *Violence Against Women*, 9(12), 1442-1452. doi: <http://dx.doi.org/10.1177/1077801203259233>
- Harwell, T. S., Moore, K. R., & Spence, M. R. (2003). Physical violence, intimate partner violence, and emotional abuse among adult American Indian men and women in Montana. *Preventive Medicine: An International Journal Devoted to Practice and Theory*, 37(4), 297-303. doi: <http://dx.doi.org/10.1016/S0091-7435%2803%2900136-1>
- Hedtke, K. A., Ruggiero, K. J., Fitzgerald, M. M., Zinzow, H. M., Saunders, B. E., Resnick, H. S. (2008). A longitudinal investigation of interpersonal violence in relation to mental health and substance use. *Journal of Consulting and Clinical Psychology*, 76(4), 633-647. doi: <http://dx.doi.org/10.1037/0022-006X.76.4.633>
- Henning, K. R., & Klesges, L. M. (2002). Utilization of counseling and supportive services by female victims of domestic abuse. *Violence and Victims*, 17(5), 623-636. doi: <http://dx.doi.org/10.1891/vivi.17.5.623.33714>
- 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:

<http://dx.doi.org/10.1016/j.ijlp.2008.11.003>

Jasinski, J. L., & Dietz, T. L. (2003). Domestic Violence and Stalking Among Older Adults: An Assessment of Risk Markers. *Journal of Elder Abuse & Neglect*, 15(1), 3-18. doi: http://dx.doi.org/10.1300/J084v15n01_02

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>

Kearney, M. H. (2001). Enduring love: A grounded formal theory of women's experience of domestic violence. *Research in Nursing & Health*, 24, 270-282.

Kemp, A., Rawlings, E. I., & Green, B. L. (1991). Post-traumatic stress disorder (PTSD) in battered women: A shelter sample. *Journal of Traumatic Stress*, 4(1), 137-148. doi: <http://dx.doi.org/10.1002/jts.2490040111>

Koopman, C., Palesh, O., Marten, B., Thompson, B., Ismailji, T., Holmes, D. (2005). Child Abuse and Adult Interpersonal Trauma as Predictors of Posttraumatic Stress Disorder Symptoms among Women Seeking Treatment for Intimate Partner Violence *Focus on posttraumatic stress disorder research* (pp. 1-16). Hauppauge, NY: Nova Science Publishers; US.

- Krause, E. D., Kaltman, S., Goodman, L., & Dutton, M. A. (2006). Role of Distinct PTSD Symptoms in Intimate Partner Reabuse: A Prospective Study. *Journal of Traumatic Stress, 19*(4), 507-516. doi: <http://dx.doi.org/10.1002/jts.20136>
- Krug, E. G., Mercy, J. A., Dahlberg, L. L., & Zwi, A. B. (2002). The world report on violence and health. [Review] *Lancet, 360*(9339), 1083-1088.
- Lang, A. J., Stein, M. B., Kennedy, C. M., & Foy, D. W. (2004). Adult Psychopathology and Intimate Partner Violence Among Survivors of Childhood Maltreatment. *Journal of Interpersonal Violence, 19*(10), 1102-1118. doi: <http://dx.doi.org/10.1177/0886260504269090>
- 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: <http://dx.doi.org/10.1007/s10896-007-9119-6>
- Lee, Y.-S., & Hadeed, L. (2009). Intimate partner violence among Asian immigrant communities: Health/mental health consequences, help-seeking behaviors, and service utilization. *Trauma, Violence, & Abuse, 10*(2), 143-170. doi: <http://dx.doi.org/10.1177/1524838009334130>
- Leisey, M., Kupstas, P. K., & Cooper, A. (2009). Domestic violence in the second half of life. *Journal of Elder Abuse & Neglect, 21*(2), 141-155. doi: <http://dx.doi.org/10.1080/08946560902779951>

- Lenton, R. L. (1995). Power versus feminist theories of wife abuse. *Canadian Journal of Criminology*, 37(3), 305-330.
- 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(1), 3-19. doi: <http://dx.doi.org/10.1177/0886260508314335>
- Martinez-Torteya, C., Bogat, G. A., von Eye, A., Levendosky, A. A., & Davidson, W. S., 2nd. (2009). Women's appraisals of intimate partner violence stressfulness and their relationship to depressive and posttraumatic stress disorder symptoms. *Violence & Victims*, 24(6), 707-722.
- Max, W., Rice, D. P., Finkelstein, E., Bardwell, R. A., & Leadbetter, S. (2004). The Economic Toll of Intimate Partner Violence Against Women in the United States. *Violence and Victims*, 19(3), 259-272. doi: <http://dx.doi.org/10.1891/vivi.19.3.259.65767>
- McCauley, J., Kern, D. E., Kolodner, K., Dill, L., Schroeder, A. F., DeChant, H. K. (1995). The "battering syndrome": prevalence and clinical characteristics of domestic violence in primary care internal medicine practices. *Annals of Internal Medicine*, 123(10), 737-746.

- McFarlane, J., Malecha, A., Gist, J., Watson, K., Batten, E., Hall, I. (2005).
Intimate partner sexual assault against women and associated victim
substance use, suicidality, and risk factors for femicide. *Issues in Mental
Health Nursing*, 26(9), 953-967. doi:
<http://dx.doi.org/10.1080/01612840500248262>
- Mechanic, M. B., Weaver, T. L., & Resick, P. A. (2008). Risk factors for physical
injury among help-seeking battered women: An exploration of multiple
abuse dimensions. *Violence Against Women*, 14(10), 1148-1165. doi:
<http://dx.doi.org/10.1177/1077801208323792>
- Nixon, R. D., Resick, P. A., & Nishith, P. (2004). An exploration of comorbid
depression among female victims of intimate partner violence with
posttraumatic stress disorder. *Journal of Affective Disorders*, 82(2), 315-
320. doi: <http://dx.doi.org/10.1016/j.jad.2004.01.008>
- Pico-Alfonso, M. A. (2005). Psychological intimate partner violence: The major
predictor of posttraumatic stress disorder in abused women. *Neuroscience
and Biobehavioral Reviews*, 29(1), 181-193. doi:
<http://dx.doi.org/10.1016/j.neubiorev.2004.08.010>
- Pico-Alfonso, M. A., Echeburua, E., & Martinez, M. (2008). Personality disorder
symptoms in women as a result of chronic intimate male partner violence.
Journal of Family Violence, 23(7), 577-588. doi:
<http://dx.doi.org/10.1007/s10896-008-9180-9>

- Postmus, J. L., Severson, M., Berry, M., & Yoo, J. A. (2009). Women's experiences of violence and seeking help. *Violence Against Women, 15*(7), 852-868. doi: <http://dx.doi.org/10.1177/1077801209334445>
- Rivara, F. P., Anderson, M. L., Fishman, P., Bonomi, A. E., Reid, R. J., Carrell, D. (2007). Healthcare Utilization and Costs for Women with a History of Intimate Partner Violence. *American Journal of Preventive Medicine, 32*(2), 89-96. doi: <http://dx.doi.org/10.1016/j.amepre.2006.10.001>
- Romito, P., Crisma, M., & Saurel-Cubizolles, M.-J. (2003). Adult outcomes in women who experienced parental violence during childhood. *Child Abuse & Neglect, 27*(10), 1127-1144. doi: <http://dx.doi.org/10.1016/j.chiabu.2003.09.003>
- 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. (1999). Intimate partner violence surveillance: Uniform definitions and recommended data elements, Version 1.0. Atlanta, GA: National Center for Injury Prevention and Control. Centers for Disease Control and Prevention.

- Saunders, D. G. (2002). Are physical assaults by wives and girlfriends a major social problem? A review of the literature. *Violence Against Women*, 8(12), 1424-1448. doi: <http://dx.doi.org/10.1177/107780102237964>
- Schaaf, K. K., & McCanne, T. R. (1998). Relationship of childhood sexual, physical, and combined sexual and physical abuse to adult victimization and posttraumatic stress disorder. *Child Abuse & Neglect*, 22(11), 1119-1133. doi: <http://dx.doi.org/10.1016/S0145-2134%2898%2900090-8>
- 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>
- Smith, P. H., Thornton, G. E., DeVellis, R., Earp, J., & Coker, A. L. (2002). A population-based study of the prevalence and distinctiveness of battering, physical assault, and sexual assault in intimate relationships. *Violence Against Women*, 8(10), 1208-1232. doi: <http://dx.doi.org/10.1177/107780102320562691>
- Stein, M. B., & Kennedy, C. (2001). Major depressive and post-traumatic stress disorder comorbidity in female victims of intimate partner violence. *Journal of Affective Disorders*, 66(2-3), 133-138. doi: <http://dx.doi.org/10.1016/S0165-0327%2800%2900301-3>

- Strube, M. J. (1988). The decision to leave an abusive relationship: Empirical evidence and theoretical issues. *Psychological Bulletin*, 104(2), 236-250. doi: <http://dx.doi.org/10.1037/0033-2909.104.2.236>
- Swanberg, J. E., Logan, T., & Macke, C. (2005). Intimate Partner Violence, Employment, and the Workplace: Consequences and Future Directions. *Trauma, Violence, & Abuse*, 6(4), 286-312. doi: <http://dx.doi.org/10.1177/1524838005280506>
- Testa, M., Livingston, J. A., & Leonard, K. E. (2003). Women's substance use and experiences of intimate partner violence: A longitudinal investigation among a community sample. *Addictive Behaviors*, 28(9), 1649-1664. doi: <http://dx.doi.org/10.1016/j.addbeh.2003.08.040>
- Thomas, K. A., Joshi, M., Wittenberg, E., & McCloskey, L. A. (2008). Intersections of harm and health: A qualitative study of intimate partner violence in women's lives. *Violence Against Women*, 14(11), 1252-1273. doi: <http://dx.doi.org/10.1177/1077801208324529>
- Thompson, R. S., Bonomi, A. E., Anderson, M., Reid, R. J., Dimer, J. A., Carrell, D. (2006). Intimate Partner Violence: Prevalence, Types, and Chronicity in Adult Women. *American Journal of Preventive Medicine*, 30(6), 447-457. doi: <http://dx.doi.org/10.1016/j.amepre.2006.01.016>
- Tjaden, P., & Thoennes, N. (2000). Prevalence and consequences of male-to-female and female-to-male intimate partner violence as measured by the

- National Violence Against Women Survey. *Violence Against Women*, 6(2), 142-161. doi: <http://dx.doi.org/10.1177/10778010022181769>
- Vogel, L. C., & Marshall, L. L. (2001). PTSD symptoms and partner abuse: Low income women at risk. [Journal Peer Reviewed Journal]. *Journal of Traumatic Stress*, 14(3), 569-584. doi: <http://dx.doi.org/10.1023/A:1011116824613>
- Walker, L. E. A. (2009). *The battered woman syndrome (3rd ed.)*. New York, NY: Springer Publishing Co; US.
- Walsh, C. A., Ploeg, J., Lohfeld, L., Horne, J., MacMillan, H., & Lai, D. (2007). Violence across the lifespan: Interconnections among forms of abuse as described by marginalized Canadian elders and their care-givers. *British Journal of Social Work*, 37(3), 491-514. doi: <http://dx.doi.org/10.1093/bjsw/bcm022>
- West, C. M., Kantor, G. K., & Jasinski, J. L. (1998). Sociodemographic predictors and cultural barriers to help-seeking behavior by Latina and Anglo American battered women. *Violence and Victims*, 13(4), 361-375.
- Whitaker, D., & Lutzker, J. R. (2009). Future directions in preventing partner violence *Preventing partner violence: Research and evidence-based intervention strategies* (pp. 275-287). Washington, DC: American Psychological Association; US.

- Whiting, J. B., Simmons, L. A., Havens, J. R., Smith, D. B., & Oka, M. (2009). Intergenerational transmission of violence: The influence of self-appraisals, mental disorders and substance abuse. *Journal of Family Violence*, 24(8), 639-648. doi: <http://dx.doi.org/10.1007/s10896-009-9262-3>
- Wilson, K. S., Silberberg, M. R., Brown, A. J., & Yaggy, S. D. (2007). Health needs and barriers to healthcare of women who have experienced intimate partner violence. *Journal of Women's Health*, 16(10), 1485-1498. doi: <http://dx.doi.org/10.1089/jwh.2007.0385>
- Wolf, M. E., Ly, U., Hobart, M. A., & Kernic, M. A. (2003). Barriers to seeking police help for intimate partner violence. *Journal of Family Violence*, 18(2), 121-129. doi: <http://dx.doi.org/10.1023/A:1022893231951>
- Zink, T., Jacobson, C., Regan, S., & Pabst, S. (2004). Hidden Victims: The Healthcare Needs and Experiences of Older Women in Abusive Relationships. *Journal of Women's Health*, 13(8), 898-908. doi: <http://dx.doi.org/10.1089/jwh.2004.13.898>