

**Relationship between Women's Empathy and Their Experience of Violent Intimate
Relationships: An Exploratory Study**

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Abstract

Relationship violence is a problem that may affect up to 80% of the United States population. Understanding the victim/survivor's experience may be key to providing effective prevention and intervention. The present study was designed to explore the relationship between women's empathy and their experience of violent intimate relationships. Participants were 279 women who completed online self-report measures: the Conflict Tactics Scale-2 to measure psychological, physical, and sexual relationship aggression; the Interpersonal Reactivity Index to measure four empathy subscales (Fantasy, Personal Distress, Perspective Taking, and Empathic Concern); and demographic questions. Responses were analyzed using Ward's method of hierarchical cluster analysis, an exploratory analysis that can provide nuanced information about groups of people. Participants were clustered using the IRI subscale scores and a three cluster solution was determined to best fit the data. The empathy profiles that emerged showed 2 clusters with high scores in Perspective Taking, Empathic Concern, and Fantasy, and diverging on Personal Distress scores (cluster 1 was low, cluster 2 was high). The third cluster had relatively low scores in Perspective Taking, Empathic Concern, and Fantasy, and average Personal Distress scores. Descriptive statistics were calculated to compare clusters on abuse and demographic variables. Members of cluster 1 reported the highest rates of severe abuse, members of cluster 2 reported the lowest rates of severe abuse, and members of cluster 3 reported mid-range rates of severe abuse. Clusters were compared using ANOVA and chi-square and no significant differences were found between clusters on abuse or demographic variables.

Table of Contents

List of Tables iv

List of Figures v

Introduction 1

Literature Review 6

Method 29

Results 39

Discussion 51

References 64

Appendix A 74

Appendix B 81

List of Tables

Table 1. Descriptive demographic information for survey respondents 40

Table 2. Experience of self-reported abuse as a percentage of the sample 41

Table 3. Within cluster sums of squares and pseudo F statistics for possible cluster solutions 43

Table 4. Means and SDs for empathy subscales by cluster 44

Table 5. Intercorrelations of the four empathy subscales 44

Table 6. Intercorrelations of the four empathy subscales for the 3 clusters 45

Table 7. Descriptive demographic information for survey respondents by cluster 49

List of Figures

Figure 1. Percentage of participants in each cluster who reported severe types of aggression 46

Figure 2. Percentage of participants in each cluster who reported minor types of aggression 47

Chapter 1

Introduction

Intimate partner violence (IPV) is a serious and ongoing phenomenon that affects women all over the world. International surveys indicate that 15-71% of women have experienced IPV (Abramsky et al., 2011), and the negative physical and psychological health consequences have been well-documented. Campbell (2002) reviewed the results of population-based surveys in the U.S. and Canada from the 1980s and 1990s, and concludes that intimate partners committed 40-60% of the murders of women. Moreover, common physical health consequences of IPV for women included injury, chronic pain, gastrointestinal problems, and gynecological problems, including sexually transmitted diseases. The primary mental health consequences were depression, post-traumatic stress disorder, and substance abuse.

Considering the widespread occurrence of IPV - between 22-30% in community samples in the United States (Campbell, 2002; Riggs, Caulfield, & Street, 2000; Symes, 2011) - and the significant negative outcomes of IPV, it is essential for researchers to make efforts to understand factors that facilitate leaving an abusive relationship. Prior research has investigated a range of variables that both facilitate and inhibit leaving a relationship. External barriers to leaving include financial dependence, housing concerns, and children (Kim & Gray, 2008; Meyer, 2012), while internal barriers may be lower self-esteem, fear, and love (Dziegielewski, Campbell, & Turnage, 2005; Kim & Gray). Conversely, researchers have found that some facilitative factors are higher self-esteem, higher internal locus of control, and concern for children (Kim & Gray; Meyer;

Dziegielewska et al., 2005). The variety of research findings highlights the differences in experiences of victim/survivors. Indeed, there is no single experience of IPV, and future researchers must continue to investigate a wide variety of potential inhibitive and facilitative factors to leaving a relationship in which IPV occurs.

Empathy is a construct that may offer additional insight into factors that inhibit women from leaving violent relationships. The concept of empathy originated in the field of German aesthetics in the late 1800s and was soon organized into a psychological construct (Duan & Hill, 1996). The term *empathy*, coined by Titchener (1909; in Duan & Hill), is defined as a “process of humanizing objects, of reading or feeling ourselves into them” (p. 261). Empathy became an important research topic in several domains of psychology. Psychotherapy researchers, social psychologists, and developmental psychologists each identified ways in which empathy relates to their fields, and the definition and use of the construct of empathy varies within and across fields. Empathy has been defined in various ways but typically is comprised of either or both cognitive and affective components. The phenomenon has been considered a trait, a situation-specific state, and a multistage interpersonal process.

As there are several definitions and uses of empathy in psychology research, there are many measures of it, as well. Davis (1983) developed a measure of dispositional (trait) empathy, the Interpersonal Reactivity Index (IRI), consisting of four subscales: Perspective Taking (cognitive), Empathic Concern (affective), Fantasy, and Personal Distress. While there is no consensus in the field about the best definition and measure of

empathy, Davis's measure has been used and validated on many different populations over the years.

There is much to recommend dispositional, multidimensional empathy as a useful construct in IPV research. First, as a multidimensional construct, empathy may differentiate among victim/survivors, which can be helpful in facilitating interventions. Furthermore, empathy has been shown to be related to altruism (Batson, 1997; Cialdini, Brown, Lewis, Luce, & Neuberg, 1997), forgiveness (McCullough, Worthington, & Rachal, 1997; Paleari, Regalia, & Fincham, 2004), and attribution (Betancourt, 1990; Davis & Gold, 2011; Joireman, 2004), raising the question of what role empathy might play in relationships with IPV. Finally, there is evidence to suggest that empathy is a dynamic characteristic that could be amenable to intervention (Dobash, Dobash, Cavanaugh & Lewis, 2000), meaning therapists may be able to work with women experiencing IPV to help them use empathy to their benefit.

Significance of the Problem: Interventions for IPV

A primary reason to study victim/survivor characteristics is to inform relevant interventions. Interventions for IPV can be focused on prevention, before IPV occurs, or on intervention after it happens. Prevention may include teaching children about healthy boundaries, conflict-resolution skills, and/or the warning signs of potential abuse, and it may also include education about safety skills for responding to IPV (Wolfe & Jaffe, 1999). Prevention efforts can also be aimed at bystanders. Informal helpers commonly serve as the primary supports in a woman's efforts to change an abusive situation

(Chabot, Tracy, Manning, & Poisson, 2009). In order to be effective supports in the event of IPV, all community members must be well-educated not only about the multidimensional causes of IPV, but also about the difficulties women face in making a change. Intervention for victims often consists of shelter-care, which usually includes mental health counseling along with physical safety assistance. Interventions for perpetrators tend to be court-ordered and may include empathy training along with substance abuse and mental health counseling (Day, Mohr, Howells, Gerace, & Lim, 2012).

Of note, published research on interventions for IPV is skewed toward intervention with perpetrators, which may be connected to a bias toward studying perpetrator factors overall. In recent decades, researchers have tended to avoid studying victim/survivor-side factors and characteristics, probably because early research on IPV tended to focus on victim characteristics that “invited” violence, such as low self-esteem or personality disorders. Early research investigated a range of personality and psychopathology issues to describe a “typical” victim of IPV. Rhodes and McKenzie (1998) reviewed a number of these early studies and conclude that many of the popular ideas about victim characteristics are inconsistent. For instance, low self-esteem was associated with IPV in one study (Hartik, 1978), while higher self-esteem was associated with IPV in another (Arndt, 1982). Similar contradictions are apparent for passivity, self-blame, and “learned helplessness” (Rhodes & McKenzie). While it appears to be true that the experience of IPV (as a victim or a perpetrator) is often comorbid with psychiatric disorders (Danielson et al. 1998), no support has been found for the existence of a

personality disorder common to battered women (Rhodes & McKenzie). Thus, there is not a “typical” psychological profile of a victim of IPV. Nonetheless, the relative paucity of research on victim characteristics may contribute to the lack of empirically supported treatments for victims. Understanding positive, multidimensional, and dynamic traits in victim/survivors, such as empathy, may help inform therapists’ work with this population.

Chapter 2

Review of Literature

Definitions and Terms

Intimate partner violence. IPV is defined in the present study as the use or threat of physical, sexual, and/or psychological violence among current or former intimate partners (Flynn & Graham, 2010). *Physical IPV* typically includes behaviors such as hitting, choking, pushing, throwing an object at the partner, or brandishing a weapon at the partner (Straus, Hamby, Boney-McCoy, & Sugarman, 1996). *Psychological IPV* includes insults, accusations, and destroying property of the partner (Straus, et al., 1996). *Sexual coercion* typically includes the use of physical or verbal pressure to engage in sexual activity that the partner is not comfortable with, such as insisting on anal or oral sex when the partner has expressed a desire not to do so. While it is certainly true that women can be the aggressors, the vast majority of IPV is perpetrated by males on their female partners (Johnson, 2011). IPV can also be a problem in same-sex couples (Johnson & Ferraro, 2000), and research is growing in this area. In this study, we considered women victim/survivors regardless of if their partner was male or female.

Victim/survivor. Psychological practitioners tend to use the word “survivor” over the word “victim,” as it may be perceived as more empowering to the woman. Researchers, however, most commonly use the word “victim.” This study uses the term “victim/survivor” in order to reflect the broad range of experiences of victim/survivors and the many different ways they might identify.

Empathy. Empathy is defined in this study as “a reaction to the observed experiences of another” (Davis, 1983, p114). As a construct, empathy tends to be conceptualized as comprised of at least two components: cognitive, the ability to take the perspective of another, and affective, a more visceral emotional response (Davis). Furthermore, empathy can be considered a trait, a state, or a process. Davis argues that empathy is best understood as a multidimensional dispositional construct that is measured by taking into consideration both cognitive and affective components. This study will adhere to Davis’ multidimensional concept of dispositional empathy, which is comprised of 4 dimensions: *Perspective Taking*- the ability to understand the cognitive perspective of another; *Empathic Concern*- the affective, emotional response to another’s experience; *Fantasy*- the tendency to fantasize or place oneself in fictitious situations; and *Personal Distress*- the level of anxiety in tense interpersonal situations.

An Important Note about Victim-Blaming

There is concern about studying victim/survivor characteristics in IPV research because of the possibility that studying their characteristics contributes to victim-blaming attitudes in society. While it appears to be true that attitudes supporting wife-beating are associated with increased IPV (Abramsky et al., 2011), it is less clear whether there is a connection between studying victim/survivor characteristics and attitudes supportive of IPV. Results of some studies conducted in the U.S. suggest that, while the public does not necessarily blame the victim/survivor, there is an imperfect understanding of the causes of IPV. For example, in a large survey of 1200 residents in New York state Worden and Carlson (2005) found that most respondents thought about the causes of IPV in terms of

the individual and relationship problems of a couple, rather than the cause being rooted in society. Black and colleagues (Black, Weisz, & Bennett, 2010) found that graduate students in social work tended to consider mental health and substance abuse issues specific to the perpetrator, as opposed to society-wide, multifactorial variables, to be the primary causes of IPV.

Several studies have suggested that while the public may not blame the victim/survivor for being abused, they may hold them responsible for leaving the relationship. Half of a Michigan sample surveyed ($n = 321/N = 632$) said that women experiencing more than one episode of IPV are neglectful of their children (Weisz & Wiersma, 2011), and two thirds of a New York sample believed that women can end abusive relationships (Worden & Carlson, 2005). These findings demonstrate that the public may be more judgmental about repeat abuse and may require education about reasonable expectations for women in abusive relationships. At least one study offers promising data concerning the effects of education about victim experiences; Fox and Cook (2011) found that a victimology course reduced victim-blaming attitudes in a sample of college students ($N = 180$).

In sum, empirical evidence indicates that society continues to have a simplistic perspective about the causes of IPV that can sometimes lend itself to victim-blaming attitudes. Moreover, victim-blaming attitudes may be linked to increased justification of IPV. Thus, prevention and intervention for IPV must target all levels of society, including potential victims, perpetrators, and bystanders. Education should aim to increase understanding of the complexity and nuances of IPV rather than focusing on reductive

cause and effect reasoning. The present study is intended to contribute to a more complex perspective on IPV by generating data that contribute to understanding victim/survivor experiences and characteristics, with the goal of improved prevention and intervention.

Barriers to Leaving

Studies of victim/survivor experiences and characteristics primarily investigate factors that comprise barriers for women leaving abusive relationships. Clearly, there are several consistent external inhibiting variables that make it more difficult for women to leave violent relationships. Economic dependence arguably has the strongest research support as a consistently strong inhibitor. For example, Meyer (2012) found financial dependence was a strong factor in women's ($N = 29$) cost-benefit analysis of whether to leave. Kim and Gray (2008) found that women who were financially dependent were less likely to leave 1 week, 6 months, and 12 months after an abusive incident. Dziegielewski, Campbell, and Turnage (2005) found that financial considerations were one of the five greatest challenges to leaving abusive relationships in their sample of ($n = 14$) women.

In a study that considered both external and internal barriers, Kim and Grey (2008) used a discrete-time hazard model to investigate abused women's decisions to stay or leave based on 4 factors: financial independence, witness of parental violence as a child, police response to the IPV situation, and psychological factors (including self-esteem, locus of control, fear, and depression). The authors used data from the Domestic Violence Experiment in Omaha, Nebraska, 1986-1987 (Dunford, Huizinga, & Elliott, 1994), which included domestic violence cases reported to the police for a total of 577

cases. They reviewed victim reports from 452 women that were collected at 1 week, 6 months, and 12 months after the incident to determine what factors influenced their decisions to stay or leave. The strongest external factor that maintained them in the relationship was financial dependence. Women who had witnessed parental violence were also more likely to stay in the relationship. Internal factors that were associated with leaving were lower levels of fear, higher self-esteem, and high internal locus of control. Depression and police response were not associated with the decision to stay or leave.

Kim and Grey (2008) acknowledge that there are some limitations to their analysis. First, it is unknown whether the women returned to the abusive relationship after the 12 month period. Second, the data were relatively old at the time the analysis was completed, limiting generalizability to current populations. Other limits to generalizability include the fact that the women were help-seeking. Nonetheless, this study adds to the literature by offering a longitudinal perspective on factors that influence the decision to leave. The findings also offer support for the importance of internal factors such as fear and self-esteem.

Another external factor that appears to keep women in abusive relationships is children. For example, in Meyer's (2012) study of decision making, concern for children was a main factor in women's cost-benefit analysis. Meyer proposed a rational choice framework that is guided by a cost-benefit analysis with the goals of stopping the abuse and minimizing harm. In this model, moral reasoning extends minimizing harm to self to include minimizing harm to others (usually children). In this study, Meyer interviewed 29 severely abused, help-seeking women in Australia to explore the rationale behind their

initial decisions to stay with their abusers. Meyer analyzed the data line-by-line to identify broad themes, used open coding to identify individual factors, and axial coding to find the association of individual factors with outcome. Findings indicated that 72% ($n = 21/29$) stayed for a prolonged period after the onset of the abuse, and 45% ($n = 13$) reported previous attempts to leave with subsequent returns. Financial dependence informed the decision to stay for 41% ($n = 12$) of the sample. Consideration for children's safety was a primary reason to stay or to return for 62% ($n = 18$) of the women, though concern for children also informed their eventual decision to leave. Meyer concluded that the findings supported the proposed rational choice framework with cost-benefit analysis, but the women's decision making also included moral reasoning, specifically about their concern for children.

Meyer (2012) acknowledged limitations to the generalizability of her findings, citing the small, heterogeneous sample and the severity of the abuse they experienced. Another limitation is the study only addresses external influences on decision making- children and financial dependence- and not internal, psychological factors. Nonetheless, the study contributes to the literature by positing children as both an asset and a liability in the decision to leave the relationship. Furthermore, it provides a theory for decision making that validates victims as rational agents who may stay in a relationship temporarily to minimize harm to self or others. Taken together with Baly's (2010) finding that women may go through a period of active withdrawal before leaving, the results clearly suggest women who remain in abusive situations may have complex reasons for doing so, and care should be taken not to judge them for not leaving immediately.

Dziegielewska et al. (2005) found that concern for children was one of the greatest challenges abused women faced when leaving an abusive relationship. The researchers conducted focus groups with 14 help-seeking abused women in an urban area in the U.S. south to gain perspective on what prevented or delayed the women from leaving the relationship. The women were ethnically diverse but predominantly European American, and the majority were college educated. The women were divided into 3 groups based on the stage of their decision (want to leave but not sure they could; working on an exit plan; left and don't plan to return). They participated in a 1.5 hour focus group with a familiar facilitator at the same safe-house site. Each group was asked to develop a list of the five greatest challenges to leaving. Many of the challenges were similar across groups, including external factors such as concern for children and financial barriers, and internal factors such as love for their abuser, and various fears- fear of being alone, fear of the abuser, fear of the unknown, and fear of social criticism.

The primary limitation of the Dziegielewska et al. (2005) qualitative study is lack of generalizability to the population of interest. Furthermore, in urging each group to come to consensus on the top 5 challenges, some of the individual differences and context that are often gained through qualitative research may have been obscured. Nonetheless, this study offers qualitative support for the quantitative findings of others (e.g., Kim & Gray, 2008) regarding external and internal factors that affect the decision to leave the abuser. A major strength of this study is that the findings highlight dynamic internal factors, such as love and fear. Research that considers both possible internal factors and external factors that are barriers to leaving abusive relationships is important

because interventions that consider an individual's internal, psychological needs are more likely to be helpful than those which address only external inhibitors to leaving (Shurman & Rodriguez, 2006).

Depression is a common correlate with IPV (Kim & Gray, 2008; Riggs, et al., 2000), and a number of researchers have attempted to discern the nature of its relationship with IPV victimization. Cascardi and colleagues (Cascardi, O'Leary, Lawrence & Schlee, 1995) conducted a study using comparison groups to investigate differences on measures of fear, psychopathology, and childhood abuse. The participants were married women who were: abused and seeking treatment ($n = 49$), maritally discordant and seeking treatment ($n = 23$), and maritally satisfied and not seeking treatment ($n = 25$). The groups were matched on age and income. The researchers used the Locke-Wallace Marital Adjustment Scale to measure their marital satisfaction. Independent variables were: spouse-specific fear (Spouse-Specific Fear Measure; O'Leary & Curley, 1986); psychological coercion and aggression (Modified Conflict Tactics Scale, Straus, 1979; Psychological Maltreatment of Women Scale, Tolman, 1989); childhood victimization (Child Abuse Assessment, Neidig, 1989); and psychopathology- current and lifetime (Structured Clinical Interview for DSM-III, Spitzer, Williams, Gibbon & First, 1992), including PTSD, depression, anxiety, and panic disorder.

Data analysis consisted of a MANOVA followed by an ANOVA for each significant result, post hoc Tukey's HSD on the measures of fear and coercion, and chi-square analysis on measures of child abuse and psychopathology. Results indicated the

abused and the discordant women reported significantly more fear than martially satisfied women. The abused and the discordant women also experienced more childhood emotional abuse than satisfied women, but not more physical or sexual childhood abuse. Abused and discordant women reported more depression that predated the abuse than satisfied women, but there were no statistically significant differences among the groups in current levels of depression. The abused women also reported more psychological coercion and more PTSD than the other groups.

Cascardi et al. (1995) noted there are limits to the generalizability of their results as the sample consisted of a majority of White women who reported some college. The women were also married, had spouses who were willing to participate in treatment for marital conflict, and the abused group of participants reported less severe IPV than women in other studies using community-based samples. Nonetheless, this study contributes to the literature on victims of IPV through the use of matched comparison groups to investigate psychological characteristics of victims. The findings on depression suggest past depression may be a risk factor for discordant relationships.

Cascardi and O'Leary (1992) conducted a cross-sectional study to assess the association between the length, frequency, and severity of violence with depression and self-esteem, and the association between self-blame with depression, self-esteem, and violence (length, frequency, severity) for 33 severely abused, help-seeking women in New York state. The participants were primarily White, married, unemployed women who had been with their partners for approximately 10 years and had experienced abuse for approximately 5 years. They completed a battery of self-report measures: Modified

Conflict Tactics Scale (Straus, 1979), Beck Depression Inventory (BDI; Beck, 1988), Rosenberg Self-Esteem Scale (RSE; Goldstein & Rosenbaum, 1985), the Injury Index and Blame Scale (both developed for this study). Regression analysis was used to examine the relationships between depression, self-esteem, and length, frequency, and severity of violence. Depression and self-esteem were highly correlated with violence. As the level of abuse increased across the sample, depression symptomology increased and self-esteem decreased. Self-esteem accounted for more of the variance (32%) in physical aggression than did depression (5%). Self-blame was not associated with depression, self-esteem, or violence.

There are limits to the generalizability of the results of Cascardi and O'Leary's 1992 study, including the small sample size (especially for regression analyses), and the women in this sample were severely abused and seeking treatment. This study did not use a control group nor is it longitudinal, but the results point to a relationship between depression and IPV.

Campbell and Soeken (1999) conducted a longitudinal study of the effects of patterns of abuse on changes in stress and health variables, including self-care agency, self-esteem, depression, and physical health, over a 3.5 year period. They recruited 98 women from the community in a U.S. urban setting; these women were not necessarily help-seeking. The women completed several self-report measures at three time-points to measure the patterns of abuse: Index of Spouse Abuse (Hudson & McIntosh, 1981), Conflict Tactics Scale (Gelles & Straus, 1990), and the Danger Assessment (Campbell, 1995); and the outcome variables: Deynes Self-Care Agency Instrument (Denyes, 1988),

Tennessee Self-Concept Scale (Fitts, 1972), Beck Depression Inventory (Beck, 1988), and the Health Responses Scale (Brown, 1986). The authors grouped the women into three groups based on the abuse reported at the three time points: Group 1 ($n = 28$) reported abuse at time 1 only, Group 2 ($n = 22$) reported abuse at times 1 and 2 but not time 3, and Group 3 ($n = 39$) reported abuse at all 3 time points.

Findings showed that the only difference in the three groups at time 1 was their score on the Danger Assessment. Group 3 scored significantly higher ($p = .025$) on the danger assessment than Group 1, indicating that women may stay in the relationship out of fear. Results related to depression showed a complex relationship. Overall, participants in Groups 1 and 2 reported slightly less depression after the abuse ended, while the depression level for Group 3 increased at time 3. These findings revealed a large gap at time 3 between the groups who were no longer reporting abuse and the group who continued to report abuse. Furthermore, African American women reported depression at similar levels during and after the abuse (in other words, Groups 1, 2, and 3 had similar levels of abuse); whereas non-African American women reported some improvement in depression after the abuse ended (Groups 1 and 2 reported lower levels than Group 3). The results for self-esteem, self-care agency, and physical health followed a pattern similar to the depression results, with Groups 1 and 2 improving after the abuse ended and Group 3 reporting a decrease in all areas at time 3. For these variables, there were no significant differences due to ethnicity.

Campbell and Soeken (1999) noted that their study is limited by a substantial attrition rate (30%), as well as a relatively heterogeneous, self-selected sample. Another

possible limitation is the extent to which participants' reports of abuse having ended were accurate representations of their situations. Nonetheless, this study contributes to the relatively small body of longitudinal research on the effects of abuse on victims. The study also adds to the literature by using a non-help-seeking community sample. Furthermore, the study had several strengths, such as the inclusion of self-esteem and self-care agency in the analyses. A complex and dynamic pattern of depression and self-esteem was found in relation to IPV, suggesting these factors are highly influenced by the presence of abuse, rather than preexisting factors that predict abuse.

In sum, studies have shown that women in violent relationships experience preabuse depression at higher rates than women in the general population (Cascardi, et al., 1995). Other studies have shown that as abuse continues or worsens, depression increases (Cascardi & O'Leary, 1992; Clements, Sabourin, & Spiby, 2004), and depression may decrease after the abuse ends (Campbell & Soeken, 1999).

Low self-esteem is another common phenomenon for women in violent relationships (Aguilar & Nightingale, 1994; Clements et al., 2004). Paralleling the results for depression, Cascardi and O'Leary (1992) study found that as abuse continues or worsens, self-esteem decreases. Relatedly, Campbell and Soeken (1999) found that self-esteem increases after abuse ends. Taken together, these results suggest that depression and low self-esteem are common experiences for women in violent relationships, and that the experiences of depression and low self-esteem may be at least in part a result of the IPV.

While research clearly suggests low self-esteem inhibits women from leaving a violent relationship (Dziegielewski et al., 2005; Kim & Gray, 2008), findings about depression as a barrier to leaving are mixed. Some researchers have claimed that depression inhibits women from leaving a violent relationship (Barnett, 2001). At least one study, however, found that increased depression was associated with later stages of change in the leaving process (Shurman & Rodriguez, 2006). Other researchers have found that depression is not a significant factor in leaving (Kim & Gray, 2008).

Research regarding the influence of fear on decisions to leave violent relationships shows an interesting pattern of results. Several studies have found that fear is a primary deterrent to leaving (Amanor-Boadu et al., 2012; Barnett, 2001; Dziegielewski et al., 2005; Kim & Gray, 2008). A number of researchers, however, have also suggested fear of escalation may be the impetus for a woman to seek help (Baly, 2010; Davis, 2002). As such, fear is a factor that may play both supportive and inhibitive roles in a woman's decision to leave.

Self-blame, or attribution of blame, is commonly studied as a factor associated with the decision to leave (Cascardi & O'Leary, 1992; Enander, 2010; O'Neill & Kerig, 2000). Traditionally it was thought that if a victim blamed herself, she would be less likely to leave, as she perceived the abuse was her fault. Conversely, lower self-blame was believed to be related to leaving, as the victim placed the blame with her partner where it belongs. Studies have found evidence to support this theory. For example, Meyer, Wagner, and Dutton (2009) approached women outside of shelters and courts and interviewed 406 women. They found that partner blame was associated with the women

using more coping strategies, including help seeking, safety planning, and legal strategies. Also, O'Neill and Kerig (2000) found that self-blame was associated with increased psychological symptoms, which can be barriers to leaving, as discussed earlier in this chapter.

The findings of other investigations suggest a more nuanced picture. First, several studies have found that the majority of women in abusive relationships do not blame themselves. Cascardi and O'Leary (1992) found that only 12% of their sample of 33 women blamed themselves, and Meyer et al. (2010) found that only 7% of their sample of 406 women blamed themselves. Furthermore, in a detailed study of the stages of change in the decision to leave the abusive relationship, Shurman and Rodriguez (2006) found attributions did not predict readiness to change. Instead, self-blame was apparent in the earliest and latest stage of change, suggesting that self-blame may take on two meanings. The authors speculated that in the early stage, self-blame may hinder a woman's confidence that she can leave, while in the later stage it may reflect her growing sense of responsibility and control.

The research on locus of control is mixed. Some studies have found that high perceived control is associated with increased psychological symptoms (Clements et al., 2004), while other studies have found that high perceived control is associated with decreased psychological symptoms (O'Neill & Kerig, 2000). Women currently in abusive relationships may have an external locus of control, but maintain expectations for control in the future (Clements et al.). One study found that women perceived their own actions as causing the cessation of violence (Follingstad, Hause, Rutledge, & Polek, 1992) and

another found that having an internal locus of control was associated with leaving the relationship (Kim & Gray, 2008). It seems likely that perceived control and attribution of blame are mutually influential.

Empathy

In psychotherapy research, empathy garnered attention primarily after Carl Rogers wrote about its role in psychotherapy (e.g. Rogers, 1957) and as psychoanalytic theorists, particularly Kohut (e.g. Kohut, 1977), referenced the importance of empathy in treatment. Psychotherapy research on empathy seems to have peaked in the 1970s and fallen in recent decades (Duan & Hill, 1996).

Empathy has also been studied in the domains of social and developmental psychology. Social psychology researchers often investigate how empathy is related to interpersonal constructs such as altruism and attribution. In developmental psychology, researchers tend to focus on how empathy develops in individuals with respect to certain ages. According to Gladstein (1983), developmental research draws on Piaget's theory of how children grow from egocentrism to an ability to understand the point of view of another. In the years since Gladstein's review, research on empathy in the social and developmental fields of psychology has turned toward empathy as a component of pro-social and anti-bullying behavior, especially in children and adolescents.

Across social, developmental, and psychotherapy research, empathy can refer to three different types of constructs. Duan and Hill (1996) suggested the terms "dispositional empathy, empathic experience, and empathic process" to describe the three

different constructs. “Dispositional empathy” refers to empathy as a stable trait. In this view, empathy is something a person possesses innately or gains through development. “Empathic experience” refers to an encounter a person has in a specific situation, and is considered a situation-specific state. That is to say, a person might be empathic because certain attributes of the situation demand it, more or less independent of their level of dispositional empathy. “Empathic process” refers to theories that empathy is a multistage interpersonal interaction that involves a sequence of experiences for both parties involved.

Despite the differences in theory and focus, empathy is usually conceptualized as consisting of two major aspects: cognitive and affective. In cognitive empathy, the individual is able to perceive and understand another person’s point of view (i.e., perspective taking). Affective empathy refers to “responding with the same emotion to another person’s emotion” (Gladstein, 1983; p. 468). While these two aspects of empathy have been studied separately, empathy likely is a multidimensional construct (e.g. Davis, 1983); thus, the separation of empathy into two parts can be misleading (Duan & Hill, 1996).

Empathy and IPV

In the area of IPV, empathy has been investigated primarily in perpetrators. There is long-standing recognition that higher empathy is associated with increased prosocial behavior (Eisenberg & Miller, 1987), while lower empathy is related to increased aggression (Lovett & Sheffield, 2007; Miller & Eisenberg, 1988) in adolescents and

adults. Teaching empathy to IPV perpetrators is a common component of treatment and has been shown to be effective in reducing recidivism (Dobash, et al., 2000).

Covell, Huss, and Langhinrichsen-Rohling (2007) investigated empathy levels in male perpetrators of IPV using Davis' (1980) multidimensional concept of empathy. They studied whether there were associations among the types of empathy and the frequency of perpetrating psychological, physical, and sexual abuse. Participants were 107 male subjects in a treatment program for domestic violence. The majority were Caucasian (82.7%), had previous criminal convictions (83%), and had not previously participated in a domestic violence program (80%). They completed the Interpersonal Reactivity Index (IRI; Davis, 1980) and the Revised Conflict Tactics Scale (CTS-2; Straus, et al., 1996). The authors used hierarchical multiple regressions to examine relationships between the IRI scales and the CTS-2 scales. Total violence was best predicted by either high personal distress, high perspective taking and low fantasy, or by low fantasy, low personal distress, and low perspective taking ($R^2 = 0.48$). Physical assault was best predicted by high empathic concern, high personal distress and low perspective taking ($R^2 = 0.48$). Psychological aggression was best predicted by low fantasy, low perspective taking and high personal distress ($R^2 = 0.34$). Sexual coercion was best predicted by high personal distress and high perspective taking ($R^2 = 0.21$). The authors concluded that there are several different empathy profiles of perpetrators associated with different types of violence, though perspective taking was related to all types of violence.

The Covell et al. (2007) study contributes to the research on empathy in perpetrators by using a popular measure of empathy that has demonstrated psychometric properties and by differentiating IPV by violence type. The authors concluded that their exploratory study could contribute to the further development of batterer subtypes by differentiating among dimensions of empathy. There are limitations to the generalizability of the study, including the racially homogeneous sample and the prior criminal convictions of the participants. Furthermore, the study relied on accurate self-report of types of violence committed, which may have been underreported. Participants likely varied widely in the percentages of each type of violence they engaged in, suggesting possible “sub-types” of perpetrators. Finally, the authors recommend that future research utilize both dispositional measures of empathy, like the IRI, and measures of situational empathy, to further elucidate the relationship of the construct to perpetrator violence.

Empirical studies of empathy in perpetrators of IPV are relatively limited in number, and there are even fewer studies of empathy in victim/survivors. Extensive searching of Google Scholar and PsychInfo databases from 2013-2015 yielded only a few published studies that investigated the construct of empathy in victim/survivors (e.g. Cohen, Schulz, Liu, Halnassa, & Waldinger, 2015; Peloquin, Lafontaine, & Brassard, 2011). Peloquin, et al. examined intrapersonal, dyadic, and mediational relationships underlying romantic attachment, dyadic empathy, and psychological partner aggression. The sample consisted of 193 couples recruited from the community who had been cohabiting at least 6 months. The mean age was 31 years and the majority (60%) had a

college degree. Each member of the couple completed the Interpersonal Reactivity Index for Couples (IRIC; Peloquin & Lafontaine, 2010), the Experiences in Close Relationships (ECR; Brennan et al., 1998), and the Revised Conflict Tactics Scale (CTS-2; Straus, et al., 1996). Results showed that in women, decreased empathy was associated with both increased psychological aggression and increased victimization, while in men, decreased empathy was associated with increased psychological aggression only. The authors used structural equation modeling to show the mediating role of empathic concern and perspective taking on attachment and psychological aggression. Perspective taking in women appeared to mediate the relationship between attachment and aggression, but no mediational effects were observed for men. The authors reported no mediational effects of empathic concern for women or men.

The Peloquin et al. (2011) study is the only published investigation of trait empathy in women in abusive relationships. The authors investigated the women both as victims and as perpetrators and they limited their focus to psychological aggression. The finding most relevant to the present study is that lower levels of empathy (perspective taking and empathic concern) in women were associated with higher levels of victimization. The authors speculated that this victimization could be explained by a partner feeling misunderstood by a person with low empathy and resorting to psychological aggression out of frustration. This explanation could contribute to victim-blaming attitudes. Nonetheless, the study comprises a preliminary investigation of empathy in women in abusive relationships and suggests empathy is a construct that merits further investigation in studies of IPV.

Empathic accuracy is a slightly different construct than empathy as a trait.

Empathic accuracy better refers to the “degree to which one partner is in tune with the reported experience of the other partner” (Cohen, Schulz, Liu, Halnassa, & Waldinger, 2015, p 698). Empathic accuracy (EA) and its relationship to aggression in couples has been studied a handful of times (e.g. Clements, Holzworth-Munroe, Schweinle & Ickes, 2007; Schweinle & Ickes, 2007; Schweinle, Ickes, & Bernstein, 2002), most recently in 2015 (Cohen, et al., 2015). In that study, both members of a couple (N=109 couples) were asked individually to identify a recent incident in which their partner upset them. Partners were then brought together and discussed the incident identified by each partner. Following the interaction, participants viewed a videotape of their interaction and asked to rate their own degree of emotional negativity and/or positivity. Six high-affect moments (HAMs) were identified and shown to the participants. After viewing each HAM, participants completed the HAM Emotion Questionnaire (Schulz & Waldinger, 2004). Empathic Accuracy was calculated by the correlation between an individual’s self-rating of their own emotion during each HAM and their partner’s rating of their perception of the emotions expressed by the self-rating individual. Partners also completed the CTS-2 (Straus, Hamby, Boney-McCoy, & Sugarman, 1996) prior to these tasks. Data were analyzed using the actor-partner interdependence model (APIM; Kashy & Kenny, 2000), which is a structural equation model that helps distinguish between individual and dyadic associations. Structural equation models were estimated for empathic accuracy for hostile, vulnerable, and positive emotions. For hostile emotions, significant results showed that men demonstrating lower empathic accuracy was linked to women’s greater psychological and physical aggression and that women demonstrating

lower empathic accuracy was linked to women's greater psychological aggression. For vulnerable emotions, significant results showed that women's lower empathic accuracy was linked to women's and men's greater physical aggression. For positive emotions, women's lower empathic accuracy was linked to more psychological aggression by both partners.

Cohen et al. (2015) provide an interesting perspective on the link between empathic accuracy and IPV. The authors suggest that a lack of empathic accuracy may be associated with higher levels of violence in the relationship. They speculate that partners' empathic attunement may be impaired by the emotional dysregulation that may be present during a conflict. The results of this study provide further evidence that empathy and relationship aggression may be related in some way. These results, along with the results from Peloquin, et al. (2011), suggest that lower empathy and/or lower empathic accuracy may contribute to a more violent dynamic in a relationship.

There is a gap in the IPV literature regarding the role of empathy in violent romantic relationships, especially as it relates to victim/survivors' experiences. Related literature on empathy shows relationships to forgiveness, attributional complexity, altruism, shared outcomes and relationship maintaining responses, prior experience and perceived similarity, and perceived fairness. Furthermore, one of the most consistent findings in empathy research is that females have higher levels of empathy (e.g., Preis & Kroener-Hedwig, 2012; Singer et al., 2006). Taken together, the literature on factors associated with empathy provides further support for an investigation of empathy in victim/survivors of IPV.

Summary

In sum, research on victim/survivors' experiences in abusive relationships is limited. However, research on barriers to leaving a relationship with IPV show that women's experiences are complex and nuanced. Barriers to leaving an abusive relationship can be external, such as financial dependence or children, or internal, such as love and fear. Low self-esteem is one internal factor that has been clearly linked to having more difficulty leaving a relationship with IPV. Depression and self-blame are other internal factors that have been investigated as possible deterrents from leaving, though the research on how those factors influence leaving abusive relationships are mixed.

Empathy has been linked to a number of different phenomena that could be relevant in an intimate relationship. Forgiveness appears to be promoted by higher empathy. Complex emotional attribution appears to be related to higher empathy. Other phenomena associated with higher empathy are altruism, shared outcomes, perceived similarity, and perceived fairness. Given these indications in the literature, this current study fills a gap by examining the victim/survivors' experiences and characteristics, and secondly, by addressing the relationship between empathy and the experience of IPV.

Purpose of the Study

This study was designed to explore differences among women who have experienced relationship aggression, by grouping women based on particular empathy "profiles" that emerged. While empathy was the primary characteristic on which the

women were grouped, participants were asked to report on the nature and prevalence of relationship aggression as well as their marital status, education level, employment level, age, ethnicity, and whether they had children in the home. Participants were sought online and completed the self-report measures for a modest compensation. The study sought to further explore the multidimensional nature of empathy, specifically in the population of women who have experienced relationship aggression.

The primary research question addressed in this study are: Based on the empathy profiles of women who have experienced relationship aggression, what clusters emerge? How do the clusters differ with respect to the empathy subscales? What is the experience of relationship aggression (type and severity) within each cluster? Finally, what are the demographic characteristics of the women in each cluster? Because empathy has been minimally studied in the victim/survivor population, this study is considered exploratory and hypotheses are not warranted. Findings of this study were thought to contribute to the development of a nuanced picture of an often-stereotyped population and to understand more deeply variations in the experience of relationship aggression.

Chapter 3

Method

Sample

Six hundred individuals responded to a survey posted to Mechanical Turk (MTurk). Many, however, did not meet the criteria for inclusion in the study (i.e., female, reporting aggression in relationship). Of the six hundred returned surveys, 51 were invalid due to answering at least one of three validity items incorrectly (ex: *Answer “3” for this question*). Of the remaining surveys, 205 respondents were male, and another 65 were females who reported no aggression in their relationship. Thus, the final sample consisted of 279 females. Of these participants, the majority reported that they did not consider their relationship to be abusive despite the presence of relationship aggression ($n = 144, 52\%$). Close to 20% of the sample reported more than one abusive relationship in their lifetime ($n = 52, 19\%$). The participants' demographic characteristics are summarized in Table 1 and described in Chapter 4.

Instrumentation and Procedures

A 70-item, anonymous survey consisting of three sections was developed by this investigator (see Appendix A). Potential respondents were told the purpose of the study was to help therapists to understand the relationship between empathy and the experience of violence in intimate relationships. Participants were informed that they must be 18 years of age and consider themselves to have been in a romantic relationship as an adult.

Participation was limited to those in the United States. Each portion of the survey is described in the following sections.

Empathy. The Interpersonal Reactivity Index (IRI; Davis, 1980) was used to assess respondent empathy. The IRI was designed to measure individual differences in reactivity to others based on a multidimensional approach to empathy. The IRI is composed of four, 7-item subscales, each addressing a different aspect of the global concept of empathy. The subscales are: Perspective Taking (defined as the ability to understand the cognitive perspective of another); Fantasy (defined as the tendency to fantasize or place oneself in fictitious situations); Empathic Concern (defined as the affective, emotional response to another's experience); and Personal Distress (defined as the level of anxiety in tense interpersonal situations). Each item has a 5-point Likert-type scale ranging from 0 (*does not describe me well*) to 4 (*describes me very well*). Scores for each subscale are obtained by summing responses to the corresponding items. Eight total items on the IRI are reverse-scored. The subscales are relatively independent of each other, with intercorrelations of .01 to .33. The IRI scale scores have acceptable levels of internal consistency reliability (Range: .71 to .77) and test-retest reliability (Range: .62 to .71). The IRI also has demonstrated validity through intercorrelations with several measures of self-esteem, interpersonal functioning, and sensitivity to others (Davis, 1983).

Relationship violence. A portion of the Revised Conflict Tactics Scale (CTS-2; Straus et al., 1996) was used to assess relationship violence. The CTS-2 is the most widely used measure of relationship violence (Straus, Hamby, & Warren, 2003). While it

has been criticized for providing no context for aggressive behaviors (Straus & Gelles, 1990), the context of aggression is not the question in the current study. The CTS-2 consists of 39 items that assess conflict resolution behaviors conducted by either the woman or her partner. There are 5 subscales: negotiation, psychological aggression, physical assault, sexual coercion, and injury. In the current study only items that assess conflict resolution behaviors conducted by the partners were included in the survey. These items are from 3 subscales: psychological aggression (8 items), physical assault (12 items), and sexual coercion (7 items). The injury scale was omitted as it is highly correlated with the physical assault scale. The negotiation scale was omitted because it was not relevant to the major research questions of the current study. While the sexual coercion scale is also highly correlated with the physical assault scale, it represents a conceptually distinct area of inquiry.

Items within each subscale name a range of conflict resolution behaviors.

Participants respond with respect to how often each behavior occurred in the previous 12 months and also whether the behavior occurred in the past but not in the past year. Responses range from 0 (*this has never happened*) to 6 (*more than 20 times in the past year*), with 7 representing the behavior happening over a year ago. Each item is also rated for severity according to a two-point scale (*minor* or *severe*) that is outlined in the CTS-2 manual (for example, minor physical assault: *My partner grabbed me*; severe physical assault: *My partner slammed me against a wall*). Responses to items can be scored dichotomously to indicate incidence (i.e., whether or not each behavior happened in the past year). Responses can be summed and used to indicate chronicity, or frequency, over

the previous year. Responses can also provide a prevalence score, indicating whether or not a behavior has ever happened in the relationship. The internal consistency of the CTS-2 scales ranges from .79 to .95 in preliminary scale testing (Straus et al., 1996). Evidence of construct validity was obtained by examining expected correlates of each scale. For example, the physical assault scale was expected to be related to the injury scale, and correlations showed this to be the case for men, reporting on their own perpetration ($r = .87$). Evidence of discriminant validity was found among the negotiation and sexual coercion, and negotiation and injury scales through the low correlations of the pairs ($r = .03$ and $.01$, respectively).

Demographics. The survey contained 12 demographic questions assessing respondent age, ethnicity, education level, employment status, relationship status and relationship duration and presence of children in the home during the relationship in question.

Procedure

Data were collected in July 2015 using Mechanical Turk, an online survey website run by Amazon.com. This service allows members to complete online surveys for monetary rewards which they can then use on Amazon.com. Recent reviews and studies have indicated that Mechanical Turk produces valid data that are comparable to laboratory and other internet recruitment methods (Buhrmester et al., 2011; Sprouse, 2011). A link was posted on Mechanical Turk that led to the informed consent document and the survey. The survey was administered through Qualtrics, the survey management

tool at the University of Minnesota, which securely stores the data. The survey consisted of 70 total items and took about 5 minutes to complete. In order to participate, participants had to be over the age of 18 and living in the United States. Participants were compensated \$0.35 for completing the survey, which is comparable to amounts offered on Mechanical Turk for similar surveys.

Data Analysis

The data were prepared by summing responses to items for each of the four subscales of the IRI. The CTS-2 data were coded in two ways by this investigator: (1) prevalence- whether the behavior happened at all during the relationship, and (2) severity. Coding of CTS-2 data resulted in 3 categories of aggression severity- none, minor, severe- for each of the three types of aggression measured by the CTS-2 subscales (psychological, physical, and sexual). All of the participants reported aggression of at least one type. Descriptive statistics (means, standard deviations, frequencies) were calculated for responses to the demographic items.

Cluster analysis was used to explore whether there are identifiable empathy profiles among the women in the sample. Cluster analysis is an exploratory method that classifies a set of observations into mutually exclusive groups based on combinations of variables. There are many different methods of cluster analysis, all using a proximities matrix based on the similarities or differences between participants' answers. Once the distances between the responses have been established, the participants can be grouped according to proximity (Stockburger, 1997). Multivariate cluster analysis allows for

multiple measures (in this study, the four subscales from the IRI) to contribute to the similarity, or proximity, between participants' answers.

Cluster analysis. Cluster analysis is not a specified formula or algorithm but rather a classification tool, and as such requires the researcher to make several decisions about how the analysis will be done. First, one must choose the type of distance measure to use (Norusis, 2011). Euclidean distance, or the straight-line distance, is commonly used, as well as squared Euclidean distance. Other commonly used distance measures in cluster analysis are city-block (Manhattan) distance, which is the sum of the points' absolute differences, Chebyshev distance, which is the maximum of the absolute difference between two points, and Mahalanobis distance, which is a generalized distance of the space between a point and the mean of a distribution (Caccam & Refran, 2012). In the present study, squared Euclidean distance was used, as the data points are in Euclidean space and are all scaled on the same 5 point scale.

After choosing a distance measure, it can be helpful to scan the data for outliers (Cherednichenko, 2005). Some clustering techniques are more sensitive to outliers than others, and perform better when data are an accurate representation of the sample. With data points in four dimensions for the present sample, it is impossible to visually inspect the data for outliers. Another complication is that, in order to determine outliers, it is often necessary to know a priori either how far is "too far" for a data point to be or how many data points should be classified as outliers. Given the exploratory nature of this study, there is no theoretical basis for determining whether a data point is an outlier. As such, all data points were included in the cluster analysis.

The next step is choosing the type of clustering algorithm to use, that is, deciding how to combine the points into clusters (Norusis, 2011). There are many different clustering algorithms that take into account different criteria for clustering, including hierarchical and non-hierarchical methods. Hierarchical cluster analysis assumes data points that are closer together (based on the specified distance measure) are more similar than data points that are farther away from each other. Hierarchical cluster analysis can be agglomerative or divisive. Divisive hierarchical cluster analysis begins with all the points in one cluster and divides them according to some criteria. Conversely, and more commonly used, is agglomerative hierarchical analysis, in which each data point is initially in its own “cluster” and is iteratively combined with other close points. Some of the agglomerative hierarchical clustering methods are single-linkage, or nearest neighbor, (combining clusters where two points are the closest) and complete-linkage, or furthest neighbor (where combining clusters minimizes the maximum distance between any two points in each cluster). Hierarchical clustering produces a series, or hierarchy, of cluster solutions, ranging from each n in its own cluster all the way to a single cluster containing all n 's. One disadvantage of hierarchical analysis is that it is cumbersome to compute, as it requires as many iterations as there are data points, and thus is not convenient for large data sets (Rajaraman, Leskovec, & Ullman, 2014).

Another commonly used hierarchical clustering method is Ward's method. Ward's method requires a specific distance measure - squared Euclidean distance - because the clustering algorithm is based on within-cluster sums of squares. In Ward's method, a cluster mean is calculated and the squared Euclidean distance from each point

to the cluster mean is calculated. At each step, the two clusters merge that result in the smallest increase in overall sum of within-cluster distances. As with other types of hierarchical cluster analysis, it repeats this process N times. Because Ward's method minimizes the total within-cluster variance, this method tends to produce clusters that are somewhat equal in number of points. Furthermore, the clusters tend to be round, as the sums of squares variance is measured equally in all directions. The size and shape of Ward's method clusters may be a limitation depending on the size and shape that would be expected from the data. Another possible limitation of Ward's method is that it is sensitive to outliers, because it uses sums of squares, which increases the effect of each point. Another limitation of Ward's method is that each new cluster is constrained by previous choices, and thus toward the end of the clustering, the clusters may not represent the minimum sums-of-squares that is possible for k clusters (Shalizi, 2009).

In contrast to hierarchical clustering, partitioning clustering methods begin with choosing the number of clusters. The most popular of these methods is the k-means clustering method, in which k centroids are initially specified and each point is assigned to the nearest centroid. The cluster center is recalculated at each step and points can be reassigned throughout the process. K-means analysis has the advantage of being easier to compute than hierarchical methods and works well for large data sets. It also allows for points to move between clusters as necessary. A significant challenge to using k-means methods is that it is necessary to set the number of clusters before doing the analysis. Another possible limitation of k-means clustering is that, because it assigns points in

relation to a centroid, it produces spherical cluster solutions, which may or may not be representative of the true relationships in the data.

The final choice to make in a cluster analysis is determining how many clusters is the “right” number. There are many methods for choosing the appropriate number of clusters. Generally speaking, in hierarchical methods, the correct number of clusters is the solution just prior to the solution that combines two clusters that do not actually belong together. One can tell that two clusters do not belong together when the measure of similarity within the cluster (e.g. diameter or within groups sums of squares) increases too much in one step. In Ward’s method, the measure of similarity is the within-cluster sum of squares, and the researcher knows to stop when the within-cluster sums of squares grows too much in one step. The pseudo-F statistic is another way to help decide on the number of clusters. It was developed by Calinski and Harabasz (1974) and is a ratio of the between groups sums of squares and the within groups sums of squares. The formula for the pseudo-F statistic is

$$\frac{GSS/(k - 1)}{WSS/(N - k)}$$

where GSS is between groups sums of squares, WSS is within groups sums of squares, N is the number of observations, and k is the number of clusters. A larger pseudo-F statistic indicates a better cluster solution.

Often, a hierarchical method is used to help determine the number of clusters and then a partitioning method is used to take advantage of the strengths of those methods

(namely, that cases can switch between clusters) (Field, 2000). In the current study, this investigator used SPSS statistical software in order to employ Ward's method of minimum variance, clustering on the four IRI subscales. Stata statistical software was used to determine the pseudo F statistics. The dataset was not big enough to require the follow-up step of the partitioning method.

As there is no one correct statistical solution in cluster analysis, it is valuable to demonstrate the resulting clusters have validity. Validating cluster solutions can be done either by comparing the results to an external benchmark or by comparing the data to themselves in some way. The data in this study are highly exploratory and there are no external benchmarks to reference; thus, their validity must be tested internally. One way to do this is to split the dataset in half and cluster according to the algorithm of choice. These solutions can be compared to the solution found for the complete dataset to provide further confirmation that the clusters accurately represent the data (Shalizi, 2009).

Chapter 4

Results

Demographics of total sample. Participant demographic characteristics are reported in Table 1. The sample ranged in age from 18-68 ($M = 34.38$, $SD = 11.39$) and almost three-fourths self-identified as White/Caucasian ($n = 207$, 74%). The highest completed education for a majority were: some college ($n = 94$, 34%), college ($n = 98$, 35%), some post graduate school ($n = 11$, 3%), or graduate or professional degree ($n = 42$, 15%). Close to half of the participants reported being employed full-time outside the home ($n = 134$, 48%), while 16% ($n = 45$) were employed part-time outside the home, and 36% ($n = 100$) were not employed outside the home. Participants were asked to identify if they had children age 0-18 years who lived in the home at the time of the relationship in question. There was a fairly even split between those who did not have children in the home ($n = 137$, 49%) and those who did ($n = 142$, 51%, $M = 1.88$ children at home). For the relationship in question, participants reported being with their partner from between 1 month and 40 years ($M = 7.90$ years, $SD = 8.07$ years). The majority were not married to the partner in question ($n = 166$, 59%; married $n = 113$, 41%).

Table 1
Descriptive demographic information for survey respondents (N = 279)

Variable	N	%	Mean	SD
Age in yrs			34.38	11.39
No. children at home ^a	142	51	1.88	0.92
Relationship length in yrs			7.90	8.07
Married to partner				
Yes	113	41		
No	166	59		
Ethnicity				
White/Caucasian	207	74		
Black/Af-American	32	11		
Hispanic/Latino	17	6		
Asian-American	12	4		
Multi-racial	8	3		
Other	2	0.7		
American Indian	1	0.3		
Highest Education level				
Grade school	1	0.3		
High school	33	12		
Some college	94	34		
College	98	35		
Some post graduate	11	3		
Graduate/Prof. degree	42	15		
Employment status				
Full time	134	48		
Part time	45	16		
Not outside home	100	36		

Note. These data were collected only for those participants who reported having children in the home at the time of the relationship in question.

Empathy scores in total sample. The empathy scores for the total sample were similar to women’s scores found in other studies using the IRI (e.g. Davis & Oathout, 1987). For example, in the study conducted to validate the measure (Davis, 1983) the means for females on each subscale were as follows: Fantasy 18.75; Empathic Concern 20.83; Perspective Taking 17.96; Personal Distress 12.28 (see Table 3).

Self-reported abuse prevalence in total sample. Part of the inclusion criteria for this study was to report some type of abuse in an intimate relationship. Therefore, prevalence rates reported in Table 2 are not prevalence rates for the community, but rather for a sample that was pre-selected for reporting abuse. However, during data collection for this study, 344 valid response sets for females were collected, and 65 of those were not included in the final sample because there were no reports of abuse, for an 80% abuse prevalence rate. This is similar to total abuse rates (combined minor and severe) reported elsewhere in the literature (ranging from 75-80%; Lawrence, Yoon, Langer, & Ro, 2009).

Table 2
Experience of self-reported abuse as a percentage of the sample (N = 279)

Type of abuse	None % (n)	Minor % (n)	Severe % (n)
Psychological	2.2 (6)	62.4 (180)	35.5 (191)
Physical	64.5 (174)	15.1 (42)	20.4 (68)
Sexual	68.5 (99)	24.4 (57)	7.2 (20)

Clusters. Using Ward's method of minimum variance, a three cluster solution was found to best describe the data. This was determined by randomly splitting the dataset approximately in half and running the clustering algorithm on each half. In the first half ($n = 134$), a clear 3 cluster solution emerged by looking at the changes in the within-cluster sums of squares at each step in the clustering process. Between the three cluster solution and the two cluster solution, the sums of squares increased dramatically, indicating that the three cluster solution was preferable to the two cluster solution. In the second half of the sample ($n = 145$), there was support for either a two cluster or a three cluster solution, as the sums of squares began to increase more rapidly after the three cluster solution. When the sample was analyzed as a whole ($N = 279$), there was likewise support for a two- or three- cluster solution. The pseudo F statistic showed that the 3 cluster solution maximized the within group similarity and the between group difference (see table 3 for within group sums of squares and the pseudo F statistic). In looking at the dendrogram of the clustering solution (see Appendix B), it was evident that in each analysis, the data divided into two main clusters, and one of those main clusters divided into two (Indeed, in the final solution, cluster 3 emerges exclusively from cluster 2.) As cluster 3 differed from cluster 2 on several of the variables of interest, it was decided that the most useful interpretation of the data was the 3 cluster solution.

Table 3

Within cluster sums of squares and pseudo F statistics for possible cluster solutions.

No. of clusters	Within cluster sums of squares n = 134	Within cluster sums of squares n = 145	Within cluster sums of squares N = 279	Pseudo F statistic N = 279
1	12,764	17,507	32,799	--
2	10,196	13,210	25,544	76.53
3	8,714	10,646	20,342	81.50
4	7,482	9,178	18,558	70.83
5	6,478	7,232	16,797	65.87

Note. Higher value of pseudo F statistic indicates a better cluster solution.

The clusters were analyzed using ANOVA and chi-square for statistically significant differences. The clusters were not statistically significantly different on any of the variables of interest, except the empathy subscales. However, the statistical significance of the empathy differences is an artifact of the clustering algorithm, which minimizes within-group variance and maximizes between-group variance on the variables used in the clustering (in this case, the empathy subscales). All differences discussed in the following sections are not statistically significant, but rather provide a description of the characteristics of each cluster.

Empathy subscales. Cluster 1 ($n = 103$) is characterized by higher Fantasy and Personal Distress scores and mid-range Empathic Concern and Perspective Taking scores compared to the other clusters. Cluster 2 ($n = 68$) is characterized by higher Empathic Concern and Perspective Taking scores, lower Personal Distress scores, and mid-range

Fantasy scores, compared to the other clusters. Cluster 3 ($n = 108$) is characterized by lower Fantasy, Empathic Concern, and Perspective Taking scores and by mid-range Personal Distress scores compared to the other clusters. Means and standard deviations for empathy scores for each cluster and for the total sample are represented in Table 4.

Table 4
Means and SDs for empathy subscales by cluster

Subscale	Cluster 1 $n = 103$	Cluster 2 $n = 68$	Cluster 3 $n = 108$	Total Sample $N=279$	Davis, 1980 $N=582^*$
Fantasy	21.96 (4.31)	18.38 (5.72)	16.75 (5.2)	19.07 (5.52)	18.75
Empathic Concern	23.3 (3.69)	23.69 (3.34)	16.69 (4.54)	20.83 (5.15)	21.67
Perspective Taking	20.04 (4.43)	21.63 (3.06)	14.76 (3.95)	18.38 (4.91)	17.96
Personal Distress	18.11 (4.67)	6.72 (3.15)	11.79 (4.15)	12.89 (6.07)	12.28

Note. Scores for each subscale can range from 0-28. Higher scores indicate greater empathy.

* Standard deviations not reported

Empathy subscales on the IRI correlate with one another differently in the total sample and in the three clusters. Total sample and expected correlations (from Davis, 1980) are shown in table 5. Correlations by cluster are shown in table 6.

Table 5
Intercorrelations of the four empathy subscales (Total Sample; Davis, 1980)

	Empathic Concern	Perspective Taking	Personal Distress
Fantasy	.31 (.31)	.17 (.12)	.20 (.04)
Empathic Concern		.52 (.30)	.06 (.01)
Perspective Taking			-.06 (-.29)

Table 6
Intercorrelations of the four empathy subscales for the 3 clusters

	Empathic Concern (Cluster 1, Cluster 2 , Cluster 3)	Perspective Taking (Cluster 1, Cluster 2 , Cluster 3)	Personal Distress (Cluster 1, Cluster 2 , Cluster 3)
Fantasy	.04, .37 , .11	-.05, .22 , -.05	-.05, -.10 , -.02
Empathic Concern		.49, .22 , -.01	-.05, .07 , -.02
Perspective Taking			-.12, -.02 , -.08

Abuse type and severity. Experiences of abuse varied by cluster, as well, though again, not statistically significantly ($p = 0.15$ for psychological aggression; $p = 0.91$ for physical aggression; $p = .23$ for sexual aggression). In cluster 1, the frequency of severe abuse was higher in all three types of abuse than in the other two clusters. In other words, a higher percentage of the members of cluster 1 reported experiencing severe abuse than the other clusters. Members of cluster 2 experienced the lowest frequency of severe abuse, while members of cluster 3 experienced mid-range frequencies of severe aggression. With regard to minor aggression, cluster 1 experienced the lowest frequencies of psychological aggression, with cluster 2 experiencing higher frequency and cluster 3 mid-range. Cluster 3 reported the highest frequency of minor physical aggression and clusters 1 and 2 reported the same percent of the cluster experiencing minor physical aggression. Cluster 3 reported the highest levels of sexual coercion. Cluster 2 reported the lowest percentage of the total cluster reporting minor sexual coercion and cluster 1 was mid-range (see Figures 1 and 2).

Figure 1

Percentage of participants in each cluster who reported severe types of aggression

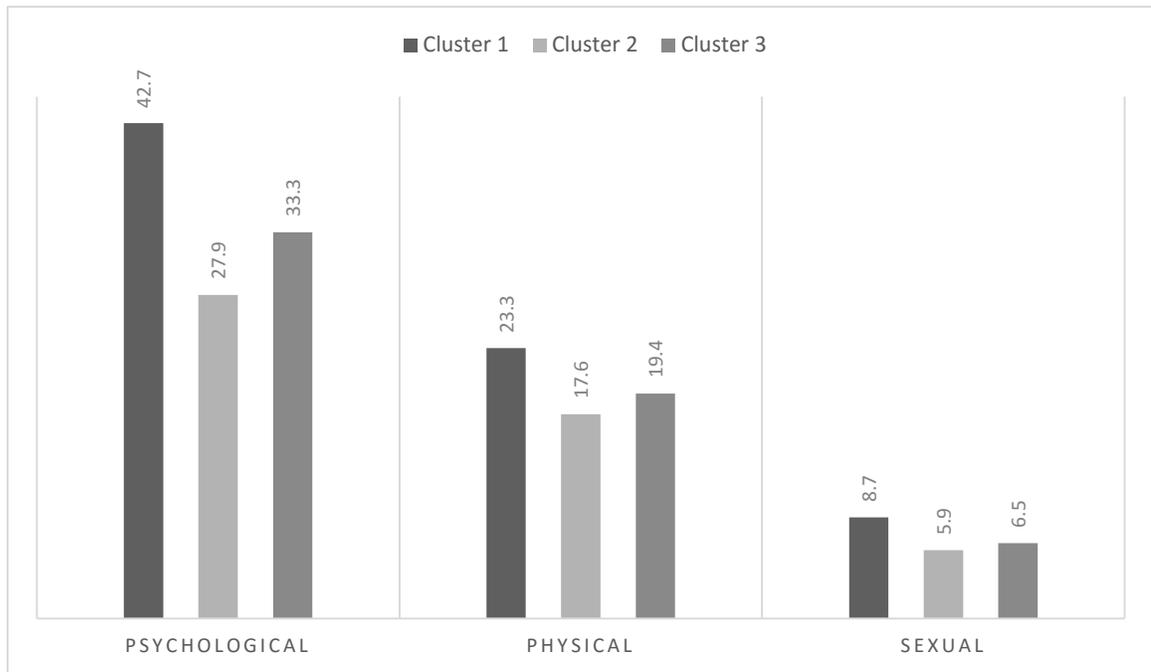
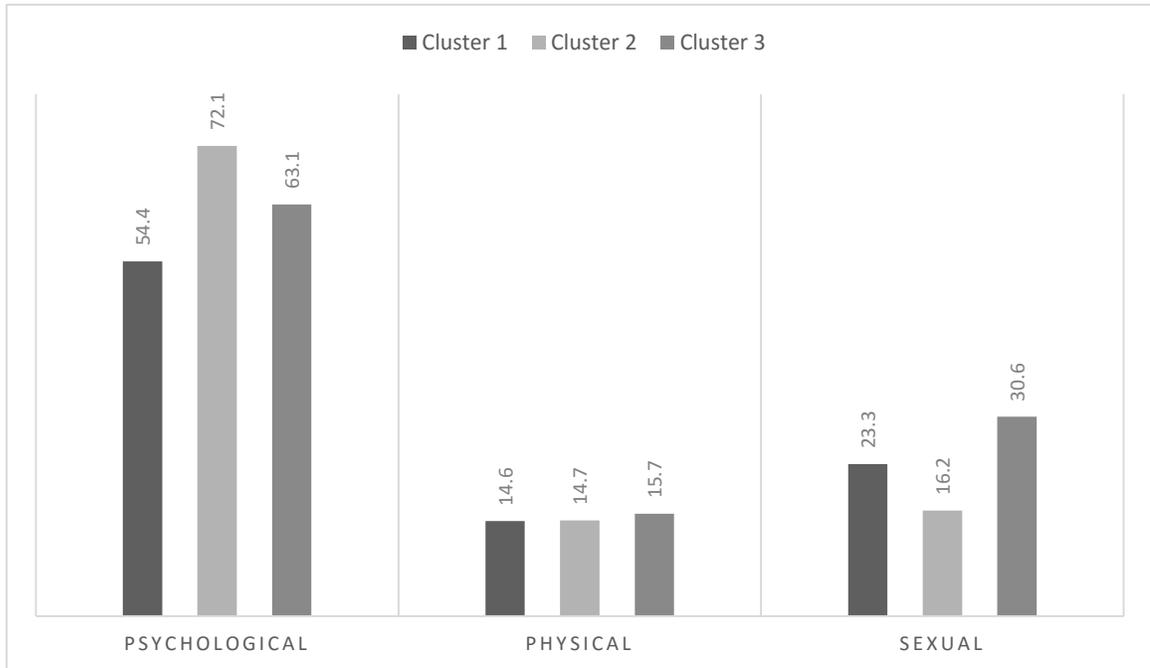


Figure 2

Percentage of participants in each cluster who reported minor types of aggression



Demographics by cluster. Members of cluster 2 reported being in the relationship in question for marginally longer than the members of clusters 1 and 3 ($m = 8.39$; 7.78 ; 7.70 respectively). Members of cluster 2 were older on average than in clusters 1 and 3 ($m = 36.43$ years; 33.96 years; 33.31 years, respectively). Members of cluster 2 were least likely to have been married to the partner in question (35.3% vs 43.7% for cluster 1 and 40.7% for cluster 3) and most likely to have had children in the home at the time of the relationship in question (55.9% vs 46.6% and 51.9%, respectively). Members of cluster 2 were least likely to have completed at least college (41.2% vs 58.2% and 58.3%, respectively). Members of cluster 3 were most likely to be employed full time (53.7% vs 40.1% for cluster 1 and 50.0% for cluster 2) and most likely to be non-White (70.1%

White vs 76.7% and 76.5%, respectively). See table 7 for a full report of demographics by cluster.

Table 7
Descriptive demographic information for survey respondents by cluster

Variable	Cluster 1 (<i>n</i> = 103)	Cluster 2 (<i>n</i> = 68)	Cluster 3 (<i>n</i> = 108)
Mean age in yrs	33.96	36.43	33.31
Mean relationship length in yrs	7.78	8.39	7.70
Children in the home (% , <i>n</i>)			
Yes	46.6 (48)	55.9 (38)	51.9 (56)
No	53.4 (55)	44.1 (30)	48.1 (52)
Married to partner (% , <i>n</i>)			
Yes	43.7 (45)	35.3 (24)	40.7 (44)
No	56.3 (58)	64.7 (44)	59.3 (64)
Ethnicity (% , <i>n</i>)			
White/Caucasian	76.7 (79)	76.5 (52)	70.1 (76)
Black/Af-American	8.7 (9)	13.2 (9)	13.0 (14)
Hispanic/Latino	7.8 (8)	2.9 (2)	6.5 (7)
Asian-American	2.0 (2)	1.5 (1)	8.3 (9)
Multi-racial	2.9 (3)	4.4 (3)	1.9 (2)
Other	1.0 (1)	1.5 (1)	0 (0)
American Indian	1.0 (1)	0 (0)	0 (0)
Highest Education (% , <i>n</i>)			
Grade school	0 (0)	1.5 (1)	0 (0)
High school	12.6 (13)	8.8 (6)	13.0 (14)
Some college	29.1 (30)	48.5 (33)	28.7 (31)
College	39.8 (41)	30.9 (21)	33.3 (36)
Some post graduate	5.8 (6)	0 (0)	4.6 (5)
Graduate/Prof. degree	12.6 (13)	10.3 (7)	20.4 (22)
Employment status (% , <i>n</i>)			
Full time	40.1 (42)	50.0 (34)	53.7 (58)
Part time	15.5 (16)	16.2 (11)	16.7 (18)
Not outside home	43.7 (45)	33.8 (23)	29.6 (32)

Note. Significance levels (2-sided) as follows: Age, *p* = 0.21; Length, *p* = 0.84; Children, *p* = 0.49; Marriage, *p* = 0.55; Ethnicity, *p* = 0.32; Education, *p* = 0.26; Employment, *p* = 0.29

Cluster descriptions. The final clusters can be tentatively characterized by several different variables. **Cluster 1** is characterized by women who have high empathy scores on all subscales and who report the highest frequencies of severe abuse across all three types of abuse. They are least likely to report minor psychological abuse. They are most likely to have been married to the partner in question and least likely to have had children in the home during the relationship. They are likely to be at least college educated. They are most likely to be unemployed and least likely to be employed full-time. **Cluster 2** is characterized by women who have high Empathic Concern and Perspective Taking scores and low Personal Distress scores. They report the lowest frequencies of severe abuse across all three types of abuse, and report the highest frequency of minor psychological abuse. They tend to have been in the relationship longer and to be somewhat older than members of the other clusters. They are least likely to have been married to the partner in question and most likely to have had children in the home during the relationship. They are least likely to have completed at least college. **Cluster 3** is characterized by women who have relatively low Fantasy, Empathic Concern, and Perspective Taking scores and who report severe abuse at frequencies between clusters 1 and 2. They report higher frequencies of minor physical and sexual abuse than the other clusters. They are likely to be at least college educated. They are most likely to be employed full-time, and they are more likely to be non-White than members of the other clusters.

Chapter 5

Discussion

The purpose of this study was to identify different groups of women who have experienced intimate partner aggression on the basis of differences in empathy profiles. Two-hundred seventy-nine women completed online measures: the Interpersonal Reactivity Index (IRI; Davis, 1983) and the Conflict Tactics Scale-2 (CTS2; Straus et al., 1996), and several demographic questions. Ward's method of minimum variance was used to cluster the participants based on their empathy subscale scores. Three clusters were identified and characteristics specific to each cluster were found. In the following sections, notable findings will be discussed, followed by study strengths and limitations, practice implications, and research recommendations.

Women who experienced intimate partner aggression had variable empathy profiles

In the three cluster solution for the data, there were considerable differences in empathy profiles across the four subscales. Thus, it did not make sense to characterize one cluster as "high empathy" and another cluster as "low empathy" because the subscales tended to diverge within clusters. For example, in cluster 2, the Empathic Concern and Perspective Taking subscales' average scores were higher than the average scores of the other clusters, the Personal Distress average score was lower than for the others clusters, and the average Fantasy score was in the middle of the 3 clusters. Nonetheless, cluster 1 did have relatively high mean scores on all 4 empathy subscales,

and cluster 2 could be characterized by high empathy with the exception of the low Personal Distress scores.

Cluster 3 showed the most unusual configuration of empathy subscales. The mean scores on each of the subscales were lower than would be expected based on the means from the validation sample (Davis, 1980) and from the total sample in this study. One exception was the Personal Distress subscale, which in cluster 3 was very close to the expected mean. Cluster 3 also showed unexpected intercorrelations between the empathy subscales. While at least some of the subscales are typically at least minimally correlated, in cluster 3 the intercorrelations between all subscales were negligible (r 's from -0.01 to 0.11).

While the empathy profiles were variable, some trends can be noted related to the Empathic Concern and Perspective Taking subscales. These two IRI subscales are the most commonly used and tend to be considered most representative of the "traditional" concept of empathy (e.g., Ploquin et al., 2011). In the development of the IRI, the Empathic Concern and Perspective Taking scales were positively correlated for a sample of females ($r = 0.30$; Davis, 1980). The present results may support the conceptual link between the two, as the subscales were highly correlated in the full sample ($r = 0.52$). In the clusters, however, correlations between these subscales varied from -0.01 for cluster 3, 0.22 for cluster 2, and 0.49 for cluster 1.

The Perspective Taking and Personal Distress subscales have been shown to be negatively correlated (Davis, 1980); from a theoretical perspective, greater cognitive

understanding of another's distress is thought to decrease an observing individual's felt personal distress. Results of the current study provide partial support for a negative relationship. In the full sample ($N = 279$), Perspective Taking and Personal Distress were slightly negatively correlated ($r = -0.06$). Each cluster likewise showed a minimal negative correlation between the two subscales ($r = -0.12, -0.02, \text{ and } -0.08$, respectively)

Women with different empathy profiles reported varying types and severity of abuse

Some research suggests women who are abused by their partners may have lower empathy or empathic accuracy, resulting in their partners feeling misunderstood and frustrated (Cohen et al., 2015; Peloquin et al., 2011). While cluster analysis cannot show a causal or dependent relationship, the characteristics in this sample do not follow the pattern of higher empathy/less abuse. Members of cluster 1 and cluster 2 reported high Empathic Concern and Perspective Taking scores, however cluster 1 reported the highest rates of severe abuse and cluster 2 reported the lowest rates of severe abuse. Furthermore, cluster 3 reported the lowest Empathic Concern and Perspective Taking scores and a lower frequency of severe abuse than cluster 1 (high empathy/high abuse)

The most notable difference between cluster 1 (highest level of severe abuse) and cluster 2 (lowest level of severe abuse) is in participants' Personal Distress scores ($m = 18.11$ and 6.72 , respectively). High Personal Distress scores in cluster 1 could be reflective of the effects of the abuse, in that people who have experienced more severe abuse would likely be "apprehensive and ill at ease in emergency situations," (an item

from the Personal Distress scale) for example. Conversely, it could be speculated that higher personal distress scores might contribute to a lower empathic accuracy, which has been linked to increased relationship aggression (Cohen, et al, 2015). For example, the Personal Distress scale item “When I am with a friend who is depressed, I become so uncomfortable that I can’t really talk to him” might indicate a person is experiencing emotional arousal so intense that it inhibits true connection with her or his partner.

Alternatively, the low Personal Distress scores in cluster 2 (lowest percentage of severe abuse) could reflect the fact that the members of that cluster may not have been exposed to as many personally distressing situations, and as such may not have the types of trauma responses to emergencies members of cluster 1 report having. At the same time, the lower Personal Distress scores may instead be representative of a general ability to remain calm in stressful situations, which may facilitate better empathic accuracy and connection with others, possibly deterring abuse. As the data are cross-sectional and not longitudinal, it is impossible to discern whether the Personal Distress scores predate the abuse or whether the Personal Distress scores change over time in response to the abuse.

With respect to less severe abuse (or relationship aggression), a few tentative conclusions may be drawn. Cluster 2, the highest in “traditional” empathy subscale scores (Empathic Concern and Perspective Taking), reported the highest levels of minor psychological aggression (72.1% of the cluster members), but lower levels of minor physical and sexual aggression (14.7% and 16.2%, respectively). It has been shown that empathy supports forgiveness (e.g. McCullough, Worthington, & Rachal, 1997) and that forgiveness supports relationship maintenance (Gordon, Burton, & Porter, 2004). One

interpretation for the results of cluster 2 may be that the relationships among empathy, forgiveness, and relationship maintenance are especially true for the least severe abuse (psychological aggression), but they become more complex when aggression crosses into more severe psychological abuse and/or any form of physical or sexual aggression.

Women with different abuse experiences had varying demographic characteristics

While it is widely acknowledged that intimate partner violence can affect anyone, several demographic characteristics are considered risk factors (Abramsky et al., 2011). Several of these characteristics are addressed in the following sections, along with pertinent results from this study.

Age. Younger age is consistently associated with higher rates of IPV (Abramsky, et al., 2011; Durose, et al., 2005). The present results are consistent with these findings, in that the oldest cluster (cluster 2) reported the lowest levels of severe abuse.

Ethnicity. In the United States, some racial/ethnic groups are more likely to be victims of IPV. The rates of IPV are higher among African Americans and American Indians than in non-Hispanic whites, which in turn have higher rates than Hispanic and Asian Americans (Durose, et al., 2005; Symes, 2011). In the current study, results differed somewhat from these trends, in that cluster 1 (highest rate of severe abuse) had a lower percentage of African American and American Indian members than the other 2 clusters. Furthermore, cluster 3 (mid-range rates of severe abuse) had the highest percentage of Hispanic and Asian-Americans.

Socioeconomic status (SES). Education and employment were assessed in this study as a proxy for SES. Prior research has demonstrated that low SES is associated with higher rates of IPV (Symes, 2011), and high SES can serve as a protective factor (Abramsky, et al., 2011). Among participants in this study, however, cluster 2 (lowest rates of severe abuse) had the lowest rates of college education.

Relationship factors. Relationship status may be associated with experience of IPV. Abramsky et al. (2011) found that marriage conferred some protection from IPV. The present findings do not support such a relationship. Participants in cluster 1 (highest rates of severe abuse) were most likely to be married and those in cluster 2 (lowest rates of severe abuse) were least likely to be married. Relationship duration may have some relation to IPV, in that abuse tends to escalate over time (Follingstad, et al., 1992). Again, the results of this study differ, with cluster 2 reporting a slightly longer relationship duration but lower rates of severe abuse than the other 2 clusters.

In sum, the findings of this study suggest accurate predictions about different experiences of abuse can be difficult to obtain based on women's demographic characteristics. Indeed, the findings suggest that women victim/survivors come from extremely varied backgrounds.

Study Strengths and Limitations

The findings of this study contribute to the conversation about relationship aggression by highlighting characteristics of women who have been victims/are survivors of different types and severity of IPV. A major strength of this study is the inclusion of

widely used instruments with strong demonstrated psychometric properties that allow for comparison of results across studies. Both instruments measure complex constructs. Empathy is a multidimensional construct, and the IRI attends to both emotional and cognitive empathy. The CTS-2 captures a spectrum of relationship aggression, including different types and varying severity of abuse. Capturing different levels of aggression is especially important when using a community sample to investigate relationship violence, as in this study.

Another strength of this study is the use of cluster analysis, an exploratory data analysis method that accommodates widely varying experiences and characteristics; this accommodation is an important element for understanding victim/survivors of relationship violence. Cluster analysis is appropriate for data that are purely descriptive and do not rely on previous assumptions about the population. As the results describe the entire dataset, cluster analysis can provide a full description of the sample with respect to the variables of interest.

Major limitations of this study include the difficulty monitoring online self-report; a response rate could not be calculated, and participants may not have answered truthfully. Validity items were used throughout the survey in order to minimize this latter limitation, and participants were required to answer all three validity items correctly for their responses to be retained in the analysis. Nonetheless, studies of relationship violence are stronger when multiple sources are used, for example, partners' responses gathered in conjunction with those of the primary participants.

Another limitation is that participants were included in the analysis whether or not they were currently in the relationship in question. The measures used should be able to compensate for this limitation. The CTS-2 measures whether the aggression happened at all in the relationship, not just in the past year, and the IRI purports to measure empathy as a trait, which would mean that empathy scores would not change significantly over time. Future studies would benefit from more stringent inclusion criteria and analysis of differences in participants who are in a relationship at the time of the study and those who are not.

Finally, while cluster analysis can provide a very good description of a study sample and identify sub-groups that differ with respect to the variables of interest, generalizability of the findings to the population is limited. In this study, the clusters were validated by analyzing one half of the data first, and then testing that solution on the other half of the data. Nonetheless, it would be inaccurate to conclude that the clusters in this study are representative of the population of women who experienced relationship aggression.

Practice Implications

The results of this study highlight the need for practitioners to be sensitive to the differences among women who are or have been in abusive relationships. As numerous prior studies have shown, there is no “typical” profile for women who are abused, and women across the demographic spectrum are susceptible to intimate partner aggression. Practitioners should engage in self-reflective practice, carefully examining their personal

assumptions when working with victimized women, as society continues to judge this population harshly (e.g., Worden & Carlson, 2005).

Even subtle stereotypes (e.g., “women who care too much”) may be damaging and lacking in empirical validation. The present findings suggest high “traditional” empathy (empathic concern and perspective taking) may be present with more severe abuse or may contraindicate more severe abuse in women’s intimate relationships. In other words, these data suggest the same personal characteristics (e.g. empathy) can be related to different outcomes for different people. Practitioners should assess for several characteristics that may inform women’s experiences of relationship violence, such as empathy (as well as variables investigated in other studies, namely, attribution of blame, locus of control, depression, and self-esteem). When doing so, they should carefully assess each woman’s personal experience and meaning associated with these characteristics, including if and how their experience and meaning have changed over time.

While increased empathy in this study does not show a clear association with experience of violence, these data partially support prior research suggesting that increased empathy may be associated with decreased violence. Empathy training based on Barrett-Lennard’s (1981) three-phase “empathy cycle” may be helpful in decreasing relationship violence. Training would focus on improved ability to (1) sense another’s emotional experience, (2) communicate that empathy, and (3) gauge whether their empathic communication has been received accurately. This type of training would be

beneficial as a preventive measure and as an intervention for people leaving a violent relationship.

The finding that Personal Distress was highest for those who experienced the most severe abuse can inform practitioners of the importance of focusing on self-soothing techniques with women who have experienced relationship violence. In the present study, empathy was measured after abuse had occurred, so it is unknown whether high Personal Distress scores would have been obtained before and/or during the abuse. Nonetheless, strategies that help to lessen personal distress likely would contribute to women's well-being regardless of their relationship status. Teaching physiological self-soothing, such as deep breathing, mindful meditation, and reconnecting with the body through mindful movement, may help to decrease personal distress. If high Personal Distress impedes empathic accuracy, decreasing Personal Distress could be an important step in preventing future relationship violence.

Research Recommendations

Three different empathy profiles emerged in this study, underscoring the importance of studying empathy as a multidimensional construct. Future investigations of empathy in the victim/survivor population should include a multidimensional measure such as the IRI in order to capture the range of empathy characteristics. Many researchers choose to use one or two subscales of the IRI, typically the Empathic Concern and/or Perspective Taking subscales, as they map most easily onto the concepts of emotional and cognitive empathy. As the present results highlight, however, scores on all four IRI

subscales appear to provide meaningful insight into a person's empathic experience. For instance, the high Personal Distress scores in cluster 1 could signal a relationship between that dimension of empathy and greater likelihood of experiencing severe abuse. Future researchers should investigate this relationship directly, for example, whether Personal Distress is a mediator in the relationship between empathic accuracy and abuse.

As empathy and relationship violence are both interpersonal phenomena, future investigations that assess both parties are warranted. The CTS-2 and the IRI are well-suited to measuring couples. Data from the full CTS-2 and the full IRI for both members of the couple would provide a wealth of information about the relationships between different types of empathy and perpetration and/or victimization. Investigations that assess both members of the couple may help to counter a tendency toward victim-blaming, as well, by offering insight into the interpersonal process of empathy and relationship violence.

Part of the nuance suggested by this and other studies is that the experience of relationship violence may change over time. Longitudinal studies are lacking in the area of intimate partner violence, in part because it can be difficult to predict which relationships will become violent. Using a measure like the CTS-2, however, could minimize that problem as it provides information about a spectrum of relationship aggression, which tends to show up in the majority of relationships over time. Some of the characteristics that may be helpful to track over time include empathy, locus of control, attribution of blame, self-esteem, and depression. Results from this study suggest that an important aspect of empathy to track over time may be the Personal Distress scale,

to see whether high Personal Distress scores predate or are consequent to experiencing relationship aggression.

Future empathy researchers should consider qualitative studies to capture more information about the meaning associated with different empathic experiences, especially in the context of relationship violence. It would be interesting to ask participants how they believe their emotional and cognitive empathy relates to their decisions to stay or leave abusive relationships, as well as their perspective on how their personal distress in conflictual situations has changed over time. Perhaps richer data in these areas will point to new areas of research related to empathy and interpersonal relationships.

Finally, cluster analysis as a statistical technique has a place in psychological research. The findings of this study suggest it may be a useful tool for exploring characteristics of vulnerable populations. Cluster analysis excels at finding hidden relations that may run counter to general assumptions about a population (Borgen & Barnett, 1987). A general recommendation for future research is to consider cluster analysis when studying populations that are assumed to be relatively homogenous.

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Appendix A

Survey Items

Interpersonal Reactivity Index

The following statements inquire about your thoughts and feelings in a variety of situations. For each item, indicate how well it describes you by choosing the appropriate letter on the scale at the top of the page: A, B, C, D, or E. When you have decided on your answer, circle the letter next to the question. **READ EACH ITEM CAREFULLY BEFORE RESPONDING.** Answer as honestly as you can. Thank you.

A
B
C
D
E
 DOES NOT DESCRIBE ME WELL DESCRIBES ME VERY WELL

1	I daydream and fantasize, with some regularity, about things that might happen to me.	A B C D E
2	I often have tender, concerned feelings for people less fortunate than me	A B C D E
3	I sometimes find it difficult to see things from the "other guy's" point of view	A B C D E
4	Sometimes I don't feel very sorry for other people when they are having problems	A B C D E
5	I really get involved with the feelings of the characters in a novel.	A B C D E
6	In emergency situations, I feel apprehensive and ill-at-ease	A B C D E
7	I am usually objective when I watch a movie or play, and I don't often get completely caught up in it.	A B C D E
8	I try to look at everybody's side of a disagreement before I make a decision	A B C D E
9	When I see someone being taken advantage of, I feel kind of protective towards them	A B C D E

EMPATHY IN WOMEN IN VIOLENT INTIMATE RELATIONSHIPS 75

10	I sometimes feel helpless when I am in the middle of a very emotional situation	A B C D E
11	I sometimes try to understand my friends better by imagining how things look from their perspective	A B C D E
12	Becoming extremely involved in a good book or movie is somewhat rare for me.	A B C D E
13	When I see someone get hurt, I tend to remain calm	A B C D E
14	Other people's misfortunes do not usually disturb me a great deal	A B C D E
15	If I'm sure I'm right about something, I don't waste much time listening to other people's arguments	A B C D E
16	After seeing a play or movie, I have felt as though I were one of the characters.	A B C D E
17	Being in a tense emotional situation scares me	A B C D E
18	When I see someone being treated unfairly, I sometimes don't feel very much pity for them	A B C D E
19	I am usually pretty effective in dealing with emergencies	A B C D E
	Please answer D for this question.	
20	I am often quite touched by things that I see happen	A B C D E
21	I believe that there are two sides to every question and try to look at them both	A B C D E
22	I would describe myself as a pretty soft-hearted person	A B C D E
23	When I watch a good movie, I can very easily put myself in the place of a leading character.	A B C D E
24	I tend to lose control during emergencies	A B C D E
25	When I'm upset at someone, I usually try to "put myself in his shoes" for a while	A B C D E

26	When I'm reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me.	A B C D E
27	When I see someone who badly needs help in an emergency, I go to pieces	A B C D E
28	Before criticizing somebody, I try to imagine how I would feel if I were in their place	A B C D E

Think of your current romantic partner, or your most significant romantic partner as an adult.

Conflict Tactics Scale-2

No matter how well a couple gets along, there are times when they disagree, get annoyed with the other person, want different things from each other, or just have spats or fights because they are in a bad mood, are tired, or for some other reason. Couples also have many different ways of trying to settle their differences. This is a list of things that might happen when you have differences. Please circle how many times your partner did them in the past year. If your partner did not do these things in the past year, but it happened before that, circle "7."

How often did this happen?

0=this has never happened	3=3-5 times in past year	6=more than 20 times in past year
1=once in past year	4=6-10 times in past year	7=not in past year, but it did happen before
2=twice in past year	5=11-20 times in past year	

1	My partner insulted or swore at me	0 1 2 3 4 5 6 7
2	My partner threw something at me that could hurt	0 1 2 3 4 5 6 7
3	My partner twisted my arm or hair	0 1 2 3 4 5 6 7
4	My partner made me have sex without a condom	0 1 2 3 4 5 6 7
5	My partner pushed or shoved me	0 1 2 3 4 5 6 7

EMPATHY IN WOMEN IN VIOLENT INTIMATE RELATIONSHIPS 77

6	My partner used force (like hitting, holding down, or using a weapon) to make me have oral or anal sex	0 1 2 3 4 5 6 7
7	My partner used a knife or gun on me	0 1 2 3 4 5 6 7
8	My partner called me fat or ugly	0 1 2 3 4 5 6 7
9	My partner punched or hit me with something that could hurt	0 1 2 3 4 5 6 7
10	My partner destroyed something that belonged to me	0 1 2 3 4 5 6 7
11	My partner choked me	0 1 2 3 4 5 6 7
	Please answer 3 for this question	
12	My partner shouted or yelled at me	0 1 2 3 4 5 6 7
13	My partner slammed me against a wall	0 1 2 3 4 5 6 7
14	My partner beat me up	0 1 2 3 4 5 6 7
15	My partner grabbed me	0 1 2 3 4 5 6 7
16	My partner used force (like hitting, holding down, or using a weapon) to make me have sex	0 1 2 3 4 5 6 7
17	My partner stomped out of the room or house or yard during a disagreement	0 1 2 3 4 5 6 7
18	My partner insisted on sex when I did not want to (but did not use physical force)	0 1 2 3 4 5 6 7
19	My partner slapped me	0 1 2 3 4 5 6 7
20	My partner used threats to make me have oral or anal sex	0 1 2 3 4 5 6 7
	Please answer 5 for this question	
21	My partner burned or scalded me on purpose	0 1 2 3 4 5 6 7
22	My partner insisted that I have oral or anal sex (but did not use physical force)	0 1 2 3 4 5 6 7

23	My partner accused me of being a lousy lover	0 1 2 3 4 5 6 7
24	My partner did something to spite me	0 1 2 3 4 5 6 7
25	My partner threatened to hit or throw something at me	0 1 2 3 4 5 6 7
26	My partner kicked me	0 1 2 3 4 5 6 7
27	My partner used threats to make me have sex	0 1 2 3 4 5 6 7

Demographic questions

What is your gender? Male, Female, Transgender

Are you currently in a romantic relationship? Yes, No

The following questions refer to the romantic partner you indicated in the previous questions.

How would you describe your relationship? (Choose all that apply)

- a. Dating
- b. Engaged
- c. Living with partner
- d. Married
- e. Separated
- f. Divorced
- g. Widowed
- h. With a same-sex partner

How long were you romantically involved with your partner? Years____ , Months____

If you are no longer romantically involved with your partner, how long has it been since the relationship ended? Years____, Months____

How many children (age 0-18) lived with you at least half the time, at the time of the relationship in question?

- a. 0
- b. 1
- c. 2

- d. 3
- e. More than 3

INCLUDING the relationship you are referencing in this survey, in how many romantic relationships have you been on the receiving end of partner violence?

- a. 0
- b. 1
- c. 2
- d. 3
- e. More than 3

What is your current age? ___ years

What ethnic group do you most identify with?

- a. African American/Black
- b. Alaskan Native/American Native
- c. Asian/Pacific Islander
- d. Caucasian/White
- e. Chicano/Hispanic/Latino(a)
- f. Multi-racial
- g. Other

What is the highest level of education you have completed?

- a. Grade school
- b. High school
- c. Some college
- d. College graduate
- e. Some post-graduate work
- e. Graduate or professional school
- f. Other

Indicate your current level of employment:

- a. Not employed outside the home
- b. Employed part time
- c. Employed full time

The following questions relate to childhood abuse you may have experienced.

Did you experience physical abuse in your home (*someone hurting you on purpose by punching, beating, kicking, biting, burning or otherwise causing injury that left a mark*) prior to age 18? Yes/No/Not sure

Did you experience sexual abuse (*someone forcing, coercing or threatening you to have any form of sexual contact or to engage in any type of sexual activity*) prior to age 18?
Yes/No/Not sure

Did you experience emotional/psychological abuse (*a persistent, chronic pattern of parents or caregivers rejecting, isolating, exploiting, verbally assaulting, threatening, or neglecting you*) prior to age 18? Yes/No/Not sure

Appendix B

Dendrogram using Ward's method

