

THE LONGITUDINAL IMPACT OF ABUSERS' USE OF CHILDREN ON IPV  
SURVIVORS' AND CHILDREN'S WELL-BEING

By

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## ABSTRACT

### THE LONGITUDINAL IMPACT OF ABUSERS' USE OF CHILDREN ON IPV SURVIVORS' AND CHILDREN'S WELL-BEING

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There is a well-established connection between intimate partner violence (IPV) and its deleterious impact on survivors and their children. While there have been numerous studies examining IPV in terms of psychological, physical, and economic abuse, far fewer have looked at the abusers' use of children as a tactic of abuse and its impact on both survivors' and their children's well-being. This study sought to add to the field by further exploring this relationship. The sample for this study, taken from a larger two-year longitudinal study examining the experiences of help-seeking IPV survivors' and their children, includes 105 survivors across three time points over the course of eight months. Using a time-ordered mediation model, this study examined the relationship between the use of children at a first time point and its impact on survivors' quality of life at eight months later as mediated by their children's behavior at a middle (four month) time point. Three models were examined in this study to understand the mediating effects of the children's behavior between the use of children and the survivors' quality of life. The first model, a simple mediation model, included the three (independent, mediator, and dependent) variables. The second model was the same simple mediation model while controlling for the children's ages. The third and final model was the same as the second model while also controlling for survivors' quality of life at the first time point. The findings from this study are mixed, indicating a mediated relationship in models one and two, and no mediation in the third model (when controlling for quality of life at the first time point). Preliminary findings from this study indicate that when abusers use children in order to control

their partners and ex-partners, the children display higher levels of negative behavior, which in turn negatively effects survivors' quality of life yet the significance of these relationship may change when controlling for other variables.

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## **CHAPTER 1: INTRODUCTION**

Intimate partner violence (IPV) has long been determined to be a public health crisis, affecting millions of women and children each year (Black et al, 2011) with costs of IPV exceeding \$5.8 billion annually (CDC, 2003). In a national survey funded by the National Center for Injury Prevention and Control within the Centers for Disease Control and Prevention, it was found that more than one in three women (36%) have been raped, physically assaulted, and/or stalked in their lifetimes by an intimate partner, including current and former husbands, partners, boyfriends or dates (Black et al., 2011). The same survey found that intimate partners have physically assaulted one out of every four women in the United States. Of the one in five women who have been raped in their lifetimes, over one-half (51%) were raped by an intimate partner. Further, 46% of women have experienced severe psychological abuse over their lifetimes (Breiding et al., 2011). For the one in six (16%) women who have experienced stalking, two-thirds (66%) were stalked by a current or former intimate partner (Black et al., 2011).

These multiple forms of IPV (e.g., physical, sexual, psychological, stalking, economic) result in significant deleterious outcomes for survivors, including temporary and permanent physical injury (Black et al., 2011; Bonomi et al., 2006; Breiding, Black, & Ryan, 2008; Browne & Williams, 1993; Campbell, 2002; Kwako et al., 2011; Mechanic, Weaver, & Resick, 2008b; Saltzman, Fanslow, McMahon, & Shelley, 2002; Sutherland, Bybee, & Sullivan, 2002; Tjaden & Thoennes, 2000; Tolman, 1989; Wuest et al., 2009; Wuest et al., 2008), economic hardship (Adams, Sullivan, Bybee, & Greeson, 2008; Aguilar & Nightingale, 1994; Anderson et al., 2003; Brewster, 2003; Coker, Smith, Bethea, King, & McKeown, 2000; Davies, Lyon, & Monti-Catania, 1998; Davies & Lyon, 2013; Follingstad, Rutledge, Berg, Hause, & Polek, 1990; Moe

& Bell, 2004; Ptacek, 1997; Riger, Ahrens, Blickenstaff, O'Leary, & Maiuro, 2001; Tolman, 1989), and most commonly, mental health issues (Aguilar & Nightingale, 1994; Breiding et al., 2008; Browne & Williams, 1993; Goodman, Koss, Fitzgerald, Russo, & Keita, 1993; Orava, McLeod, & Sharpe, 1996; Sackett & Saunders, 1999; Vitanza, Vogel, & Marshall, 1995).

## **The Characteristics of Intimate Partner Violence**

### **Coercive Control**

A concept key to defining IPV is the inclusion of coercive control, in which the abusive partner, also defined in the literature as the perpetrator, offender, abuser or batterer, creates a pattern of control through intimidation, isolation, threats, surveillance, and the use of children (Pence & Paymar, 1993; Stark, 2007). This pattern of control is typically punctuated by one or more acts of frightening physical violence, credible threats of physical harm, or sexual assault (Bancroft, 2003; Bancroft & Silverman, 2002; Pence & Paymar, 1993; Saltzman et al., 2002).

Abusers use a multitude of tactics to physically intimidate and harm survivors, including scratching, pushing, and shoving to more severe acts such as strangulation, punching, and stabbing (Black et al., 2011). In addition, sexual violence, abusive sexual contact, and rape are used as tools in attempt to control survivors ((Nemeth, Bonomi, Lee, & Ludwin, 2012; Saltzman et al., 2002)). Psychological and emotional maltreatment further define the abuser's employment of power to try to control the victim through humiliation, isolation from friends and family, limiting the victim's actions and access to resources, as well as inhibiting a mother's ability to parent (Bancroft, Silverman, & Ritchie, 2011; Saltzman et al., 2002; Sutherland et al., 2002). More recently, research on psychological abuse has evolved and researchers have begun to examine more closely specific types of psychological abuse, including economic abuse (Adams, Sullivan, Bybee, & Greeson, 2008; Aguilar & Nightingale, 1994; Anderson et al., 2003;

Brewster, 2003; Coker, Smith, Bethea, King, & McKeown, 2000; Davies & Lyon, 2013; Davies, Lyon, & Monti-Catania, 1998; Follingstad, Rutledge, Berg, Hause, & Polek, 1990; Moe & Bell, 2004; Ptacek, 1997; Riger, Ahrens, Blickenstaff, O'Leary, & Maiuro, 2001; Tolman, 1989) and the use of children (Beeble, Bybee, & Sullivan, 2007; Bemiller, 2008; Hardesty & Ganong, 2006; Hardesty, 2002; Harrison, 2008; Kurz, 1996; Mbilinyi, Edleson, Hagemeister, & Beeman, 2007; Moe, 2009; Slote et al., 2005).

### **Increased Lethality When Attempting to Leave the Abusive Partner**

A common response by those who do not understand the dynamics of IPV is often, “Why doesn’t she just leave?” Research conducted in this area has uncovered just how difficult it can be for survivors to leave an abusive relationship. Reasons include environmental barriers such as lack of money, lack of places to go, homelessness, lack of support from police, from the courts, and from healthcare providers; emotional barriers including the belief that their abusive partner will change; fear that the violence will escalate against their children or other loved ones; and most importantly, escalating threats and abuse (Anderson et al., 2003; Fleury, Sullivan, & Bybee, 2000; Shalansky, Ericksen, & Henderson, 1999).

According to Mahoney (1991), separation assault is “the attack on the woman’s body and volition in which her partner seeks to prevent her from leaving, retaliate for the separation, or force her to return...It is an attempt to gain, retain, or regain power in a relationship, or to punish the woman for ending the relationship” (pp. 65-66). For many survivors who leave their abusive partners, the violence simply does not end; in some cases it may escalate against them (Fleury et al., 2000; McFarlane et al., 2005; Tjaden & Thoennes, 1998) as well as their children (Hardesty, 2002; Kurz, 1996; Shalansky et al., 1999). In a study conducted with 135 survivors recruited from a domestic violence shelter, Fleury, Sullivan, and Bybee (2000) found that one in three of

the survivors were assaulted post-separation by an ex-partner at least once prior to either reuniting with the partner or before the end of the 2-year study. Survivors attempting to leave or who remained with their violent partners faced threats or experienced increased violence, and increased threats against their children, family, and friends.

Hardesty (2002) conducted an extensive literature review regarding separation assault in the context of post-divorce parenting. In her review, she found similarities across studies that having children together made it both difficult for survivors to leave their abusive partners and created a legally-binding context in which batterers had continued physical and emotional access to the survivors. “Oftentimes, children remain the last link abusers have to their victims through arrangements that guarantee continued access via post-divorce parenting obligations” (Hardesty, 2002, p. 609). In a review of 100,000 women’s files from domestic violence shelters, Liss and Stahly (1993) found that 25% reported verbal harassment, and 10% reported physical abuse from their batterers during visitation.

### **Use of Children As a Form of IPV**

An often overlooked form of IPV is the abuser’s physical and psychological abuse and threats of abuse toward the victim’s children to accomplish the same end result of power and control (Beeble et al., 2007; Bemiller, 2008; Hardesty & Ganong, 2006; Hardesty, 2002; Harrison, 2008; Kurz, 1996; Mbilinyi et al., 2007; Moe, 2009; Slote et al., 2005). There are a number of forms through which abusers use the children to control their mothers. One strategy is to involve women’s children in the abuse, creating a web of deceit that potentially pits family members against each other, which can break down the bond between women and children. These tactics include undermining the woman’s authority by stopping her from disciplining the children, preventing her from caring for her children, using the children as tools or pawns to

harass women by harming or threatening to harm them, or ruining the children's personal items to punish their mother. These tactics can happen while the woman is still in a relationship with her batterer and can often continue after she attempts to end the relationship, sometimes escalating as a result. Many batterers approach their parenting through a traditionally patriarchal lens both during and post-separation from their victims, viewing their children as extensions of themselves or as property with the need to maintain control over them (and their partners), rather than acting as guides and nurturers (Arendell, 1992; Bancroft & Silverman, 2002; Bancroft et al., 2011; Edleson & Williams, 2007; Hayes, 2012, 2015; Holt, 2015; Jaffe, Johnston, Crooks, & Bala, 2008; Maddox, 2015; McMahon & Pence, 1995). In order to preserve control and maintain the secret of the abuse within the family, batterers may also isolate the children within the home by limiting their access to contacts outside the home (Rossman, Hughes, & Rosenberg, 2000).

Batterers also use the children as a way to stay in women's lives, keep track of them, and intimidate them by manipulating the children to disclose "guarded information" about their mother's residence, employment, or location of family members or friends (Bancroft, 2003; Bancroft & Silverman, 2002; Beeble et al., 2007; Mbilinyi et al., 2007; Tubbs, Williams, & Edelson, 2007) (Maddox, 2015). Mbilinyi and colleagues (2007) found that 79% of their sample of 111 women reported that the batterer used at least one of her children as a tool or pawn against her in order to continue the harassment. In McCloskey's (2001) study of 363 women, 65% who were survivors of IPV also experienced batterers' threats to harm or take the children away, an occurrence that was significantly higher than for women who did not experience IPV.

In one of the few studies which has addressed *how* batterers use children against their mothers, Beeble and colleagues (2007) found that in a sample of 156 women, 88% experienced the batterer using their children in at least one way to coerce or harm them, including 70%

stating the batterer used their children to stay in their lives and continue the abuse. Further, 44% of the women said that the batterers used the children to frighten them. Additionally, they examined the connection between the child-abuser relationship and the use of children and found that biological fathers engaged in more use of the children against their mothers than did stepfathers, father-figures, and non-father figures.

Similar to the change in abuse tactics some survivors experience when attempting to leave or after leaving batterers, the way abusers use the women's children post-separation may change as well. Tactics include threatening or using physical and sexual violence against the children; keeping the children longer than custody allows or refusing to return the children after visits; abducting or threatening to abduct the children; using children to justify breaking no-contact orders; withholding information about the children's social, emotional, or physical needs; intentionally setting contradicting rules for the children; discrediting and degrading the survivor as a mother by falsely accusing her of bad parenting, cheating, using drugs, or being "crazy;" having irregular visitation schedules and demanding visitation with the children within their own schedules; withholding child support, insurance, medical, or basic-expense payments; neglecting or endangering the children when they are with him, or using violence in front of them; ignoring the children's schedules or their identities; coercing the children to form an alliance with the batterer against their mother; or isolating the children from their mother by not allowing them to speak or contact her during their visitation with the abuser (DeKeseredy & Schwartz, 2009; Greif & Hegar, 1993; Hayes, 2012, 2015; Jaffe et al., 2008; Johnston & Girdner, 2001; Programs, 2013).

In a study of 339 women sampled from the Chicago Women's Health Risk Study, Hayes (2015) found that overall, survivors who are separated from their abusers are in fact at an



increased risk of threats of “indirect abuse” involving their children. Specifically, when examined by separation status (still together versus not together), survivors who were separated from their abusive partners experienced more threats of harm to their children. There was no significant difference between the two groups on the likelihood of having experienced the abuser’s threats to take the children, although nearly one quarter of the respondents reported these threats (separated = 23.47%; non-separated = 23.71%).

### **The Impact of Abuse on Survivors**

#### **Physical Outcomes**

Numerous research studies have found that IPV leads to a wide range of negative physical outcomes, resulting from women being slapped, punched, kicked, or thrown to being scalded, cut, strangled, smothered, stabbed or shot (Kwako et al., 2011). More than 1 in 7 women have reported having experienced an injury due to physical violence (Black et al., 2011). Injuries range from bruises, cuts, black eyes, memory loss, concussions, broken bones, and miscarriages to more permanent injuries including scarring, partial loss of hearing or vision, traumatic brain injuries, sexually transmitted diseases, stab wounds, or even death (Bonomi et al., 2006; Browne & Williams, 1993; Mechanic et al., 2008b; Sutherland et al., 2002; Tjaden & Thoennes, 2000; Tolman, 1989; Wuest et al., 2009; Wuest et al., 2008).

Long-term outcomes include more visits to health providers over the lifetime, more hospital stays, a longer duration of hospital stays, as well as long term adverse health consequences, including neurological issues such as fainting and seizures, higher than average symptoms associated chronic diseases including gastrointestinal disorders, diabetes, cardiac symptoms such as heart attacks, heart disease, and high blood pressure, and gynecological problems (Black et al., 2011; Breiding et al., 2008; Campbell, 2002). Women who are pregnant

and involved with an abusive partner are at a heightened risk of severe physical violence, which can result in especially serious outcomes, including sexually-transmitted diseases, urinary-tract infections, substance abuse, depression, and preterm delivery (Campbell, 2002). The risk of IPV occurrence is heightened at more advanced stages of pregnancy, when women are less able to protect themselves (Browne & Williams, 1993; Saltzman et al., 2002).

### **Psychological Outcomes**

Short- and long-term psychological outcomes for women who have been repeatedly assaulted by their partners mirror typical reactions of survivors of other traumatic events. Both the timing of the abuse and the duration of the abuse have an impact on the severity of these outcomes (Bonomi et al., 2006). Survivors of repeated assaults often have high levels of depression, suicide ideation, and suicide attempts, as well as chronic fatigue and tension, intense startle reactions, disturbed sleeping and eating patterns, and nightmares (Aguilar & Nightingale, 1994; Breiding et al., 2008; Browne & Williams, 1993; Goodman et al., 1993; Orava et al., 1996; Sackett & Saunders, 1999; Vitanza et al., 1995).

One of the most common negative mental health outcomes experienced by survivors is depression (Bonomi et al., 2006; Dutton, Green, & Kaltman, 2006; Mechanic, Weaver, & Resick, 2008a; Nathanson, Shorey, Tirone, & Rhatigan, 2012; Pico-Alfonso, 2005; Theran, Sullivan, Bogat, & Stewart, 2006). In the most recent systematic review and meta-analysis examining the relationship between IPV and depression, Beydoun and colleagues (Beydoun, Beydoun, Kaufman, Lo, & Zonderman, 2012) reviewed published research articles from 1980 – 2010, finding that women who reported IPV were 3.26 times higher than those who did not report IPV to have a major depressive disorder. In an earlier meta-analysis of survivors of IPV, Golding (1999) discovered similarly high prevalence rates of depression (48%) among survivors.

The types of abuse women experience typically are co-occurring (Messing, Thaller, & Bagwell, 2014) and increase in amount and severity over time (Browne & Williams, 1993; Sutherland et al., 2002). As a result, it can be difficult to parse out which forms of abuse impact which physical and psychological sequelae. The stress of repeated abuse endangers both a woman's psychological and physical health. This stress, compounded with the ongoing physical and psychological abuse, can result in physiological responses to stress that can ultimately be linked with long-term health problems. The mediating effects of this stress and the resulting depression add to women's already long list of physical and mental health problems resulting from the physical abuse (Becker, Stuewig, & McCloskey, 2010; Black et al., 2011; Bonomi et al., 2006; Browne & Williams, 1993; Martin et al., 2008; Sutherland et al., 2002).

In a large-scale study based on a survey of 3429 women assessing for IPV exposure and health outcomes, Bonomi and colleagues (2006) found that survivors of IPV were more likely to report depressive symptoms with an increased likelihood of reporting severe depressive symptoms. The survey-based study also proposed that the timing and extent of abuse impacted the level of depressive symptoms, indicating that survivors presented higher levels of depressive symptoms closer to the times of abuse, and survivors who experienced abuse over longer periods of time were more likely to report higher levels of depressive symptoms.

Theran and colleagues (2006) also assessed for the impact of IPV on survivors' well-being, which was operationalized to include depression and stress. Their sample included a total of 398 women, with 52% of the women having been abused by an intimate partner or ex-partner in the prior 6 months. Similar to Bonomi et al. (2006), they found that survivors of IPV reported more depressive symptomology than those who had not been abused. They also found that both

physical and psychological abuse contributed significantly and independently to the variance in survivors' depressive symptomology.

Mechanic, Weaver, and Resick (2008) also found the link between chronicity and severity of IPV victimization and the high rates of severe mental health symptoms for survivors, including depression and PTSD. The 413 participants in this study were survivors who were seeking help from community agencies serving battered women, who had experienced a minimum of two severe or four minor incidents of violence in the preceding year. In the study, they examined the impact of physical abuse versus psychological abuse and stalking and found that psychological abuse uniquely predicted depression symptoms for the survivors over and above physical abuse. Nathanson and colleagues (2012) had comparable findings, indicating that increased psychological abuse was associated with increased depression while physical abuse was unrelated to symptoms of depression. A study most recently conducted by Estefan, Coulter, and VandeWeerd (2016), found from a sample of survivors recruited from a community-based IPV intervention program, that there is a longitudinal effect between survivors' reports of frequent emotional abuse in the past and self-reported long-term depression.

Recently, researchers have taken further notice of the threat of harm and use of children as forms of psychological abuse and have examined the possible link to survivor-mothers' mental health (Ahlfs-Dunn & Huth-Bocks, 2016; Rivera, Sullivan, Zeoli, & Bybee, 2016). In a longitudinal study of 40 women who were engaged in the legal process of child custody with their abusive ex-partners, it was found that in addition to physical and psychological abuse contributing to the mental health symptoms of survivors, the threat of harm and/or harm to their children by the abuser additionally contributed to women's depression and PTSD symptoms (Rivera et al., 2016). Ahlfs-Dunn and Huth-Bocks (2016) found similar connections between the

use of children as a form of abuse and survivors' overall mental health, including depression, for survivors who were parenting very young children. While both of these studies suggest a link between the use of children and a variety of mental health-related outcomes, the samples are bounded by specific experiences including being in the process of leaving an abusive partner (Rivera et al., 2016) and parenting young children (Ahlfs-Dunn & Huth-Bocks, 2016). Additionally, both studies defined the use of children differently. Rivera and colleagues (2016) used a broad scale that included harm to, threats to harm, and use of children without disentangling the specific harm to the children. Ahlfs-Dunn and Huth-Bocks (2016) operationalized the use of children as the ways in which the abuser intentionally interfered with the survivors' parenting.

### **Quality of Life**

Being victimized by a partner or ex-partner can also decrease a survivors' overall quality of life (QOL; (Adeodato, Carvalho, Siqueira, & Souza, 2005; Beeble, Bybee, Sullivan, & Adams, 2009; Bybee & Sullivan, 2002; Laffaye, Kennedy, & Stein, 2003; Leung et al., 2005; Sullivan, 2003; Sullivan & Bybee, 1999). Although the link between IPV and survivors' QOL has not been extensively studied, those studies that have been conducted have operationalized quality of life variably and in broad terms, linking it to specific physical and psychological health outcomes including stress and PTSD, social support, and an overall sense of well-being (Laffaye, Kennedy, & Stein, 2003). Literature to date that has examined the relationship between QOL and IPV has used different measures for quality of life. Some of the measures that have been used include the adapted scale from Andrews and Withey (1976; Beeble et al., 2009; Bybee & Sullivan, 2002; Sullivan & Bybee, 1999; Tan, Basta, Sullivan, & Davidson, 1995), and health-related scales that inform individuals' quality of life, including The Medical Outcome Study

Short Form (SF-36) scale (Laffaye et al., 2003; Ware, Snow, Kosinski, & Gandek, 1993), and the World Health Organization Quality of Life (WHOQOL-Bref instrument (Harper, 1998; MacMillan et al., 2009).

In a community-sampled study of 70 women (40 abused and 30 non-abused), Laffaye and colleagues (2003) used the Short-Form health Survey (Ware, Snow, Kosinski, & Gandek, 1993) to assess participants' quality of life in eight different areas including physical functioning, role limitations due to physical health, bodily pain, general health, vitality, social functioning, role limitations due to emotional problems, and mental health. Participants were assessed at one time point and comparisons were made between the group of women who had been abused and those who had not, finding that survivors of IPV reported significantly lower levels of health-related quality of life than those participants who had not been abused.

In a study examining the 2-year trajectories of 160 help-seeking survivors of IPV, including their experiences of abuse, researchers examined whether QOL (using an adapted version of the Andrews and Withey scale; 1976) was mediated or moderated by social support (Beeble, Bybee, Sullivan, & Adams, 2009). Among the survivors of IPV, those who had experienced higher levels of psychological abuse had lower QOL scores. As psychological abuse decreased over time, survivors' QOL increased, while changes in physical abuse did not have the same impact. When social support was entered in to the models as a mediator, Beeble and colleagues identified that social support mediated the effects of change in psychological abuse on QOL and depression for within-person change.

Finally, Wittenberg and colleagues (2007) conducted a focus group-based study with 40 survivors of IPV designed to analyze a number of health-related quality of life measures. From the eight focus groups, they learned that many survivors talked about their quality of life in

relation to their children's quality of life, suggesting that health-related QOL measures should be more "holistic" by including questions related to children's and the family unit's quality of life as well.

### **The Impact of IPV on Children**

It has been estimated that 16.3% of all children 17 years of age or younger have witnessed physical violence within their lifetimes (Finkelhor, Turner, Ormrod, & Hamby, 2009). This translates to approximately 15 million children, 7 million of whom live in a household where severe violence occurs (McDonald, Jouriles, Ramisetty-Mikler, Caetano, & Green, 2006). In a qualitative study of children staying in domestic violence shelters, almost three-quarters of the children (71%) witnessed severe physical violence, reporting that they saw pushing or shoving, kicking, biting, punching, objects being thrown at, or a weapon being used against their mothers (DeBoard-Lucas & Grych, 2011).

Children witness IPV in a multitude of ways, both directly and indirectly. This can include seeing the abusive acts, hearing the abuse, being used as a pawn by the abuser, witnessing the aftermath of a violent event, and/or most tragically witnessing a parent's homicide (Beeman & Edleson, 2000; Carter & Schechter, 1997; Mbilinyi et al., 2007). According to Sullivan and colleagues (Sullivan, Juras, Bybee, Nguyen, & Allen, 2000), children whose mothers' batterers were their biological fathers witnessed more violence against their mothers than children whose mothers' batterers were non-father figures or stepfathers. Observing abuse happens both directly and indirectly and can include seeing or hearing the abuse, and seeing the outcomes of the abuse such as witnessing bruises on their mother, broken furniture in their home, or becoming aware of the violence as a result of a family member telling them about it (Graham-Bermann & Edleson, 2001).

In addition to exposure to the IPV, there has long been documented co-occurrence of IPV and child maltreatment, including abuse, neglect, and child sexual abuse (Bancroft, 2003; Dick, 2006; Holden, Barker, Appel, & Hazlewood, 2010; Kitzmann, Gaylord, Holt, & Kenny, 2003; McCloskey, 2001; McGee, Wolfe, & Wilson, 1997). Children who live in homes where there is violence are at an increased risk for both physical and emotional abuse (Edleson, 1999b; Hamby, Finkelhor, Turner, & Ormrod, 2010; Rizo, Macy, Ermentrout, & Johns, 2011).

In Holt, Buckley, and Whelan's (2008) literature review, the co-occurrence between IPV and child abuse was found to occur in 45-70% of the families across studies. A large-scale study conducted by Hamby and colleagues (2010) examined the link between witnessing IPV and maltreatment including child sexual abuse using data from the National Survey of Children's Exposure to Violence. Of the 4549 youth who participated in the study, they found that youth who witnessed IPV (34%) were three to nine times more likely to be maltreated than those who had not witnessed IPV.

Children who are raised in abusive home environments are at risk in a myriad of ways, typically relating to their social-emotional development (Gewirtz & Edleson, 2007). Infants and toddlers exposed to IPV are at risk for higher levels of irritability, sleep disturbances, emotional distress, and insecurities around being left alone (Edleson, 1999a; Holt, Buckley, & Whelan, 2008; Lundy & Grossman, 2005; Osofsky, 2003). In a study examining the risk and protective factors of toddlers and young children aged 2 - 4, Martinez-Torteya and colleagues (2009) found that young children exposed to IPV were 3.7 more likely to develop internalizing and externalizing behaviors than those who had not been exposed. Holt and colleagues (2008) also found that pre-school age children who have witnessed IPV are at a greater risk for "more



behavioral problems, social problems, post-traumatic stress symptoms, greater difficulty developing empathy, and poorer self-esteem than non-witnesses,” (p. 802).

As children grow older, living in an abusive home and witnessing IPV puts them at risk for poor social skills, aggressiveness, acting out, drug use, peer difficulties, depression, PTSD symptoms, suicide attempts, and decreased learning potential (Holt et al., 2008; Lundy & Grossman, 2005; Moore & Pepler, 1998). In a study of 112 children sampled from the community aged 6-13, Bauer (2006) found that children exposed to IPV were 3.1 times more likely to exhibit externalizing behavior problems than those who were not exposed to IPV. Living in a home where one parent is abusing the other can also have deleterious effects for adolescents, including a possible increase of victimization in their own relationships (Holt et al., 2008; Levendosky, Huth-Bocks, & Semel, 2002), PTSD and depression symptoms, suicide attempts, and delinquency, including poly-drug use (Brockie, Dana-Sacco, Wallen, Wilcox, & Campbell, 2015; Moylan et al., 2010).

In a longitudinal study based on data collected by the National Survey of Child and Adolescent Well-Being, Holmes (2012) followed 730 children over the course of eight years with the first time point of data being collected when the children were between birth and three years old. Holmes found significant connections between exposure to IPV and aggressive behavior problems at multiple time points. Both age of exposure and frequency of exposure to severe forms of IPV related to an increase in aggressive behavior over time.

### **Current Study**

There are few studies examining the use of children as an abusive tactic over and above traditionally recognized forms of abuse. One study to date has explored the longitudinal impact of the harm of and use of children on survivors' depression (Rivera, Sullivan, Zeoli, & Bybee,

2016), but this small study only examined the experiences of survivors post-separation involved in the family court system regarding custody. Another study that examined the impact of abusers' use of children on survivor outcomes operationalized 'use of children' only in terms of the abuser's interference with the survivor's ability to parent young children under the age of three (Ahlf-Dunn & Huth-Bocks, 2016). The proposed study is designed to expand this scant literature by examining whether the batterers' use of the children impacts survivors' quality of life over time. The study will also be the first to examine whether this form of abuse impacts children's behaviors. Finally, the study plans to explore survivors' perceptions of their children's behaviors as a mediator in the relationship between the use of children and survivors' quality of life.

The impact of abuse on survivors' well-being is known to change over time (Beeble, Bybee, Sullivan, & Adams, 2009; Browne & Williams, 1993; Sutherland et al., 2002; Estefan, Coulter, & VandeWeerd, 2016; Rivera et al., 2016). Building upon this knowledge, the proposed study will examine whether abuse of the children at one time point impacts survivors' well-being and children's behaviors at later time points.

The proposed study involves secondary data analysis of a longitudinal research study that included multiple time points over two years.

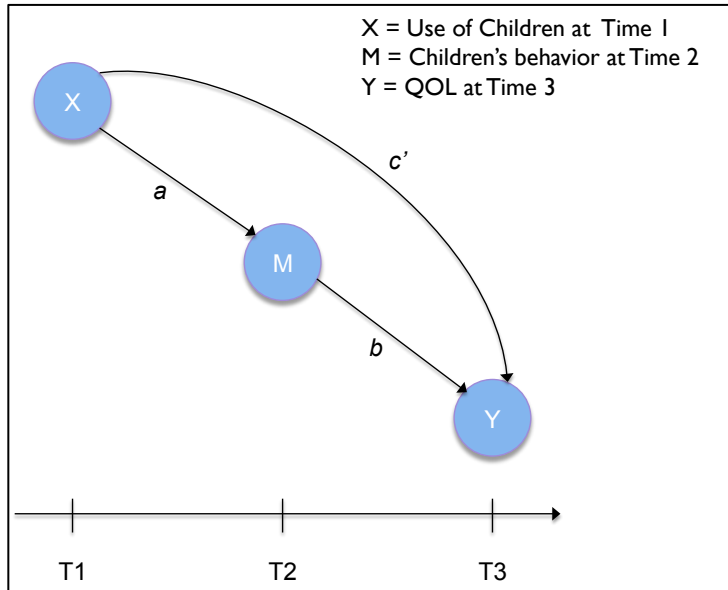
### **Study Hypothesis**

With the understanding that it may take time to see the effects of abuse, this study will look at three time points. It is hypothesized that women who report higher levels of the abuser's use of the children as an abuse tactic at Time 1 will report higher behavioral problems in their children four months later (Time 2). In turn, higher behavioral problems of the children will lead

to lower quality of life for survivors four months after that (Time 3). See Figure 1 for a depiction of the basic model representing the hypothesis.

Figure 1

*Mediation Model.*



## **CHAPTER 2: METHOD**

This study uses a subset of data from a longitudinal study that followed families over the course of 24 months had experienced IPV. Families were randomized into one of two groups; those in the intervention group were given the opportunity to participate in a 4-month intervention providing mothers with trained paraprofessional advocates and providing children with a weekly support and education group. Women and their children were interviewed at six time points -- every four months during year 1 and every six months during year 2. Due to the variability in the gaps between the interviews for years 1 and 2, three interviews -- all four months apart -- were used to test the study hypothesis. Because survivors were recruited into the study at a point of crisis and high incidence of abuse (see eligibility criteria below), their baseline interviews were excluded from the model and interviews were used from the 4-month, 8-month, and 12-month time points.

### **Procedures**

#### **Recruitment**

Women were recruited into the study from three locations within the community: a community-based agency providing short-term support to victims of domestic violence following a police intervention (43.8%); a domestic violence shelter (25.7%); or the county prosecutor's personal protection order office (30.5%).

#### **Eligibility**

Eligibility criteria for the study included the following: 1) women had to have experienced at least one form of physical abuse in the four months prior to their first interviews; and 2) women had to have at least one child between the ages of 5 and 12 who was also interested in participating in the research study.

## **Interviews**

Women who agreed to participate in the study were given the choice of where to be interviewed based on their level of comfort and need for safety. Women recruited from the residential shelter were not interviewed until after they had left shelter in order to avoid interviewing women during a time of crisis. Women were paid \$20 for participating in the first interview and \$60, \$70, \$80, \$90 and \$100 for their subsequent interviews. All interviewers were highly-trained, having gone through a standardized and formal interviewer training specifically for interviewing survivors of intimate partner violence.

## **Participants**

Of the original sample of 160 women, women in this study were included if they completed interviews at the 4-month, 8-month, and 12-month time points. One woman was excluded because the age of the target child (3 years old) fell far outside the designated age range of five to thirteen years old. Four women were excluded based on the assailant's lack of relationship to the target child (he was not a father, a step-father, or a father figure) combined with his having no contact with the child at the first time point. Finally, any women who did not complete all of the relevant scales were removed from the data set. The final sample for this study, then, was 105 IPV survivors.

## **Demographics**

**Survivors.** Of the 105 women included in the study, their ages ranged from 22 to 49 years old ( $M = 32.31$ ;  $SD = 6.17$ ). Almost half of the women identified as white or Caucasian ( $n = 54$ , 51.4%); one-quarter identified as Black or African American ( $n = 30$ ; 28.6%); 9 (8.6%) identified as Hispanic or Latina; 8 women (7.6%) identified as multiracial; 2 women (1.9%) identified as Native American; and one woman (1.0%) identified as Sudanese. One woman

(1.0%) did not give her race or ethnicity. Women's educational levels varied ranging from less than high school to a bachelor's degree. Sixty-one (58.1%) of the women had completed at least some education past high school, 27 women (25.7%) completed high school, and 17 women (16.2%) had not completed high school.

The average number of children a woman had was 3.02 ( $SD = 1.37$ ; range = 1 - 8 children). The majority of the women had two ( $n = 35$ ; 33.3%) or three ( $n = 36$ ; 34.3%) children. Twenty-three (21.9%) of the women had between four and five children. A total of 317 children were represented in this study, 183 (57.7%) of the children were between the ages of 5 to 12 years old.

At the time of their first interview the majority of the women identified that they were planning on ending the relationship with the assailant ( $n = 87$ ; 82.9%). Among those continuing the relationship with the assailant, 15 of the women (14.3%) indicated they were living together and 3 women (2.9%) indicated they were staying together but not living together. The demographics and characteristics of the women involved in the study are presented in Table 1.

**Target children.** Within each family, one child between the ages 5 and 12 was randomly chosen by the research team to be included in the study.<sup>1</sup> Survivors were asked specific questions about the target children, the target children were also interviewed themselves, and they took part weekly support and education groups. Among those target children, the average age was 8.94

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<sup>1</sup> It is important to note that there were four target children who were four years old and two target children who were thirteen years old at the time of recruitment. The research team decided to include these children in the study as target children as their birth dates were close to the cut-off ages.

years old ( $SD = 2.24$ ), with a range of 4 to 13 years old. Twenty-five (23.8%) of the children were age six or under, over one-half ( $n = 57$ ; 54.3%) of the children were between the ages of 7 and 10 years old, and 23 of the children (21.9%) were 11 to 13 years old. Nearly one-third of the children were identified as white ( $n = 39$ , 37.1%) and one-third were identified as Black or African American ( $n = 32$ , 30.5%) by their mothers, 25 children (23.8%) were identified as multiracial, six children (5.7%) were Hispanic or Latin@, one child (1.0%) was Sudanese, and two children (1.9%) did not have their race or ethnicity identified.

Of the 125 target children, all had had contact with the assailant at least once in the four months prior to the first interview. Their relationships to the assailant, as identified by their mothers, included: (1) biological father for 45 (42.9%) of the children, (2) stepfather for 21 (20.0%) of the children, (3) father figure for 26 (24.8%) of the children, and (4) not a father figure for 13 (12.4%) of the children. Stepfathers were those assailants having been legally married to the children's mother. Father-figures were identified as those who played a significant role in the children's lives. Non-father figures were those who did not play a significant role in the children's lives. Table 2 presents the demographics and characteristics of the target children involved in the study.

Table 1

<i>Sample Demographics and Characteristics</i>		
Demographics	Count	Percentage
Race		
Black/African American	30	28.6
White	54	51.4
Hispanic or Latin@	9	8.6
Native American/First Nation	2	1.9
Sudanese	1	1.0
Multi Racial	8	7.6
Missing	1	1.0
Total Number of children		
1 child	7	6.7%
2 children	35	33.3
3 children	36	34.3
4 children	12	11.4
5 children	11	10.5
6 children	1	1.0
7 children	1	1.0
8 children	2	1.9
Educational level at Pre		
Less than High School	17	16.2%
High School Graduate	27	25.7
Trade School Graduate	7	6.7
Some College	39	37.1
Associates Degree	12	11.4
Bachelors Degree	3	2.9
Recruited from at Pre		
Shelter	27	25.7
Police Intervention	46	43.8
PPO/Court	32	30.5



Table 2

<i>Demographics and Characteristics of Target Children</i>		
Demographics	Count	Percentage
Target Child Race		
Black/African American	33	30.6%
White	40	37.0
Hispanic or Latin@	6	5.6
Sudanese	1	0.9
Multiracial	26	24.1
Missing	2	1.9
Target Child Age		
4 years old	4	3.7%
5 years old	8	7.4
6 years old	13	12.0
7 years old	15	13.9
8 years old	17	15.7
9 years old	15	13.9
10 years old	13	12.0
Assailant's Relationship to Target Child at Baseline		
Biological father	45	41.8%
Stepfather	22	20.4
Father Figure	28	25.9
Not a father figure	13	12.0

### Measures

#### Assailant's Relationship to the Survivor and Target Child

Women were asked at the first interview if they were continuing or ending their relationship with the assailant. They were also asked to indicate if the abuser was the child's biological father, step-father, a father figure, or a non-father figure.

#### Intimate Partner Violence

**Physical abuse.** A modified version of the Conflict Tactics Scale (CTS; Straus, 1979; Sullivan & Bybee, 1999) was used to ask women about the abuse perpetrated by the assailant. Women were asked about multiple types of physical abuse they may have experienced over the last four months (e.g., "Has the assailant pushed or shoved in you in the last four months?"). A

seven-point Likert scale was used (1 = *never* to 7 = *more than 4 times a week*). Cronbach's alpha for the original study was 0.89 ( $M = 1.36$ ;  $SD = 0.95$ ).

**Emotional abuse.** A shortened version of the Index of Psychological Abuse (IPA; (Sullivan, Tan, Basta, Rumpitz, & Davidson, 1992) was used to measure the psychological/emotional abuse women experienced in the prior 4-month period. The 24-item index assessed women on a wide range of items related to emotional and psychological abuse (e.g., "In the last four months has the assailant called you names?"). Women were asked to respond using a four-point Likert scale (1 = *never* to 4 = *often*). Cronbach's alpha in the original study was 0.89 ( $M = 2.49$ ;  $SD = 0.61$ ).

**Use of children.** A seven-item scale was created for this study in order to examine the assailant's use of the children in order to control their partner or ex-partner. Items in this scale included whether the assailant had used the children to harass or intimidate the woman, to stay in her life or to keep track of her, or to frighten her (See Appendix A for the full scale). Women were also asked if the assailant had tried to turn the children against her or had tried to convince the children that she should take him back. A four-point Likert scale was used (1 = *never* to 4 = *often*). Cronbach's alpha for this scale was 0.87 ( $M = 2.27$ ;  $SD = 0.92$ ). Of the 105 women in the final sample, eighty-four (81.0%) of the women said they had experienced the abuser using their children as an abuse tactic at least once in the previous four months. Table 3 presents the inter-item correlation for the use of children scale at the 4-month, or time one (T1) interview.

### **Children's Behavior**

A total of 45 Items were used to create a scale for this study, based on a combination of items in the Eyberg Child Inventory (36 items; (Eyberg & Ross, 1978; Robinson, Eyberg, & Ross, 1980) and Achenbach's Child Behavior Checklist (9 items; CBCL; (Achenbach &

Edelbrock, 1983) to create a scale specific to this study (see Appendix B for a full list of items).

Only mothers completed this measure, examining the range of aggressive and withdrawal behaviors of children (e.g., “My child has temper tantrums”; “My child feels worthless or inferior”). Survivors were asked how often their children behaved in specific ways using a Likert scale (1 = *never* to 7 = *always*). Cronbach’s alpha for this scale was 0.94 ( $M = 2.58$ ;  $SD = 1.10$ ).

### **Quality of Life**

Items were adapted from Andrews and Withey (1976) to create a 9-item scale to assess the women’s perceived quality of life. Women were asked to respond to each item (e.g., “How do you feel about the responsibilities you have for members of your family?”) using a 7-point Likert scale (1 = *very unhappy* to 7 = *very happy*). This scale has been used in many prior studies on IPV (Beeble, Sullivan, Bybee, & Adams, 2009; Bybee & Sullivan, 2002; Sullivan & Bybee, 1999; Tan, Basta, Sullivan, & Davidson, 1995). Cronbach’s alpha for this scale was 0.86 ( $M = 4.29$ ;  $SD = 1.06$ ). See Appendix C for the entire quality of life scale.

### **Intervention Condition**

Families were randomized into a control group or an intervention group. The women and children in the intervention group had the opportunity to work with an advocate over the course of 10 weeks to meet their needs and the children had the opportunity to attend a 10-week support and education group. Sixty-two women (59.0%) were in the control group and 43 (41.0%) of the women were in the intervention group.

Table 3

*Correlations Among Items in the Use of Children Scale (Time 1 Interview)*

<i>Did the batterer ...</i>	1	2	3	4	5	6
1. Use the children to stay in your life						
2. Use the children to harass you	.56***					
3. Use the children to intimidate you	.53***	.80***				
4. Use the children to keep track of you	.38***	.60***	.57***			
5. Use the children to frighten you	.38***	.61***	.63***	.43***		
6. Try to turn the children against you	.53***	.54***	.49***	.41***	.47***	
7. Try to convince the children you should take him back	.57***	.38***	.32***	.36***	.24***	.27**

*Note.* \*\*\* $p < .001$ ; \*\* $p < .01$

## **CHAPTER 3: ANALYSIS**

### **Time-Ordered Mediation**

The longitudinal nature of this study allows for examining predictive, rather than simply correlative, relationships. Mediation is conceptualized as being a process that occurs over time (Collins, Graham, & Flaherty, 1998). In order to identify a mediation (Baron & Kenny, 1986), the following must occur:

- 1) There must be a significant total effect of the independent variable ( $X$ ) on the dependent variable ( $Y$ ).
- 2) There must be a significant effect of the independent variable ( $X$ ) on the mediating variable ( $M$ ).
- 3) The effect of the mediating variable ( $M$ ) on the dependent variable ( $Y$ ) must be significant when controlling for the independent variable ( $X$ ).
- 4) The effect of the independent variable ( $X$ ) on the dependent variable ( $Y$ ) when controlling for the mediating variable ( $M$ ), must be smaller than the total effect of  $X$  on  $Y$  (as found in number 1).

### **Model Construction**

#### **Variables**

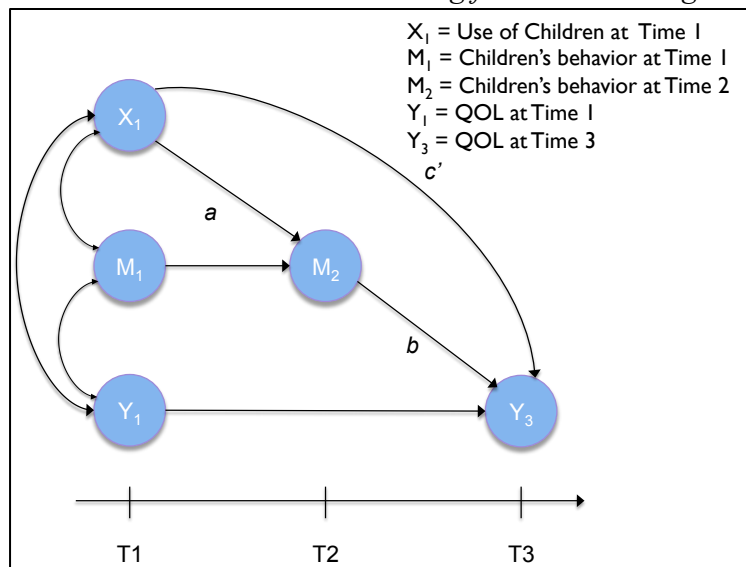
The use of children scale at the 4-month interview (T1) was used as the predictor variable in the model. Children's behavior four months later (T2), as assessed by their mothers, was used as the mediating variable. Women's quality of life (QOL) at the twelve-month interview or time 3 (T3) interview was used as the dependent variable in the model. Both the independent and mediating variables were assessed for their predictability of the dependent variable, both alone and collectively.

## Control Variables

A number of control variables were also examined as part of the model based on prior research showing their relation to survivors' quality of life or to the use of the children. In the time-ordered mediation model, the measures of the mediator (child behavior) and dependent variable (quality of life) at the first time point of the model (T1) were entered into the regression model as control variables (see Figure 2). Additional control variables were also examined as part the model, including the abuser's relationship to the children, the children's age, physical abuse, psychological abuse, recruitment site, and intervention condition. Each of these variables was examined individually in the model to determine their impact. Due to the small sample size of the study ( $n = 105$ ), any additional control variable added took up a large amount of space within the model. As a result, those control variables that had no influence in the model were removed. Decisions to omit variables were based on two criteria: lack of significance and multicollinearity.

Figure 2

*Mediation Model While Controlling for the Mediating and Dependent Variables at T1.*



Each control variable was entered into the model; variables that showed no significant impact on the relationship between the independent, mediating, and dependent variables were removed. Two variables were recoded into dummy variables and each was examined for impact in the overall model: 1) abuser's relationship to the children (biological father, step father, father figure, not a father figure) and 2) recruitment site (shelter, police intervention, and personal protection order office). Variables that had no significant impact included the abuser's relationship to the children, the condition assigned to the family at the beginning of the study, recruitment site and the scale of physical abuse.

The second criterion was when a control variable exhibited multicollinearity with at least one of the other variables in the model. As highlighted in Table 4, child behavior at T1, quality of life at T1, and psychological abuse at T1 were highly correlated with the three main model variables. As expected, child behavior at T1 was highly correlated with child behavior at T2 ( $\alpha = 0.72, p < .001$ ). Yet, when child behavior at T1 was entered into the models it did not influence the impact of child behavior at T2 on the dependent variable (quality of life at T3); the relationship between child behavior at T2 and quality of life at T3 remained significant. Psychological abuse at T1 was correlated with the use of children at T1 ( $\alpha = 0.63, p < .001$ ) and child behavior at T2 ( $\alpha = 0.52, p < .001$ ). Further examination of the two scales showed a number of items in the scale of psychological abuse with medium to larger correlations to the use of children scale. Items included: 1) the assailant having punished or deprived the children of something they needed in the past four months ( $\alpha = 0.41, p < .001$ ); 2) the assailant having threatened to take the kids away in the past four months ( $\alpha = 0.65, p < .001$ ); 3) the assailant having threatened to end the relationship in the past four months ( $\alpha = 0.62, p < .001$ ); and 4) the

Table 4

*Correlations Among Scales for Use of Children (T1), Child Behavior (T1 and T2), Quality of Life (T1 and T3), Psychological Abuse (T1), Physical Abuse (T1), and Relationship to the Abuser (T1)*

	1	2	3	4	5	6	7	8	9	10
1. Use of Children at T1										
2. Child Behavior at T1	.37***									
3. Quality of Life at T1	-.19*	-.45***								
4. Psychological Abuse at T1	.63***	.52***	-.48***							
5. Physical Abuse at T1	<i>ns</i>	<i>ns</i>	-.33***	.39***						
6. Child Behavior at T2	.22**	.72***	-.39***	.47***	<i>ns</i>					
7. Quality of Life at T3	-.21*	-.37***	.75***	-.37***	-.21*	-.40***				
8. Biological Father	.24*	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>			
9. Stepfather	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	-.43***		
10. Father Figure	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	-.50***	-.29**	
11. Not a Father Figure	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	<i>ns</i>	-.33***	<i>ns</i>	-.22*

*Note.* \*\*\* $p < .001$ ; \*\* $p < .01$ ; \* $p < .05$



assailant having accused the survivor of being a bad mom in the past four months ( $\alpha = 0.51, p < .001$ ).

After individual examination of each control variable's influence in the model, two control variables remained: the age of the children, and survivor's quality of life at the first time point (T1).

### **Final Models**

Using three points in time, analyses incorporated survivors' perceptions of their children's behavior as a mediator. Multiple regressions were conducted to determine if the use of children and survivors' assessment of their children's behavior have an impact on survivors' quality of life as time passes. Each variable was examined for its predictability of the dependent variables. The order of regressions for the model was as follows:

- First regression: use of children at the first time point (T1) predicting children's behavior at the second time point (T2) four months later.
- Second regression: use of children (T1) and children's behavior (T2) predicting survivors' quality of life at the third time point (T3), eight months following the T1 interview.
- Third regression: use of children at T1 predicting survivors' quality of life at T3 (eight months later).

Three variations of this model were run. Model 1 was the simple model, which included only the independent (use of children T2), mediating (children's behavior T3), and dependent (survivors' quality of life T4) variables. Model 2 used the same simple model while controlling for the age of the target children involved in the study. Model 3, similar to Model 2, examined the influence of the use of children as an abuse tactic at T1 through survivors' perceptions of their children's

behavior four months later at T2 on the survivors' quality of life four months after that (T3) while controlling for the age of the target children involved in the study as well as the survivors' quality of life at T1. See Figures 3 and 4 for diagrams of Models 1, 2 and 3.

Figure 3

*Models 1 and 2.*

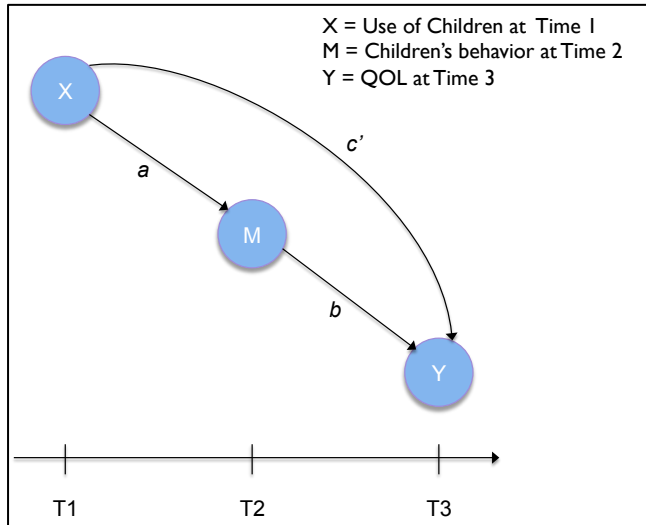
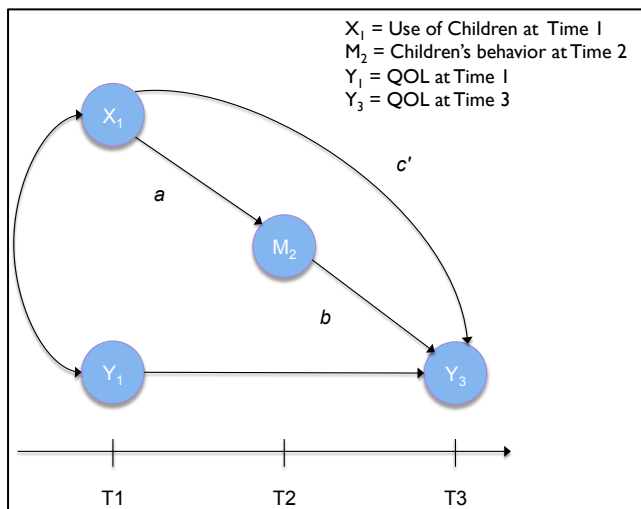


Figure 4

*Model 3.*



## Power Analysis and Effect Sizes

Bootstrapping was used to construct the confidence intervals for power analysis and to detect the indirect effects. In order to accomplish bootstrapping, the PROCESS software was added into the SPSS statistical package to produce accurate and precise confidence interval estimates (Hayes, 2013; Preacher & Selig, 2012).

Fritz and MacKinnon (2007) suggest that with a sample size of at least 71, in order to achieve power of 0.80, the  $a$  coefficient (use of children) and  $b$  coefficient (children's behavior) both need to be 0.39 using bias-corrected bootstrap. For a larger sample size of  $n = 115$ , they suggest the coefficients should be 0.25 and 0.40, interchangeably.

## CHAPTER 4: RESULTS

Of the 160 families who fit the eligibility criteria for this study, 105 were retained over time. Those families who did not remain in the final analysis were removed due to lack of completion of all of the measures included in the models.

Use of the children as part of the abuse strategy was high and decreased over time. At the first time point, 4 months into the study, 80.0% of the survivors reported at least one incident of the use of the children; at the second time point, 66.7% survivors reported at least one incident; and at the third time point, half of the survivors (50.6%) reported at least one incident of the use of the children<sup>1</sup>. Survivors' quality of life remained fairly stable across the three time points, showing a slight increase from the first time point ( $M = 4.90$ ) to the third time point ( $M = 5.03$ ). Survivors also reported that their target children's negative behavior stayed relatively stable as well, with the level decreasing from the first time point ( $M = 2.93$ ) to the second time point ( $M = 2.75$ ; ) and increasingly slightly from the second to third time point ( $M = 2.77$ ). Paired sample t-tests were conducted to examine the change of the variables across time points. Means, standard deviations, and paired t-test results of the three scales are reported in Table 5.

### Model 1: Simple Mediation Model

A simple mediation analysis using ordinary least squares path analysis revealed that the use of children as an abuse tactic indirectly influenced survivors' quality of life eight months later as mediated by children's behavior at a time point between the two. Survivors who reported

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<sup>1</sup> Although baseline data were not included in the model, it is important to note that 90.5% of the survivors reported use of the children at this time point.

Table 5

*Means and Standard Deviations for Model Scales across Time Points*

<i>Scale name</i>	Time point 1		Time point 2		Time point 3		<i>t-test</i>	<i>t-test</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>T1 to T2</i>	<i>T2 to T3</i>
Use of Children	1.91	0.85	1.66	0.84	1.55	0.79	3.70**	<i>ns</i>
Child Behavior	2.93	1.09	2.75	0.88	2.77	1.07	2.38*	<i>ns</i>
Quality of Life	4.90	1.01	4.94	1.07	5.03	1.11	<i>ns</i>	<i>ns</i>

*Note.* \* $p < .05$ ; \*\* $p < .001$ . Use of Children ranges from 1 (*never*) to (*often*). Child Behavior examines items relating to aggressive and withdrawal behavior ranging from 1 (*never*) to 7 (*always*). Quality of life ranges from 1 (*very unhappy*) to 7 (*very happy*).

high levels of use of the children as an abuse tactic reported higher levels of negative child behavior four months later ( $a = 0.25$ ), and survivors who reported their children having higher levels of negative behavior at four months also reported having lower quality of life at eight months ( $b = -0.45$ ). A bias-corrected bootstrap confidence interval for the indirect effect ( $ab = -0.11$ ) based on 10,000 bootstrap samples was entirely below zero ( $-0.23$  to  $-0.02$ ). There was little evidence that the use of children as an abuse tactic at the first time point influenced survivor's quality of life eight months later independent of its effect on child behavior at four months ( $c' = -0.19$ ,  $p = 0.12$ ) supporting the hypothesis that the use of children, as mediated by child behavior, impacts a survivor's quality of life over time. Coefficients and model descriptions are depicted in Figure 5 and Table 6.

Figure 5

*Model 1 with Coefficients.*

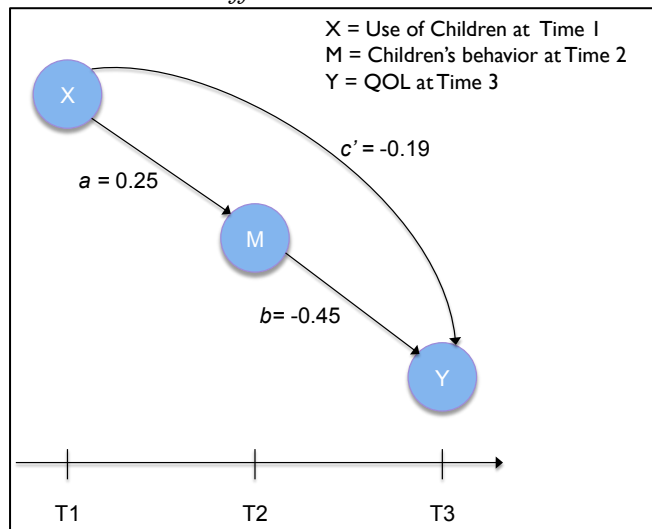


Table 6

*Simple Mediation Model (n = 105)*

Antecedent		Consequent						
		<i>M</i> (Child Behavior at T3)			<i>Y</i> (Quality of Life T4)			
		Coeff.	<i>SE</i>	<i>p</i>	Coeff.	<i>SE</i>	<i>p</i>	
<i>X</i> (Use of Child T2)	<i>a</i>	0.25	0.10	.01	<i>c'</i>	-0.19	0.12	0.12
<i>M</i> (Child Behavior T3)					<i>b</i>	-0.45	0.12	<.001
Constant	<i>i<sub>1</sub></i>	2.28	0.21	<.001	<i>i<sub>2</sub></i>	6.84	0.36	<.001
$R^2 = 0.06$					$R^2 = 0.18$			
$F(1, 103) = 6.18, p = 0.01$					$F(2, 102) = 10.91, p < .001$			

**Model 2: Controlling for Child's Age**

Based on the initial analyses examining the influence of control variables, it was determined that the model should be explored controlling for the age of the children. When controlling for the child's age, the use of the children as an abuse tactic still influenced the dependent variable (quality of life at 12 months) through the mediating variable (child behavior at eight months). When controlling for the age of the children, the use of children as an abuse tactic at the first time point (T1) influenced the children's behavior four months later (T2;  $a = 0.25, p = .01$ ). The influence of child behavior at the eight month time point (T2) significantly impacted the survivor's quality of life four months later at the twelve month time point (T3) when controlling for the child's age ( $b = -0.45, p < .001$ ), suggesting that the more negative behavior the mother perceived her child to exhibit, the lower her quality of life four months later. The bias-corrected bootstrap confidence interval for the indirect effect ( $ab = -0.11$ ) based on 10,000 bootstrap samples was entirely below zero (-0.24 to -0.02). Finally, the use of children as an abuse tactic at the first time point did not impact survivor's quality of life eight months later independent of its effect on child behavior at four months ( $c' = -0.20, p = 0.10$ ). As indicated in Table 6, the hypothesis remains supported that child behavior serves as a mediating variable in

the relationship between the use of children as an abuse tactic and survivor's quality of life eight months later.

Table 7

*Mediation Model Controlling for Child's Age at T1 (n = 105)*

Antecedent	Consequent							
	<i>M</i> (Child Behavior at T2)			<i>Y</i> (Quality of Life T3)				
	Coeff.	<i>SE</i>	<i>p</i>	Coeff.	<i>SE</i>	<i>p</i>		
<i>X</i> (Use of Child T1)	<i>a</i>	0.25	0.10	0.01	<i>c'</i>	-0.20	0.12	0.10
<i>M</i> (Child Behavior T2)	-	-	-	-	<i>b</i>	-0.45	0.11	<i>p</i> <.001
Constant	<i>i<sub>1</sub></i>	2.24	0.41	<.001	<i>i<sub>2</sub></i>	7.51	0.53	<i>p</i> <.001
Control – (Child’s age)		0.005	0.04	0.91		-0.10	0.04	0.03
<i>R</i> <sup>2</sup> = 0.06				<i>R</i> <sup>2</sup> = 0.21				
<i>F</i> (2, 102) = 3.07, <i>p</i> = .05				<i>F</i> (3, 101) = 9.18, <i>p</i> <.001				

**Model 3: Full Mediation Model, Controlling for Child's Age and Quality of Life (T2)**

The final model was created controlling for both the survivor's quality of life at the first time point (T1) as well as the child's age. Coefficients and model descriptions are presented in Figure 6 and Table 8. When controlling for the survivor's quality of life at T1 as well as the target child's age, the use of children trended toward significantly impacting the child's behavior four months later ( $a = 0.17, p = 0.08$ ), suggesting that the more often children are used to harm their mothers, the more negative behavior they may exhibit four months later. When controlling for the survivor's quality of life at T1, the child's behavior at the eight-month time interval (T2) no longer significantly impacted the survivor's quality of life at T3 ( $b = -0.13, p = 0.14$ ). The bias-corrected bootstrap confidence interval for the indirect effect ( $ab = -0.02$ ) based on 10,000 bootstrap samples ranged from below to above zero (-0.09 to 0.005), indicating no mediation. Finally, the use of children as an abuse tactic at the first time point did not impact the survivor's quality of life eight months later independent of its effect on child behavior at four months ( $c' = -0.09, p = 0.29$ ). Thus, when controlling for the survivor's quality of life at T1 as well as the



children's age, the mediation of the use of children as an abuse tactic by the child's behavior four months later no longer had a significant impact on survivors' quality of life at the twelve month time point (T3), suggesting support for the null hypothesis.

Figure 6

Model 3 with Coefficients.

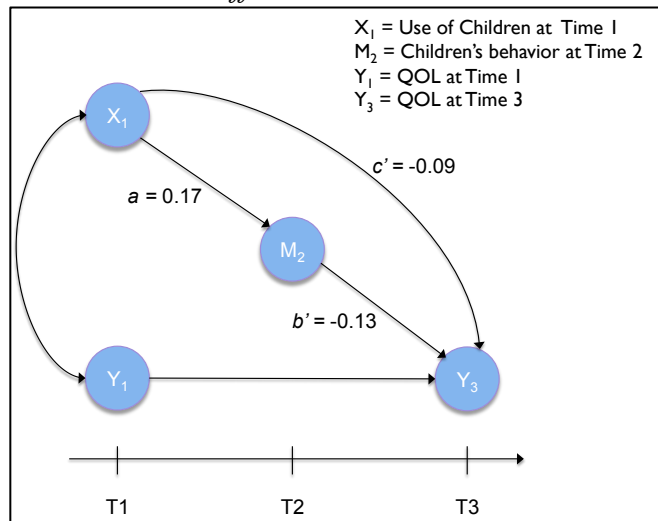


Table 8

Mediation Model Controlling for Quality of Life at T1 and Child's Age ( $n = 105$ )

Antecedent	Consequent						
	$M$ (Child Behavior at T2)				$Y$ (Quality of Life T3)		
	Coeff.	SE	$p$		Coeff.	SE	$p$
$X$ (Use of Child T1)	$a$ 0.17	0.10	0.08	$c'$ -0.09	0.09	0.29	
$M$ (Child Behavior T2)	-	-	-	$b$ -0.13	0.09	0.14	
Constant	$i_1$ 4.39	0.65	<.001	$i_2$ 1.97	0.71	0.006	
Control – (Quality of Life T2)	-0.34	0.08	<.001	0.75	0.08	$p <.001$	
Child Age	-0.03	0.04	0.35	-0.01	0.03	0.76	
	$R^2 = 0.19$				$R^2 = 0.58$		
	$F(3, 101) = 7.86, p <.001$				$F(4, 100) = 34.80, p <.001$		

### Summary of Findings

As indicated in the first two models, there is some evidence that children's behavior serves as a mediator between the relationship between the use of children as a tactic of abuse and

the survivor's quality of life. Following Baron and Kenny's (1986) criteria for mediation, Models 1 (simple model) and 2 (controlling for the children's age) both indicated that the use of children significantly and independently impacted survivors' quality of life (criterion 1:  $X$  on  $Y$ ) and children's behavior (criterion 2:  $X$  on  $M$ ). When controlling for the use of children, children's behavior had a significant influence on quality of life (criterion 3:  $M$  on  $Y$ ). Finally, the effect of the use of children on survivors' quality of life when controlling for children's behavior is smaller than the total effect (criterion 4). The effect sizes within these two models indicate support for rejecting the null hypothesis.

The third model, which controlled for the survivors' quality of life at T1, did not support original hypothesis and did not indicate a fully mediated model. The following presents Baron and Kenny's (1986) mediation criteria and how each item was supported or not supported within Model 3:

- 1) There must be a significant total effect of the independent variable ( $X$ ) on the dependent variable ( $Y$ ): There was no significant total effect of the independent variable (use of children at T1) on the dependent variable (quality of life at T3) while controlling for the survivors' quality of life at T1. (Not supported)
- 2) There must be a significant effect of the independent variable ( $X$ ) on the mediating variable ( $M$ ): There was a trend toward a significant effect of the independent variable (use of children at T1) on the mediating variable (child behavior at T2) while controlling for survivors' quality of life at T1. (Not supported)
- 3) The effect of the mediating variable ( $M$ ) on the dependent variable ( $Y$ ) must be significant when controlling for the independent variable ( $X$ ): The effect of the mediating variable (child behavior at T2) on the dependent variable (survivors' quality of life at T3) was not

significant when controlling for the independent variable (use of children at T1) and survivors' quality of life at T1. (Not supported)

- 4) The effect of the independent variable ( $X$ ) on the dependent variable ( $Y$ ) when controlling for the mediating variable ( $M$ ), must be smaller than the total effect of  $X$  on  $Y$  (as found in number 1): The effect of the independent variable (use of children at T1) on the dependent variable (quality of life at T3) when controlling for the mediating variable (child behavior at T2) was smaller than the total effect of the use of children at T1 on survivors' quality of life at T3. (Supported)

As a result, the null hypothesis is accepted for this model. Taken together, the three models indicate mixed results for the mediating model with all three suggesting a relationship between the use of children and children's behavior.

## CHAPTER 5: DISCUSSION

Prior research and anecdotal evidence have indicated that use of children by abusers is an additional tactic of coercive control that impacts survivors of intimate partner violence. This study seeks to expand the scant existing literature by examining the impact of the use of children on survivors' well-being. Three prior studies have examined what predicts the use of children as an abuse tactic (Beeble, Bybee & Sullivan) and how the use of children impacts survivors' symptoms of depression and posttraumatic stress disorder (Ahlf-Dunn & Huth-Bocks, 2016; Rivera, Sullivan, Zeoli, & Bybee, 2016). However, no study to date has examined the use of children and its impact on survivors' quality of life, and how children's behavior may mediate the relationship between the two.

While the relationship between the use of children and quality of life was not fully mediated by children's behavior across the three models, there was still evidence that higher levels of the abuser using children as an abuse tactic negatively impacted survivors' quality of life and children's behavior. The third model, which included controlling for the survivors' quality of life at T1, suggests that the survivors' quality of life at T1 may be the strongest predictor of their quality of life at T3. As indicated earlier, quality of life at T1 was highly correlated with quality of life at T3 ( $\alpha = 0.75, p < .001$ ). Due to the strong relationship between quality of life at T1 and quality of life at T3, it is difficult to disentangle the variance within quality of life at T3 as explained by other variables beyond quality of life at T1.

Interestingly, the abuser's relationship to the children did not show any significant influence in the models, and ultimately was removed from the final models as a control variable. The study conducted by Beeble and colleagues (2007), which examined the baseline data related to this study, found a relationship between the relationship to the abuser and the use of

children—biological fathers engaged in more tactics related to the use of the children than stepfathers, father figures, and non-father figures. In this study, a correlation was found between the biological fathers and the use of children at T2 ( $\alpha = 0.24, p < .05$ ) yet there was no change within the model when the relationship statuses were included as control variables. This finding highlights that while there may still be a relationship between the abuser-child relationship and the use of children the abuser-child relationship does not have an impact on the consequences of the use of children, including the children's behavior and the survivor's quality of life. While this may need further exploration, it underscores that children's behavior may be influenced by their being used as a tactic of abuse against their mothers, regardless of their relationship to who may be using them. Similarly, the survivors' quality of life may be affected as a result of their children being used an abuse tactic of coercion and control, irrespective of the children's relationship to the abuser.

There is a well-documented link between other forms of abuse, including psychological, physical, and economic abuse, and their negative impact on survivors' well-being including their quality of life (Adeodato, Carvalho, Siqueira, & Souza, 2005; Beeble, Bybee, Sullivan, & Adams, 2009; Bybee & Sullivan, 2002; Laffaye, Kennedy, & Stein, 2003; Leung et al., 2005; Sullivan, 2003; Sullivan & Bybee, 1999; Bonomi et al., 2006; Dutton, Green, & Kaltman, 2006; Mechanic, Weaver, & Resick, 2008a; Nathanson, Shorey, Tirone, & Rhatigan, 2012; Pico-Alfonso, 2005; Theran, Sullivan, Bogat, & Stewart, 2006). The accounts of how batterers use children as an abuse tactic to psychologically impact survivors have largely been anecdotal and lacking empirical investigation. This study has indicated that there is evidence of the link between the use of children and survivors' quality of life. Combined with the studies conducted by Rivera (2016), Ahlfs-Dunn (2016) and their colleagues, there is an increased understanding

about the impact of the use of children, including interference with parenting and abuse of children as a tool in coercive control on survivors' well-being.

When children are part of a family, the survivors' intimate partner violence goes beyond the intimate partner-survivor to include the children who have witnessed directly and/or indirectly their parent's abuse. Similar to our understanding of the impact of abuse on the survivor parents, there is substantial evidence of the impact of witnessing abuse on children at various developmental stages (Bauer, 2006; Brockie, Dana-Sacco, Wallen, Wilcox, & Campbell, 2015; Edleson, 1999a; Gewirtz & Edleson, 2007; Holt, Buckle, & Whalen, 2008; Homes, 2012; Levendosky, Huth-Bocks, & Semel, 2002; Lundy & Grossman, 2005; Martinez-Torteya, Bogat, Von Eye, & Levendosky, 2009; Moore & Pepler, 1998; Moylan et al., 2010; Osofsky, 2003). What has been missing from this literature has been how children may also be used as involuntary participants in the psychological abuse of their survivor parents as well. This study has contributed to the literature by documenting the experience of those children who have been used as tools of the abuse against their survivor parents and establishing a link between the abuser's use of them and its impact on the children's lives. The development of the Use of Children scale (Beeble, Bybee, & Sullivan, 2007) has contributed to a broader definition of the direct and indirect ways children may witness their survivor parent being abused. Linking the use of children to child behavior gives us a better indication of how powerful an impact the use of children can have within a family.

### **Strengths and Limitations**

#### **Limitations**

The results of this study should be considered in light of both its strengths and limitations. Due to the small sample size of this study ( $n = 105$ ), it was difficult to achieve power

to find medium to large effect sizes. As a result, the sample size was not large enough to withstand multiple variables, and a decision had to be made to remove non-significant control variables from the final model. Additionally, the model in this study was affected by multicollinearity in two ways. First, the different forms of abuse have long been determined to be affected by multicollinearity. To account for this in the current study, individual mediation models were run with each control variable included separately. Within the model, psychological abuse was highly correlated with the use of children as well as the children's behavior four months later. The second issue of multicollinearity was related to the makeup of the time-ordered mediation model. Originally, this model was designed to control for the mediator (child behavior) and the dependent variable (quality of life) at the first time point. While it was anticipated that a construct measured across time points would be highly correlated, the smaller sample size made identifying variation in the model difficult when controlling for child behavior at the first time point.

Another limitation related to the creation of the model was the decision to focus on only three time points over the course of eight months. This model only focused on a brief snapshot during the timespan of the relationship for many of the survivors and abusers. Repeated measures of the model variables may provide even more evidence for the use of children as an abuse tactic.

This study was also limited by the insufficient racial and ethnic diversity within the sample. Almost half of the women identified as white or Caucasian ( $n = 56$ , 51.9%); one-quarter identified as Black or African American ( $n = 31$ ; 28.7%) with the remaining participants dispersed across several other categories. Future research should focus on capturing a wider

range of experiences by more diverse participants. Such efforts would help inform the continued development of necessary culturally specific services.

Additionally, the scale used to measure the use of the children as an abuse tactic uses items that operationalize the construct broadly, without giving specific examples of the tactics related to each item within the scale. For example, each survivor was asked whether the assailant had used the children to harass or intimidate her, stay in her life, keep track of her, or frighten her; or if the assailant had tried to turn the children against her or had tried to convince the children that she should take them back. While these items were designed to be broad in order to try to capture as many experiences as possible, there were some tactics that may not have been captured without having given survivors specific examples (e.g., abusing the children or threatening the children to control the survivor's behavior; or withholding money or resources to directly provide for the children). Similar to the other scales that have been created related to physical, psychological, and emotional abuse, asking about specific behaviors may better capture survivors' concrete experiences.

Finally, the use of children measure does not ask about just one child in the family but asked if the abuser has used any of the tactics in general; we were unable to determine if the target children were those children who were necessarily the ones "used" in the use of children scale. While this may confound the findings in the study, it could also be argued that when an abuser uses any children as an abuse tactic, it would have similar impacts as other forms of abuse to which children are exposed.

## **Strengths**

While there are a number of limitations related to this study, there are several strengths as well. The survivors who comprised the sample of this study were recruited from the community



via help-seeking locations that were typically used at times of crises, which increases our understanding surrounding this specific group of survivors. The use of a longitudinal data set, in combination with the application of a time-ordered mediation model, also contributes to the study's strengths. Using a time-ordered mediation model can support more robust findings, taking into account the idea that time must pass before detecting significant change. Additionally, this is one of the few studies to examine the use of children as a specific construct and adds to our limited understanding of measuring an aspect of abuse that many survivors with children experience.

### **Research, Policy, and Practice Implications**

#### **Need for Continued Research on the Use of Children**

This study highlights the need for continued research regarding the use of children as an abuse tactic employed to control and psychologically abuse survivors. When abusers choose to be violent toward their partners and there are children within the family, they are making a parenting choice as well. The measure of the use of children taken together with the index developed by Rivera and colleagues (2016) as well as the measure created by Ahlfs-Dunn and Booth-Hocks (2016) contributes to a broader understanding of how children and parenting decisions can be used as tools for continued coercive control of survivors. With this knowledge, more comprehensive and generalizable studies examining this construct would contribute to the understanding of how we can develop and improve services for survivors of intimate partner violence who have children. Going beyond the impact of the survivors' individual well-being, it is also important to consider how the use of children may influence concrete experiences in survivors' and their children's lives, including custody outcomes, interactions within the child welfare system, and survivors' abilities to access needed resources.

Future research needs to broaden the conceptualization of survivors' well-being within this context as well. We should continue to include survivors' quality of life and symptoms of depression and PTSD within the scope of well-being, but when the initial construct (use of children) involves the act of parenting, the final outcome should also examine parenting in relation to a survivor's well-being. While there are a number of scales related to parenting and studies focused on parenting stress, few have been helpful within the context of intimate partner violence as they are typically focused on the stress of the survivor parent as a negative impact on their children. In response to this, it would be more useful and survivor-centered to explore the use of children and its impact on a survivors' parenting confidence and efficacy.

In addition to further examining the impact of the use of children on survivors' well-being and ability to parent within the context of an abuser's interference, it would be just as important to explore the direct impact on the children themselves. This study highlights the importance of asking about the use of each child within the family rather than asking about the abuser's use of children in general. Additionally, the impact on children can be measured from the survivor's perspective, but it is just as important to measure the child's perspective as well. Interviewing children within the context of intimate partner violence can be difficult at best, considering their relationships (or non-relationships) with the abusers, yet their perspectives need to be heard. Additionally, child outcomes can be measured in a number of ways to triangulate with the survivor's frame of reference, including the use of school records and other adults' perceptions of the child's behavior.

### **Policy and Practice**

While many who work in the gender-based violence movement have a strong understanding of how children are used by abusers as a tactic to control their survivor parent,

there are many outside of the movement providing services to survivors who do not understand these dynamics (e.g., child welfare). This study contributes to a broader understanding of how intimate partner violence impacts survivors and families, and how abusers may use children as a tactic in their abuse, which can happen long after a relationship has ended. This knowledge can help shape how our social systems respond when families are engaged both voluntarily and involuntarily.

Within the child welfare system, many families become involved due to charges of “failure to protect,” in which the system identifies that when a survivor parent is in an abusive relationship, they have failed to protect their children. In addition, when families become involved with child welfare due to an actual child abuse charge, workers may discover the co-occurrence of IPV after one or more interactions with the family. When workers have a broad understanding of domestic violence as a pattern-based behavior that often involves children, they are better able to serve families through accurate documentation and a higher probability of accountability of the abusive partner.

Similarly, the civil legal system and family courts would benefit from this knowledge. Historically, these systems, including the child welfare system, have targeted their focus on mothers, holding them at a much higher standard than fathers, even in circumstances of an abusive father. When confronted with the knowledge and documentation of what it means to use children within the context of IPV *and* the impact on survivors and children, child welfare workers, attorneys, legal guardians ad litem, and judges can better hold abusers accountable and connect survivors and their children with appropriate and essential services.

For organizations that already have a deep understanding of gender-based violence, intimate partner violence, and coercive control, this research can give service providers even

more insight into survivors' and their children's experiences of the abuse. With a better understanding of how children may be used as tools of abuse, service providers can create better intervention strategies to target issues that have arisen as a result of families' experiences, such as: the broken bond between the children and the survivor parent, children displaying a lack of respect or trust toward the survivor parent, poor survivor-child interactions, and increased isolation within the family.

### **Conclusion**

Intimate-partner violence continues to be a pervasive problem in the United States. This study was designed to help support further understanding of IPV and its impact on survivors and their families. There is scant empirical evidence of how abusers use children to control and manipulate their partners, including understanding the potential outcomes of this behavior. As one of two known quantitative longitudinal studies looking at the use of children as a predictor, it contributes to the field by providing further evidence about the impact of the use of children on survivors' well-being, including quality of life, as mediated by their children's behavior.

## APPENDICES

## APPENDIX A: Use of Children Scale

Some men use the children to control the women they are or have been involved with. Using this card, in the last four months, to what extent, if at all, has (A) \_\_\_\_\_ use the children to:

	NONE	A LITTLE	SOME	VERY MUCH	N/A
1. Stay in your life.....	1	2	3	4	8
2. Harass you.....	1	2	3	4	8
3. Intimidate you.....	1	2	3	4	8
4. Keep track of you.....	1	2	3	4	8
5. Frighten you.....	1	2	3	4	8
Has he:					
6. Tried to turn the kids against you.....	1	2	3	4	8
7. Tried to convince the kids you should take him back.....	1	2	3	4	8

## APPENDIX B: Child Behavior

<i>Please circle the number describing how often the behavior currently occurs with your child.</i>							
	Never 1	2	3	Some- times 4	5	6	7
1. Dawdles in getting dressed	1	2	3	4	5	6	7
2. Dawdles or lingers at mealtime	1	2	3	4	5	6	7
3. Has poor table manners	1	2	3	4	5	6	7
4. Refuses to eat food presented	1	2	3	4	5	6	7
5. Refuses to do chores when asked	1	2	3	4	5	6	7
6. Slow in getting ready for bed	1	2	3	4	5	6	7
7. Refuses to go to bed on time	1	2	3	4	5	6	7
8. Does not obey house rules on his/her own	1	2	3	4	5	6	7
9. Refuses to obey until threatened with punishment	1	2	3	4	5	6	7
10 Acts defiant when told to do something	1	2	3	4	5	6	7
11. Argues with parents about rules	1	2	3	4	5	6	7
12. Gets angry when doesn't get his/her own way	1	2	3	4	5	6	7
13. Has temper tantrums	1	2	3	4	5	6	7
14. Sassses adults	1	2	3	4	5	6	7
15. Whines	1	2	3	4	5	6	7
16. Cries easily	1	2	3	4	5	6	7
17. Yells or screams	1	2	3	4	5	6	7
18. Hits parents	1	2	3	4	5	6	7
19. Destroys toys and other	1	2	3	4	5	6	7

objects

20. Is careless with toys and other objects	1	2	3	4	5	6	7
21. Steals	1	2	3	4	5	6	7
22. Lies	1	2	3	4	5	6	7
23. Teases or provokes other children	1	2	3	4	5	6	7
24. Verbally fights with friends his/her own age	1	2	3	4	5	6	7
25. Verbally fights with sisters and brothers	1	2	3	4	5	6	7
26. Physically fights with friends his/her own age	1	2	3	4	5	6	7
27. Physically fights w/ siblings	1	2	3	4	5	6	7
28. Constantly seeks attention	1	2	3	4	5	6	7
29. Interrupts	1	2	3	4	5	6	7
30. Is easily distracted	1	2	3	4	5	6	7
31. Has short attention span	1	2	3	4	5	6	7
32. Fails to finish tasks or projects	1	2	3	4	5	6	7
33. Has difficulty entertaining himself/herself alone	1	2	3	4	5	6	7
34. Has difficulty concentrating on one thing	1	2	3	4	5	6	7
35. Is overactive or restless	1	2	3	4	5	6	7
36. Wets the bed	1	2	3	4	5	6	7
37. Clings to adults or too dependent	1	2	3	4	5	6	7
38. Complains of loneliness	1	2	3	4	5	6	7
39. Fears she/he might think or do something bad	1	2	3	4	5	6	7
40. Fears or complains that no one	1	2	3	4	5	6	7



loves him/her

41. Feels worthless or inferior	1	2	3	4	5	6	7
42. Would rather be alone than with others	1	2	3	4	5	6	7
43. Underactive, slow moving, or lacks energy	1	2	3	4	5	6	7
44. Unhappy, sad, or depressed	1	2	3	4	5	6	7
45. Worried	1	2	3	4	5	6	7

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## APPENDIX C: Quality of Life Scale

Now I'd like to ask you how you feel about various parts of your life. Please tell me the feelings you have in general—taking into account what has happened in the last four months.

After I ask you each question, please tell me how you feel about that part of your life: either “EXTREMELY PLEASED,” “PLEASED,” “MOSTLY SATISFIED,” “EQUALLY DISSATISFIED AND SATISFIED,” “MOSTLY DISSATISFIED,” “UNHAPPY,” or “TERRIBLE”. If you feel like a question doesn't apply to you, just tell me.

EXTREMELY PLEASED.....	1
PLEASED.....	2
MOSTLY SATISFIED.....	3
EQUALLY DISSATISFIED AND SATISFIED...	4
MOSTLY DISSATISFIED.....	5
UNHAPPY.....	6
TERRIBLE.....	7
(Not Applicable) .....	8

1. First, a very general question. How do you feel about your life overall?..... \_\_\_\_\_
2. How do you feel about yourself?..... \_\_\_\_\_
3. How do you feel about your personal safety?..... \_\_\_\_\_
4. How do you feel about the amount of fun and enjoyment you have?..... \_\_\_\_\_
5. How do you feel about the responsibilities you have for members of your family?.... \_\_\_\_\_
6. How do you feel about what you are accomplishing in your life?..... \_\_\_\_\_
7. How do you feel about your independence or freedom – that is, how free you feel to live the kind of life you want? ..... \_\_\_\_\_
8. How do you feel about your emotional and psychological well-being?..... \_\_\_\_\_
9. How do you feel about the way you spend your spare time?..... \_\_\_\_\_

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