The Relationship Between Risk and Coping Among Survivors of Intimate Partner Violence

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By

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Dedication


This is dedicated to my parents, without whose support I could never have achieved this accomplishment.  And to Ben, whose input, love and encouragement were invaluable.  I love you all.

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Abstract

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INTIMATE PARTNER VIOLENCE

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The present study examined the relationship between risk and coping among survivors of
intimate partner violence assumed by Hamby and Gray-Little's (2002) risk-based coping
model that posits that the most useful way to understand a battered woman's choice in
coping strategies is to consider her personal context; specifically, her risk and resources.
Participants consisted of 142 female adults recruited from the Domestic Violence Intake
Center in Washington, D.C.  Latent class analyses indicated that women in the sample
could be categorized into three groups that fit with Hamby and Gray-Little's model.
Further analyses did not confirm the hypothesis that overall risk predicts specific type of
coping (private or public).  The implications of the results on research and practice are
discussed.


KEY WORDS: intimate partner violence, coping, risk

Introduction


Intimate partner violence (IPV), abuse that occurs between two people in an intimate relationship (CDC, 2006), has historically been and continues to be a significant societal and global problem. IPV exists along a continuum and includes four types of behavior; physical abuse, sexual abuse, threats, and emotional abuse (also known as psychological abuse) (CDC, 2006). Physical abuse is when a partner injures or tries to hurt a partner with physical force (i.e. hitting, kicking, or burning). Sexual abuse is forcing a partner to participate in a sex act without consent. Threats include the use of words, gestures, or weapons to communicate the intent to harm. And emotional abuse is threatening a partner or harming his/her self-worth (i.e. stalking, name-calling, or intimidation). Estimates suggest that approximately 4.5 million American women will be assaulted by an intimate partner each year and that 22.1% of all women in the United States have experienced some form of assault by an intimate partner (Tjaden & Thoennes, 2000); and due to under-reporting, this statistic is likely even higher. Not only does IPV occur frequently, it is well-documented that survivors of IPV suffer from myriad negative physical and psychological consequences (e.g. Follingstad, Brennan, Hause, Polek & Rutledge, 1991; Gelles & Harrop, 1989; Goodman, Koss & Russo, 1993). However, the research also indicates that some survivors of IPV experience fewer

negative outcomes than others. This variation underscores the need to understand what these women are doing differently and one of these differences may be how these women cope.

Understanding how women cope with IPV has been the topic of a substantial body of research. The existing literature provides both theoretical models and empirical studies exploring topics that range from what coping strategies women utilize to how specific coping strategies impact a woman's mental health. The bulk of the empirical research conducted on women's coping responses has been deficit-focused in that it assumes that women who do not leave an abusive relationship have a "coping deficit," implying that leaving is the only adaptive strategy.

More recent theory and research on coping and IPV suggests that deficit-focused research is flawed and that a woman's personal context (i.e. her risk and resources) must be taken into account in understanding and evaluating her selection of coping responses (e.g. Lindhorst, Macy, & Nurius, 2005; Kocot & Goodman, 2003). This woman-centered approach to research is in large part derived from theoretical models for professionals working with IPV survivors such as the woman-defined approach to advocacy set forth by Davies, Lyon, and Monti-Catania (1998), which values a woman's feelings, opinions, and assessment of her own risk. More importantly, this woman-centered body of literature explores the full spectrum of coping responses to violence and allows for the possibility that strategies traditionally considered maladaptive, may in fact be effective for some women.

In order to think about coping from a woman-centered perspective, one must also think about risk from a woman-centered perspective because *risk* is what women are coping *with*.  Davies, et al., (1998) define two types of risk that women face, batterer-generated risks and life-generated risks.  Batterer-generated risks are "dangers that result from the batterer's control of his partner" (Davies, et al., 1998, p. 22).  Examples of batterer-generated risk include physical injury, psychological harm, risks involving children, financial risks, loss of relationship, and risks involving arrest or legal status.  Life-generated risks are aspects of a woman's life over which she has little or no control such as physical and mental health or financial circumstances.  Women take both types of risk into account when determining what course of action to take.

Despite the clear connection between coping and risk, within the woman-centered literature, there is a dearth of empirical research examining this relationship.  The limited research that does exist has examined specific aspects of coping and risk such as how risk of future violence predicts helpseeking within the criminal justice system (Bell, Goodman, Dutton, 2003).  However, this research has yet to consider how a woman's overall risk might be predictive of the specific categories of coping strategies in which she might engage.  Examining this relationship could provide a better understanding of women's responses to IPV and in turn provide implications for practice with this vulnerable population.

One model that presents an opportunity to empirically study this relationship is a risk-based coping model proposed by Hamby and Gray-Little (2007).  This model posits that a battered woman's choice in coping strategies is based upon a realistic assessment

of her life situation, including her level of risk and available resources.  Fitting in well with the woman-centered approach, this model considers the full range of coping responses to IPV with the understanding that leaving is not necessarily the most adaptive response.

In this paper, I present the following: (1) concepts in the general coping research, including ways to study coping and contextual factors that influence coping strategies; (2) literature specific to IPV and coping, including research conceptualizations, ways to study coping and IPV, risk assessment, and contextual factors that influence coping strategies among IPV survivors; and (3) Hamby and Gray-Little's model of risk-based coping.  Finally, I describe an empirical study aimed to address the aforementioned gap in the literature on the relationship between a woman's overall risk and her choice of coping strategies by empirically testing the connection between risk and coping assumed by Hamby and Gray-Little's risk-based coping model and expanding upon that theory.

Concepts in General Coping Research

*Dimensions of Coping*

Although there is a growing body of empirical research specific to IPV and coping, beginning with a review of the relevant general coping literature provides a backdrop for understanding the history and direction of current IPV-specific research. Coping strategies, as defined in the broader coping literature, are a wide variety of behaviors and thoughts employed to handle the impact of a stressful situation (Lazarus & Folkman, 1984). Prior coping research has attempted to develop categorizations of coping responses, but the lack of clarity and consensus in the literature is confusing and makes it difficult to compare findings across studies. Although there is not one well-accepted descriptive classification formulation, there are several constructs that appear repeatedly throughout the literature. Here I present four conceptualizations of coping, three well-established, and one more recent, based on the child and adolescent literature.

First, and perhaps most widely accepted, Lazarus and Folkman (1984) distinguish between problem-focused and emotion-focused coping. Problem-focused coping refers to the way one addresses a specific source of stress (i.e. IPV) such as active attempts to eliminate or change a particular problem. Emotion-focused coping refers to the way one addresses the stress associated with that stressor such as expressing one's emotions, seeking solace and support from others, and attempting to avoid the source of stress.

A second approach to organizing coping strategies is the distinction between active versus avoidance or engagement versus disengagement coping (Ebata & Moos, 1991; Moos, 1995; Tobin, Holroyd & Reynolds, 1989). Active or engagement coping is the attempt to change a problematic situation. For example: "Made a plan of action and followed it" or "Talked with a friend about the problem" (Holahan & Moos, 1987, p. 949). In contrast, avoidance or disengagement coping is distancing oneself from the problem. For example: "Refused to believe that it happened" or "Kept my feelings to myself" (Holahan & Moos, 1987, p. 949).

Both within this conceptualization and the problem/emotion-focused one just described, the terms behavioral and cognitive strategies are often utilized (e.g. De Ridder, 1997; Holahan & Moos, 1987). As the names imply, cognitive coping strategies are ways of changing the way one thinks about a situation, while behavioral strategies are observable actions aimed at reducing the stress of a negative situation.

A third way of conceptualizing coping distinguishes between primary control and secondary control coping (e.g. Rudolph, Dennig, & Weisz, 1995). Primary control coping attempts are directed at influencing objective events or directly regulating one's emotions. Secondary control coping responses are attempts to adapt to the stressful situation, such as cognitive restructuring or acceptance.

Finally, Compas, Connor-Smith, Saltzman, Thomsen, and Wadsworth (2001) have integrated much of this literature by describing a comprehensive conceptualization of coping dimensions. They postulate that coping can be classified along two broad dimensions: voluntary versus involuntary and engagement versus disengagement. As the

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names suggest, voluntary coping is volitional and conscious, while involuntary coping is automatized and not under conscious control. Unintentional release of emotions such as crying is considered an involuntary coping response. Compas et al. (2001) argue that voluntary and involuntary coping responses can be further distinguished as engagement with or disengagement from a particular stressor and one's responses to that stressor. Engagement with the stressor includes coping responses oriented toward the source of stress or the related cognitions and emotions. Disengagement from the stressor refers to strategies oriented away from the stressor or the related thoughts and feelings. Furthermore, the authors posit that voluntary coping responses that involve engagement with a stressor can be further distinguished by their goal orientation, that of achieving primary or secondary control. This model is an important step forward in the general conceptualization of coping, but these dimensions have not yet been used in studies with adults.

   As is evident in the above descriptions, the general coping literature is somewhat confusing, redundant, and inconsistent when it comes to describing and defining coping constructs. As I will present later, the IPV coping literature, which utilizes much of the same terminology, is similarly messy in its conceptualization of coping.

*Ways to Study Coping*

   In addition to providing constructs to categorize types of coping, the literature also sets forth two main methodological approaches to explain the way an individual copes with stress (Waldrop & Resick, 2004). The inter-individual or dispositional approach suggests that individuals have coping "styles" that they routinely employ to

respond to different types of stress (Cohen, 1987; De Ridder, 1996). This approach posits that examination of an individual's personal attributes will elucidate his or her choices in coping and that this coping style will remain stable over time and across situations. Traditional inter-individual measures of coping style are descriptive and typically ask an individual how he or she responds to a list of stressful situations (Waldrop, 2000).

The intra-individual approach, a second perspective on measuring coping, posits that individuals alter their coping style depending on the stressor (Cohen, 1987). Measures employed in this approach assess coping strategies used in specific situations. Empirical support for the intra-individual approach in the coping literature suggests that despite a propensity toward a particular coping style, an individual's response to stress varies according to the situation (Dolan & White, 1988; Folkman, Lazarus, Dunkel-Schetter, DeLongis, & Gruen, 1986). For example, research indicates that in stressful situations that threaten self-esteem, individuals are less likely to utilize social support as a coping response than in stressful encounters that do not present this threat (Folkman et al., 1986). This research also reports that individuals employ fewer problem-solving strategies when a stressful situation involves a loved one's well-being (Folkman et al., 1986). Additionally, Perrez and Reicherts (1992) suggest that the stressfulness of a situation, the probability that a situation will change on its own, and its inherent opportunities for control are all situational characteristics that influence an individual's coping style. In light of this empirical evidence, taking situational variability into account is important in order to fully comprehend an individual's choice in coping

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strategies.  This is particularly relevant to survivors of IPV who may employ one type of

coping strategy in a stressful work environment, but utilize a different coping style in

response to IPV.

*Contextual Factors that Influence Coping Strategies*

In addition to indicating that individuals' coping styles vary according to the

stressful situation, the majority of the general coping literature agrees that coping must be

viewed as contextual, that is, influenced by an individual's personal context.  The general

coping literature has established that there are several specific factors that influence

coping style.  Specifically, the literature identifies three such contextual categories: (1)

environmental constraints (i.e. lack of social support), (2) personal constraints (i.e. high

dependency needs), and (3) extreme threat (i.e. physical abuse) (Lazarus & Folkman,

1984).   In one study on contextual factors and coping, Holahan and Moos (1986) found

that active cognitive coping was positively related to personal constraints such as self-

confidence and family support.  They also found that active behavioral coping was

positively associated with education level, self-confidence, and family support.  Finally,

findings from this study indicated that avoidance coping was associated with fewer

personal and environmental resources. In another study, Pearlin and Schooler (1978)

found that personal constraints such as age, gender, and socioeconomic status predicted

types of coping responses.  These data are consistent with Lazarus and Folkman's (1984)

conceptualization of contextual restraints on coping.  It is interesting to note that the term

"risk" is not incorporated in Lazarus and Folkman's contextual categories.  I will return

to these contextual factors and the relevance of risk in the following discussion of the

IPV-specific coping literature.

IPV Specific Research


As reviewed above, the broader coping literature has explored multiple aspects of coping, including how to describe it, how to study it, and how contextual factors influence it.  In this section, I review the literature specific to IPV[1] and coping and describe how it fits in with the general coping literature.   I also explain how the concept of risk is incorporated into this body of research.

*Defining Coping Strategies in IPV*

I have previously defined coping strategies as behaviors and cognitions employed by an individual to reduce the impact of a stressful situation and presented four conceptualizations frequently employed in the general coping literature (i.e. problem versus emotion focused, active versus passive, primary versus secondary gain, and Compass et al.'s comprehensive conceptualization).  In the IPV coping literature, similar terms are used as in the more general literature – active versus passive coping, problem focused versus avoidance coping, and cognitive versus behavioral coping.  However, Goodman, Dutton, Weinfurt, and Cook (2003) have recently refined thinking about coping strategies in IPV in creating the Intimate Partner Violence Strategies Index (IPVSI).  This measure lists specific coping strategies in the broad categories of private

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[1] For the purposes of this paper, the research presented on IPV may also include research that uses the terms battering, domestic violence, or abuse.  I will use these terms interchangeably.

realm and public realm coping. Private realm coping are strategies carried out in isolation, while public realm responses are those that engage the help of public agencies, the legal system, or informal social networks. While most of these coping strategies would be considered problem focused or active, and thus may not include the entire range of coping strategies women who experience IPV may employ, the measure was developed through focus groups both with victims and professionals and represents a significant leap forward in the field's ability to explore coping in detail.

*Research Conceptualizations*

When reviewing the IPV-specific research on coping and context, it is important to be cognizant of the perspectives from which this research is conducted. Much of the research on IPV and coping focuses on coping deficits among IPV survivors in that it makes certain assumptions about coping choices. Specifically, this research assumes that women who do not leave an abusive relationship are somehow flawed. A more recent and growing body of research on IPV and coping has begun to investigate the possibility that multiple coping responses might be adaptive depending upon a woman's personal context. Thus, the distinction I make between ways to conceptualize and study coping and IPV is based not on whether context is considered, but on the implicit assumptions in the research questions and the interpretation of results. I categorize these approaches as deficit-focused research and woman-centered research.

*Deficit-focused research.* Deficit-focused research, the traditionally dominant way of investigating IPV survivors' coping styles, typically emphasizes cognitive distortions and deficient behavioral responses to IPV. The questions asked, terminology used, and

interpretation of results in this body of research are laden with implicit assumptions about women's coping responses; primarily that women who do not leave an abusive relationship have a "coping deficit."

Deficit-focused research consistently and often explicitly asks, "Why don't women leave abusive relationships?" (Banyard & Graham-Bermann, 1993; Hamby & Gray-Little, 1997; 2007). Consistent with the broader coping literature, most of these studies identify contextual factors that influence a woman's coping style. However, when considered within the context of understanding why women do not leave violent relationships, they do not allow for the possibility that staying in the relationship may be most adaptive for some women. Further, in this body of research, the connotation attached to the employment of avoidant or emotion-focused strategies is typically negative. Terms such as passive, ineffective, dysfunctional, pathological and maladaptive are often used to describe these responses (Hamby & Gray-Little, 1997; 2007). Finally, interpretations of the data in studies conducted within a deficit framework perpetuate the idea that the only adaptive coping strategies are problem-focused with the ultimate goal of leaving the abusive relationship. For example, most deficit-focused studies report the percentage of women who remain with an abusive partner as the first result.

While deficit-focused research has played an integral role in the development of policies and interventions aimed at reducing IPV as well as advancing the research in the field, it has also propagated the idea that women who do not leave an abusive relationship are somehow flawed. Additionally, deficit models have focused primarily on

maladaptive or ineffective coping strategies.  Thus, they have not examined the full range

of responses to IPV and do not paint a complete picture.  Finally, deficit models do not

leave room for the possibility that coping strategies, typically considered ineffective, may

best serve some women.

  *Woman-centered research.* The literature presented in this section differs from

deficit-focused research in that it takes a woman's personal context into account with the

understanding that women may employ a variety of adaptive coping strategies, not only

leaving a violent relationship.  These studies examine the costs and benefits of a woman's

coping choices and redefine the negative connotation of terms such as "passive" and

"avoidant."  Notably, much of the woman-centered empirical work on IPV and coping

has been informed by theoretical models for professionals working with IPV survivors.

For example, in their landmark book on safety planning with IPV survivors, Davies et al.,

(1998) present a "woman-defined approach" to advocacy.  Woman-defined advocacy

values a woman's feelings and opinions and acknowledges her as the decision maker and

the best assessor of her situation (Davies et al., 1998).  Woman-defined advocacy also

considers a woman's "life-generated" risks, aspects of a woman's life over which she

may have little control, such as physical and mental health, financial constraints, or

custody of her children.  Davies et al. (1998) claim that if a woman is aware of her life-

generated risks, she may consider them in her assessment of how best to cope.  For

example, a woman who has poor physical or mental health and relies on the batterer for

healthcare may be more hesitant to take a problem-focused approach to coping.  While

the recommendations set forth by Davies et al., are aimed at advocates working with IPV

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survivors, their theory informs the broader IPV coping literature and is one of the only

theories that considers risk as a broad contextual factor.

Similarly, in an article geared toward social workers, Lindhorst, Macy, and

Nurius (2005) assert that safety planning for IPV survivors will be most effective "if it

occurs within a contextualized assessment process that illuminates the deeper struggles

and multiple harms that women balance when making decisions about continuing or

ending relationships" (Lindhorst et al., 2005, p. 332). They present an empowerment

approach to safety planning consisting of an assessment of a woman's perception of her

risk and resources. These theoretical models for professionals elucidate the importance

of considering personal context, in particular, risk, while working with IPV survivors.

In addition to the models described to improve professional services for IPV

survivors, woman-centered research models also exist in the academic literature on

coping and IPV. For example, Dutton (1992, 1996) posits in an "ecological model" that

IPV survivors' coping styles must be considered in the context of their social, political,

economic and cultural world. She argues that the relationship between IPV and coping

strategies are mediated by personal contextual variables such as aspects of the

relationship, historical factors, tangible resources, social support and other life stressors

(Dutton, 1992, 1996). While this is an excellent conceptual model, because of its breadth

and complexity, it does not easily lend itself to statistical analyses. Additionally, it does

not explicitly include the concept of risk.

In a different woman-centered model, Hamby and Gray-Little (1997) present a

"competency model" to systematically study the full range of coping responses to IPV.

The competency model of partner violence hypothesizes that a woman's coping strategies will vary as violence and other factors in her relationship vary. The previously described models are consistent with the broader coping literature in that they take situational variability into account as well as personal and environmental constraints. In the following section I review the existing empirical research on contextual factors that influence coping strategies among IPV survivors, and include both deficit-focused and woman-centered studies. Although there is a significant body of literature on this topic, it is evident that a gap exists regarding the link between a women's overall risk and her choice of coping strategies.

*Contextual Factors that Influence Coping Strategies Among IPV Survivors*

As previously explained, the general coping literature sets forth two primary ways to describe how individuals cope, the inter-individual and intra-individual approaches. Similar to the general coping literature, much empirical research on IPV and coping is conducted from an intra-individual approach. Additionally, like the broader coping literature, the IPV-specific coping literature demonstrates the significance of context in evaluating coping styles.

Given the significance of context on coping style in the general literature, it is critical to investigate particular contextual factors that may play a role in the coping choices of IPV survivors. In fact, empirical research indicates that numerous contextual factors influence IPV survivors' coping strategies. These include frequency of violence (Gondolf & Fisher, 1998; Herbert et al., 1991; Mitchell & Hodson, 1983), severity of violence (Follingstad et al., 1991; Gelles, 1976; Rusbalt & Martz, 1995; Mitchell &

Hodson, 1983, 1986; Herbert et al,, 1991), length of relationship (Rusbult & Martz, 1995;

Snyder & Scheer, 1981), and available resources (Rusbalt & Martz, 1995; Strube &

Barbour, 1983; Jacobson et al., 1996; Gondolf & Fisher, 1988; Mitchell & Hodson, 1983,

1986). These factors correspond well with the personal, environmental, and threat

constraint categories set forth by Lazarus and Folkman (1984).

*Frequency of physical abuse.* There is some empirical research indicating that the

frequency of physical abuse is related to a woman's choice in coping strategies. For

example, in an investigation of cognitive coping strategies (e.g. focusing on positive

aspects of the relationship, downward social comparisons, and personal attributions for

abuse) used by women who left violent relationships and those who stayed, results of a

discriminant function analysis indicated that women who remained in violent

relationships utilized cognitive strategies that helped them perceive their relationship in a

positive light (Herbert et al., 1991). In another study, Gondolf and Fisher (1988)

compared shelter residents with non-residents and found that residents reported more

frequent abuse, suggesting that women are more likely to employ at least some problem-

focused coping responses when frequency of IPV increases. Finally, in an investigation

of the relationship between frequency of abuse and a variety of types of active behavioral

coping, active cognitive coping, and avoidance coping, Mitchell and Hodson (1983)

found IPV survivors' employment of avoidant coping increased with the frequency of

physical violence. The results of this study appear to contradict those found by Gondolf

and Fisher (1988); however, this contradiction might be explained by understanding the

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context of the woman and whether she is trying to leave a violent relationship or cope while remaining in it.

*Severity of violence.* Severity of abuse is another contextual factor that influences coping strategies. For example, Mitchell and Hodson (1983, 1986) and Herbert et al., (1991) demonstrated that higher levels of violence were associated with more avoidance coping. In particular, Mitchell and Hodson (1983, 1986) found that more severe abuse was related to less use of social support. A potential explanation for this finding is that when IPV survivors reach out to friends or family, they are met with avoidance or other negative reactions. Additionally, many women are isolated by their assailants. Mitchell and Hodson (1986) have also demonstrated that childhood exposure to violence and more traditional attitudes about women's societal roles are associated with more passive or avoidant coping responses as the severity of violence increases.

In an empirical study on women's shifting coping responses, Miller and Porter (1983) cited evidence that changes in the severity of violence are associated with shifts in women's coping strategies. Specifically, they found that IPV survivors are less likely to blame themselves for the abuse as the severity of the violence increases. Ferraro and Johnson (1983) reported that a sudden increase in the severity of violence was predictive of women switching from cognitive coping strategies to more active behavioral responses.

Deficit-focused studies examining why women do not leave abusive relationships, have found similar results. For example, Gelles (1976) investigated variables that might influence the decision to leave a violent relationship, including severity and frequency of

violence, prior exposure to violence, and barriers to leaving. His data indicate that some variables, namely frequency and severity of violence, are in fact related to a woman's decision to leave. In particular, greater frequency and severity were predictive of women leaving violent relationships. Rusbult and Martz (1995) also found that as severity of abuse increased, women were more likely to leave their partners.

In a woman-centered empirical study, Hamby and Gray-Little (1997) looked specifically at cognitions of women who had experienced at least mild aggression in an intimate relationship. Results of the study demonstrated that women who experienced more severe violence reported more "disapproving" cognitive responses (i.e. thought about ending the relationship or thought about seeking counseling), more active behavioral responses, and fewer "passive" responses than women who experienced less aggression. The sample consisted of only white, employed women. Thus, while this study is informative, its sample is not representative of the larger population of IPV survivors.

A more recent, woman-centered, longitudinal study examined the range of coping strategies employed by a helpseeking sample of IPV survivors (Goodman, Dutton, Weinfurt, & Cook, 2003). Results indicated that as the severity of violence increased, use of strategies in all coping categories (e.g., placating and resisting) also increased. In contrast to many of the aforementioned studies, this study demonstrates that women may increase their use of varying coping strategies in response to increasing violence. The implications of these findings are important in that they suggest that as women suffer more severe violence they intensify their coping efforts in multiple arenas, not just

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problem-focused strategies. These woman-centered studies differ from those conducted within a deficit-based framework in that they consider the possibility that multiple coping responses might be adaptive.

*Length of relationship.* The length of a woman's relationship with an abusive partner is also an important contextual factor to consider when examining coping style. Research indicates that the longer a relationship is, the more likely a woman is to feel dedicated to making it work (e.g. Rusbult & Martz, 1995; Snyder & Scheer, 1981). Rusbult and Martz (1995) have examined this relationship as an index of investment. Research from this perspective indicates that a longer relationship is predictive of a higher commitment level and thus a higher likelihood of remaining in the relationship. In another study, Snyder and Scheer (1981) examined the relationship status of women who had sought help from a shelter. Results demonstrated that the length of the relationship contributed to the woman's decision to leave; the longer the relationship, the less likely a woman was to leave. A third study found that length of relationship distinguished women who remained in violent relationships from those who left (Strube & Barbour, 1984).

*Available resources.* Available resources, such as economic assets and social support, are another example of contextual factors to be considered in the investigation of coping styles. In a previously described study, Rusbult and Martz (1995) found that having an independent income, a higher income and more available money was related to IPV survivors' decision to leave an abusive relationship. Strube and Barbour (1984) found that economic dependence on the batterer, as measured by employment history and

status was predictive of the decision to leave the relationship. Specifically, unemployed women with poor employment histories, who were considered more financially dependent on the batterer, were less likely to leave the relationship. Research conducted by Mitchell and Hodson (1983, 1986) indicates that women with higher occupational status and/or greater income are more likely to have outside social supports, which in turn increases the amount of resources available to cope with IPV. Although these studies were conducted from a deficit-focused perspective, the information they provide is valuable in understanding the contribution of available resources to a woman's coping choices. Taken together, all of the aforementioned studies demonstrate that environmental and personal context must be considered in evaluating IPV survivors' coping styles.

*Risk.* The majority of the research reviewed in this section, as well as in the section on general coping research, views risk in a simple, one variable context. However, if one thinks about risk more broadly, it includes all of the aforementioned contextual factors, each in the context of the other. For example, it makes sense that a woman who has experienced severe violence and perceives herself has having low social support is likely to employ different coping strategies than a woman who has suffered severe violence, but has high levels of social support. Understanding risk from a woman-centered perspective, and the coping choices a woman makes based on the consideration of that risk, necessitates a more holistic conception of risk. In the following section, I describe a theoretical model on risk and coping that provides a vehicle for considering risk more broadly.

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Present Study

Here I present a risk-based coping model proposed by Hamby and Gray-Little (2007), an expansion of the previously-described competency model for partner violence. It is on this model that I have chosen to focus the present study because it is the most comprehensive and most current contextual model for understanding coping strategies among IPV survivors. In particular, this model considers risk more broadly than prior research by taking a woman's risk for violence as well as her resources (risk for loss) into account in understanding the full range of coping responses. Furthermore, I believe that the risk-based coping model is a good departure point for empirically testing the relationship between risk and coping. Unlike other, more complicated contextual models, such as Dutton's ecological model, the simplicity of the risk-based coping model allows for statistical analysis. More specifically, this model allows for the empirical examination of the relationship between overall risk and coping.

Hamby and Gray-Little suggest that the most useful way to understand a battered woman's choice in coping strategies is to consider her personal context; specifically, her risk and resources. The authors explain that women tend to make accurate assessments of their personal situations and choose coping responses accordingly. Therefore, they say, one should view coping on a continuum, from conservative to aggressive. Hamby and Gray-Little use the terms "conservative," "balanced," and "venture," common

strategies for financial investment, to describe and categorize women's coping responses. Each of these coping styles is likely to be predicated on a woman's pattern of risk and resources.

Women are more likely to demonstrate a conservative coping style if they believe they are at risk of loss in other areas, (including financial loss, housing loss, relationship loss, or loss of custody of their children), if they leave a violent relationship. Hamby and Gray-Little state that these women, who are often labeled as "passive," "emotion-focused" or "disengaged," would be better described as "conservative." At the opposite end of the continuum are women who are likely to have greater resources and/or are enduring a greater severity of violence. These women may choose to take more aggressive or "venture" actions in coping with their situations because their assessment indicates that the risk of staying (i.e. more violence) is greater than the risk of loss if they leave or employ other active strategies. Finally, in the middle of the continuum lies the "balanced" strategy, which, according to Hamby and Gray-Little, likely characterizes most IPV survivors. These women will take a "balanced" approach to coping with the risk in their relationships. Hamby and Gray-Little's model is a valuable contribution to the IPV research and providing empirical support for it would be a further contribution to the field.

It is clear from the review of the literature relevant to coping and IPV that there are multiple conceptualizations of coping and various perspectives from which to study it. It is also evident that context, especially risk, is a critical consideration in understanding and evaluating the coping choices made by IPV survivors. Most of the

research conducted on IPV and coping has been from a deficit-focused perspective that makes assumptions about women's coping choices, most importantly that leaving is always the best option. However, more recently, woman-centered research has begun to investigate the full spectrum of coping responses while considering the prospect that coping strategies other than leaving may be effective for some women. As previously discussed, there are many ways to categorize coping (i.e. problem vs emotion focused or active vs passive) and for the purposes of this study, I employ the private versus public conceptualization because this model fits well with the risk-based coping theory by examining a broad range of coping strategies. Additionally, it is important to note that Hamby and Gray-Little present a continuum model for coping, but they do not flesh out a continuum model for risk despite the fact that risk is the impetus for women's coping and an integral part of their theory. In order to analyze the risk-based coping model, I interpret the risk part of the theory as also falling into three classes and I base my analyses upon this interpretation. The coping measure used in this study is based upon the private and public realm model. Hamby and Gray-Little's risk-based coping model fits in well with the woman-centered approach to research and provides a good opportunity for further empirical investigation using person-centered analyses. More specifically, the risk-based coping model provides a forum for a broader categorization of risk and its relationship to coping responses. Thus, in accordance with the risk-based coping model I hypothesize the following:

   (1) Women's risk can be categorized into three specific classes; namely,

      conservative, balanced, and venture, based upon the risk-related variables of

abuse (physical abuse, sexual abuse, psychological abuse, and stalking), resource-related risk[2], and child-related risk.

In conceptualizing coping strategies, I relied upon the public versus private categorizations used by the authors of the IPVSI coping measure. Using these terms, I further hypothesized:

(2) Women's risk profiles will be predictive of their coping responses. Specifically, I hypothesize that: (a) Women in the conservative group will use more private coping strategies (e.g. resistance, placating, safety planning) than women in the balanced and venture groups, (b) women in the balanced group will employ a moderate number of both private and public realm strategies, and (c) women in the venture group will use more public coping strategies (legal coping, formal network coping, informal network coping) than the women in the conservative or balanced group.

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[2] In this study resource-related risk is synonymous with reliance on the batter. For consistency, I will only use the term resource-related risk.

Method

*Participants*

The data collected for this study were part of a longitudinal evaluation of the Victim Informed Prosecution (VIP) program. Participants were 142 female adults recruited from the Domestic Violence Intake Center (DVIC) at the District of Columbia's Superior Court, the starting point for IPV criminal cases in Washington, DC. Data were collected from 2002-2006. In order to meet eligibility criteria, women had to (1) come to the DVIC following the arrest of a male current or former intimate partner, (2) desire a Civil Protection Order (CPO), and (3) have a case with "prosecutorial merit" (defined as sufficient evidence to prove beyond a reasonable doubt that the accused committed a crime). Additionally, criminal cases needed to meet a severity threshold defined as a history of physical abuse, threats to harm, or stalking in the relationship, physical injury, either in current or prior incident. These eligibility criteria were related to the focus of the VIP program.

*Procedures*

All women who entered the DVIC were asked to complete a screening form to determine eligibility. Those women who met eligibility criteria were approached by a research assistant in the waiting room and asked if they would be interested in participating and informed that the project was part of an effort to improve court services

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for IPV survivors. If women agreed to participate, they were asked to sign informed consent and fill out a battery of measures and were informed that they would be contacted every three months for the next year. If, after reading the informed consent, women agreed to participate, they were paid $10 for completing the questionnaire. The research assistants remained onsite to answer any questions women might have and to collect the completed questionnaires. The consent rate among eligible women was nearly 80%. Not having enough time, feeling too upset or distracted, or needing to tend to children were the most commonly cited reasons for refusal. The present study reports only on the information collected at the time of recruitment.

*Measures*

*Demographics*

For descriptive purposes, I collected information on the survivor's age, ethnicity, and socioeconomic status (employment status, education level, and level of public assistance).

*Risk Variables*

The variables described below are considered indicators of risk. All items that comprise the constructs are listed in Appendix C and descriptive statistics are in Tables 1 and 2.

*Physical and sexual violence.* To measure the severity of physical and sexual abuse in the relationship, I used a yes/no version of the Revised Conflict Tactics Scales (CTS2; Straus, Hamby, Boney-McCoy, & Sugarman, 1996), the most widely used instrument for measuring IPV. This scale has yielded good psychometric data, including

internal consistency, reliability, and convergent and discriminant validity (Thompson, Sitterle, Clay & Kingree, 2007). The original scale consists of three subscales, physical abuse, sexual coercion, and injury and each asks if, in the past year, the respondent has experienced any of these types of abuse. I created two composite sum scores for physical abuse and sexual abuse. These scores were entered as separate indicators in the primary analysis because research indicates that in terms of risk assessment, physical and sexual abuse are qualitatively different (Dutton, Kaltman, Goodman, Weinfurt, & Vankos, 2005).

Nineteen physical abuse items were summed to create an index score of violence severity over the past year (see Appendix C). According to the authors of the scale, severe physical violence would include at least one instance of being kicked, punched, hit with something, slammed against a wall, choked, burned, "beaten up," or assaulted with a knife or gun (Straus et al., 1996). The Cronbach alpha for the physical abuse scale was .83.

I used a modified version of the sexual coercion subscale by omitting items referring to the batterer "insisting" on sex without the use of force or threats and by adding "I had sex with him because I was afraid of what he would do if I didn't." These changes resulted in a four item scale, instead of the original seven items. The Cronbach alpha for this scale was .80.

*Psychological abuse.* I used the Psychological Maltreatment of Women Inventory (PMWI - Short Form; Tolman, 1999) to measure psychological abuse in the relationship. The PMWI has demonstrated successful discrimination between battered and non-

battered women (Tolman, 1999). The 14 item measure inquired about various batterer behaviors such as constantly watching over her activities, yelling and screaming, or accusing her of cheating. Participants responded on a Likert scale of one to five, one being never and five being frequently. These responses were summed for a single psychological abuse score. The Cronbach alpha for the PMWI was .89.

*Stalking.* I used a modified version of the National Violence Against Women Survey to measure stalking (Tjaden & Thoennes, 2000). Modifications included simplifying the wording of several questions (for ease of understanding), adding one item ("He hurt or killed my pet"), and eliminating two items ("He left unwanted items for me to find" and "He tried to communicate in other ways against my will"). Respondents answered yes or no to seven questions indicating whether the event had happened during the past three months. Responses were summed to create a stalking sum score. The Cronbach alpha for the stalking scale was .73.

*Resource-related risk.* The degree to which participants relied on the batterer was used as an indicator of their risk of losing resources. This scale was originally called "The Potential Loss of Resources Scale", but has not been used in a published paper (L. Goodman, personal communication, March 31st, 2009). Participants were asked to assess how much they relied on the batterer for basic living necessities such as housing, transportation, childcare, insurance, or a job. The measure included nine items. The responses to these variables were summed to create a risk of resource loss variable. The Cronbach alpha for the resource-related risk scale was .73

*Risk related to children*. Participants indicated the number of children they had in common with the batterer. I created a dichotomous yes/no variable to indicate whether or not the participant has any children in common with the batterer.

*Coping Strategies*

The literature review just presented described several ways of categorizing coping strategies (e.g. emotion/problem focused, active/avoidance, etc.). In developing the Intimate Partner Violence Strategies Index (IPVSI; Goodman et al., 2003), which captures the various ways that IPV survivors cope with violence, the authors identified 39 behaviors within two broad categories of private or public realm coping. This scale has demonstrated face and convergent validity and good inter-rater reliability (Goodman et al., 2003).

Goodman et al., (2003) describe six categories of coping strategies that fall within either the private or public realm and are based upon purpose, resources, and the level of involvement with others. Categories in the private realm include safety planning, resistance, and placating. The goal of safety planning strategies is to privately increase resources and protect against future instances of abuse. Examples of safety planning strategies include, hid car or house keys, removed or hid weapons, kept money or other valuables hidden, worked out an escape plan, and changed locks or somehow improved security. Resistance strategies are intended to challenge the batterer's sense of control and include fought back physically, slept separately, left home to get away from him, and ended (or tried to end) the relationship. In contrast, placating strategies include those intended to alter the behavior of the batterer without threatening his sense of control such

as, tried to keep things quiet for him, tried not to cry during the violence, and tried to avoid him. There were 23 possible private realm coping responses.

Public realm categories include legal coping, formal network, and informal network. The public realm categories are often defined as helpseeking strategies in the IPV literature. Legal strategies include filed a petition for a civil protection order (CPO), filed or tried to file criminal charges, and called the police. Examples of formal network strategies are tried to get help from clergy, stayed at a shelter, called a mental health counselor, talked to a doctor or nurse about the abuse, and tried to get help from an employer or co-worker. These strategies are aimed at increasing resources by using non-legal public resources. Stayed with family or friends, sent kids to stay with family or friends, and made sure there were other people around are examples of informal network strategies and are aimed at increasing resources and protecting against future abuse. There were 16 possible public realm coping responses.

Women in the present study were asked to indicate whether or not they employed any of the 39 coping strategies over the past three months. Although a woman's risk profile may fluctuate somewhat, it is relatively consistent over at least short periods of time. Thus, I assume that a woman's reported risk at the time of entry into the study is similar to her risk three months prior which is the time period for which she indicated the coping strategies she employed.

For the purposes of the primary analyses in this study, I measured coping on two continua, public realm and private realm. In a secondary analysis, I also measured coping using the six subcategories of the IPVSI. Although the problem/emotion focused

categorization is more prevalent in the literature, I have chosen to use these dimensions to analyze the relationship between risk and coping because these are the dimensions upon which the IPVSI is based.  Furthermore, Hamby and Gray-Little do not explicitly categorize coping in their model and it does not make sense to force the items of this scale into categories from a different conceptualization.  Due to the induced variable model that the IPVSI is based upon, a measure of internal consistency is irrelevant (Goodman et al., 2003).

Analysis Plan


*Preliminary Analyses*

*Missing Data and Outliers*

Data was examined for compliance with the assumptions of latent class analysis

according to the guidelines of Muthén and Muthén (2007).

*Correlations*

For descriptive purposes and to ensure there were no problems with

multicollinearity, I calculated correlations among all of our variables of interest.

*Main Analyses*

*Latent Class Analysis as a Person-Centered Approach*

In order to remain consistent with Hamby and Gray-Little's woman-centered

model, I employed a person-centered approach for this study. In contrast to variable-

centered techniques, a person-centered analysis allows for the examination of an

individual's risk profile, taking into account the complexity of that individual. Person-

centered research methodologies support assessment of meaningful patterns among

individuals that distinguish them from one another (Nurius & Macy, 2008). Although

Hamby and Gray-Little present coping along a continuum (and imply that risk should be

viewed that way as well), measuring and analyzing these variables as continuous presents

several problems. Perhaps most importantly, using a continuous, variable-centered

approach would have forced me to limit the categorization of risk to high, medium, or low and in turn much of the variability among individuals would be lost. In particular, women with high levels of risk of violence might look similar numerically to women with high levels of resource-related risk. Because I believe that a woman's risk is influenced by multiple factors, a person-centered approach is the most appropriate method to explore and demonstrate the complexity of risk among IPV survivors.

In particular, I employed latent class analysis (LCA), a statistical approach that identifies unmeasured or latent class membership among participants. For this particular study, I examined class membership in relation to risk. LCA assumes that a group of observed variables or indicators (i.e. sexual abuse, physical abuse, etc.) will covary due to each indicator's relationship with a latent class variable, in this case, risk. This latent variable explains the common variance among the observed indicator variables (McCutcheon, 1987). I hypothesized that an LCA would reveal different risk profiles for individual women based upon the aforementioned indicator variables and that these profiles would be predictive of the coping responses employed by the women.

*Can women's overall risk be categorized into specific classes?* To determine if the risk variables in the present study can be used to categorize individuals into classes or subtypes, the following variables were entered as indicators in a latent class analysis using Mplus Version 5 (Muthén & Muthén, 2007): physical abuse, sexual abuse, psychological abuse, stalking, resource risk, and child-related risk. For each participant, the results of the latent class model estimated the probability that that participant belongs to each of the empirically derived classes. Using Hamby and Gray-Little's model as a

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point of departure, I predicted that three risk classes would emerge from the analysis: conservative, balanced and venture. Nonetheless, I also examined alternative classification models and tested to see which one best represents the data. To ensure that I chose the correct number of latent classes I examined the Bayesian Information Criterion (BIC), the average class probabilities, and the bootstrapped parametric likelihood ratio test (http://www.ats.ucla.edu/stat/mplus/seminars/lca/default.htm). Numerous studies indicate that the BIC, a parametric analysis for model selection, is superior to other statistics in determining class size (e.g. Nylund, Asparouhov, & Muthén, 2007). The lower the BIC, the better indication of fit. Additionally, the closer to 1 the average probabilities of class membership are, the better the fit. Finally, the parametric bootstrap analysis is a likelihood based technique that compares class models in an LCA and has been demonstrated to be useful in choosing the number of classes. I also incorporated Hamby and Gray-Little's theory in my assessment of the best model.

*Is a woman's risk profile predictive of her coping responses?* Once the measurement model identifying the number of latent classes of risk was established using LCA, I examined how class membership was related to coping responses. To assess this relationship, I ran individual ANOVAs to determine if the means of coping responses (public vs private realm) differed by risk class. If, as hypothesized, there were three classes of risk (conservative, balanced and venture) I expected those identified as conservative to score higher on private realm coping responses than the balanced and venture groups and those identified as venture to report using more public coping strategies than the conservative and balanced groups. For those women identified as

balanced, I expected them to have moderate scores on both private and public realm

coping responses.

Results

*Sample Description*

Tables 1 and 2 provide descriptive statistics for demographic and abuse variables

for all study participants.  The sample was primarily African American and low income,

with about half of the participants unemployed.  Most participants in the sample had a

high school diploma or less at the time of recruitment and about 40% of the sample

reported having a child in common with the batterer.  Participants reported high rates of

psychological abuse, physical violence, and somewhat lower rates of sexual abuse.  All

but four participants reported experiencing at least one act of severe violence (e.g. he

burned her, kicked her, used a knife or gun to assault her, or used threats or force to

coerce her into sex) in the past year.

*Preliminary Analyses*

*Missing data and outliers.* Data complied with the assumptions of latent class

analysis according to the guidelines of Muthén and Muthén (2007).  Missing data were

accounted for by using the listwise deletion function in Mplus V.5, which deletes all

observations from the analysis that have missing values on one or more of the indicator

variables.  For this sample, 18 of 142 observations were deleted due to missing data.

*Correlations.* Correlations between the latent class indicators (i.e. physical abuse,

sexual abuse, stalking, psychological abuse, resource-related risk and child-related risk)

indicate that these variables are in general moderately related, but not greatly enough to pose any problems with multicollinearity (See Table 3). The variables of resource-related risk and child-related risk were not significantly correlated with the abuse-related variables. Correlations between the latent class indicators and the six coping subcategories (resistance, placating, safety planning, formal network, informal network, and legal coping) also indicate a modest correlation (See Table 4). In particular, physical abuse is significantly correlated with safety planning and formal network coping; sexual abuse is significantly correlated with placating and formal network coping; stalking is significantly correlated with all subcategories except for legal coping; and psychological abuse is significantly correlated with all subcategories except for resistance and legal coping. Again, the variables of resource-related risk and child-related risk were not correlated with the coping variables.

*Main Analyses*

*Can women be categorized into specific classes based on their overall risk?* A latent class analysis (LCA) was conducted to determine if women can be categorized into specific classes based on their risk profiles. Variables used for the LCA were physical abuse, sexual abuse, stalking, psychological abuse, resource related-risk, and child-related risk). LCAs were conducted that specified 2, 3, 4, and 5 classes.

In order to determine the best model in this study, I examined the Bayesian information criterion (BIC), the average probabilities of class membership, and the parametric bootstrap likelihood test. I also integrated Hamby and Gray-Little's theory in determining the best model (See Table 5 for statistics on the 2, 3, 4, and 5 class models.).

For this sample, the best fitting model, as determined by the BIC (2718.98), the average

class membership probabilities (> 0.90), the bootstrap parametric likelihood test ($p$=.00),

and theory was the 3 class model. The entropy value for the three class model was

moderately high (.83), an indication that there was accuracy in assigning individual cases

to their appropriate class. When examining the numerical indicators for the best model in

this sample, one could argue that the 2 and 4 class models are good fits as well.

However, these models did not fit sufficiently well with Hamby and Gray-Little's theory

to choose them over the 3 class model. Nor did the numerical indicators differ enough

from the 3 class model to indicate that either was a better model. Thus, the ultimate

factor in choosing the 3 class model was theory. According to literature on LCA, when it

is not numerically clear which model is best, theory should dictate the best model (e.g.

Nylund, et al., 2007).

As Table 6 illustrates, the three class model included the following: (a) a group of

women (34% of the sample) with low[3] levels of physical abuse, sexual abuse,

psychological abuse, and stalking, moderate resource-related risk and a 40% probability

of having children in common with the batterer; (b) a group of women (44% of the

sample) with moderate levels of physical abuse, psychological abuse, stalking and

resource-related risk on the batterer; low levels of sexual abuse; and a 46% probability of

having children in common with the batterer; and (c) a group of women (20% of the

sample) with high levels of physical abuse, psychological abuse, and stalking; moderate

levels of sexual abuse and resource-related risk; and a 26% probability of having children

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[3] Low, moderate and high levels were determined based upon the range of possible means for each
variable.

in common with the batterer. (See Figure 1 for a graphical representation of the 3 group model.)

These groups fit well with my hypothesis that women's risk profiles can be described as conservative, balanced, and venture groups. Among the aforementioned classes, group (a) fits well with the conservative coping group described by Hamby and Gray-Little as this group reports lower levels of violence, moderate levels of resource-related risk and a moderate likelihood of having children in common with the batterer. According to Hamby and Gray-Little this group would be expected to have low motivation to engage in public coping strategies, but may engage in more private coping strategies. Group (b) is a good representation of the balanced group in that this group reports generally moderate levels of abuse and resource-related risk and a high likelihood of having children with the batterer. This group, according to Hamby and Gray-Little's theory should have some motivation to take a more public-focused approach to coping. Finally, group (c) would be an example of a venture profile as these women report high levels of violence, moderate levels of resource-related risk and a low likelihood of having a child with the batterer. These women should have the greatest motivation to pursue more varied and more public coping strategies.

*Is a woman's risk profile predictive of her coping responses?* In order to compare women in each of the groups based on coping responses, I conducted a series of one-way univariate ANOVAs with private or public realm coping as the dependent variables and the created class grouping as the independent variable. Model results for three classes revealed that in general, there is a significant difference in the amount of both private

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($M_{conservative} = 10.85$, $SD_{conservative} = 4.31$, $M_{balanced} = 13.96$, $SD_{balanced} = 3.63$, $M_{venture} = 14.44$, $SD_{venture} = 3.96$) and public coping ($M_{conservative} = 5.56$, $SD_{conservative} = 3.11$, $M_{balanced} = 7.46$, $SD_{balanced} = 3.30$, $M_{venture} = 7.73$, $SD_{venture} = 3.89$) between the three groups $F(2, 121) = 9.37$, $p < .001$ and $F(1,121) = 4.79$, $p < .05$. Post hoc analyses were conducted to determine if, as hypothesized, women in the venture group employed more public coping strategies than women in the balanced and conservative groups and that women in the conservative group engaged in more private coping responses than the venture and balanced groups. These analyses indicated that the venture group did use more public coping strategies than the other groups. However, they did not indicate that the conservative group utilized more private coping responses than the venture group as originally hypothesized. Specifically, the Tukey HSD procedure revealed that the pairwise differences among means were significant ($p < .05$); however, the difference was in the opposite direction than hypothesized indicating that the venture group uses significantly more public *and* private realm coping strategies conservative group. There were no significant differences between the balanced and venture groups.

Chi square analyses were conducted to examine subtypes of coping and their relationship to class membership. Specifically, chi square analyses were conducted for each of the six subcategories of coping in the IPVSI (resistance, placating, safety planning, legal coping, informal network, and formal network). Each item in each subcategory was coded as yes or no depending on whether the participant reported having used that coping strategy. Results of the analyses illustrated that safety planning and informal network coping strategies are being used significantly less by the conservative

group, $\chi^2$ (2, $N = 121$) = 15.03, $p < .01$, $\chi^2$ (2, $N = 121$) = 6.42, $p < .05$, and that there is a marginally significant difference in the venture group's use of formal network strategies when compared to the conservative group, $\chi^2$ (2, $N = 121$) = 6.62, $p = 06$ (See Tables 7, 8 and 9). Resistance, placating, and legal coping did not differ based on group membership (See Tables 10, 11, and 12).

Discussion

The purpose of this study was to test the connection between risk and coping

assumed by Hamby and Gray-Little's theoretical model regarding risk and coping among

IPV survivors.  The results of the LCA suggested that women do fall into three distinct

groups that could be representative of Hamby and Gray-Little's model.  However,

findings from the ANOVA and chi-square analyses did not support the hypothesis that

group membership predicts the utilization of public coping strategies differently than how

group membership predicts the utilization of private coping strategies.  Overall, higher

reports of violence resulted in engagement in more coping strategies.  In particular, by

breaking the public and private coping categories into more specific coping subtypes, the

chi-square analyses suggested that the venture group engaged in significantly more safety

planning and informal network coping than the conservative group.  In the sections that

follow, I will discuss the implications of these sets of findings individually.

*Can women be categorized into specific classes based on their overall risk?*

The results of the LCA do appear to fit, though not perfectly, with Hamby and

Gray-Little's model in terms of the risk conceptualization and the three groups specified

in this study.  Here, I will discuss the ways in which the results do fit well with the model

and I will address the ways in which they do not in a later section.  Risk profile one, the

low risk group, consisted of women who experience low levels of physical abuse, sexual

abuse, stalking, psychological abuse, and resource-related risk; and a 40% probability of having at least one child in common with the batterer. This group comprised 34% of the sample. Based upon the severity of violence and whether women have kids in common with the batterer, the women in the low risk group match Hamby and Gray-Little's "conservative" coping profile description. According to Hamby and Gray-Little the women in the conservative group are more cautious because they are at risk of losing some resources or, perhaps more importantly, custody of their children. Furthermore, the low levels of violence they endure provide less motivation to take decisive action because their perceived risk of loss if they leave is greater than their risk of violence if they stay.

The women in risk profile two, the moderate risk group, fit well with the balanced profile described by Hamby and Gray-Little. These women report moderate levels of physical abuse, stalking, and psychological abuse; low levels of sexual abuse and resource-related risk; and a 46% probability of having children in common with the batterer. These women endure higher levels of violence than the low risk group, but have similar risk for loss of financial resources or custody of their children. According to Hamby and Gray-Little, this group is likely to encompass the majority of IPV survivors and in this sample the moderate group composed 44% of the sample.

Finally, risk profile three, the high risk group, consists of women reporting high levels of physical abuse, stalking, and psychological abuse; moderate levels of sexual abuse; low resource-related risk; and a 26% probability of having children in common with him. This group makes up 20% of the sample and exemplifies the profile of women who Hamby and Gray-Little term venture. The women in the venture group experience

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the most severe violence and most do not have a high risk of losing custody of a child. Additionally, they do not rely heavily on the batterer for other necessary resources such as housing or financial stability.

Hamby and Gray-Little's perspective on risk is different from the one generally found in the literature, viewing it as more complex and multi-faceted. Although they describe risk in their model, they do not flesh out a risk continuum as they do for coping. Thus, in identifying particular "risk profiles" among IPV survivors, the results of *this* study make this perspective more concrete. In exploring the variation among the three profiles just described, there are two variables that appear to differ most: sexual abuse and having children in common with the batterer. Although the low and moderate groups report similar levels of sexual abuse, the high group reports nearly triple the level of sexual abuse. Research on IPV suggests that sexual abuse is an important risk factor to consider because it is associated with more frequent violence and with elevated homicide risk (Dutton, Kaltman, Goodman, Weinfurt, & Vankos, 2005). Further, research indicates that sexual violence is correlated with more negative mental health outcomes than other types of abuse such as physical or psychological. Specifically, Campbell and Soeken (1999) found a significant correlation between the number of sexual assaults experienced and depression. Additionally, sexual violence is associated with high rates of PTSD (Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993). Taken together these findings provide more evidence that sexual abuse is important to assess, as it seems to meaningfully set groups of IPV survivors apart.

Having children in common with the batterer was a second variable that differed significantly among the three groups. The probability of having a child in common with the batterer was 40%, 46%, and 26% for the conservative, balanced and venture groups, respectively. Previous research has identified the presence of children as important in women's decisions about staying in or leaving the relationship (Rounsaville, 1978), and in following through with criminal prosecution of a batterer (Bennett, Goodman, & Dutton, 1999). In particular, Bennett, Goodman and Dutton (1999) found that having children is an obstacle to helpseeking. In this particular study, the risk of losing custody of children may not be to the batterer, but to the state. Often, when women file domestic violence charges Child Protective Services becomes involved in the case and will sometimes remove children from the home. Thus, the risk women who have children in common with the batterer face is twofold. The results of this study, along with the previous research, identify the presence of children as a key component of risk.

Although the three risk groups are distinctly different and vary significantly on some variables, it is interesting that the groups vary little on the variable of resource-related risk. It is especially surprising that among a predominantly low income and unemployed sample, women did not report higher levels of resource-related risk. As previously cited, research indicates that women who are unemployed are more financially dependent upon their partners and in turn less likely to engage in public coping strategies (Mitchell & Hodson, 1983, 1986). One explanation for the finding in this study is that those women who are extremely reliant on their partners do not call the police or file charges and in turn would not be in this type of sample where all women have engaged in

a public help seeking strategy. A second possibility is that women's partners have few resources to rely on. Despite these potential explanations, it is of note that the expected levels of resource-related loss were not observed in this study, as this makes the claim that the data fit with Hamby and Gray-Little's model less compelling.

*Is a woman's risk profile predictive of her coping responses?*

Although the three classes reported above could be representative of the risk aspect of Hamby and Gray-Little's theory, results from the analyses examining coping do not confirm that risk predicts private versus public coping as Hamby and Gray-Little theorize or as I hypothesized. Instead, results from the ANOVAs suggest simply that more violence predicts more overall coping. Although these findings did not confirm my specific hypotheses regarding public and private coping usage, they make sense when thinking about this sample. Due to the fact that all of the women in this sample have already engaged in a public coping strategy, this finding suggests that for women who have already crossed over the threshold of seeking help from the justice system, risk profiles do not predict differences in the type of coping strategies employed (i.e. public versus private). Thus, this study replicates findings from prior research that indicate that as severity of violence increases so do all types of coping strategies (e.g. Ferraro & Johnson, 1983; Goodman et al., 2003). Although this is not a new finding, it is a compelling one because it contradicts the assumption that women are in denial about their level of danger. These findings suggest the opposite; that despite potential obstacles and risk, women are still engaging in more and more coping strategies as the severity of violence increases.

In order to see if more information could be attained regarding the specific strategies used by the different risk groups, a series of chi-square analyses were run. These analyses examined each of the six sub-categories in the IPVSI (resistance, placating, safety planning, legal coping, informal network, and formal network) in relation to class membership. Results illustrated that the venture group employs safety planning and informal network coping strategies significantly more than the conservative group, and formal network strategies marginally more. These results indicate that not only is the venture group employing more coping strategies overall, they are also using specific types of coping more than the conservative and balanced groups. One possible explanation for the finding that women with higher risk engage in more safety planning is that they have previously utilized more public coping strategies than the low and moderate risk groups and have learned to employ a variety of safety planning strategies. Additionally, it makes sense that women in the venture group employ more informal network strategies because these strategies, such as sending a child to stay with a relative or seeking help from an employer are rather extreme types of helpseeking and may be an indication of their high level of risk.

Limitations

It is important to note several limitations of this study. First, all of the women in this sample had engaged in a public coping strategy, calling the police and assisting prosecutors in filing charges against the batterer, in turn creating a ceiling effect for the legal coping variable. A more varied sample may have produced different classes and/or different coping results that fit better with Hamby and Gray-Little's theory. It is also possible, however, that a larger, more varied sample may have fit more poorly with Hamby and Gray-Little's model. A second limitation to this study is the fact that the data in this sample come from only one time period, even though the original study did follow women over time. Had the data been longitudinal and included information from more than one time period, results may have been different. Specifically, I may have found that over time, risk does predict public versus private coping. Although all of the women in this sample did engage in a legal helpseeking strategy, perhaps those women with higher levels of violence would continue to engage in more public coping than women with less risk of violence. Third, the data in this sample is based on self-report which allows for the possibility that data is inaccurate. Fourth, the time periods assessed in this study were not entirely consistent. For example, abuse was measured over the past year while coping was measured over the past three months and potential resources loss was current. Fifth, the IPVSI, the coping items scale, does not capture the full spectrum of

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coping responses. Nearly all of the items on this scale could be considered problem-focused strategies, which means that this study was not able to take into account emotion-focused coping. A more comprehensive coping scale might illuminate patterns in coping that fit better with Hamby and Gray-Little's theory, such as the low risk group engaging in more emotion-focused coping strategies than women in the other groups. A sixth limitation to consider is the lack of variability of SES among study participants. It is possible that this theory functions differently at different levels of SES or that reliance on the batterer has a different meaning depending upon SES. Finally, it is important to note that there has yet to be empirical support for Hamby and Gray-Little's theory, perhaps indicating that it is difficult to operationalize and empirically test. Further, the risk-based coping model is described using a continuum; however, this study examined it by utilizing groups. It is possible that analyses based on the continuum described in the model would provide different results.

Implications for Research and Practice

In terms of implications for practice, this study supports the possibility that risk might be considered in a broader, more holistic way than is typical in the literature and adds to Hamby and Gray-Little's risk-based coping model by taking a step closer to creating a better conceptualization of risk. Additionally, there are some particularly practice-relevant questions that emerge from this study that researchers might ask. First, because this is a help-seeking sample, it was impossible to comprehensively test Hamby and Gray-Little's theory. The women who Hamby and Gray-Little theorize would engage in mostly conservative or private coping strategies are not likely to be found in this sample. A community based sample would be a better way to truly test the relationship between risk and coping.

Second, if there is evidence of the relationships Hamby and Gray-Little propose, it would be worth extending their theory to explore mental health outcomes. It makes sense that if a woman's coping style matches her risk as Hamby and Gray-Little would predict, this relationship may also predict mental health outcomes. For example, if a woman with a conservative risk profile engages in private coping strategies, that woman would be expected to have positive mental health outcomes because her risk matches her coping style. In contrast, if a woman in the venture group engaged in mostly private coping strategies, this woman may have more negative mental health consequences.

Third, future research could expand the variable of resource-related risk. In this study, this is a very concrete variable. Looking at it more holistically and including aspects like reliance for emotional support might provide different results.

Finally, the sample in this study is predominantly low income and unemployed. Perhaps a more representative sample, spanning socioeconomic status would reveal new information about the role of resource-related risk in risk and coping.

Conclusion


The present study sought to utilize Hamby and Gray-Little's theory on risk and coping among IPV survivors as a vehicle for testing the relationship between risk and coping and for establishing a more holistic conceptualization of risk. Results of the analyses indicated that women can be categorized into three distinct risk groups that could fit well with their theory. Although there are minor discrepancies between the three classes that emerged from the LCA and Hamby and Gray-Little's conceptualization, I believe the three groups are good representations of the theory and provide researchers with a new way of thinking about risk. Specifically, that multiple types of risk must be taken into account and that IPV survivors tend to have one of three risk profiles, depicting higher levels of some types of risk and lower levels of others.

Additionally, this study tested the predictability of coping based upon risk and found that risk group did not predict whether women utilize more private or public coping strategies. However, results did indicate that greater risk of violence predicts greater overall coping. Although this study did not confirm all of the hypotheses, it provides more support for professionals working with IPV survivors to consider the personal context of their clients. This study also lends support to conducting research from a woman-centered perspective.

APPENDIX A

Table 1
*Descriptive variables for study participants*

|  | **Study Participants (n=124)** |
|---|---|
| Age | 31.7 (9.4) |
| Ethnicity is African American | 88.70% |
| Employed at least part-time | 50.7% |
| Highest level of education attained |  |
|    Less than high school | 21.1% |
|    High school | 35.2% |
|    College/trade school | 40.8% |
|    Post-college | 2.8% |
| She has children in common with the batterer | 40.8% |

Table 2

*Descriptive continuous variables for study participants: Means and Standard Deviations*

|  | **Study Participants (n=124)** |
| --- | --- |
| Age | 31.7 (9.4) |
| Physical abuse | 9.13 (3.94) |
| Sexual Abuse | 2 (2) |
| Psychological abuse | 50.95 (12.90) |
| Stalking | 2.48 (1.90) |
| Resource-related risk | .98 (1.34) |

*Note.* For continuous variables, cell values = mean (standard deviation).

Table 3

*Correlations Between Physical Abuse, Sexual Abuse, Stalking, Psychological Abuse, Reliance on the Batterer, and Children in Common with the Batterer*

| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| 1. Physical Abuse | - | .45** | .30** | .44** | .10 | -.07 |
| 2. Sexual Abuse | - | - | .31** | .44** | .11 | -.11 |
| 3. Stalking | - | - | - | .48** | -.07 | -.11 |
| 4.Psychological Abuse | - | - | - | - | .12 | -.00 |
| 5.  Resource-related risk | - | - | - | - | - | .06 |
| 6. Child-related risk | - | - | - | - | - | - |

\* *p* < .05
\*\* *p* < .01

Table 4

*Correlations Between Abuse Variables and Six Coping Subcategories.*

| | Resistance | Placating | Safety Planning | Formal Network | Informal Network | Legal |
|---|---|---|---|---|---|---|
| Physical Abuse | .18* | .16 | .28* | .22* | .09 | .17 |
| Sexual Abuse | .13 | .35** | .13 | .24** | .00 | .00 |
| Stalking | .22* | .30** | ..33** | .23* | .20* | .07 |
| Psychological Abuse | .16 | .42** | .38** | .20* | .20* | .17 |
| Resource-related risk | -.04 | .15 | -.02 | .05 | .02 | .12 |
| Children in Common | .06 | -.08 | -.09 | -.05 | .07 | -.07 |

* *p* < .05
** *p* < .01

Table 5

*Indicator Statistics for the Two, Three, Four and Five Class Models.*

| *Indicator* | *2 Classes* | *3 Classes* | *4 Classes* | *5 Classes* |
|---|---|---|---|---|
| BIC | 2732.08 | 2718.98 | 2706.62 | 2712.04 |
| Average Probabilities of Class Membership | >.90 | >.90 | >.90 | >.90 |
| Parametric Bootstrap | *p=.00* | *p=.00* | *p=.00* | *E*RROR |
| Entropy | .93 | .83 | .89 | .94 |

Table 6

*Characteristics of Women in the Three Latent Classes*

| Characteristic | Class 1 (n=44) | Class 2 (n=56) | Class 3 (n=26) |
|---|---|---|---|
| Physical Abuse[a] | 6.74 | 9.41 | 12.61 |
| Sexual Abuse | 0.18 | 0.48 | 3.17 |
| Stalking | 1.43 | 2.77 | 3.49 |
| Psychological Abuse | 3.74 | 5.75 | 6.07 |
| Resource-related risk | 1.27 | 1.73 | 1.80 |
| Children in Common with the Batterer[b] | 0.40 | 0.46 | 0.26 |

[a]Indicates the mean for each variable within each group.
[b] Indicates the probability that the participant has at least one child in common with the batterer.

Table 7

*Percentages for Chi Square Analyses for Safety Planning.*

| Safety Planning | | No | Yes |
|---|---|---|---|
| Conservative Group | Count | 9 (20.90%) | 34 (79.10%) |
| Balanced Group | Count | 0 (0.00%) | 54 (100.00%) |
| Venture Group | Count | 1 (3.70%) | 26 (96.30%) |

Table 8

*Percentages for Chi Square Analyses for Informal Network Coping.*

| Informal Network | | No | Yes |
|---|---|---|---|
| Conservative Group | Count | 13 (30.20%) | 30 (69.80%) |
| Balanced Group | Count | 6 (11.10%) | 48 (88.90%) |
| Venture Group | Count | 5 (18.50%) | 22 (81.50%) |

Table 9

*Percentages for Chi Square Analyses for Formal Network Coping.*

| Formal Network | | No | Yes |
|---|---|---|---|
| Conservative Group | Count | 16(37.20%) | 27 (62.80%) |
| Balanced Group | Count | 12 (22.20%) | 42 (77.80%) |
| Venture Group | Count | 3 (11.10%) | 24 (88.90%) |

Table 10

*Percentages for Chi Square Analyses for Resistance Coping.*

| Resistance | | No | Yes |
|---|---|---|---|
| Conservative Group | Count | 1 (2.30%) | 42 (97.70%) |
| Balanced Group | Count | 0 (0.00%) | 54 (100.00%) |
| Venture Group | Count | 2 (7.40%) | 25 (92.6%) |

Table 11

*Percentages for Chi Square Analyses for Placating Coping.*

| Placating | | No | Yes |
|---|---|---|---|
| Conservative  Group | Count | 1 (2.30%) | 42 (97.70%) |
| Balanced Group | Count | 0 (0.00%) | 54 (100.00%) |
| Venture Group | Count | 0 (0.00%) | 27 (100.00%) |

Table 12

*Percentages for Chi Square Analyses for Legal Coping.*

| Legal Coping | | No | Yes |
|---|---|---|---|
| Conservative Group | Count | 4 (9.30%) | 39 (90.70%) |
| Balanced Group | Count | 3 (5.60%) | 51 (94.40%) |
| Venture Group | Count | 1 (3.70%) | 26 (96.30%) |

Figure 1
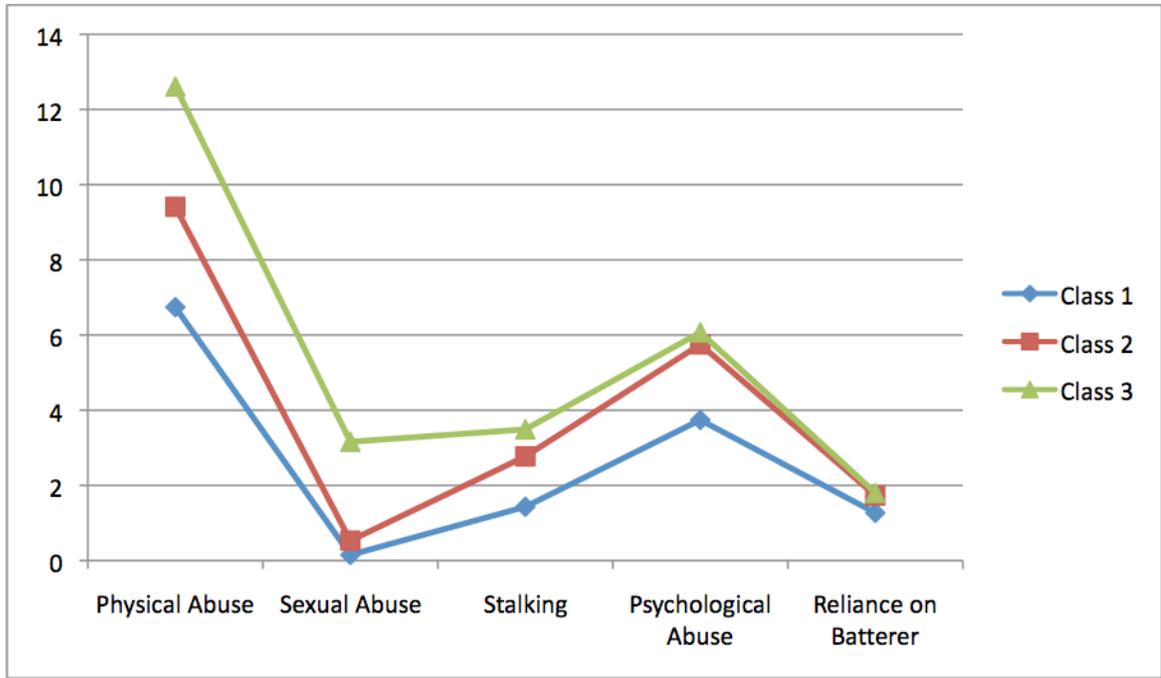


*The Estimated Means Of Physical Abuse, Sexual Abuse, Stalking, Psychological Abuse, and Reliance on the Batterer for Each Class.*

*Physical Abuse*

> ⇒ **In the next section, we will be asking a series of questions about the abuse you have experienced from the person you are here about today.**

| Question: In the last <u>3 months</u>… | *Circle One:* | |
|---|---|---|
| 1. He grabbed me. | Yes | No |
| 2. He pushed or shoved me. | Yes | No |
| 3. He threw something at me that could hurt. | Yes | No |
| 4. He slapped me. | Yes | No |
| 5. He twisted my arm or hair | Yes | No |
| 6. He kicked me. | Yes | No |
| 7. He punched or hit me with something that could hurt. | Yes | No |
| 8. He slammed me against a wall. | Yes | No |
| 9. He choked or strangled me. | Yes | No |
| 10. He burned or scalded me on purpose. | Yes | No |
| 11. He beat me up. | Yes | No |
| 12. He used or threatened to use a knife or gun on me. | Yes | No |
| 13. He forced me to have sex. | Yes | No |
| 14. He used threats to make me have sex. | Yes | No |
| 15. He refused to wear a condom during sex. | Yes | No |
| 16. I had sex with him because I was afraid of what he would do if I didn't. | Yes | No |
| 17. I felt physical pain that still hurt the next day because of his abuse. | Yes | No |
| 18. I had a sprain, bruise, or small cut because of his abuse. | Yes | No |
| 19. I passed out from being hit on the head by him. | Yes | No |
| 20. I had a broken bone from his abuse. | Yes | No |
| 21. I went to a doctor because of his abuse. | Yes | No |

| Question: In the last 3 months… | Circle One: | |
| --- | --- | --- |
| 22.  I needed to see a doctor because of his abuse, but I didn't. | Yes | No |
| 23.  He kept me awake so that I could not get enough sleep. | Yes | No |

*Psychological Abuse*

| Question: In the last <u>3 months</u>… | Circle a Number: | | |
|---|---|---|---|
| | **Never** | **Occasionally** | **Frequently** |
| 1. He called me names. | 1----------------2----------------3----------------4---------------5 | | |
| 2. He swore at me. | 1----------------2----------------3----------------4---------------5 | | |
| 3. He yelled and screamed at me. | 1----------------2----------------3----------------4---------------5 | | |
| 4. He treated me like I was less than he was. | 1----------------2----------------3----------------4---------------5 | | |
| 5. He watched over my activities and insisted I tell him where I was at all times. | 1----------------2----------------3----------------4---------------5 | | |
| 6. He used our money or made important financial decisions without talking to me about it. | 1----------------2----------------3----------------4---------------5 | | |
| 7. He was jealous or suspicious of my friends. | 1----------------2----------------3----------------4---------------5 | | |
| 8. He accused me of cheating on him. | 1----------------2----------------3----------------4---------------5 | | |
| 9. He interfered with my relationships with other family members. | 1----------------2----------------3----------------4---------------5 | | |
| 10. He tried to keep me from doing things to help myself. | 1----------------2----------------3----------------4---------------5 | | |
| 11. He controlled my use of the telephone. | 1----------------2----------------3----------------4---------------5 | | |
| 12. He told me my feelings were crazy | 1----------------2----------------3----------------4---------------5 | | |
| 13. He blamed me for his problems. | 1----------------2----------------3----------------4---------------5 | | |
| 14. He tried to make me feel crazy. | 1----------------2----------------3----------------4---------------5 | | |

*Stalking*

| | | |
|---|---|---|
| 24.  He followed or spied on me. | Yes | No |
| 25.  He sent or left me unwanted letters or notes. | Yes | No |
| 26.  He made unwanted harassing phone calls to me. | Yes | No |
| 27.  He stood outside my home, school or work-place. | Yes | No |
| 28.  He showed up at places I was even though he had no business being there. | Yes | No |
| 29.  He destroyed my property. | Yes | No |
| 30. He hurt or killed my pet or pets. | Yes | No |

*Reliance on Batterer*

*Do you rely on the person you are here about today for any of the following:*

**CIRCLE yes or no for EACH ITEM:**

    a. A place to live or money for rent                          YES  NO

    b. Money for food or clothing (for yourself and/or your kids)     YES  NO

    c. Help with child care                                   YES  NO

    d. Transportation                                      YES  NO

    e. Medical insurance (for yourself and/or your kids)         YES  NO

    f. Companionship or emotional support                 YES  NO

    g. A job                                             YES  NO

    h. Friends                                        YES  NO

    i. Anything else: _____

> ⇒ **There are a lot of different things women do to deal with violence or threats. In the past three months (including today), have you done any of the following to deal with violence or threats from the person you are here about today?**

| Question: "In the past **3 months including today, I…**" | *Circle One:* | |
| --- | --- | --- |
| **Resistance** | Yes | No |
| 1. Fought back physically | Yes | No |
| 2. Chose to sleep separately from him | Yes | No |
| 3. Used or threatened to use a weapon against him | Yes | No |
| 4. Refused to do what he said | Yes | No |
| 5. Ended or tried to end the relationship | Yes | No |
| 6. Fought back with words rather than physically | Yes | No |
| 7. Left my home to get away from him | | |
| **Placating** | Yes | No |
| 1. Chose to sleep separately from him | Yes | No |
| 2. Tried to keep things quiet for him | Yes | No |
| 3. Did whatever he wanted in order to stop or prevent violence or abuse | Yes | No |
| 4. Tried not to cry during the violence | Yes | No |
| 5. Tried to avoid him | Yes | No |
| 6. Tried to avoid an argument | Yes | No |
| **Safety Planning** | Yes | No |

| | | |
|---|---|---|
| 1. Put a knife, gun, or other weapon where I could get it in case I needed it to protect myself from him | Yes | No |
| 2. Kept the car or house keys close by | Yes | No |
| 3. Kept money and other valuables close by | Yes | No |
| 4. Developed a code with others so they would know when I was in danger | Yes | No |
| 5. Worked out an escape plan | Yes | No |
| 6. Removed weapons from the house or hid them so he could not get to them | Yes | No |
| 7. Kept important phone numbers I could use to get help | Yes | No |
| 8. Kept an extra supply of basic necessities for myself or my children, like food and medicine | Yes | No |
| 9. Changed locks or somehow improved security | Yes | No |
| 10. Make sure there were other people around me | Yes | No |
| **Informal Network** | Yes | No |
| 1. Sent children to stay with a friend or relative | Yes | No |
| 2. Talked with family or friends about what I could do to protect myself or my children | Yes | No |
| 3. Stayed with family or friends | Yes | No |
| **Formal Network** | Yes | No |
| 1. Stayed at a shelter | Yes | No |
| 2. Tried to get help from a religious person like a pastor, priest, or minister | Yes | No |
| 3. Tried to get help from my employer or someone at work | Yes | No |
| 4. Talked to a doctor or nurse about the abuse | Yes | No |

| | | |
|---|---|---|
| 5. Talked with someone at a domestic violence program, shelter or crisis hotline | Yes | No |
| 6. Called a mental health counselor | Yes | No |
| 7. Tried to get help for myself for alcohol or substance abuse | Yes | No |
| 8. Tried to get him help for alcohol or substance abuse | Yes | No |
| 9. Tried to get him counseling for violence | Yes | No |
| **Legal Coping** | | |
| 1. Filed a petition for a protection order | Yes | No |
| 2. Called the police or asked someone else to call the police | Yes | No |
| 3. Filed or helped file criminal charges against him | Yes | No |
| 4. Tried to get help from legal aid | Yes | No |

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Curriculum Vitae

Holly Zanville is originally from Atlanta, GA. She attended the University of Pennsylvania where she received a bachelor's degree in Psychology and graduated with Magna Cum Laude honors in 2002. Holly received her Master's degree in clinical psychology from George Mason University in 2006. Holly's research interests lie in community mental health and in studies of intimate partner violence.