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The Role of Attributions in the Coping Trajectories of African American Battered Women

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The Role of Attributions in the Coping Trajectories of
African American Battered Women

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The present study attempts to elucidate the role of attributions in the coping trajectories of abused African American women. The study investigates the relationships between abused women's causal attributions for violence, coping strategies, and PTSD outcomes. Approximately 793 women were approached outside of either a battered women's shelter or the District Court, resulting in the recruitment of 406 primarily low-income, ethnic minority abused women. Only data from the 324 women who completed the baseline and identified themselves as African American were used in this study. Women's causal attributions related to intentionality (intentional versus incidental violence) were regressed on six categories of coping strategies (placating, resistance, formal help source, informal help source, safety planning, and legal strategies) and on three clusters of PTSD symptoms (intrusion, avoidance, and arousal). Finally, regressions were conducted to determine how women's coping strategies were related to their PTSD outcomes. It was found that Intentional attributions predicted significant distress associated with all three clusters of PTSD symptoms while Incidental attributions did not significantly predict distress related to any of the PTSD clusters. Passive coping strategies, namely, placating and informal help source coping strategies, also predicted distress related to PTSD. Attributions did not significantly predict abused women's coping strategies. The author

concludes that how abused women interpret and react to the violence they experience plays a substantial role in their mental health outcomes. Findings show the clinical relevance of women's coping trajectories for understanding IPV. The manuscript also discusses how women's ethnic minority status and cultural beliefs affect women's interpretation and reaction to violence.

This dissertation by Alicia Meyer fulfills the dissertation requirement for the doctoral degree in Philosophy approved by Barry Wagner, Ph.D., as Director, and by Sandra Barrueco, Ph.D. and Mary Ann Dutton, Ph.D. as Readers.

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Over the past several decades public awareness of intimate partner violence (IPV) has evolved from perceiving the problem as an unfortunate event that occurs in just a few unstable marriages to recognizing the pervasiveness of serious levels of physical and psychological abuse in many intimate relationships (Kraus, 2006). As defined by the Centers for Disease Control and Prevention (CDC) (2008), IPV is abuse that occurs in the context of a close relationship and encompasses physical and sexual violence, threats of physical or sexual violence, and psychological/emotional abuse. It is a problem that disproportionately affects women and results in approximately 4.8 *million* intimate partner related assaults and rapes in the United States each year, including over 1,500 deaths (CDC, 2008). Women who experience IPV are also at risk for numerous physical and psychological problems ranging from headaches to posttraumatic stress disorder (PTSD) to suicidal ideations (Woods, 2000).

Given the statistic that millions of women cope with IPV each year, combined with the significant psychological difficulties associated with abuse, the investigation of abused women's coping trajectories is an essential undertaking for the mental health community. As structured in the current research, abused women's coping trajectories are conceptualized as the pathways through which women's coping efforts are developed, implemented, and affected. These pathways consist of three parts, namely, 1) those variables which influence the selection of coping strategies, 2) the implementation of selected coping strategies, and 3) women's subsequent psychological adjustment. Though previous research has identified numerous antecedents and consequences of abused women's coping efforts (Kocot & Goodman, 2003; Waldrop & Resick, 2004), the

present study focuses on one specific coping trajectory. Corresponding to the three parts of the coping trajectory listed above, this investigation explores the relationship between 1) abused women's causal attributions for the violence they experience, 2) the coping strategies they choose to utilize, and 3) their subsequent symptoms of PTSD. This conceptualization of the coping trajectories of abused women is based on the stress and coping model discussed in Carlson (1997).

The Stress and Coping Model

The cognitively oriented theory of stress and coping offers a foundation from which to conceptualize how people evaluate and react to stressors (Carlson, 1997). It is suggested that the manner in which individuals appraise a stressor has direct implications for their emotional reactions as well as their coping behaviors. The model posits that stressors are appraised not only in terms of how negatively they will affect people, but also in terms of the subjective meaning that is placed on a particular stressor. The latter is especially important in the investigation of attributions as one of the functions of attributions is to impose meaning on significant events (Massad & Hulsey, 2006).

According to the stress and coping model, stressors are evaluated through primary and secondary appraisal (Lazarus & Folkman, 1984). Primary appraisal involves the determination as to whether or not an event should be considered stressful (e.g., whether an event poses a threat or involves harm or loss) while secondary appraisal is used to determine how an individual will cope with the stressor given known personal and environmental constraints (Carlson, 1997). Coping efforts are generally divided into two categories depending on their function (Carlson, 1997). Problem-focused coping, which

is often associated with active or engagement coping strategies, is implemented if one's goal is to alter the circumstances that caused an event to be stressful. Alternatively, emotion-focused coping, which is often associated with passive or disengagement coping strategies, is designed to regulate one's emotional response. This style is used when an individual believes that conditions related to a stressor are unalterable.

While the stress and coping model acknowledges that a person's coping style is formed by a number of variables, how an individual appraises a stressful situation is thought to be critical in shaping an individual's selection of coping strategies. Using this model as a foundation, the current research speculates that abused women will first appraise IPV as a stressful event and then seek to make sense of their experience. They will try to find meaning in the violence by attributing it to a cause (i.e. – they will make a causal attribution for the violence). The type of causal attribution they make will set a framework for how they conceptualize the violence, which will in turn influence both the types of coping strategies they choose to utilize as well as their subsequent psychological adjustment.

Attributions and IPV

In the present research the term causal attribution refers to the reasons abused women give to explain the abuse they experience. More generally, attribution questions are "why" questions concerned with the possible causes of outcomes (Wong & Weiner, 1981). As noted above, one important function of attributions is to help individuals make sense of their experiences (Massad & Hulsey, 2006). By assigning meaning to events, people are able to create expectations and believe in a stable, predictable world

(Holtzworth-Munroe & Jacobson, 1985). Thus, when people experience an event that is incongruent with their expectations, they embark on what has been termed an "attribution search" to help them incorporate new information into their existing world view (Anderson & Arnoult, 1985; Holtzworth-Munroe & Jacobson, 1985; Wong & Weiner, 1981). This search for attributions is particularly likely to occur when people experience an event that is stressful, novel, unusual, unexpected, important or especially salient, or when they experience failure (Anderson & Arnoult, 1985; Holtzworth-Munroe & Jacobson, 1985; Wong & Weiner, 1981). Given the stressful, unusual, unexpected, salient nature of IPV, especially the initial violent episodes, it is likely that abused women engage in an attribution search to help them make sense of their abuse.

Women's attributions for violence have been studied along several dimensions including internal/external locus of control, stable/unstable, global/specific, controllability, consistency, distinctiveness, consensus, and intentionality (Anderson & Arnoult, 1985; Hewstone, 1983; Peterson-Lewis, Turner, & Adams, 1988; Wong & Weiner, 1981). Some researchers have also studied various combinations of these dimensions in the hopes of being able to specify an abused woman's attribution profile (Abramson, Seligman, & Teasdale, 1978). For instance, abused women with a depressive attribution style attribute the violence they experience to internal (self-blame), global (pervasive across situations), and stable (not subject to change) causes and are said to be vulnerable to learned helplessness (Abramson et al., 1978; Peterson & Seligman,

1984).[1] Though the learned helplessness theory is somewhat controversial today for painting abused women as passive observers of abuse, its introduction inspired a wave of research investigating the attributions of abused women. By far the most extensive body of literature involves abused women's attributions of responsibility.

Attributions of responsibility. The attribution of responsibility is a multifaceted construct encompassing the ideas of locus of control, causality, intentionality, foreseeability, and blame (Hewstone, 1983; Lagnado & Channon, 2008). Though each of these dimensions has received research attention, the vast majority of research concerning IPV has investigated the attribution of responsibility in the context of blame: who do abused women blame for the violence they experience? Investigations of this question have yielded conflicting results. Some researchers note that women who experience violence primarily blame their abusers (Littleton, Magee, & Axsom, 2007; Shields & Hanneke, 1983). Others argue that through cognitive distortions and rationalizations abused women make attributions for the violence that are external to their partner. (Ferraro, 1983; Peterson-Lewis, Turner, & Adams, 1988). Still others have found that women who experience IPV actively blame themselves for the violence (Follingstad, Neckerman, & Vormbrock, 1988; Miller & Porter, 1983). These researchers suggest that

[1] The learned helplessness model posits that exposure to uncontrollable events, such as IPV, leads to a depressive attribution style and, in turn, to depressed affect, lowered motivation, and cognitive deficits (Anderson & Arnoult, 1985). Throughout the 1970's and 80's, learned helplessness was used to explain why women who experience IPV did not leave their abusive relationships. The theory is controversial today as 1) it is now thought that women who experience IPV are not helpless, passive observers of abuse (Campbell, Rose, Kub, & Nedd, 1998; Goodman, Dutton, Weinfurt, & Cook, 2003), 2) there are several reasons why a woman might choose to stay in an abusive relationship (Holtzworth-Munroe, 1988) and merely leaving the abuser does not ensure decreased violence or better psychological adjustment (Herbert, Silver, & Ellard, 1991; McHugh & Frieze, 2006), and 3) it has been argued that the reactions coded as learned helplessness in the 1970's and 1980's were in reality symptoms of PTSD, a diagnosis that did not exist at the time (Walker, 2006).

self-blame serves three basic psychological needs including the need for perceived control, the need to believe in a just world, and the need to impose meaning on events.

One complication with the study of attributions of self-blame, however, is that there are several different types of self-blame that have not been clearly delineated in many studies (Follingstad, Neckerman, & Vormbrock, 1988; Miller & Porter, 1983). Types of self-blame include blame for causing the abuse, not being able to modify the abuse, or tolerating the abuse. It is important to distinguish between these categories as the type of self-blame that is endorsed has implications for abused women's coping trajectories, including their psychological outcomes (Miller & Porter, 1983). Investigations that have distinguished between the different types of self-blame have discovered predictable trends. For instance, Miller and Porter (1983) discovered an inverse relationship between self-blame for causing versus tolerating the violence. Also, Follingstad et al. (1988) discovered that though abused women may initially endorse self-blame for causing the abuse, this attribution is often replaced by other forms of self-blame over time.

The question of blame is further complicated by the fact that abused women do not tend to use a simple self-other dichotomy when they create their attributions of blame. For instance, Frieze (1979) noted that while partner blame is more pervasive than self-blame, women who experience IPV most often cite situational variables as the cause of violence. In addition, Holtzworth-Munroe (1988) noted that while 33% of women who experience IPV blamed themselves for the violence, 19% blamed situational

variables, and as many as 80% of women felt that the blame was shared between themselves and their partners.

Another difficulty in predicting abused women's attributions of blame is that their attributions change over time in response to changes in the patterns of violence they experience (Overholser & Moll, 1990). The typical pattern of IPV is for violence to escalate in frequency and severity as the relationship progresses (Campbell, Rose, Kub, & Nedd, 1998; Mills, 1985). Also, over time abusive partners have a tendency to employ additional forms of violence (i.e. – emotional, physical, sexual; Campbell et al., 1998). Given this predictable change in the pattern of violence, it is not surprising that women who experience IPV correspondingly adjust their attributions.

Many researchers have found that as the violence becomes increasingly frequent and severe, more blame for the violence is attributed to the abuser and less blame is attributed to the self (Frieze, 1979; Holtzworth-Munroe, 1988; Waldrop & Resick, 2004). In fact, for some women the extremity of their partner's violence is a means of excusing themselves from blame (Miller & Porter, 1983). It has further been suggested that the initial episodes of abuse are critical in forming a woman's attribution style (Overholser & Moll, 1990). The more severe the first incidents of violence, the less likely women are to blame themselves (Follingstad et al., 1988).

There are also some notable findings regarding women's attributions in relation to the duration of violence. Frieze (1979) noted that the longer violence continues the more likely abused women are to realize that IPV is a stable, unchangeable part of their relationship. When this occurs abused women begin attributing the cause of the violence

to factors that are internal to their partner. Thus, there is an expectation that research focusing on early victimization will yield attributions that are external to the partner but later victimization will yield attributions indicative of partner blame.

Another factor that affects reports of blame is whether or not a woman is still in a violent relationship. Women currently living with their violent partners reported higher levels of self-blame than those no longer in violent relationships (Andrews & Brewin, 1990). Furthermore, women who had left their abuser reported a change from past self-blame to current partner blame.

Clearly abused women's attributions of blame are complex and determined by multiple factors. Given this complexity, however, one wonders if there is an underlying variable that could help explain the patterns of blame that researchers have discovered. Perhaps there is a more fundamental facet of the attribution of responsibility than whether or not a woman blames her partner for violence. The current study proposes that the attribution of intent underlies the attribution of responsibility and may be directly related to abused women's choice of coping strategies as well as their mental health outcomes.

Attributions of intent. In the current research, attributions of intent are defined as those explanations that abused women give which indicate their belief that violence was purposefully directed at them. Though researchers generally agree that attributions of intent are critical in inferring attributions of responsibility (Hewstone, 1983), the specific relationship between these two variables is not well understood (Lagnado & Channon, 2008). Two theories regarding this relationship were discussed in Lagnado and Channon (2008). The first is Alicke's culpable control model which describes the psychological

processes that occur when people make attributions of responsibility (Lagnado & Channon, 2008). This model posits that intentionality is a factor related to personal control, and personal control increases the inference of responsibility. Thus, in Alicke's model attributions of intent indirectly influence attributions of responsibility. The second theory, proposed by Shaver, investigated five dimensions of responsibility, namely causality, knowledge, intentionality, lack of coercion, and appreciation of moral wrongfulness. He theorized that if any one of these dimensions increased so too should an observer's assessment of cause. In this model attributions of intent, though only one of five dimensions, are directly linked to attributions of responsibility. The commonalities in these theories are that both models suggest 1) a positive correlation between attributions of intent and attributions of responsibility, and 2) that attributions of intent precede those of responsibility.

These patterns are further supported by a theory put forth by Jones and Davis (1965). According to their theory, attributions of intent are the essential link between the outcomes of an act and the inferred disposition of the actor (Maselli & Altrocchi, 1969). One deduces from the effects of an act to intentions and from intentions to dispositions. From this information an observer then makes a determination about an actor's responsibility. If an observer believes that the actor intended to produce the outcome, then he will infer that the actor is responsible for the outcome. Thus, according to the Jones and Davis theory, attributions of intent underlie attributions of responsibility and should vary accordingly (Maselli & Altrocchi, 1969).

Regarding the specific relationship between attributions of intent and attributions of blame, Overholser and Moll (1990) concluded that the distinction between dispositional and situational attributions (i.e. – partner blame versus situational blame) depended on the extent to which a behavior was judged to be intentional. Similarly, Lagnado and Channon (2008) determined that intentional actions are rated as more blameworthy than unintentional actions, suggesting again that the attribution of intent preceded the attribution of blame. Taken together, these results support the theory that intentionality may be an underlying determinant of the attribution of blame.

The current research is based on the premises that 1) attributions of intent underlie the broader concept of attributions of responsibility, and 2) attributions of intent are likely to be particularly salient for women who experience IPV (Fincham, 1985; Masselli & Altrocchi, 1969). For women who experience IPV, attributions of intent are thought to be a more fundamental facet of the attribution of responsibility than are attributions of blame. Studying abused women's attributions of intent (versus attributions of blame) may thus allow for more accurate predictions about how attributions influence the selection of coping strategies and subsequent mental health outcomes.

Coping and IPV

The stress and coping model discussed in Carlson (1997) posits two primary functions of coping: 1) the management of problems causing stress and 2) the regulation of emotions (Folkman, 1984). As mentioned above, according to Lazarus and Folkman (1984) people's coping style is conceptualized as being either problem-focused or emotion-focused depending on which of the goals they are trying to accomplish (Carlson,

1997; Waldrop & Resick, 2004). Of note, other researchers have referred to problem-focused and emotion-focused coping as active and passive coping, respectively (Finn, 1985; Frieze, 1979, Meyer et al., in press). Individuals who adopt a problem-focused coping style make attempts to change stressful situations through problem resolution and other task-oriented, action based methods. Alternatively, individuals who adopt an emotion-focused coping style work to manage their emotional distress by distancing themselves from stressors.

Research throughout the 1970's and 1980's indicated that abused women most often elect to use passive coping strategies to manage the violence they experience (Finn, 1985; Frieze, 1979). Frieze (1979), for example, noted that abused women's typical reaction to violence was one of helplessness and false hope that their partner would change. It was thought that women coped by trying to change their own behavior to placate the abuser, getting psychological help to learn how to endure the violence, or trying to help their husband overcome his violent tendencies. Finn's (1985) results also supported a helpless, passive model of coping. He noted that abused women were unlikely to use problem solving strategies or social support as compared to the general female population. Furthermore, he noted that as violence increased, women's overall utilization of coping strategies decreased.

Research conducted over the past 15 years has increasingly moved away from the idea that abused women are passive observers of abuse. For example, results from a study conducted by Campbell et al. (1998) suggested that even when women use passive and/or emotion-focused coping strategies they make an active choice to do so based on

the information they know about themselves, their abuser, and their situation. Far from subscribing to learned helplessness, abused women make conscious, rational decisions to remain in their abusive relationships (Campbell et al., 1998). Furthermore, in addition to using emotion-focused coping strategies abused women are likely to utilize active, problem solving skills to help cope with the violence they experience (Campbell et al., 1998).

Researchers have increasingly noted a trend for abused women to use a number of different coping strategies drawn from different coping styles to manage their abuse (Lewis, Griffing, Chu, Jospitre, Sage, Madry, et al., 2006). Shannon, Logan, Cole, and Medley (2006) found that as many as 80% of women who experience IPV seek help for their abuse through both formal and informal resources. Furthermore, Goodman, Dutton, Weinfurt, and Cook (2003) investigated the coping strategies of women who experienced IPV and reported that more than half of their sample endorsed at least one coping strategy within each of six coping categories (placating, resistance, formal help source, informal help source, safety planning, and legal). Rather than subscribing to one specific coping style, it seems that many women who experience IPV are flexible in their coping efforts and use a number of different types of coping strategies to manage abuse.

Variables that Shape Coping Efforts

The coping behavior of abused women must be flexible if they are to adjust to a constantly changing abusive environment (Waldrop & Resick, 2004). As mentioned above, patterns of violence generally change over time to include new types and levels of abuse, variables which shape women's coping efforts. Goodman et al. (2003) found that

as violence becomes more severe women who experience IPV demonstrate increased coping behaviors in a number of domains. This includes coping in both the public and private spheres as well as using strategies that are both confrontational and non-confrontational. Coping efforts become more public and more confrontational as violence intensifies. Waldrop and Resick (2004) reported a slightly different pattern of results. Though their results supported a general trend toward active coping efforts as the frequency of abuse increased, they found a trend toward more avoidance coping as the severity of abuse increased. The exception to this pattern was when violence became so severe that women chose to terminate the relationship with the abuser, thereby utilizing active coping.

Results reported by Lewis et al. (2006) may shed light on the contradictions described above. Lewis et al. (2006) found that the relationship between violence severity and abused women's coping efforts is mediated by the type of violence that women experience. Women utilized more disengagement strategies when they were victims of physical abuse; however, they used more engagement strategies when they were victims of non-physical abuse. Though there is obviously a need for more research to clarify the relationship between abused women's coping and violence severity, there is ample evidence to suggest that women adjust their coping behaviors as a function of changes in the pattern of abuse they experience.

In addition to necessary adjustments related to changes in violence, women's coping behavior is also influenced by both personal and environmental constraints (Carlson, 1997; Kocot & Goodman, 2003; Waldrop and Resick, 2004). Women who

experience IPV may be constrained by personal factors such as internalized cultural beliefs or a strong commitment to their relationship. Indeed, Waldrop and Resick (2004) found that abused women with more traditional attitudes about women's roles had a tendency to use more passive coping strategies. The same passive efforts characterized women with a high commitment to their relationship. Similarly, women who were constrained by environmental factors such as a lack of finances or social support resorted to more passive coping strategies.

Finally, the relative success or failure of women's previously attempted coping efforts also affects her future coping behaviors (Waldrop & Resick, 2004). If, for instance, a woman's phone call to the police or a shelter yields little or no positive results she will be less likely to seek help from these institutional resources the next time she experiences abuse.

Attributions shape coping efforts. Current evidence suggests that abused women's attributions for violence also influence their coping strategies (Carlson, 1997; Meyer, Wagner, & Dutton, in press). According to the stress and coping model described in Carlson (1997), women who experience IPV undergo three separate stages of cognitive appraisal and coping. In the first stage, women endorse attributions of self-blame for causing the violence, thus their coping efforts are directed inward. Though they engage in problem-focused coping, their efforts are aimed at improving their own performance as a partner in the hope that correcting their perceived deficiencies will reduce the abuse. During the second stage women's self-blame shifts from holding oneself responsible for causing the violence to holding oneself responsible for changing the abuser. There is a

corresponding shift in coping such that problem-focused efforts are redirected from changing oneself to changing the abuser. There is also an increase in emotion-focused coping during this stage. During the final stage the woman shifts responsibility for the violence from herself to her partner. According to Carlson's conceptualization of the stress and coping model, women abandon their problem-focused coping strategies during this stage and turn their full attention to regulating their emotional response. It is notable that during each stage of the stress and coping model a woman's attributions influence her selection of coping strategies.

Meyer et al. (in press) also found that women's attributions for violence were directly related to their selection of coping strategies. In their study, women who attributed the cause of the violence to their partners utilized a greater number of coping strategies overall as well as more active and more public coping strategies compared to women who excused their partners for the violence. In addition, the researchers noted that women utilized different types of coping strategies depending on the type of attribution they made for the violence. Women who blamed their partners for the violence utilized more informal and safety planning strategies compared to women who excused their partners. Alternatively, women who excused their partners used more placating strategies compared to women who blamed their partners.

Mental Health and IPV

Women who experience IPV are at risk for numerous physical and psychological problems (Woods, 2000). Though some researchers argue that the experience of abuse is a general risk factor for psychological disorders (Carmen, Rieker, & Mills, 1984;

Winfield, George, Swartz, & Blazer, 1990), others note that depression, suicidality, and PTSD are especially common among abused women (Golding, 1999; Robertiello, 2006) with PTSD being the most common of them all (Golding, 1999; Kemp, Green, Hovanitz, & Rawlings, 1995). Golding (1999) conducted a meta-analysis to determine the prevalence of these disorders in women who experienced IPV. Across 18 studies the weighted mean prevalence rate of depression was 47.6%, a percentage much higher than that found in the general population (Golding, 1999). Regarding suicidality, across 13 studies the weighted mean prevalence rate was 17.9%. Finally, across 11 studies the weighted mean prevalence rate of PTSD was 63.8%. This rate is impressively high given the 1.3 to 12.3% prevalence rate found in the general population.

Indeed, the high rates of PTSD found in victims of IPV are comparable to the rates found in victims of rape or incest (Kemp et al., 1995; Kemp, Rawlings, & Green, 1991). Also, the severity of PTSD symptoms reported by victims of IPV is comparable across different types of abuse (i.e. - physical, sexual, emotional) (Hopper, 2002). Factors that affect PTSD symptom severity include the frequency and severity of abuse such that more frequent and severe violence predicts more severe PTSD symptoms (Golding, 1999; Koss, Bailey, Yuan, Herrera, & Lichter, 2003; Woods, 2000). In terms of the types of PTSD symptoms that victims of IPV endorse, physical arousal was the most commonly reported, followed by avoidance and then re-experiencing symptoms (Kemp, Green, Hovanitz, & Rawlings, 1995; Kemp, Rawlings, & Green, 1991).

Attributions and mental health. The connection between women's attributions for violence and their psychological outcomes is well established. As early as the 1970's

researchers put forth the theory of the depressive attribution style, the idea that women who made internal, global, and stable attributions for negative outcomes were likely to suffer from depression (Seligman, Abramson, Semmel, & von Baeyer, 1979). Over 30 years later the depressive attribution style has been used to explain several different forms of psychopathology including general psychological distress (Massad & Hulsey, 2006), PTSD (Gray, Pumphrey, & Lombardo, 2002), and comorbid depression and PTSD (Palker-Corell & Marcus, 2004). Other attributions known to vary with PTSD symptomotology include attributions of controllability and attributions of globality. Regarding the former, Mikulincer and Solomon (1988) found that combat veterans who made attributions of uncontrollability suffered from high levels of PTSD as many as three years after their combat experiences. Regarding the latter, Ehlers and Clark (2000) postulated that women only suffered from persistent PTSD if they made global attributions for violence that produced a sense of current threat. The researchers suggested that women with PTSD had difficulty viewing their trauma as a time limited event and made attributions for their trauma that had global, negative implications for their future.

Attributions of responsibility have not yet been widely investigated in relation to abused women's mental health. The exception to this trend is in the investigation of attributions of self-blame which have been associated with negative psychological outcomes (O'neill & Kerig, 2000). Specifically, attributions of self-blame have been associated with depression (Frazier, 1990), hopelessness and dysphoria (Clements,

Sabourin, & Spiby, 2004), anxiety and hostility (Frazier & Schauben, 1994), and PTSD (Hopper, 2002).

The effect that other types of attributions of responsibility might have on abused women's psychological outcomes must be indirectly inferred through what is known about the relationship between women's attributions, coping efforts, and PTSD symptoms. Meyer et al. (in press) noted that women who blame their partners for the violence they experience are likely to utilize active coping strategies which in turn are associated with fewer symptoms of PTSD (Arriaga & Capezza, 2005; Hopper, 2002; Kemp, Green, Hovanitz, & Rawlings, 1995). On the other hand, it is possible that abused women's attributions of intent (i.e., when violence is thought to be purposefully directed at oneself) produce a sense of current threat which is in turn associated with an overall increase in PTSD symptoms (Engel, 2002). Further research is necessary to clarify the relationship between abused women's attributions of responsibility and their subsequent psychological outcomes.

One promising line of research that has thus far received insufficient attention is the relationship between women's attributions for violence and the three PTSD symptom clusters described in the Diagnostic and Statistical Manual (DSM-IV). Falsetti and Resick (1995) discovered differential relationships between women's attributions for violence and the PTSD symptom clusters of re-experiencing, avoidance, and arousal symptoms. According to their study, uncontrollable and stable attributions predict more re-experiencing symptoms, stable and global attributions predict more avoidance symptoms, and uncontrollable attributions predict more arousal symptoms.

Coping and mental health. The relationship between abused women's coping style and their corresponding levels of PTSD has been heavily investigated. The vast majority of research indicates a positive correlation between women's coping efforts and levels of PTSD such that the more women suffer from PTSD, the more they utilize strategies to help cope with their distress (Engel, 2002). It has also been documented that victims of IPV who use emotion-focused or avoidance coping strategies suffer from increased levels of PTSD while women who use problem-focused or engagement strategies demonstrate fewer symptoms (Arriaga & Capezza, 2005; Hopper, 2002; Kemp et al., 1995). Though this trend is well established, the relationship between abused women's coping style and specific PTSD symptom clusters is less well documented. This is unfortunate as differential relationships between women's coping style and PTSD symptom clusters may have implications for the treatment of PTSD in abused women.

Just a few studies have divided the PTSD diagnosis into symptom clusters. For instance, Waldrop and Resick (2004) investigated the effects of coping style on PTSD outcomes and found that disengagement coping was associated with increased symptoms of avoidance. Similarly, Kemp et al. (1995) found a significant negative correlation between engagement coping strategies and symptoms of avoidance. Engel (2002) conceptualized PTSD in a slightly different way than the other researchers and divided the PTSD symptoms into clusters of arousal/avoidance, intrusion, and numbing. These clusters are different than the re-experiencing, avoidance, and arousal clusters described in the DSM-IV. Engel (2002) found that as symptoms of PTSD increase in severity, women's coping efforts similarly intensify. She demonstrated that increases in the

arousal/avoidance cluster yielded the highest increases in coping efforts (9.0%), followed by the intrusion (7.4%) and then numbing clusters (5.6%).

IPV in African American Communities

The literature reviewed in this manuscript thus far regarding IPV and its correlates has been largely based on research conducted with samples of Caucasian women. Though there are similarities in the experience of IPV between women of different ethnicities, there are also documented differences in how women from different cultural groups interpret and respond to violence (Nash, 2005). The following section discusses trends in how African American women experience, perceive, and react to IPV.

The prevalence rate of IPV experienced by African American females is as much as 35% higher than the rate of IPV experienced by Caucasian females (Hampton, Oliver, & Magarian, 2003). Some authors have gone as far as to state that IPV is the number one health issue in the African American community (Bent-Goodley, 2004; Watlington & Murphy, 2006). African American females are 1.23 times more likely to experience minor violence and more than twice as likely to experience severe violence as compared to Caucasians (Hamptom & Gelles, 1994; Nash, 2005). Furthermore, African American women are as many as two times more likely than Caucasian women to be killed by their partners (Bent-Goodley, 2004). Although IPV occurs across race, socioeconomic status, and education level, African Americans seem to experience a disproportionate amount of violence (Bent-Goodley, 2004). There are several reasons why this might be the case.

One reason is that poverty and race are often confounded such that higher rates of IPV in African American communities can often be explained by the fact that African

Americans are more likely to live in economically disadvantaged communities compared to Caucasians. Since IPV increases as socioeconomic status decreases, African American families are more likely to be exposed to violence (Koss, Bailey, Yuan, Herrera, & Lichter, 2003). Indeed, Benson, Wooldredge, Thistlethwaite, and Fox (2004) found that when they controlled for the effect of community context, the effect of race on IPV was substantially reduced.

Though researchers continue to investigate the relationships between race, socioeconomic status, and IPV, the general consensus in the literature is that an abused woman's socioeconomic status explains much, but not all, of the difference in the experience of IPV between African American and Caucasian women (Benson et al., 2004; Hamptom & Gelles, 1994). Even after accounting for socioeconomic status, African American females still experience a disproportionate amount of IPV compared to Caucasians (Bent-Goodley, 2004). Thus, another reason why African American women experience more IPV may be related to their unique cultural experiences.

Cultural Beliefs, Attributions, and Coping in the Context of IPV

Of note, the views reported in this section are largely based on studies that employed small sample sizes and gathered information via focus groups and structured interview (Bent-Goodley, 2004; Nash, 2005). How the cultural beliefs of African Americans relate to their experiences with and responses to IPV has not yet been widely researched.

A woman's cultural beliefs influence every aspect of her experience with IPV from her expectations of the acceptable use of violence against women to the suitability

of seeking intervention services (Nash, 2005). Cultural beliefs and socialization experiences certainly influence how a woman conceptualizes her experiences with violence, including the attributions she makes regarding what caused her to be abused.

It has been argued that in the African American community there is a tendency for abused women to attribute the cause of the violence to situational rather than dispositional factors (Peterson-Lewis, Turner, & Adams, 1988). This tendency is thought to have risen from African Americans' chronic experiences with the added stressor of racism (Nash, 2005). African American women who have experienced IPV may recognize racism as a contributing factor to their abuse and may choose to attribute the violence to this situational frustration as opposed to some specific aspect of the abuser (Nash, 2005). Indeed, African American women have reported the belief that African American males feel emasculated by a society that does not provide them with equal opportunities, thus they resort to violence as a way to gain a sense of power and control in their lives (Hampton et al., 2003). When they are not able to play the traditional masculine role of being the family provider they embrace "toughness" as a way to be identified as an authority within the family. This theory has been supported in part by the finding that African American women who surpassed their partners in education or income experienced higher rates of IPV than women who did not (Hampton et al., 2003).

Another cultural variable that contributes to how abused African American women conceptualize and respond to their abuse involves their assumed role as protectors. In an attempt to divert the stresses associated with racism, high unemployment rates, and other racial discrepancies from their loved ones, African

American women are socialized to believe that they are supposed to be the protectors of their race, their community, their families, and their partners (Nash, 2005). This belief has far reaching implications for how women respond to the violence that they experience.

At the community level, some African American women have reported intense pressure from their community to act as protectors and not report their abusive partners to the authorities (Nash, 2005; Peterson-Lewis, Turner, & Adams, 1988). There is a fear that African American males might face either institutional discrimination or police brutality if they were "in the system." In this role as protectors of their race and community, African American women avoid injecting their partners into the criminal justice system so as not to contribute to the stereotype that all African Americans are criminals or pathological (Bent-Goodley, 2004; Nash, 2005). Thus, in the name of racial loyalty they may choose to endure significant physical and psychological abuse rather than help send an African American male to jail (Bent-Goodley, 2004).

At the family level African American women may endure abuse to protect the cohesiveness of their families. Women often express the concern that if their partner leaves the relationship then their children will grow up without a father and the family unit will disintegrate (Bent-Goodley, 2004; Nash, 2005). These women are more concerned about their children's perceived well-being and the importance of a male role model within the household then they are about their personal safety.

Finally, many African American women consider themselves protectors at the partner level. One way that they can protect their partners is to preserve their partner's

sense of masculinity by embracing the cultural belief that men should be the head of the household (Bent-Goodley, 2004; Nash, 2005). A few women in Nash's (2005) study reported that they went as far as to reduce their earning power so that their income would not exceed that of their partner.

Of note, though there is evidence that African American women tend to attribute the cause of IPV to situational over dispositional factors (Peterson-Lewis et al., 1988) and take on the role of protectors of their partners (Nash, 2005), there is also evidence that they blame their partners for the violence. For instance, using a sample consisting primarily (81.2%) of low-income African American women, Meyer et al. (in press) demonstrated that approximately 25% of their participants held their partners solely accountable for the violence. In addition, over half of the sample endorsed attributions related to both partner blame and situational variables. Given the discrepancies between these studies, further research is warranted to clarify the attributions of abused African American women.

In line with the idea of partner blame, another cultural factor affecting African American's experience with and response to IPV is the belief that African American women are supposed to be strong, resilient pillars of their communities. Paradoxically, this belief may put women at an increased risk for more violence. For instance, as noted above, partners who feel challenged by the strength of African American women may abuse them to gain a sense of power (Hampton et al., 2003). In addition, women who believe they should be able to manage the violence on their own may refrain from seeking outside sources of help, thus allowing the violence to continue (Nash, 2005).

Minimal use of public resources through institutions such as the criminal justice system and mental health agencies has been well documented in the African American community (Bent-Goodley, 2004; Hampton, et al., 2003; Nash, 2005). This stems in part from the inaccessibility of services due to geographic distances combined with difficulties with transportation or finances (Bent-Goodley, 2004). Also contributing to the minimal use of public services are a lack of cultural competency on the part of many service providers and a fear of discrimination. Taken together, these factors result in a low usage of public and formal services in favor of informal networks such as friends, family, and religion (Hampton et al., 2003; Nash, 2005).

Though African American's limited use of public help resources has been well documented, research exploring how an abused woman's cultural background influences her coping strategies is still in its infancy. To date, research has produced contradictory findings. For instance, a study comparing Mexican American and Anglo American victims of IPV revealed that ethnicity did not play a role in their use of coping strategies (Fernandez-Esquer & McCloskey, 1999). Alternatively, when Yoshihama (2002) compared Japan-born and American-born victims of IPV she discovered that the use of active versus passive coping strategies was directly related to a woman's cultural upbringing. The American-born women used significantly more active strategies compared to the Japan-born women, the latter of whom believed in cultural proscriptions against confrontational coping behaviors. Interestingly, when the Japan-born women perceived that their active coping strategies were effective, they suffered from psychological difficulties. Alternatively, when they perceived their passive strategies to

be effective, they experienced less psychological distress. This pattern is the opposite of what was observed in American-born women (Yoshihama, 2002).

Regarding the African American culture, there is a dearth of research explicitly addressing the coping behaviors of African American women who have experienced IPV. The one consistent exception to this trend is in the investigation of the role that religion and spirituality play in African American women's coping behaviors. Nash (2005) wrote that African American women rely heavily on their spirituality to make sense of the abuse they experience, manage their stress, and determine strategies to help end the violence. Indeed, in a study conducted by El-Khoury, Dutton, Goodman, Engel, Belamaric, and Murphy (2004), 90.7% of African American women used prayer to help them cope with IPV as compared to 76.5% of Caucasian women. African American women also found prayer to be a more helpful coping strategy than did Caucasian women. There were no ethnic differences in the use of clergy, however, a finding consistent with the idea that African American women may not use public resources in an effort to protect either themselves or their partners from racial stigma (El-houry et al., 2004).

Kocot and Goodman (2003) investigated the effects of problem-focused versus emotion-focused coping in low income, urban, abused African American women. They determined that while problem-focused coping strategies are traditionally correlated with fewer mental health problems, for low income, urban, African American women, problem-focused coping was emotionally costly. Apparently, problem-focused coping served to alienate these women from their friends and family, decrease their access to

financial resources, and increase the amount of threatened harm against themselves and their loved ones. Thus it seems that for abused African American women, problem-focused coping may ultimately be less effective and more psychologically damaging than emotion-focused coping (Kocot & Goodman, 2003).

Culture and Mental Health

It has been suggested that the presentation of mental health concerns may differ for African Americans and Caucasians due to differences in culture-based risk and protective factors (United States Department of Health and Human Services, 2001). Though there are both risk and protective factors that are more prevalent in African American versus Caucasian communities (Alim, Charney & Mellman, 2006; United States Department of Health and Human Services, 2001), the literature largely supports the notion that African Americans and Caucasians are similarly vulnerable to mental illness (United States Department of Health and Human Services, 2001).

This general consensus is similarly applicable to the specific effect of culture on the presentation of PTSD symptoms. The literature suggests that regardless of specific symptom presentation, African Americans and Caucasians suffer comparable levels of distress from PTSD (Alim et al, 2006). That being said, some researchers posit that symptom presentation differs between different ethnicities. For instance, while the overall level of PTSD-related distress is comparable between African Americans and Caucasians, some researchers have demonstrated that African Americans suffer from higher rates of dissociation, disturbed thinking, paranoia, and psychosis compared to Caucasians (Alim et al, 2006). In line with this idea, it has been argued that while arousal

symptoms may be more solidly based in neurobiological changes, both intrusion and avoidance symptoms may be subject to cultural beliefs (Osterman & de Jong, 2007).

Purpose of Study

To date, few studies have investigated the causal attributions of African American women who suffer from IPV. The few studies that have been conducted revealed somewhat conflicting results with some researchers arguing that African American women attribute violence to situational variables rather than to dispositional qualities of their partners (Peterson-Lewis et al., 1988) and other researchers arguing that African American women are likely to develop attributions of partner blame (Meyer et al., in press). The present study attempts to resolve these discrepancies by investigating the role of attributions of intent in the coping trajectories of a homogenous sample of African American abused women. It is hypothesized that the more that women perceive violence as an intentional act by their partner, the more active the coping strategies they will utilize and the more PTSD they will experience.

Regarding the latter, symptoms of PTSD will be evaluated by cluster as different symptom clusters may have a differential relationship with women's attributions. This aspect of the study is exploratory given the dearth of literature investigating the relationships between women's attributions for violence, mental health, and African American cultural beliefs. According to research conducted by Kemp and colleagues (Kemp et al., 1995; Kemp et al., 1991), victims of IPV most commonly endorse symptoms of physical arousal followed by avoidance and then intrusion symptoms. It is unclear, however, how a group's cultural beliefs and racial/ethnic identity will influence

the relationship between women's attributions for violence and their subsequent PTSD symptom presentation. Though Osterman & de Jong (2007) postulate that avoidance and intrusion symptoms are the symptom clusters most heavily influenced by cultural beliefs (compared to the more neurobiologically based arousal symptoms), it is as yet unclear in what direction the attributions of low-income African American women might influence these symptom clusters.

Next, the study will investigate how women's coping efforts are related to their PTSD symptoms. The majority of the published literature indicates that women who use active coping strategies suffer fewer PTSD symptoms (Arriaga & Capezza, 2005; Hopper, 2002; Kemp et al., 1995). However, previous research with ethnic minority women indicates that African American women who use active coping strategies experience more alienation from their social support network, decreased access to financial resources, and increased threat of harm to both themselves and their loved ones (Kocot & Goodman, 2003). Given this finding, it is hypothesized that African American women who utilize active coping strategies will suffer from increased symptoms of PTSD.

This study will further try to determine the extent to which women's coping impacts the relationship between their attributions of intent and their PTSD symptoms. It is hypothesized that the relationship between abused women's attributions of intent and their PTSD outcomes will remain significant even after controlling for the influence of coping efforts. Throughout these analyses the researcher will also account for covariates

such as the women's age, income, highest level of education, length of the abusive relationship, severity of violence experienced, and relationship status.

This study is the first to examine the role of attributions in the coping trajectories of a homogenous sample of African American victims of IPV. It is also the first to investigate attributions of intent in relation to women's coping and psychological outcomes. Similarly, the study is one of only a few studies to investigate the relationship between abused women's coping strategies and their presentation of PTSD symptoms using the DSM-IV symptom clusters. It is hoped that the current research will contribute to professionals' understanding of how women who have experienced IPV both conceptualize and respond to abuse.

Methods

Data from the present study is a subsection of a larger dataset gathered between the years 1999 and 2005. The original study tracked the sample for a total of 10 time points across 4.5 years. The present study is based on baseline data.

Participants

To be included in the study, a woman had to have experienced IPV within the past 12 months from either a current or former male partner. Additionally, she had to demonstrate a proficiency in English and could not be abusing drugs. Finally, she had to pass a mental status exam.

Women were recruited at one of three settings in a Mid-Atlantic metropolitan area. They were recruited at 1) a crisis shelter for abused women, 2) the Civil Division of the District Court, which handles petitions for civil protection orders, and 3) the

Domestic Violence Criminal Docket of the District Court, a specialized court designed to address domestic violence misdemeanor cases. See Table 1 for the recruitment statistics across the three sites. All women who were seeking help at these sites were approached to participate in the study. Of the 793 women approached, 739 were eligible, 528 agreed to participate, and 406 completed the baseline measure. The discrepancy between the number of women who agreed to participate in the study and those who completed the baseline measure is largely due to the failure of 121 women to return (mail-in) the completed baseline measure to the researchers. There were no significant differences between those women who dropped out of the study prior to the completion of baseline versus those who completed the baseline assessment. Finally, though the original researchers recruited a total of 406 women, the current study only analyzes data from the 324 women who identified themselves as African American.

Table 1
Recruitment Statistics Across Sites

	Shelter	Civil	Criminal	Totals
Approached	97	419	277	793
Eligible	83	395	261	739
Agreed	68	309	152	528
Completed	68	220	118	406
Mail-ins distributed	0	98	135	233
Mail-ins returned	0	76	36	112
Mail-ins not returned	0	22	99	121

All 324 participants whose data were used in this study were African American women seeking help for intimate partner violence (IPV). Their ages ranged from 18 to 65 with a mean age of 32.63 years. Approximately half (52.7%) of the sample was employed full-time, while 25.2% reported being unemployed. Most (66.2%) of the

sample had an annual income of less than $15,000, and 26.6% of the population received less than a high school education. Almost 30% of the women had completed high school, 35.0% had attended at least some college or technical school, and 6.8% had completed college. The average length of the abusive relationship was 71.43 months (almost 6 years), and almost a third (31.7%) of the women reported that they were still involved with their partner at T1. Most (87.3%) reported severe abuse at first contact with the research team.

Procedure

Research assistants approached every woman seeking services at the three recruitment sites and offered a brief overview of the study. Women who expressed interests in the study were then administered a short screening so as to ensure participant eligibility, and women who were eligible were asked to sign an informed consent form. Detailed contact information was then collected. When possible, the 60-minute baseline measure was administered to participants during this initial contact. It could either be self-administered via paper-and-pencil in a private room on-site or administered interview-style according to the woman's preference. There was a mail-in option for those women who wanted to participate in the study but who were unable to immediately complete the baseline (n = 112). Post baseline, each follow-up contact occurred on average at 3-month intervals via telephone over the course of a year. Follow-up telephone interviews required approximately 45-60 minutes and were conducted by trained, female clinical psychology graduate students. Participants were compensated for their time.

Measures

Demographic information. Information was gathered on each participant's age, ethnicity, highest level of education, employment status, income level, living situation, length of abusive relationship, and current relationship status.

Physical violence. The revised version of the Conflict Tactics Scale-2 (CTS-2) was used to measure IPV (Straus, Hamby, Boeny-McCoy, & Sugarman, 1996). The original measure asks women to rate the frequency of specific acts of abuse based on a 0-6 rating scale. Zero indicates that the act did not occur at all while 6 indicates that the act occurred more than 20 times. Items are grouped in categories of physical violence, sexual abuse, and injury. Since the present study primarily collected data over the phone, with the exception of the in-person interview at baseline, from a population with relatively low education, each of the 36 items were converted to a binary (yes/no) format. For the purposes of the present study, the CTS-2 score represents the total percentage of items endorsed. Psychometric analyses of the original measure have demonstrated good internal consistency (.79 to .95) for all subscales and adequate construct and discriminant validity (Straus et al., 1996). The measure demonstrated adequate internal consistency in the present study with Cronbach's alpha levels of .82, .83, and .69 for the subscales of physical violence, sexual violence, and injury, respectively.

Attributions. A single question, namely, "Why do you think the man you are here about today did these things to you?" was used to measure women's attributions about the violence they experienced. Participants were given a list of 10 options and were asked to check all that applied. A confirmatory factor analysis of binary variables was

run on the 10 items to determine differences in how women conceptualized the attributions for the violence they experienced. One of the 10 items ("He was jealous because I was pregnant") was omitted from the factor analysis due to a low response rate. A second item ("He was drunk or high") was omitted because it was viewed as conceptually different from the others and its omission improved the fit of the model. It was decided that this variable would be analyzed separately. Two clusters of attributions were specified from the remaining 8 items, classified as Intentional and Incidental attributions for violence. Intentional attributions consisted of 4 items ("He meant to injure me", "He thought I was seeing someone else", "He wanted to punish me for, or stop me from, leaving", "He wanted to teach me a lesson") thought to represent women's belief that the violence they experienced was purposeful and intentionally directed at them. Alternatively, Incidental attributions consisted of 4 items ("His anger was out of control", "He was under a lot of stress", "I made him mad", "He was upset with me") thought to represent women's belief that the violence lacked an intentional quality. Participants were given scores for both types of attributions that reflected the percentage of attributions endorsed within each cluster. Parameters indicating good model fit are as follows: $\chi^2(18) = 381.276$, $p < .001$; CFI = .962; RMSEA = .050; and SRMR = .069. Cronbach's alpha was .65 and .58 for the Intentional and Incidental attribution subscales, respectively. Participants were also given a score for the total number of attributions they endorsed. This score was a continuous variable indicating how many of the eight attributions women endorsed.

Coping. The IPV Strategies Index, developed by Goodman et al. (2003), is a 41-item instrument designed to identify the nature and extent of coping strategies used by victims of IPV. Individual items were generated through a literature review, clinical and forensic experience, and various focus groups. Six categories of coping strategies were developed based on the purpose, means, and level of involvement of others. The subscales include placating, resistance, safety planning, informal help sources, formal help sources, and legal resources. On a continuum of passive to active coping strategies, placating, safety planning, and informal help sources fall on the more passive end of the spectrum while resistance, formal help source, and legal resources are considered more active coping strategies. Subscale scores represent the percentage of items endorsed within each category. As assessed on a sample of primarily ethnic minority women, the measure demonstrates face validity of the classification system, good inter-rater reliability, and adequate convergent validity (Goodman et al., 2003).

PTSD. The PTSD Checklist is designed to measure the severity of PTSD symptoms using a 5-point Likert scale and can be used to make a probable diagnosis of PTSD (Blanchard, Jones-Alexander, Buckley, & Forneris, 1996). The higher the Likert scale rating, the more distressed is an individual by the given symptom of PTSD. The checklist consists of subscales that correspond to the PTSD symptom clusters (re-experiencing, avoidance, and arousal) in the DSM-IV. There are a total of 17 symptoms of PTSD represented in the measure, thus overall distress levels range from 17 to 85. Ratings of distress range from 5 to 25 in the intrusion cluster, from 7 to 35 in the avoidance cluster, and from 5 to 25 in the arousal cluster. For a largely female sample of

unknown ethnicity the measure demonstrates adequate internal consistency overall (Cronbach's alpha = .93) (Blanchard et al., 1996). Furthermore, in the present study the measure demonstrates adequate internal consistencies for the re-experiencing, avoidance, and arousal subscales with Cronbach's alpha levels of .91, .87, and .88, respectively.

Results

Attributions: Descriptives

The vast majority (85.5%) of women who were abused by their partners made at least one attribution for the violence they experienced. The most frequently endorsed (64.2%) attribution for violence was that their partner's anger was out of control. See Table 2 for the percentages with which the nine attributions were endorsed.

Table 2
Percent of Attributions Endorsed

Attribution	%
His anger was out of control (Incidental)	64.2
He was upset with me (Incidental)	46.0
He was drunk or high	45.7
He thought I was seeing someone else (Intentional)	37.0
He was under a lot of stress (Incidental)	37.0
I made him mad (Incidental)	29.0
He wanted to punish me for, or stop me from leaving (Intentional)	29.0
He meant to injure me (Intentional)	24.2
He wanted to teach me a lesson (Intentional)	18.2

Approximately 64% of women endorsed at least one Intentional attribution (i.e. – they endorsed the belief that the violence was intentionally directed at them), and 80.6% of women endorsed at least one Incidental attribution (i.e. – they endorsed the belief that the violence was not intentionally directed at them). Over half (59.3%) of the women endorsed both Intentional and Incidental attributions, while only 4.9% and 21.3%

endorsed only Intentional and only Incidental attributions, respectively. The rest of the sample (14.5%) did not endorse any attributions for the violence they experienced.

Coping: Descriptives

Table 3 lists the six categories of coping strategies used in this study and provides information about the percentage of women who used at least one coping strategy within each of the specific coping categories. In addition, the table presents the average percentage of strategies used by women within each coping category. For example, on average women endorsed 6.72 out of 9 resistance strategies on the questionnaire, thus the average percentage of resistance strategies women endorsed was 74.70%. Though coping strategies were widely endorsed within all six coping categories, women in this sample utilized the largest percentage of resistance strategies, followed by placating, legal, informal, safety planning, and formal strategies. More than half (52.8%) of the women endorsed at least one coping strategy within each of the six coping categories.

Table 3
Percent of Coping Strategies Endorsed

Coping Category	% of women who endorsed this type of strategy	Average % of coping strategies endorsed
Placating	87.2	65.52
Resistance	98.4	74.70
Formal	72.9	31.84
Informal	80.8	54.10
Safety Planning	83.5	41.12
Legal	92.6	57.46

PTSD: Descriptives

Approximately 65.9% of the sample met criteria for a diagnosis of PTSD with mean distress ratings of 47.11. For the purposes of this study, symptoms of PTSD were

divided into the symptom clusters described in the DSM-IV, namely, the intrusion, avoidance, and arousal clusters. As many as 86.6% of women reported that they experienced at least one intrusion symptom, 90.4% experienced at least one avoidance symptom, and 92.5% experienced at least one arousal symptom. The percentages of women who experienced severe symptoms of PTSD (as designated by an average distress rating of at least 4 out of 5 for each of the symptoms within a given cluster) are as follows: 18.0%, 11.8%, and 26.7% for intrusion, avoidance, and arousal symptoms, respectively.

Demographics and the Coping Trajectory

See Table 4 for the Pearson correlations and Table 5 for the means and standard deviations of each of the variables used in this study.

Attributions. Women's age was negatively and significantly correlated with their overall endorsement of attributions ($r = -.15$, $p < .01$) as well as their endorsement of Intentional ($r = -.16$, $p < .01$) and Incidental ($r = -.14$, $p = .01$) attributions. The demographic variables of level of education, length of the abusive relationship, income, and relationship status were not significantly related to women's attributions for violence.

Table 4

Pearson Correlations Between Independent Variables, Dependent Variables, and Covariates

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
1	1	.17**	.26**	.40**	-.09	-.15**	-.16**	-.14*	.06	<.01	-.02	.09	.14*	.03	.05	-.01	<.01	-.02	-.03
2		1	.45**	.11*	-.02	.01	<.01	-.02	-.03	-.10	.03	-.03	<.01	-.03	<.01	<-.01	-.02	<-.01	.01
3			1	.14*	-.11	<-.01	-.02	.01	-.07	-.11*	-.11*	-.12*	-.05	-.06	-.13*	-.10	-.13*	-.09	-.07
4				1	-.03	-.09	-.11	-.08	<.01	.09	.04	-.01	.05	.05	-.03	.13*	.14*	.10	.11*
5					1	.39**	.34**	.30**	.39**	.44**	.26**	.39**	.29**	.26**	.19**	.51**	.47**	.47**	.45**
6						1	.67**	.66**	.14*	.17**	.14*	.12*	.11*	.11*	<.01	.32**	.28**	.29**	.30**
7							1	.61**	.11	.14*	.12*	.08	.09	.10	.02	.32**	.27**	.29**	.32**
8								1	.10	.17**	.09	.07	.08	.03	-.03	.23**	.19**	.21**	.21**
9									1	.65**	.64**	.89**	.83**	.71**	.66**	.34**	.30**	.29**	.32**
10										1	.44**	.57**	.44**	.53**	.28**	.43**	.39**	.39**	.39**
11											1	.52**	.38**	.42**	.36**	.22**	.17**	.20**	.20**
12												1	.64**	.56**	.52**	.32**	.28**	.27**	.31**
13													1	.50**	.51**	.27**	.24**	.25**	.25**
14														1	.38**	.31**	.29**	.25**	.31**
15															1	.12*	.12*	.07	.12*
16																1	.89**	.93**	.89**
17																	1	.74**	.71**
18																		1	.75**
19																			1

1: Age 2: Education 3: Income 4: Length 5: Total violence 6: Total Attribution 7: Intentional 8: Incidental 9: Total Coping 10: Placating 11: Resistance 12: Safety 13: Formal 14: Informal 15: Legal 16: Total PTSD 17: Intrusion 18: Avoidance 19: Arousal

* Correlation is significant at the p = .05 level (2-tailed)

** Correlation is significant at the p = .01 level (2-tailed)

Table 5
Means, Standard Deviations, and Ranges for all Independent and Dependent Variables and Covariates

	Means	Standard Deviation	Range
Age	32.63	8.71	17-65
Education	5.45	1.87	1-10
Income	2.96	2.25	1-12
Length	71.43	72.92	0-427
Tot. Viol. %	.41	.23	0-.95
Tot. Attribut.	2.78	2.04	0-8
Intentional %	.28	.28	0-1
Incidental %	.42	.31	0-1
Tot. Coping	19.70	9.56	0-41
Placating %	.66	.36	0-1
Resistance %	.75	.25	0-1
Safety %	.41	.34	0-1
Formal %	.32	.31	0-1
Informal %	.54	.36	0-1
Legal %	.58	.29	0-1
Tot PTSD	47.11	18.47	17-85
Intrusion	2.73	1.26	1-5
Avoidance	2.59	1.13	1-5
Arousal	3.09	1.24	1-5

* Correlation is significant at the p = .05 level (2-tailed)
** Correlation is significant at the p = .01 level (2-tailed)

Coping. Similarly, the demographic variables of level of education, length of the abusive relationship, and relationship status were not significantly related to women's use of coping strategies. Women's age, however, was positively and significantly correlated with their use of formal coping strategies (r = .14, p = .02), and women's income was negatively and significantly correlated with women's use of placating (r = -.11, p = .05), resistance (r = -.11, p = .05), safety planning (r = -.12, p = .04), and legal (r = -.13, p = .02) strategies. Age was not significantly related to women's use of placating, resistance,

informal, safety planning or legal strategies, and income was not significantly related to women's use of formal or informal strategies.

PTSD. The demographic variables of age, education, and relationship status were not significantly related to women's endorsement of distress related to PTSD symptoms; however, the length of a woman's abusive relationship and her income were significantly correlated with some of the PTSD symptom clusters. The length of a woman's abusive relationship was positively and significantly correlated with women's endorsement of distress related to the intrusion ($r = .14$, $p = .02$) and arousal ($r = .11$, $p = .05$) clusters. The length of a woman's abusive relationship was not significantly related to the avoidance cluster. Women's income was negatively and significantly correlated with the intrusion cluster ($r = -.13$, $p = .03$), though it did not significantly relate to the avoidance or arousal clusters.

Violence and the Coping Trajectory

Total violence. The total percentage of violent acts that women endorsed, hereafter referred to as total violence, was analyzed as a covariate in relation to women's attributions, coping efforts, and PTSD outcomes. Total violence was positively and significantly related to women's overall endorsement of attributions ($r = .39$, $p < .01$), Intentional attributions ($r = .34$, $p < .01$), and Incidental attributions ($r = .30$, $p < .01$). Similarly, the total percent of violence endorsed by women was positively and significantly related to women's overall endorsement of coping strategies ($r = .39$, $p < .01$) as well as placating ($r = .44$, $p < .01$), resistance ($r = .26$, $p < .01$), formal ($r = .29$, $p < .01$), informal ($r = .26$, $p < .01$), safety planning ($r = .39$, $p < .01$), and legal ($r = .19$, p

< .01) strategies. Finally, the total percent of violence endorsed by women was positively and significantly related to women's overall endorsement of PTSD symptoms ($r = .51$, $p < .01$) as well as the intrusion ($r = .47$, $p < .01$), avoidance ($r = .47$, $p < .01$), and arousal ($r = .45$, $p < .01$) clusters.

Attributions and Coping

As a general trend, the greater numbers of attributions that women endorsed, the more coping strategies they used in each of the coping categories. The total number of attributions that women endorsed was positively and significantly correlated with women's overall use of coping strategies ($r = .14$, $p = .02$) as well as placating ($r = .17$, $p < .01$), resistance ($r = .14$, $p = .02$), formal ($r = .11$, $p = .04$), informal ($r = .11$, $p = .05$), and safety planning ($r = .12$, $p = .04$) strategies. Total attributions did not significantly predict legal strategies, which is arguably the most active of all of the coping categories. In contrast, Intentional attributions were only positively and significantly correlated with women's placating ($r = .14$, $p = .02$) and resistance ($r = .12$, $p = .03$) strategies and Incidental attributions were only positively and significantly correlated with placating strategies ($r = .17$, $p < .01$).

Multivariate analyses. Multiple regression analyses were performed to further explore the relationship between women's attributions for violence and their subsequent coping efforts. First, controlling for the total amount of violence that women experienced, coping efforts were regressed on women's Intentional attributions. Next, the same set of analyses was conducted using Incidental (versus Intentional) attributions. Neither Intentional nor Incidental attributions were significant in predicting any of the

coping categories after controlling for the amount of violence that women experienced. Thus it seems that women's attributions for violence are not the principal predictors of women's coping efforts after taking into account the influence of women's exposure to violence.

Attributions and PTSD

There were positive and significant correlations between each of the attribution categories and each of the PTSD clusters. The total number of attributions that women endorsed was positively and significantly correlated with women's overall level of distress related to PTSD symptoms ($r = .32$, $p < .01$) as well as distress associated with PTSD symptoms within the intrusion ($r = .28$, $p < .01$), avoidance ($r = .29$, $p < .01$), and arousal ($r = .30$, $p < .01$) clusters. The percentage of Intentional attributions that women endorsed were positively and significantly correlated with women's overall distress ($r = .32$, $p < .01$) as well as distress related to symptoms within the intrusion ($r = .27$, $p < .01$), avoidance ($r = .29$ $p < .01$), and arousal ($r = .32$, $p < .01$) clusters. Finally, Incidental attributions were also positively and significantly correlated with women's overall distress ($r = .23$, $p < .01$) as well as distress related to symptoms within the intrusion ($r = .19$, $p < .01$), avoidance ($r = .21$, $p < .01$), and arousal ($r = .21$, $p < .01$) clusters.

Multivariate regressions for total attributions. To test the robustness of the above findings multivariate regressions were conducted to determine if the relationship between women's overall endorsement of attributions and women's endorsement of PTSD symptoms remained significant after controlling for a number of covariates, namely, all of the coping strategies that women utilized within each category (placating, resistance,

formal, informal, safety planning, and legal), total violence, their level of income, and the length of their abusive relationships. Only those covariates that 1) demonstrated a significant correlation with PTSD symptoms and 2) did not demonstrate significant multicollinearity with the other independent variables were used in these analyses. After controlling for the influence of these covariates, the relationship between women's total number of attributions and their overall endorsement of distress related to PTSD symptoms ($R^2 = .03$, $p < .01$) as well as distress associated with their intrusion ($R^2 = .02$, $p = .01$), avoidance ($R^2 = .02$, $p < .01$), and arousal ($R^2 = .03$, $p < .01$) symptoms remained significant. For every additional attribution that women endorsed, there was a 1.54 point increase in women's overall distress ratings. Also, for every additional attribution that women endorsed, there was a .09, .08, and .11 point increase in women's endorsement of distress associated with intrusion, avoidance, and arousal symptoms, respectively. See Table 6.

Table 6
Multiple Regression Analysis of Overall Attributions Predicting Mean Distress Related to PTSD Symptoms After Controlling for Covariates

PTSD	B	SE B	Standardized B	t	Significance
Total PTSD	1.54	.47	.17	3.24	<.01**
Intrusion	.09	.03	.14	2.51	.01**
Avoidance	.08	.03	.15	2.62	<.01**
Arousal	.11	.03	.18	3.24	<.01**

* Significant at the p = .05 level (2-tailed)
** Significant at the p = .01 level (2-tailed)

Regressions for Intentional and Incidental attributions. Distress related to PTSD symptoms was regressed on both intentional and incidental attributions to determine if the attribution categories independently influenced women's psychological distress.

Though Incidental attributions were not significantly related to PTSD after controlling for Intentional attributions, Intentional attributions significantly predicted overall distress (R^2 = .10, p < .01) as well as distress related to the intrusion (R^2 = .07, < .01), avoidance (R^2 = .09, p < .01), and arousal (R^2 = .10, p < .01) symptoms after controlling for Incidental attributions.

Given the significant relationships between Intentional attributions and distress related to PTSD symptoms, multiple regressions were conducted. After controlling for the influences of all of the coping strategies that women utilized within each category, total violence, their level of income, and the length of their abusive relationships, the relationship between women's Intentional attributions and women's overall endorsement of distress related to PTSD symptoms (R^2 = .04, p < .01) as well as distress related to their intrusion (R^2 = .02, p = .01), avoidance (R^2 = .03, p < .01), and arousal (R^2 = .04, p < .01) symptoms remained significant. For every additional Intentional attribution that women endorsed (i.e., for every increase of 25 percentage points on the Intentional attributions scale), their overall rating of distress related to their PTSD symptoms increased by 12.99. Also, for every additional Intentional attribution that women endorsed, there was a .67, .70, and .93 point increase in women's endorsement of distress related to intrusion, avoidance, and arousal symptoms, respectively. See Table 7.

Table 7
Multiple Regression Analysis of Intentional Attributions Predicting Mean Distress Related to PTSD Symptom Clusters After Controlling for Covariates

PTSD	B	SE B	Standardized B	t	Significance
Total	12.99	3.30	.20	3.91	<.01**
Intrusion	.67	.24	.16	2.83	<.01**
Avoidance	.70	.21	.18	3.29	<.01**
Arousal	.93	.23	.22	4.08	<.01**

* Significant at the p = .05 level (2-tailed)
** Significant at the p = .01 level (2-tailed)

Attribution Profiles

Analyses were also conducted to determine if there were significant differences in the coping behaviors or PTSD outcomes of women who endorsed different attribution profiles. Women were divided into four profiles (Intent-only, Incident-only, Dual, and No attribution) based on the types of attributions they endorsed. Women in the Intent-Only profile (n = 16) endorsed only those attributions related to intentional violence. Similarly, women in the Incident-Only profile (n = 69) endorsed only those attributions related to incidental violence. Women in the Dual profile (n = 192) endorsed at least one Intentional and one Incidental attribution of violence. Finally, women in the No Attribution profile (n = 47) did not endorse any attributions for the violence they experienced.

Based on ANOVA analyses, there were no significant differences between attribution profiles in women's endorsement of any types of coping strategies. In other words, women did not differ by profile in their use of placating, resistance, formal, informal, safety planning or legal coping strategies.

There were significant differences between profiles in women's PTSD-related distress, however. Results of ANOVA analyses indicated that women differ by profile in the degree to which they endorse distress related to PTSD symptoms of avoidance ($F(3, 319) = 5.47$, $p < .01$) and arousal ($F(3, 318) = 5.56$, $p < .01$). There were no significant differences between profiles in women's endorsement of distress related to intrusion symptoms. Post Hoc analyses (Tukey's HSD) revealed that women in the Dual profile endorsed significantly more avoidance ($p = .04$) and arousal ($p = .05$) symptoms than women in the Intent-Only profile. Similarly, women in the Dual profile endorsed significantly more avoidance ($p < .01$) and arousal ($p < .01$) symptoms than women in the Incident-Only profile. Women in the Dual profile did not differ significantly on PTSD outcomes compared to women in the No attribution profile. Also, there were no significant differences between women in the Intent-Only and Incident-Only profiles.

In addition to differences in PTSD symptoms, there were significant differences between attribution profiles in women's total experience of violence ($F(3, 315) = 8.79$, $p < .01$). Post Hoc (Tukey's HSD) analyses revealed that women in the Dual profile experience significantly more violence than women in the Incident-Only profile ($p < .01$) and women in the No Attribution Profile ($p = .02$). Women in the Dual profile do not experience significantly more violence than women in the Intent-Only profile. There were no significant differences between women in the Intent-Only and Incident-Only profiles.

Attribution Ratio

Finally, an attribution ratio was calculated as an indicator of how many Intentional attributions there were relative to Incidental attributions. For example, a 3:1 ratio indicated that women endorsed three Intentional attributions for every one Incidental attribution. This ratio was then regressed on women's coping efforts and PTSD outcomes to determine how the magnitude of one type of attribution versus the other might affect women's coping trajectories. For instance, would a ratio of 3:1 versus 1:1 versus 1:3 (scored as 3, 1, and .33, respectively) differentially predict women's coping efforts and PTSD outcomes? Regarding coping efforts, the ratio did not have a significant relationship with any of the coping categories. It did, however, significantly predict PTSD outcomes.

Univariate regressions. The ratio of Intentional to Incidental attributions accounted for a significant, though small, portion of the variance in overall distress related to PTSD symptoms ($R^2 = .05$, $p < .01$) as well as distress related to the intrusion ($R^2 = .02$, $p = .01$), avoidance ($R^2 = .05$, $p < .01$), and arousal ($R^2 = .06$, $p < .01$) clusters. For every one point increase in the ratio there was a corresponding 7.17 point increase in women's overall distress ratings. A one point increase in the ratio was also associated with a .34, .42, and .51 point increase in the level of distress that women endorsed as related to intrusion, avoidance, and arousal symptoms, respectively. In other words, the endorsement of more Intentional attributions relative to Incidental attributions predicted worse PTSD outcomes. See Table 8.

Table 8
Univariate Regression Analysis of the Ratio Between Intentional and Incidental Attributions Predicting Mean Distress Related to PTSD Symptom Clusters

PTSD	B	SE B	Standardized B	t	Significance
Total	7.17	1.97	.22	3.63	<.01**
Intrusion	.34	.14	.15	2.47	.01**
Avoidance	.42	.12	.21	3.51	<.01**
Arousal	.51	.13	.24	3.98	<.01**

* Significant at the p = .05 level (2-tailed)
** Significant at the p = .01 level (2-tailed)

Multiple regressions. Three of these relationships proved to be robust as they remained significant after controlling for the effects of all of the coping categories, level of income, length of the abusive relationship, and total violence experienced. After controlling for these covariates the ratio between Intentional and Incidental attributions continued to account for a significant portion of the variance in overall PTSD distress (R^2 = .02, p < .01) as well as distress related to the avoidance (R^2 = .02, p = .01) and arousal (R^2 = .03, p < .01) clusters. A one point increase in the ratio was associated with a 5.04 point increase in the overall level of distress endorsed. A one point increase in the ratio was also associated with a .30 and .39 point increase in the level of distress that women endorsed as related to avoidance and arousal symptoms, respectively. See Table 9. After accounting for covariates, the ratio no longer significantly predicted the intrusion cluster.

Table 9
Multiple Regression Analysis of the Ratio Between Intentional and Incidental Attributions Predicting Mean Distress Related to PTSD Symptom Clusters After Controlling for Covariates

PTSD	B	SE B	Standardized B	t	Significance
Total	5.04	1.85	.16	2.73	<.01**
Intrusion	.21	.13	.09	1.58	.11
Avoidance	.30	.12	.15	2.54	.01**
Arousal	.39	.13	.18	3.08	<.01**

* Significant at the p = .05 level (2-tailed)
** Significant at the p = .01 level (2-tailed)

Attribution of Substance Abuse

In addition to Intentional and Incidental attributions for violence, the attribution of substance abuse was tested in relation to women's coping trajectories. T-tests revealed that women who attributed their partner's violence to his substance abuse used significantly more safety planning coping strategies compared to women who did not attribute the violence to their partner's substance abuse ($t(320) = -2.83$, $p < .01$). The substance abuse attribution was not significantly related to any other coping categories or to women's overall use of coping strategies.

Regarding PTSD outcomes, women who attributed their partner's violence to his substance abuse endorsed significantly more overall distress related to PTSD symptoms ($t(320) = -2.33$, $p = .02$) as well as significantly more distress related to avoidance symptoms ($t(321) = -3.37$, $p < .01$) compared to women who did not attribute the violence to their partner's substance abuse. The substance abuse attribution was not significantly related to the intrusion or arousal symptom clusters.

The relationship between the attribution of substance abuse and women's experience of violence was also tested. T-tests revealed that women who attributed their partner's violence to his substance abuse experienced significantly more violence ($t(317) = -4.27$, $p < .01$) compared to women who did not attribute the violence to their partner's substance abuse.

Coping and PTSD

As seen in Table 4, women's use of coping strategies was positively correlated with women's endorsement of PTSD symptoms across all coping categories and symptom clusters. Regression analyses were conducted to further clarify and expound upon the relationships between these groups of variables.

Multivariate regressions for total coping. To test the robustness of the above findings multivariate regressions were conducted to determine if the relationship between women's overall endorsement of coping strategies and women's endorsement of distress related to PTSD symptoms remained significant after controlling for a number of covariates, namely, total violence, level of income, and the length of the abusive relationship. Only those covariates that 1) demonstrated a significant correlation with PTSD symptoms and 2) did not demonstrate significant multicollinearity with the other independent variables were used in these analyses. After controlling for the influence of these covariates, the relationship between women's total number of coping strategies and their overall endorsement of distress related to PTSD symptoms ($R^2 = .03$, $p < .01$) as well as distress associated with their intrusion ($R^2 = .02$, $p < .01$), avoidance ($R^2 = .02$, $p < .01$), and arousal ($R^2 = .03$, $p < .01$) symptoms remained significant. For every

additional coping strategy that women endorsed, there was a .37 point increase in women's overall distress ratings. Also, for every additional coping strategy that women endorsed, there was a .02, .02, and .03 point increase in women's endorsement of distress associated with intrusion, avoidance, and arousal symptoms, respectively. See Table 10.

Table 10
Multiple Regression Analysis of Overall Coping Predicting Mean Distress Related to PTSD Symptom Clusters After controlling for Covariates

PTSD	B	SE B	Standardized B	t	Significance
Total PTSD	.37	.11	.19	3.36	<.01**
Intrusion	.02	.01	.15	2.61	<.01**
Avoidance	.02	.01	.15	2.62	<.01**
Arousal	.03	. 01	. 19	3.29	<.01**

* Significant at the p = .05 level (2-tailed)
** Significant at the p = .01 level (2-tailed)

Regressions for coping categories. Multiple regressions were conducted to determine whether any of the coping categories predicted unique variance of distress related to PTSD when controlling for all of the other coping categories. In these equations, only placating strategies predicted distress related to symptoms of PTSD in each cluster. Placating strategies predicted overall distress ($R^2 = .06$, $p < .01$) as well as distress related to intrusion ($R^2 = .05$, $p < .01$), avoidance ($R^2 = .06$, $p < .01$), and arousal ($R^2 = .04$, $p < .01$) symptoms. Informal strategies predicted distress associated with the intrusion ($R^2 = .01$, $p < .0= .05$) and arousal ($R^2 = .01$, $p = .38$) clusters. Resistance, formal, safety planning, and legal strategies were not significantly associated with distress related to PTSD after controlling for the other coping categories.

Given the significant relationships between placating strategies and distress related to PTSD symptoms and informal strategies and distress related to PTSD

symptoms, additional multiple regression analyses were conducted. After controlling for the influence of total violence, level of income, and the length of the abusive relationship, the relationship between placating strategies and women's overall endorsement of distress related to PTSD symptoms ($R^2 = .06$, $p < .01$) as well as distress related to their intrusion ($R^2 = .04$, $p < .01$), avoidance ($R^2 = .05$, $p < .01$), and arousal ($R^2 = .05$, $p < .01$) symptoms remained significant. For every additional percentage point increase in women's endorsement of placating strategies, their overall rating of distress related to their PTSD symptoms increased by 13.97. Also, for every additional percentage point increase in women's endorsement of placating strategies, there was a .78, .82, and .87 point increase in women's endorsement of distress related to intrusion, avoidance, and arousal symptoms, respectively. See Table 11.

Table 11
Multiple Regression Analysis of Placating Strategies Predicting Mean Distress of PTSD Symptom Clusters After Controlling for Covariates

PTSD	B	SE B	Standardized B	t	Significance
Total	13.97	2.84	.27	4.92	<.01**
Intrusion	.78	.20	.22	3.87	<.01**
Avoidance	.82	.18	.26	4.56	<.01**
Arousal	.87	.20	.25	4.40	<.01**

* Significant at the p = .05 level (2-tailed)
** Significant at the p = .01 level (2-tailed)

A similar pattern of results was noted for women's endorsement of informal coping strategies. After controlling for the influence of total violence, level of income, and the length of the abusive relationship, the relationship between informal strategies and women's endorsement of distress related to their intrusion ($R^2 = .03$, $p < .01$) and arousal ($R^2 = .05$, $p < .01$) symptoms remained significant. For every additional

percentage point increase in women's endorsement of informal strategies, there was a .68 and .82 point increase in women's endorsement of distress related to the intrusion and arousal symptoms, respectively. See Table 12.

Table 12
Multiple Regression Analysis of Informal Strategies Predicting Mean Distress of PTSD Symptom Clusters After Controlling for Covariates

PTSD	B	SE B	Standardized B	t	Significance
Total	11.12	2.70	.21	4.12	<.01**
Intrusion	.68	.19	.19	3.57	<.01**
Avoidance	.50	.17	.16	2.88	<.01**
Arousal	.82	.19	.23	4.40	<.01**

* Significant at the p = .05 level (2-tailed)
** Significant at the p = .01 level (2-tailed)

Discussion

The purpose of this study was to investigate the role of attributions of intent in the coping trajectories of a sample of African American abused women. Coping trajectories were conceptualized as the pathways through which women's coping efforts were developed, implemented, and affected. The present study explored one specific coping trajectory of abused women consisting of 1) women's causal attributions (as related to intentionality) for the violence they experienced, 2) the coping strategies they chose to utilize, and 3) women's subsequent symptoms of distress related to PTSD. Results indicated that women's attributions, coping efforts, and PTSD symptoms were strongly and positively correlated with one another. Regarding the specific relationships between these variables, women's attributions did not significantly predict women's coping efforts; however, attributions did significantly predict distress related to PTSD. As the number of attributions that women endorsed increased, so too did their psychological

distress. Also, women's passive coping efforts predicted distress related to PTSD such that as the number of placating and informal coping strategies that women endorsed increased, so too did their level of distress related to their PTSD symptoms. The following discussion will first examine women's endorsement of attributions and then explore each of the relationships in detail.

Endorsement of Attributions

Results of this study indicated that the vast majority of abused women make attributions for the violence they experience, suggesting that abused women do indeed attempt to make sense of their encounters with intimate partner violence (IPV). By far the most common attributions endorsed were incidental attributions, with approximately 21% of women endorsing only incidental attributions. In contrast, only 4.9% of the population endorsed only intentional attributions. This pattern of results indicates that women more readily explain their experiences with violence as having an inadvertent quality, or at the very least, as lacking an intentional quality. There are several possible explanations for this finding. One explanation is that some women may have difficulty admitting that their partner intentionally abuses them. They may have difficulty admitting intentional abuse to themselves because in so doing they would experience cognitive dissonance. For example, they may have to confront the question, How can I continue to be in a relationship with someone who intentionally abuses me? Additionally, women may have difficulty admitting intentional abuse in a public setting for fear that they will be criticized for staying in an intentionally abusive relationship. Thus, their reporting on formal surveys may be inaccurate.

Another explanation as to why a subset (approximately 20%) of women in this sample endorsed only incidental versus intentional attributions may be related to cultural variables (Peterson-Lewis et al., 1988). For instance, as noted in Nash (2005), African American women recognize racism as a contributing factor to their experiences with IPV. They view the abuse as a result of the anger and stress their partner feels due to daily experiences with discrimination, thus they view the abuse as situational rather than intentional. African American women may also attribute their experiences with abuse to the situational variable of financial instability. African Americans are more likely than Caucasians to reside in economically disadvantaged communities, the stress of which may inspire the use of violence as a coping mechanism (Koss et al., 2003). This may be particularly true in African American communities where the male is expected to be the head of the household and the breadwinner for the family. When males are not able to play the traditional masculine role of being the family provider they may embrace "toughness" as a way to be identified as an authority within the family (Hampton et al., 2003).

Yet another explanation as to why more women endorsed exclusively incidental attributions than exclusively intentional attributions may be that women's attributions for violence evolve over time such that intentional causes for the violence are not identified until long after the abuse is initiated. Women can make incidental attributions after the first incident of violence by explaining that their partner was simply angry or stressed when he behaved violently. In contrast, perhaps intentional attributions for violence are not identified until after the violence becomes especially frequent or severe. The present

study did not investigate these aspects of IPV, thus this is an avenue for future research. Alternatively, perhaps intentional attributions are not identified until after a woman makes the decision to leave her abusive partner. She may use her attributions of intent as support and justification for her decision to leave. This is another avenue for future research as the present study did not investigate abused women's intentions to leave their abuser. Though the women in the present study were seeking help for the violence they experienced, it is unclear how many of those women intended to terminate their abusive relationships.

While the results indicate that women more readily explain their experiences with violence as having an inadvertent quality versus an intentional quality, it is important to remember that as many as 64% of the women in this sample endorsed at least one intentional attribution. Furthermore, almost 60% of the women in this sample endorsed attributions related to both incidental and intentional violence (Dual profile). In other words, most women explained the violence as being an intentional act by their partner while at the same time expressing the belief that the violence had a circumstantial quality to it. This finding is not surprising given the complexity of IPV and the circumstances surrounding IPV. It is quite possible that abusive acts are simultaneously a mixture of both incidental and intentional violence. Another explanation is that the simultaneous endorsement of both intentional and incidental attributions represents the confusion that women experience as they try to answer the question, "Why does my partner abuse me?" It may also represent the variable nature of abuse. Women may feel as though some

abusive incidents are designed to cause harm whereas others seem to be more a product of circumstance (for example, if a partner had a stressful day).

Attributions and Coping

One of the hypotheses of this study was that intentional attributions would predict the use of active coping strategies for women who had experienced IPV. This hypothesis was not supported by the results of this investigation. Though attributions and coping efforts were positively and significantly correlated with one another, after accounting for the overall amount of violence that women had endured, intentional attributions did not significantly predict women's coping strategies. In other words, violence better accounted for the variation in coping than did women's attributions.

This finding is notably inconsistent with the Meyer et al. (in press) study which demonstrated that women's attributions for violence significantly predicted their coping efforts above and beyond the influence of violence. The Meyer et al. study revealed that women who held their partners accountable for the abuse utilized more active coping strategies than women who excused the violence. The difference in findings between these studies is likely related to two factors. First, the previous study utilized data from women of various ethnicities (81% African American, 13% Caucasian, 6% Other) and noted that there were significant differences in the coping efforts of African American versus Caucasian women. Specifically, the African American women utilized significantly less active coping strategies compared to their Caucasian counterparts. Thus, the finding that women's attributions for violence predicted active coping may not be applicable to a homogenous sample of African American women.

Second, though both studies investigated the effect of attributions of responsibility on abused women's coping efforts, the previous study focused on attributions related to partner blame while the current study investigated attributions related to intentionality. While these variables are related (for example, Overholser & Moll (1990) postulated that attributions of blame depend on the extent to which a behavior is judged to be intentional) they are not identical. It seems that one of the differences between attributions of blame and attributions of intent is how each influences abused women's coping efforts. Specifically, attributions of blame predict abused women's coping efforts, even after accounting for the effects of partner violence whereas attributions of intent do not.

Attributions and PTSD

Though attributions of intent were not robust predictors of women's coping efforts, they were robust predictors of abused women's psychological outcomes. The second hypothesis to be tested in this study was that the more women perceived violence as an intentional act by their partner, the more symptoms of PTSD they would experience. Results indicated that intentional attributions significantly predicted each of the PTSD symptom clusters (intrusion, avoidance, and arousal), even after controlling for the covariates of total violence, income, length of the abusive relationship, and coping efforts. In contrast, incidental attributions were not significantly predictive of PTSD symptoms in any cluster after controlling for the total amount of violence that women endured. This trend toward intentional versus incidental attributions predicting women's psychological outcomes was further supported by analyses conducted on the ratio of

intentional to incidental attributions (i.e., the indicator of how many intentional attributions there were relative to incidental attributions). The more intentional attributions women endorsed relative to incidental attributions, the more they experienced distress related to symptoms of PTSD within the avoidance and arousal clusters.

These findings lend support to the idea that how women interpret the violence they experience plays a substantial role in their mental health outcomes. It seems that when women view abuse as purposefully directed at them, they suffer from substantially more distress compared to women who view abuse as lacking an intentional quality. One possible explanation for this finding is that women who view the abuse as intentional perceive that they are in greater danger compared to women who primarily endorse incidental attributions. This sense of threat may inspire and maintain feelings of distress which translate into symptoms of PTSD. In fact, it is well documented in the literature that women who experience a sense of threat from their partners are more likely than those who do not to experience PTSD symptoms (Ehlers & Clark, 2000; Engel, 2002).

There is another explanation for the association between intentional attributions and distress related to PTSD that draws on the idea of a temporal ordering to women's endorsement of intentional versus incidental attributions, with intentional attributions arising later than incidental ones. For instance, when the abusive relationship reaches the point at which women are willing to make intentional attributions for the violence they experience (for example, when violence intensifies or when a woman decides to leave), they may already be experiencing significant psychological distress. Under these circumstances it may be women's feelings of distress which cause women to view the

abuse they experience as intentional. Because the current study was unable to analyze longitudinal data, at the current juncture it is impossible to determine which explanation of the findings is more plausible.

To further explore the relationship between women's attributions and their symptoms of PTSD women were divided into four separate groups based on their attribution profiles (Dual profile, Intent-only, Incident-only, No Attribution). In this set of analyses it was discovered that women who endorsed both intentional and incidental attributions (Dual profile) experienced more distress related to the avoidance and arousal symptoms of PTSD than did women who endorsed only intentional or only incidental attributions for the violence. To interpret this finding it was necessary to take a closer look at what the Dual profile represents. For instance, given the significant correlation between the Dual profile and women's overall endorsement of attributions, it is possible that the Dual profile is simply a marker of women who endorse several attributions. If this is the case, it could be argued that women who are most distressed by their abuse (i.e., endorse the most distress related to PTSD symptoms) are the women who seek the most reasons to explain why they are being abused.

Another explanation of these results is that the combination of different types of attributions results in more extensive psychological distress compared to women's endorsement of a single type of attribution. If this is accurate, perhaps women who only identify one type of attribution to help explain the violence they experience are able to narrow the focus of their stress and thus report fewer psychological symptoms overall. In

contrast, women who are able to identify several different explanations for the abuse may worry about several different sources of stress and thus report more symptoms of PTSD.

Alternatively, and perhaps a more likely explanation for the finding that women in the Dual profile experience significant psychological distress, is that women in the Dual profile endorsed a higher intentional to incidental attribution ratio. Analyses of women's attribution ratio indicated that the more intentional attributions women endorsed relative to incidental attributions (ratio), the more they experienced distress related to symptoms of PTSD within the avoidance and arousal clusters. In other words, analyses on women's attribution ratio followed the same patterns and conclusions as did analyses on women in the Dual profile. Thus, it seems likely that the simple presence of both types of attributions (Dual profile) does not account for women's psychological distress as well as does the preponderance of intentional attributions.

Of note, one confound in the above explanations of the findings is that those women who endorse both intentional and incidental attributions also experience more overall violence compared to women who endorse only incidental attributions or no attributions at all. As discussed earlier in this manuscript, women's experience of violence has a significant and independent effect on women's psychological outcomes such that the more violence that women experience, the more likely they are to experience symptoms of PTSD (Golding, 1999; Koss et al., 2003; Woods, 2000). Thus, it is possible that women's overall experience of violence explains both their endorsement of attributions as well as their psychological distress. Women who have endured several violent incidents have a large amount of information to interpret and thus

are likely to identify several attributions. At the same time, women who have endured several violence incidents feel a heightened sense of threat which leads to an increase in psychological distress.

Coping and PTSD

In addition to the relationship between attributions and psychological outcomes, the relationship between women's coping efforts and psychological outcomes was investigated. Based on previous research with ethnic minority women, it was hypothesized that African American women who utilized active coping strategies (for example, resistance, formal, or legal strategies) would experience more symptoms of PTSD compared to women who utilized passive coping strategies (for example, placating, informal, or safety planning strategies) (Kocot & Goodman, 2003). This hypothesis was based on research conducted by Kocot and Goodman (2003) who found that problem-focused coping served to alienate low-income African American women from their friends and family, decrease their access to financial resources, and increase the amount of threatened harm against themselves and their loved ones, thus increasing their psychological distress. Though the present study recruited a similar sample of low-income African American women, the study did not corroborate the findings from Kocot and Goodman. On the contrary, results from this study indicate that abused women who utilize passive coping strategies such as placating and informal help sources suffer the greatest amount of psychological distress. This finding is in line with the majority of the published literature which indicates that women who use active, problem-focused coping strategies suffer fewer PTSD symptoms than women who utilize passive, avoidance, or

emotion-focused strategies (Arriaga & Capezza, 2005; Hopper, 2002; Kemp et al., 1995). Thus, it seems that certain groups of African American women, for example, women recruited through the court system and through domestic violence shelters, who are already utilizing active coping strategies, are similar to Caucasian women in their coping trajectories. Perhaps these women, supported by the institutions to which they turn, do not experience the cultural phenomenon put forth in Kocot and Goodman (2003) of feeling alienated or lacking in resources. Thus, these women are similar to their Caucasian counterparts in how they cope with and are affected by IPV.

PTSD Clusters

One of the goals of this study was to determine how women's attributions and coping efforts differentially affected the three PTSD symptom clusters described in the DSM-IV. It was discovered that both attributions and coping efforts demonstrated differential affects on the symptom clusters. Regarding the former, though the numbers of intentional and incidental attributions did not demonstrate differential affects (i.e., intentional attributions predicted all three of the PTSD symptom clusters and incidental attributions predicted none of the PTSD symptom clusters after controlling for covariates), differential relationships occurred when analyzing data by attribution profile. Women who endorsed both intentional and incidental attributions (Dual profile) significantly endorsed distress related to symptoms in the arousal and avoidance clusters but not in the intrusion cluster. The same pattern of results was found for women who endorsed more intentional attributions relative to incidental attributions (attribution ratio). Regarding the latter, women's endorsement of informal help source strategies

significantly predicted distress related to PTSD intrusions and arousal symptoms but not to distress related to the avoidance cluster. None of the other coping categories differentially predicted psychological distress.

Taken together, the results indicate that distress related to symptoms of intrusion occur independent of whether a woman believed the man intentionally hurt her, but were in part dependent of how the woman coped with the abuse. In contrast, arousal symptoms were influenced by both coping behaviors and women's attributions for violence. In other words, it seems that hyper-vigilance can be exacerbated by both women's thoughts and actions. Finally, avoidance symptoms were influenced by women's attributions for violence, but not by women's coping behaviors. These findings may have implications for the psychological treatment for victims of IPV, as discussed in the section on *Clinical Implications*.

Substance Abuse

This study also investigated the impact that a partner's substance abuse has on battered women's coping trajectories. Regarding women's coping, women who specifically attributed the cause of the violence to their partner's drug and alcohol use were likely to use more safety planning strategies than women who did not site substance abuse as the cause of violence. Regarding women's psychological outcomes, women who attributed the cause of the violence to their partner's drug and alcohol use were likely to experience more symptoms of avoidance than women who did not site substance abuse as the cause of violence. It is likely that when partners are under the influence of drugs or alcohol they become more unpredictable and less restrained when abusing a

victim (Murphy, Winters, O'Farrell, Fals-Stewart, & Murphy, 2005). It may be these elements of unpredictability and lack of restraint that encourage women to be conscious of their well-being and thus utilize safety planning strategies. These same elements may contribute to women's sense of a foreshortened future, feelings of detachment, diminished interest in significant activities, and other symptoms of avoidance associated with PTSD.

Clinical Implications

It is hoped that the present study provides valuable insights for clinicians and other mental health professionals regarding how to approach the issue of IPV and understand abused women. The ultimate goal of studying abused women's coping trajectories is to determine the best way to prevent abused women from developing serious psychological problems and learn how best to treat women who experience distress related to IPV. The following section elucidates the clinical implications of the present study.

First, this study supports the notion that women's cognitions are important in the development of distress associated with PTSD. A woman who believes that her partner is intentionally trying to harm her is more likely than a woman who believes the violence is incidental to develop symptoms of PTSD. Thus, it seems that evaluating women's attributions for violence may provide clinicians with valuable information for an abused woman's psychological distress. Such an evaluation can act as a screen for determining the extent of women's distress while couching that distress within a meaningful context.

Abused women's coping behaviors are also potentially important indicators of psychological distress. Based on the results of this study, if a clinician discovers that his or her patient relies on placating strategies to cope with the violence, that clinician can expect the patient to be experiencing significant distress related to all three clusters of PTSD symptoms. Knowing this, it may be prudent for the clinician to focus treatment on adjusting the patient's coping so as to avoid the use of placating strategies.

A PTSD symptom cluster analysis may also be useful in making treatment decisions for an abused woman. For instance, according to the results of this study, arousal symptoms are influenced by both a woman's attributions for violence as well as her coping strategies. Thus, if a client presents with elevated arousal symptoms the clinician can implement either cognitively based treatments to influence her attributions for violence or can help to adjust the woman's coping behaviors. In contrast, if a client presents with elevated intrusion symptoms, a cluster of symptoms known to vary with coping behaviors, the clinician may decide to narrow his focus of treatment to the woman's coping strategies. Alternatively, a clinician would be encouraged to use cognitive strategies to address women's attributions for violence if a client presented with elevated symptoms of avoidance. In sum, according to the results of the present study, a client's treatment should be adjusted depending on her specific presentation of PTSD symptoms.

Finally, clinicians should be aware that though there may be differences in how ethnic minority and Caucasian women interpret and experience IPV, there are also many important similarities. In this study African American women had some of the same

patterns of outcomes as did Caucasian women from other studies (Arriaga & Capezza, 2005; Hopper, 2002; Kemp et al., 1995). For instance, in this sample the use of passive coping inspired distress related to all three types of PTSD symptoms, a finding that is consistent with results based on Caucasian women (Arriaga & Capezza, 2005; Hopper, 2002; Kemp et al., 1995). Passive strategies are known to vary with women's feelings of uncontrollability, thus one avenue of treatment includes helping patients to develop a sense of control within their relationship. This avenue, along with other empirically supported treatments, should be explored regardless of a patient's ethnic background.

Limitations

There are several limitations in this study. First, though the attribution measure used in this study provides a useful starting point for the study of the role of attributions in the coping trajectories of abused women, researchers may benefit from a more extensive inventory of attributions in the future. Results of the present study's factor analysis revealed two distinct clusters of attributions; however, there were only four attributions in each category. Furthermore, perhaps in part due to the limited number of items, the clusters were only moderately reliable with Cronbach alpha levels ranging from .58 to .65. Other difficulties with the measures used in this study include the fact that the CTS-2 and the PTSD Checklist have not specifically been validated for use with an African American population.

Another problem involves the limited sample available for those women who endorsed an intent-only profile. The power of the results related to this profile might be

diminished as only 16 participants belonged to this category. As a result, the power to detect differences between profiles would similarly be diminished.

Also, given that the sample consisted of women who were actively seeking help for their abuse; it is possible that more formal and legal strategies were endorsed by this population than would be seen in the general population. Furthermore, it seems plausible that help-seeking women may put more thought and effort into making sense of their experiences with IPV than women who do not seek help. Thus, the women in this sample may have generated more attributions for violence than might women in the general population.

Lastly, this was a cross sectional study with limited ability to answer questions related to cause and effect. The reader should keep this in mind when interpreting this study's results and conclusions.

Future Directions

Though the present study provides a good starting point for the investigation of abused women's coping trajectories, the mental health community could benefit from longitudinal investigations to provide stronger evidence for possible causal links between the variables in women's coping trajectories. This author would specifically like to see studies which investigate the connection between women's sense of threat and their endorsement of intentional attributions. Longitudinal investigations could also shed light on the points at which different types of attributions emerge over the course of an abusive relationship. For instance, do women endorse intentional attributions later in the relationship than incidental attributions? Are intentional attributions made only after a

woman experiences severe violence? Another avenue for future research involves the many coping trajectories that have never been investigated. This is unfortunate as gaining insight into the many coping trajectories of abused women could allow for significant advances in the treatment of victims of IPV. Finally, researchers are encouraged to be mindful of the cultural considerations that inevitably accompany research involving women's interpretations of violence. Perhaps qualitative research (i.e. focus groups) would further enlighten the research community about the significance of cultural variables.

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