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What is This?
The Mediating Effect of World Assumptions on the Relationship Between Trauma Exposure and Depression

Michelle M. Lilly¹, Christine E. Valdez¹, and Sandra A. Graham-Bermann²

Abstract

The association between trauma exposure and mental health-related challenges such as depression are well documented in the research literature. The assumptive world theory was used to explore this relationship in 97 female survivors of intimate partner violence (IPV). Participants completed self-report questionnaires that assessed trauma history, world assumptions, and depression severity. Regression analyses revealed that diminished world assumptions mediate the relationship between trauma exposure and depression severity. As predicted, this relationship held for interpersonal forms of trauma, whereas noninterpersonal forms of trauma were related neither to diminished world assumption nor to depression severity. This suggests that our conceptual system of relating to the world, our core beliefs that comprise our assumptive world, may be challenged in the face of human-induced trauma, increasing our risk for developing adverse psychological outcomes such as depression.

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Exposure to potentially traumatic experiences is highly common in the U.S. population, estimated around 80% (Breslau, 2002). These traumas can include, but are not limited to, motor vehicle accidents, rape and sexual abuse, natural disasters, combat/war, childhood or adulthood physical abuse, or any other extreme or unusual crisis outside the range of usual human experience. Unfortunately, many individuals exposed to trauma will subsequently develop mental health–related challenges. For example, trauma exposure has been associated with mood disorders, anxiety disorders, substance use disorders, and externalizing disorders (Kessler, Davis, & Kendler, 1997). In particular, a link has been shown between trauma exposure and rates of depression in which individuals who experience adverse life events are greater than two times more likely to exhibit symptoms of depression compared with those with no trauma history (Roberts, Damundu, Lomoro, & Sondorp, 2009).

One common form of trauma exposure is intimate partner violence (IPV). In 2002, there were 2.1 survivors of family/partner violence per 1,000 U.S. citizens aged 12 or older and these rates accounted for 1 in 10 violent victimizations (Bureau of Justice Statistics, 2005). Women comprised the overwhelming majority of survivors in spouse abuse (84%) and abuse by a boyfriend or girlfriend (86%). Furthermore, it has been estimated that 1.5 million women and 800,000 men report experiencing IPV in their lifetime (Tjaden & Thoennes, 2000). Unfortunately, IPV survivors frequently experience more trauma than just IPV such as childhood maltreatment (Seeadt, Stein, & Forde, 2005), witnessing family violence (Alexander, 2009), and sexual assault (Wahab & Olson, 2004). Not surprisingly, IPV survivors are 1.5 to greater than 2 times more likely to be diagnosed with a mood disorder or a major depressive episode, respectively, relative to those who have not experienced violence (Afifi et al., 2009; Hedtke et al., 2008). It has been reported that more than 80% of women enter a domestic violence shelter with mild depression and more than 50% of these women stay depressed 10 weeks postshelter exit and up to 6 months later (Campbell, Sullivan, & Davidson, 1995).

Yet not all individuals exposed to a trauma will go on to develop adverse psychological outcomes, suggesting that there are differences in the way in which people cognitively appraise and emotionally respond to these events. Research has suggested, for example, that adverse psychological outcomes
can be influenced by an individual’s use of maladaptive thought control strategies such as worry, punishment, and suppression (Holeva, Tarrier, & Wells, 2001; Luciano et al., 2006; Wells & Davies, 1994), peritraumatic emotional responses marked by distress and dissociation (Briere, 2006; Ozer, Best, Lipsey, & Weiss, 2003, 2008), and feelings of betrayal (DePrince & Freyd, 2002a and DePrince & Freyd, 2002b), to name some of the evidence linking trauma to adverse outcomes. Janoff-Bulman (1989) proposes that world assumptions may also affect this process. More specifically, trauma exposure violates core assumptions or inner representations that function to maintain perceptions of invulnerability that allow an individual to operate in the world with a sense of agency.

Janoff-Bulman (1989) suggests that the majority of human thought and behavior is influenced by three basic views that comprise our assumptive world: the world is benevolent, the world is meaningful, and the self is worthy. The world as benevolent refers to the assumption that both people and events in our subjective world are assumed benevolent and we live in a safe environment. More specifically, people are good, caring, kind, and helpful; experiences will generally be positive and we will receive good fortune. The assumption that the world is meaningful consists of the person-outcome contingency, suggesting that we are able to control what happens to us. This is reflected in the “just-world theory” (Lerner & Miller, 1978). For example, negative events and misfortune happen to bad, morally corrupt, undeserving people whereas good, admirable, decent, moral people deserve positive outcomes. The assumption of the self as worthy is the belief that we are good, decent, capable, and moral individuals, and thus we engage in activities that are commensurate with our abilities and self-evaluation. These basic assumptions create an illusion of invulnerability that allows us to successfully navigate through our environment, promoting optimal encounters and enhancing our chances for positive outcomes.

However, subsequent to a traumatic event an individual may be forced to drop some of these basic assumptions and adopt or rebuild new assumptions in ways that coincide with their peritraumatic and posttraumatic experiences (DePrince & Freyd, 2002a and DePrince & Freyd, 2002b; Martin & Kleiber, 2005). This can facilitate the development of a more negative cognitive schema, as a negative event such as a trauma is often difficult to reconcile with generally held optimistic core beliefs about the self and the world. In fact, trauma survivors tend to describe the world as less benevolent, less meaningful, and report less self-worth (Janoff-Bulman, 1989).

In addition, Janoff-Bulman (1992) proposes that different trauma types will have differential effects on world assumptions. “Human-induced” or
interpersonal forms of trauma will have a more detrimental effect on our core conceptual system, as they include qualitative differences in intention of harm and the victims role in the event. That is, interpersonal trauma involves a malicious perpetrator, one who consciously intends to harm another human being. This personal violation can cause the victim to be humiliated and question personal autonomy and strength of will, shattering self-worth and belief in a meaningful, benevolent world. Noninterpersonal forms of trauma such as illness, accidents, and natural disasters typically lack a malicious perpetrator and therefore assumptions of a malevolent world are less vulnerable to becoming tainted. Individuals who experience these forms of trauma may still feel a sense of powerlessness, as they were not able to control what had happened to them as well as experience considerable self-questioning. Yet this form of trauma usually does not involve the component of humiliation induced by another individual and is recognized as the common misfortune of people (Solomon, Iancu, & Tyano, 1997), and victims often receive social support following such events that may mitigate any adverse effects on self-worth (e.g., Cuneo & Schiaffino, 2002).

There is empirical literature to suggest that, in fact, noninterpersonal trauma has limited effects on world assumptions (Bodvarsdottir & Elklit, 2004; Ginzburg, 2004; Wagner, McFee, & Martin, 2009), whereas interpersonal forms of trauma are more detrimental to our assumptive schemata (Magwaza, 1999; Ullman, 1997; Wickie & Marwit, 2000). As a result of negative alterations to fundamental assumptions following the experience of certain forms of trauma, individuals may suffer adverse psychological outcomes because the victim’s illusion of invulnerability is shattered, an adaptive function that has since shielded them from stress and anxiety of everyday events. Indeed, individuals with more negative inner representations report experiencing greater psychiatric symptomatology (Currier, Holland, & Neimeyer, 2009; Dekel, Solomon, Elklit, & Ginzburg, 2004; Goldenberg & Matheson, 2005; Solomon et al., 1997), especially depression severity (Harris & Valentiner, 2002; Janoff-Bulman, 1989). However, this relationship has yet to be explored in IPV survivors.

It is the aim of this study to better understand the effects of interpersonal and noninterpersonal forms of trauma in regard to world assumptions and psychological outcomes in IPV survivors. We hypothesize that diminished world assumptions will mediate the relationship between trauma exposure and depression severity. Furthermore, given the qualitative differences in trauma types and thus possible differential effects on core world assumptions, it is hypothesized that diminished world assumptions will mediate the relationship between interpersonal trauma and depression severity whereas noninterpersonal forms of trauma will not be related to world assumptions or depression.
Method

Procedures

Potential participants were recruited from local domestic violence shelters and advertisements posted at commercial, medical, and social service agencies in southeastern and central Michigan. Women who were interested in participating were prescreened in person or via the telephone and excluded if they had not experienced at least one incident of physical IPV in the previous 2 years. Participants included in the present study came from two projects. The first project was an intervention study aimed at exploring the effectiveness of the Kids Club program for preschool-aged children exposed to family violence (Graham-Bermann, De Voe, Mattis, Lynch, & Thomas, 2006). Women who participated in this study either completed two interviews prior to and after completing the Kids Club Group intervention or enrolled in a waiting list condition in which two interviews were completed approximately 6 weeks apart. Eligible participants for this study included women with children between the ages of 4 and 6 who had witnessed family violence, were willing to participate in groups (both for the mother and child), and agreed to be interviewed twice. Only data collected during the first interview were used.

Women without children between the ages of 4 and 6, or who did not want to take part in the intervention or complete two interviews, were invited to complete a one-time survey. Participants could elect to complete the interview in a local domestic violence shelter or at home. Transportation was provided when necessary. Child care was also available during the interview and provided by undergraduate students trained in child care and research ethics. Doctoral and Masters level clinical psychology and social work students trained in clinical interviewing and research ethics completed the interviews, which lasted between 60 and 90 min. Participants received US$25 in compensation for their time.

Participants

The average age of participants (N = 97) was 33.2 (SD = 3.7) years. The sample can be considered low income, with an average monthly income of US$902 (SD = US$943) and a 71.1% rate of unemployment. Of the women in the sample, the majority had a high school degree or less (54.6%), though 32% had some college or vocational training and a subsample of approximately 13% had a college degree or greater. The sample comprised primarily African American (47.4%) and European American (46.4%) women. At the time of the interviews, women self-identified as single (52.6%), divorced
(8.2%), separated (19.6%), still married (12.4%), or living with a partner (6.2%). In only two cases was the woman living with the target assailant. In cases where the woman was no longer living with the assailant, cohabitation had ended on average 318 days ($SD = 526.8$) prior to the interview, with a median of 90 days.

**Measures**

Participants were asked a number of demographic questions, including their ethnicity (Native American, Asian American, African American, Hispanic American, European American, Biracial, or Other), age, income, employment status, level of education (grade school or less, some high school, high school degree/GED, some college or vocational, college degree, some graduate school, graduate degree), and current relationship status (single, living with partner, married, separated, widowed, divorced, or remarried).

To assess world assumptions, Janoff-Bulman’s (1989) World Assumptions Scale (WAS) was used. The WAS is a 32-item scale that measures participants’ assumptions about the meaningfulness of the world, the benevolence of the world, and sense of self-worth. The scale employs a 6-point Likert-type scale with options ranging from 1 (strongly disagree) to 6 (strongly agree). Sample items include “There is more good than evil in the world” (benevolence of the world), “People are naturally unfriendly and unkind” (benevolence of people), and “I have reason to be ashamed of my personal character” (self-worth). The WAS includes eight subscales, including benevolence of the world, benevolence of people, justice, controllability, randomness, self-worth, self-controllability, and luck. However, for the purposes of the present study, only a total score was used and generated by reverse scoring specified items and summing the responses. Using discriminant analyses with the original sample (Janoff-Bulman, 1989), three of these assumptions were able to discriminate between survivors and nonsurvivors of trauma: self-worth (Wilks’s $\Lambda = .981$), chance (Wilks’s $\Lambda = .974$), and benevolence of the world (Wilks’s $\Lambda = .970$). Research has suggested that the WAS can account for 12% of the variability in fear of intimacy scores, 4% of the variability in depression scores, and 41% of the variability in trauma scores among undergraduate students (Harris & Valentiner, 2002). Internal consistency for the WAS in the present study was calculated as Cronbach’s $\alpha = .85$.

The Center for Epidemiologic Studies Depression Scale (CES-D; Radloff, 1977) was used in the present study to measure depressive symptoms. The CES-D is a 20-item measure with four response options that reflect the absence of depressive symptoms ($0 = rarely or none of the time (less than 1 day)$) to
the frequent presence of depressive symptoms ($3 = \text{most or all of the time (5-7 days)}$). A total depressive symptom score was generated by reverse coding positive items (4, 8, 12, 16) and tallying the responses across all items, with higher scores indicating the presence of more depressive symptoms. The CES-D has been examined in a variety of populations and has consistently displayed strong reliability (Orme, Reis, & Herz, 1986; Radloff, 1977; Roberts, Andrews, Lewinsohn, & Hops, 1990). In addition, studies on the validity of the CES-D have indicated its use for community samples (Hertzog, Van Alstine, Usala, Hultsch, & Dixon, 1990; Santor, Zuroff, Ramsay, Cervantes, & Palacio, 1995) as well as clinically depressed samples (Boyd, Weissman, Thompson, & Myers, 1982; Husaini, Neff, Harrington, Hughes, & Stone, 1980). Internal consistency for the CES-D in the present study was calculated as Cronbach’s $\alpha = .88$.

To measure trauma history, the first 12 items from the Posttraumatic Stress Diagnostic Scale (PDS; Foa, 1995) were used. The items assess for history of an accident, fire, or explosion, natural disaster, nonsexual assault by a family member or acquaintance, nonsexual assault by a stranger, sexual assault by a family member or acquaintance, sexual assault by a stranger, combat or war zone, sexual contact under age 18 with someone 5 or more years older, imprisonment, torture, life-threatening illness, or other traumatic event. Response options were yes (1) or no (0). A total trauma history score was generated by summing the items, with higher scores reflecting having experienced more traumatic events. An interpersonal trauma score was generated by tallying items related to sexual assault, nonsexual assault, statutory rape, and torture. The noninterpersonal trauma score was computed by summing the items related to fires/accidents, natural disasters, imprisonment, combat, life-threatening illness, and other traumatic event. Internal consistency for the trauma measure in the present study was calculated as Cronbach’s $\alpha = .56$.

**Results**

Participants in the present study reported exposure to an average of 3.79 ($SD = 1.89$) different forms of traumatic events in their lifetime. Overall, interpersonal forms of trauma ($M = 2.05, SD = .99$) were more frequently reported than noninterpersonal forms of trauma ($M = 1.20, SD = .95$). Table 1 includes the percentage of participants that experienced each form of trauma. All participants endorsed having experienced nonsexual assault by a family member, given that this was exclusionary criterion for the study. Statutory rape was the second most frequent traumatic event (55.7%), and sexual
assault from a family member was the third most frequently reported traumatic event (54.6%). In regard to noninterpersonal forms of trauma, other traumatic event was most frequently endorsed (39.2%) followed by a serious accident, fire, or explosion (37.1%). In regard to depressive symptom scores, the participants’ mean symptom reports fell just short of the cut-off score for clinical depression ($M = 15.43, SD = 9.57$; Myers & Weissman, 1980; Roberts & Vernon, 1983), though 44.3% of the sample achieved a score of 16 or higher, placing them in the clinical range of depressive symptoms. Scores on the World Assumptions Scale ranged between 69 and 161 with a mean score of 124.94 ($SD = 17.19$).

A correlation matrix was generated to explore the interrelationships between the primary variables of interest (Table 2). Not surprisingly, a strong relationship between interpersonal and noninterpersonal trauma exposure was shown ($r = .36, p < .001$). World assumptions were significantly, inversely related to overall trauma exposure ($r = -.27, p < .01$) and interpersonal trauma exposure ($r = -.23, p < .05$) but not noninterpersonal trauma exposure ($r = -.19, p > .05$). Similarly, higher depression severity scores were significantly, positively related to overall trauma exposure ($r = .22, p < .05$) and interpersonal trauma exposure ($r = .25, p < .05$), whereas the relationship to noninterpersonal trauma exposure was not significant ($r = .20, p > .05$).

To investigate the first hypothesis, that world assumptions would mediate the relationship between trauma exposure and depressive symptom severity,
a series of regression analyses was completed. The procedures outlined in Frazier, Tix, and Barron (2004) were used to test the mediation model. More specifically, these authors suggest that three significant relationships must be observed to suggest a significant mediation model. The first regression regresses the dependent or outcome variable on the predictor variable. The second regression regresses the mediating variable on the predictor variable. Finally, the outcome variable is regressed on both the predictor and mediating variable. To demonstrate a true mediation, the first and second regression analyses achieve statistical significance, and the third regression should reveal that only the mediating variable significantly predicts the dependent variable while the predictor variable no longer reaches significance.

As hypothesized, Step 1 and Step 2 of the analyses were significant such that greater traumatic events exposure was related to higher depression severity scores (Step 1), and greater traumatic events exposure was related to more negative world assumptions (Step 2; Table 3). Step 3 of the analysis suggested a full mediation model. More specifically, while diminished world assumptions was a strong, significant predictor of depressive severity scores, the effects of trauma exposure on depressive severity scores was not significant. This suggests that world assumptions was a full mediator of the relationship between trauma exposure and depression severity.

To examine the second hypothesis, that world assumptions would also mediate the relationship between number of interpersonal trauma exposures and depressive symptom severity, the same procedures were employed as the first mediation analysis. Table 4 reveals confirmation of the second hypothesis. Comparable to the first mediation analysis, Steps 1 and 2 of the analysis revealed that interpersonal trauma exposure was related to both more depression severity scores and more diminished world assumptions. Step 3 of the analysis showed that, like trauma exposure more generally, the relationship

### Table 2. Correlation Matrix of Trauma Exposure, Depression Severity Scores and World Assumptions (N = 97)

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Trauma exposure</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Interpersonal trauma exposure</td>
<td>.79***</td>
<td>—</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Non–interpersonal trauma exposure</td>
<td>.78***</td>
<td>.36***</td>
<td>—</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Depression severity</td>
<td>.22*</td>
<td>.25*</td>
<td>.20</td>
<td>—</td>
<td></td>
</tr>
<tr>
<td>5. World assumptions</td>
<td>−.27**</td>
<td>−.23*</td>
<td>.20</td>
<td>−.31**</td>
<td>—</td>
</tr>
</tbody>
</table>

*p < .05. **p < .01. ***p < .001.
between interpersonal trauma exposure and depression severity scores is fully mediated by world assumptions. When both interpersonal trauma exposure and world assumptions are regressed on depression severity scores, only world assumptions remain a significant predictor of depression severity scores. The effects of interpersonal trauma exposure on depression severity scores dropped to a trend in the presence of world assumptions.

The final hypothesis that the relationship between noninterpersonal trauma exposure and depression severity scores would not be mediated by world assumptions was also confirmed. The full mediation analysis was not completed given that the first step failed to achieve significance. More specifically, noninterpersonal trauma exposure was not significantly related to depression severity scores ($r = .20, p > .05$).

**Discussion**

A significant proportion of the population will experience at least one traumatic event in their lifetime, and, unfortunately, many will go on to develop adverse psychological outcomes (Kessler et al., 1997) whereas others will not. It has been argued that this is in part due to the ways in which trauma effects how people perceive and respond to the world and self (DePrince & Freyd, 2002 and DePrince & Freyd, 2002b; Goldenberg & Matheson, 2005). The assumptive world theory (Janoff-Bulman, 1989) provides a framework for

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**Table 3. Linear Regression Analyses Testing World Assumptions as a Mediator of the Relationship Between Traumatic Events Exposure and Depressive Symptom Severity (N = 97)**

<table>
<thead>
<tr>
<th>Regression</th>
<th>Outcome</th>
<th>Adjusted $R^2$</th>
<th>B</th>
<th>SE B</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression 1</td>
<td>Depression severity</td>
<td>.05</td>
<td>1.60</td>
<td>.73</td>
<td>.03*</td>
</tr>
<tr>
<td>Predictor: Trauma exposure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression 2</td>
<td>World assumptions</td>
<td>.06</td>
<td>-2.47</td>
<td>.90</td>
<td>.007**</td>
</tr>
<tr>
<td>Predictor: Trauma exposure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression 3</td>
<td>Depression severity</td>
<td>.10</td>
<td>-0.22</td>
<td>.08</td>
<td>.008***</td>
</tr>
<tr>
<td>Mediator: World assumptions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Predictor: Trauma exposure</td>
<td></td>
<td>1.05</td>
<td>.73</td>
<td>.15</td>
<td></td>
</tr>
</tbody>
</table>

* $p < .05$, ** $p < .01$, *** $p < .001$. 

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understanding this psychological process. According to this theory, trauma undermines our positively biased inner representations that may alter the way in which individuals deal with stressful experiences.

It is well known that human beings have a natural tendency toward assimilating incoming information into their already constructed cognitive schema, an internal framework that is essentially positive in nature. However, traumatic experiences may no longer match these old assumptions, posing a major task for the individual to process this information. As traumatic experiences are hard to discount, individuals may be forced to change their basic assumptions about themselves and the world to accommodate the new information. An experience that was negative, horrific, and/or frightening in nature can foster a pessimistic style of relating to the self and world. This uncomfortable feeling of living in an uncontrollable, threatening, and hostile environment can tarnish one’s well-being. Consequently, the individual becomes unable to handle the stress of everyday life. The hopelessness and/or helplessness that results can place one at risk for developing symptoms of depression.

Participants in this study all experienced the same form of trauma, intimate partner violence (IPV), and many experienced multiple forms of trauma. As predicted, diminished world assumptions mediated the relationship between amount of trauma exposure and depression severity. This is consistent with previous studies which have shown that bereaved individuals who had weaker assumptions endorsed substantially more distress symptoms than

### Table 4. Linear Regression Analyses Testing World Assumptions as a Mediator of the Relationship Between Interpersonal Traumatic Events Exposure and Depressive Symptom Severity (N = 97)

<table>
<thead>
<tr>
<th>Regression</th>
<th>Outcome/Mediator</th>
<th>Adjusted $R^2$</th>
<th>$B$</th>
<th>SE $B$</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression 1</td>
<td>Depression severity</td>
<td>.05</td>
<td>3.47</td>
<td>1.38</td>
<td>.01*</td>
</tr>
<tr>
<td>Predictor: Interpersonal trauma exposure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression 2</td>
<td>World assumptions</td>
<td>.04</td>
<td>−3.95</td>
<td>1.73</td>
<td>.03*</td>
</tr>
<tr>
<td>Predictor: Interpersonal trauma exposure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regression 3</td>
<td>Depression severity</td>
<td>.11</td>
<td>−0.22</td>
<td>0.08</td>
<td>.007**</td>
</tr>
<tr>
<td>Mediator: World assumptions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Predictor: Interpersonal trauma exposure</td>
<td>2.61</td>
<td>1.37</td>
<td>.06</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*p < .05. **p < .01. ***p < .001.
those who held more positive internal representations (Currier et al., 2009). Moreover, in another study, Harris and Valentiner (2002) found that after controlling for trauma severity, diminished world assumptions were found to partially mediate the relationship between sexual assault history and depression symptomatology.

In her assumptive world theory, Janoff-Bulman (1992) suggested that interpersonal and noninterpersonal forms of trauma will have a differential effect on the cognitive schemata that comprise our assumptive world because of their qualitative differences in defining characteristics. Consistent with this proposal, we found that diminished world assumptions mediated the relationship between trauma exposure and depression severity, whereas, noninterpersonal trauma was related to neither world assumptions nor depression severity. Therefore, it may be that our most fundamental assumptions are more susceptible to the influence of certain forms of trauma, specifically, interpersonal forms.

Interpersonal forms of trauma are qualitatively different that noninterpersonal ones. First, interpersonal trauma occurs in the context of a relationship between people. In regard to a traumatic event, this relationship consists of a person or people who inflict intentional harm (perpetrator[s]) on another human being (victim). The victim is confronted with human immorality in a distinct way. They may feel powerless and humiliated at the hands of another person, which may force them to question the trustworthiness of other people. Accordingly, they come to see the environment as unsafe; people are no longer kind and caring, but instead, malicious and dangerous. This is consistent with parents bereaved by homicide who show more negative views of the benevolence of the world compared with parents bereaved by sudden accidental death (Wickie & Marwit, 2000). Second, the victim comes to conceive of the event as them being targeted for injury (Janoff-Bulman, 1992). They come to question what they had done to cause this unfortunate event and they struggle with considerable self-blaming (Magwaza, 1999). In addition, their autonomy has been violated and they may be compelled to perceive of themselves as incompetent, weak, and powerless. Therefore, it is not surprising that one’s self-worth is susceptible to being damaged in the face of human-induced trauma. This is exemplified in the case of sexual assault victims whose attributions of blame were related to assumptions about the self (Ullman, 1997). These women showed decreased self-worth and increased self-blame, which was related to poorer recovery. Third, the newfound perception that bad things can happen to good people violates their principles of justice; people do not actually get what they deserve, there are no rules or order to events, and the world is thus meaningless.
In the case of noninterpersonal traumas such as illness, accidents, and natural disasters, victims are generally not targeted for injury by another individual, upholding their belief in a benevolent world. These events are also directly felt in an impersonal manner that may mitigate any negative effects on self-worth such as the case for firefighters who are regularly exposed to negative events, yet report higher overall job satisfaction when compared with controls because they believe they are doing meaningful work that contributes to the community (Wagner et al., 2009); or victims of a large collision accident who see the event as an act of God that hurts everyone similarly (Solomon et al., 1997). Last, people are generally apt at recognizing that these events represent chance occurrences that can happen to anyone at anytime, thus not directly violating their belief in the distribution of justice and subsequent assumption that the world is meaningful. For example, distressed myocardial infarction patients view the world as more random compared with others (Ginzburg, 2004) and earthquake survivors report no difference in controllability over the disaster than controls (Bodvarsdottir & Elklit, 2004). Thus, because victims of noninterpersonal trauma are able to maintain or reestablish positive beliefs about themselves and the world, they are better adjusted and able to cope with such a trauma.

To our knowledge, this was the first study to examine the mediating effect of world assumptions on the relationship between trauma exposure and depression symptomatology in a sample of IPV survivors. Moreover, previous studies suggest that “differentiating among types of traumatic events by their specific features should lead to a finer and more accurate understanding of their effects” (Solomon et al., 1997, p. 1794). Taking into account Janoff-Bulman’s (1992) conceptualization of interpersonal and noninterpersonal trauma, we explored the effects of these qualitatively different forms of trauma on world assumptions and found that in fact they are differentially related to core assumptions, possibly impacting mental health.

However, this study is limited in its cross-sectional design and relatively small sample size. In regard to the former, it is possible that diminished world assumptions are a result of depression and not a mediating factor on the relationship between trauma and depression. It could also be that more negative assumptions before a trauma are a risk factor for developing adverse psychological outcomes following a trauma whereas more positive core assumptions may be a resilient factor in the face of trauma. A longitudinal design in which world assumptions are assessed before and after a trauma would be needed to tease apart this relationship. Given the small sample size, it is important to interpret the results with caution as small sample sizes can limit the precision.
of point estimates within the data. Therefore, replication with a larger sample size is warranted.

In addition, the results of the study are not generalizable to all populations. This was a sample in which all participants had experienced intimate partner violence, and all participants lived in the Midwest of the United States and were fluent in English. It is important to consider the ways in which IPV uniquely influences both an individual’s world assumptions and expression of depressive symptoms as well as consider how cultural factors impact the development and content of world assumptions. It is reasonable to assume that different cultural mores, traditions, and histories will have a significant impact on the assumptions that individuals will develop and sustain, suggesting that the results of this study cannot be easily generalized to individuals across all cultures, nations, and/or continents. In addition, this study does not address the many other contributing factors that can influence expression of depression regardless of exposure to trauma, and IPV in particular. The results of this study imply that diminished world assumptions may be a mechanism by which one develops depression following an interpersonal trauma, suggesting a key point of intervention for IPV and assault survivors. This provides some information that extends what is currently known about factors that contribute to depression following trauma. Efforts to ameliorate psychological distress or buffer one from developing depression symptomatology could target inner representations of individuals who have been victims of human-induced trauma, enabling them to recover a sense of well-being.

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References


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**Bios**

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**Christine E. Valdez** is a doctoral student in the clinical psychology program at Northern Illinois University. She earned her BA in psychology in 2008 from California State University, East Bay. There her research spanned the area of traumatic life experiences, with a particular focus on intimate partner violence and the role of attachment in abusive relationships. Before coming to NIU, she worked in research at the VA National Center for PTSD in Palo Alto, California. She worked on projects exploring veteran’s health care utilization and treatment outcome with the goal of improving VA services to aid recovery of veterans with PTSD.

**Sandra A. Graham-Bermann,** PhD, is a professor in the Department of Psychology and Women’s Studies Program at the University of Michigan. She studies the impact of different forms of family violence on children’s social and emotional adjustment. This work spans the ages from 3 to 13 and includes children in a variety of contexts such as preschools, community settings as well as shelters for battered women. With funding from the National Institutes of Justice, Centers for Disease Control and Prevention, and the Department of Health and Human Services (DHHS), she has studied multiple forms of violence in the lives of children using a nested ecological framework, social-cognition, and trauma theories to explain results.