# Trauma at the Hands of Another: Distinguishing PTSD Patterns Following Intimate and Nonintimate Interpersonal and Noninterpersonal Trauma in a Nationally Representative Sample

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**ABSTRACT**

***Objective:*** Interpersonal trauma and violence is currently considered a global public health emergency. However, studies have not differentiated between intimate interpersonal trauma and nonintimate interpersonal trauma in their impact on posttraumatic stress disorder (PTSD) symptomatology. This cross-sectional study based on epidemiologic data examined the differential likelihoods of endorsing PTSD symptoms following 3 categories of trauma: noninterpersonal (eg, accidents, natural disasters), nonintimate interpersonal (physical assaults perpetrated by nonintimates), and intimate interpersonal (physical assaults perpetrated by intimates or caregivers and sexual assaults).

***Method:*** *DSM-IV* PTSD symptom data drawn from a weighted subsample (N = 1,012) of people reporting "most severe" reactions following one of the above types of trauma in the 2007 Australian National Survey of Mental Health and Well-Being (NSMHWB) were analyzed using binary logistic regression.

***Results:*** Participants reporting intimate interpersonal compared with noninterpersonal trauma were significantly ($P < .001$) more likely to endorse core symptoms (intrusive reexperiencing, avoidance of reminders, hypervigilance, and startle response) of PTSD. The intimate interpersonal trauma group members were significantly more likely than the nonintimate interpersonal trauma group members to endorse distress at reminders (odds ratio [OR] = 3.2; $P < .001$; 99.7% CI, 1.3–7.9), avoiding thinking about the event (OR = 3.2; $P < .001$; 99.7% CI, 1.3–7.7), detachment from others (OR = 3.2; $P < .001$; 99.7% CI, 1.2–8.9), and restricted affect (OR = 4.1; $P < .001$; 99.7% CI, 1.5–11.3). Participants reporting nonintimate interpersonal and noninterpersonal traumas did not significantly differ except in endorsement of behavioral avoidance (OR = 2.8; $P < .001$; 99.7% CI, 1.2–6.6), hypervigilance (OR = 2.5; $P = .002$; 99.7% CI, 1.0–6.3), and exaggerated startle response (OR = 3.5; $P < .001$; 99.7% CI, 1.7–7.4).

***Conclusions:*** Survivors of intimate trauma appear to experience particularly severe intrusive memories and reminders of past trauma and suppression of emotional responsivity. The unique impact of interpersonal trauma, however, intimate or otherwise, compared with noninterpersonal trauma, is the experience of an environment as unsafe and unpredictable, due to the potential of human threat. Such findings have significant implications for the assessment of and interventions for survivors of interpersonal violence.

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Posttraumatic stress disorder (PTSD) is a common psychiatric sequela of exposure to a potentially traumatic event (PTE)[1,2] with rates varying from 5% to 50% depending on the nature of the exposure.[3,4] A distinction is commonly made between interpersonal PTEs, such as sexual and physical assault, and noninterpersonal PTEs, such as accidental injury and natural disaster.[1] Epidemiologic studies have consistently reported higher rates of PTSD following interpersonal PTEs relative to noninterpersonal PTEs.[5–7]

Few studies, however, have sought to evaluate differences in individual posttraumatic symptoms following interpersonal trauma compared with noninterpersonal trauma. Such research is critical in informing targeted assessment and intervention for this high-risk population. Norris[8] demonstrated that individuals who experienced interpersonal trauma endorsed more items within each of the 3 *DSM-III-R*[9] PTSD symptom clusters compared to survivors of noninterpersonal trauma, but did not consider symptoms individually. Chung and Breslau[10] found that assault survivors reported more pervasive psychological disturbances than survivors of nonassaultive trauma, with differences most prominent for the *DSM-IV*[11] numbing symptoms—feelings of detachment from others (C5) and restricted affect (C6)—and exaggerated startle response (D5). Forbes and colleagues,[12] using data obtained from a longitudinal study of injury survivors elsewhere described,[13] found that survivors of assaults demonstrated higher scores than survivors of accidents on 15 of 17 *DSM-IV* PTSD symptoms 3 months after the trauma, and on 6 symptoms—nightmares (B2), psychological distress in response to trauma-related cues (B4), avoidance of thoughts or feelings about the trauma (C1), restricted affect (C6), hypervigilance (D4), and exaggerated startle response (D5)—at 24 months. Five of these 6 symptoms belonged to a subset of symptoms regarded as specific to PTSD,[14] with the exception of restricted affect (C6), consistent with the findings of Chung and Breslau.[10] However, the sample used by Forbes et al[12] included relatively few individuals whose injuries could be considered resulting from interpersonal PTEs and, in particular, few victims of rape and sexual assault. Of all PTEs, interpersonal or otherwise, rape has been associated with the highest rates of subsequent PTSD.[4]

Interpersonal trauma may be particularly pathogenic because, in addition to the direct threat it poses, the event

**Clinical Points**

- Interpersonal forms of trauma may be further classified as intimate or nonintimate, depending on the relationship between the perpetrator and victim, as well as the nature of the assault (sexual vs physical).
- Survivors of intimate interpersonal trauma are more likely to report more of the specific symptoms of PTSD, ie, reexperiencing, active avoidance, hypervigilance, and exaggerated startle response, than survivors of noninterpersonal trauma. Differences between survivors of nonintimate interpersonal trauma and noninterpersonal trauma in endorsement of these symptoms are less marked. In addition, survivors of intimate interpersonal trauma are more likely than survivors of nonintimate interpersonal or noninterpersonal trauma to report numbing symptoms such as restricted affect and detachment from others.

can violate assumptions about the safety and predictability of the world and is a stark exposure to the capacity of other humans to engage in deliberately harmful activities. In addition, for some interpersonal traumas, such as intimate partner violence and childhood physical, sexual, or emotional abuse, perpetrators are in caregiving or intimate relationships with victims. These forms of interpersonal trauma have been associated with a range of difficulties, including affect and behavioral dysregulation and difficulties with relationships,[15] and may also limit victims' capacity to ensure their ongoing safety.[12,16] That consideration raises the question of whether the psychiatric impact of some forms of interpersonal PTEs may differ from that of other forms of interpersonal PTEs, an issue not explored in the studies of Norris,[8] Chung and Breslau,[10] or Forbes et al.[12]

Existing classifications of interpersonal PTEs include gender-based violence or PTEs typically perpetrated against women, such as intimate partner violence, rape, other sexual assaults, and stalking,[17] as opposed to those perpetrated against both men and women, such as muggings and general assaults. Such events are highly prevalent with between 20% and 30% of women reporting rape or attempted rape, exposure to intimate partner violence, and/or stalking.[17–19] Of course, these PTEs may be experienced by men as well. Another way of distinguishing between interpersonal PTEs, as noted previously, is to identify those for which the perpetrators are often in or have been in intimate or caregiver relationships with their victims. Thus, PTEs such as childhood physical and sexual abuse, intimate partner violence, and stalking by a former partner could be conceptualized as forms of betrayal trauma.[20,21] Even for victims who are not known to their attackers,[22] the impact of sexual assault can be considered "intimate" in that it threatens aspects of the self that are intensely personal, private, and core to the sense of self-integrity, and its consequences may include self- and victim-blaming[23] and withdrawal of social support[24] similar to those experienced by victims of betrayal trauma.[25,26]

While there has been considerable examination of the diverse psychopathology associated with PTSD following complex trauma,[25,27] differences in specific patterns of PTSD symptomatology following complex or intimate forms of interpersonal trauma and trauma not perpetrated by caregivers or intimates have not been systematically evaluated.

When considering the differential likelihood of experiencing PTSD symptoms relative to type of PTE, it is important to take into account the potentially confounding effects of gender and frequency of exposure to the PTE. A meta-analysis[28] found that women were more likely to meet criteria for PTSD although they were less likely to experience PTEs. However, they also found that while women were more likely to experience certain intimate interpersonal PTEs such as sexual assault and child sexual abuse, they were no more likely than men to meet criteria for PTSD following child sexual or nonsexual abuse or adult sexual assault.

This is the first study to assess the impact on individual PTSD symptoms of 3 different types of PTEs: (1) noninterpersonal PTEs, (2) nonintimate interpersonal PTEs such as physical assault by a nonintimate, and (3) intimate interpersonal PTEs such as physical assault perpetrated by an intimate or caregiver and rape or sexual assault (ie, having a high likelihood of being accompanied by a sense of personal violation, shame, and ostracism regardless of perpetrator). The analysis was based on a large nationally representative sample and took into account potential contributions of gender and frequency of PTE exposure.

## METHOD

The Australian Bureau of Statistics (ABS) conducted its second National Survey of Mental Health and Well-Being (NSMHWB) in 2007 using a random-stratified, multistage area probability sampling to select a nationally representative sample of persons aged 16 to 85 years.[29,30] This dataset is held by the ABS, and information on obtaining access to it can be obtained from the ABS Web site.[31] A total of 8,841 participants completed the full interview, representing an overall response rate of 60%. A modified version of the PTSD module of the World Health Organization's World Mental Health Composite International Diagnostic Interview (WMH-CIDI)[1] was used to assess previous exposure to PTEs and the presence or absence of each of the *Diagnostic and Statistical Manual of Mental Disorders,* Fourth Edition (*DSM-IV*) symptoms of PTSD. Each participant was questioned about their direct experience of 29 types of PTE. Fourteen of these PTEs were selected as the focus of the present study as they were readily classifiable as interpersonal or noninterpersonal (see Table 1). More detailed descriptions of the questions for each exposure can be seen at the ABS Web site.[29]

The survey participants (weighted N = 6,621; 74.9%) who reported exposure to at least 1 of the 29 original PTEs were asked if they had ever experienced problems such as upsetting memories or dreams, feeling emotionally distant or depressed, trouble sleeping or concentrating, and feeling jumpy or easily startled after the event or events. Participants who responded in the affirmative (weighted n = 2,719; or

41.1% of those reporting exposure to at least 1 of the 29 PTEs) were asked to identify the PTE or specific incidence thereof that caused the largest number or most severe of these reactions, and were then assessed for lifetime feelings of fear, helplessness, and horror (*DSM-IV* criterion A2 for PTSD) as well as lifetime experience of each of the 17 *DSM-IV* PTSD (criteria B–D) symptoms in relation to that event. A total of 1,053 (weighted N = 1,012) participants nominated 1 of the 14 PTEs of interest as causing the largest number or most severe of these reactions; these participants were the focus of the current study.

### Statistical Analyses

Stata/SE version 12.1[32] was used to analyze data from those nominating 1 of the 14 PTEs of interest as causing the largest number or most severe of their physical or emotional reactions. Results of all analyses reflect normalized post-stratification weighting, and 60 replicate weights were computed using the delete-a-group jackknife variance technique[33] to calculate weighted frequencies, confidence intervals, and standard errors for estimates.

We aggregated the 14 PTEs of interest into 3 classes: (1) noninterpersonal comprising exposure to toxic substances, life-threatening motor vehicle or other accidents, natural or man-made disasters, and life-threatening illnesses; (2) nonintimate interpersonal comprising kidnapping; physical violence by someone other than a spouse, romantic partner, parent, or caregiver; and mugging; and (3) intimate interpersonal comprising physical violence by a spouse, romantic partner, parent, or caregiver; rape; other forms of sexual assault; and stalking.

The classification of exposure type to class was made on the basis of existing literature. While most were straightforward, there was considerable discussion about the classification of sexual assault. Following a consensus among the authors, a decision was taken to classify sexual assault as intimate for the following reasons: (*a*) it often occurs between intimates (persons in family, close network), therefore involving a breach of trust and fiduciary responsibility; (*b*) it has an impact that is "intimate," in the sense that it threatens aspects of the self that are intensely personal, private, and core to the sense of self-integrity; and (*c*) it is commonly associated with the sense of shame, self-blame, betrayal, and stigma by others.

In accordance with this classification, we allocated each participant to 1 of 3 groups depending on which of these 3 classes contained the PTE the participant reported as causing the largest number of reactions or most severe reactions. A series of direct binary logistic regression analyses was then conducted to examine the contribution of PTE class and gender to endorsement of each of the 17 *DSM-IV* PTSD symptoms. To allow comparison across the 3 categories of PTE type, each model was run twice, first with the noninterpersonal trauma as the reference group and second with nonintimate interpersonal trauma as the reference group. Gender and PTE class were defined as categorical and entered simultaneously into the model, and a Bonferroni correction was applied to counteract the effect of multiple analyses on type I error, resulting in a $P$ value of .05/17 = .003.

## RESULTS

The weighted total of 1,012 participants ranged in age from 16 to 85 years (mean [SE] = 42.8 [0.6] years); 633 (62.5%) were women and 379 (37.5%) men. Three hundred sixty-six participants (36.2%, SE = 2.2) reported that exposure to a noninterpersonal trauma produced the worst reactions (the noninterpersonal trauma group), 142 (14.0%; SE = 1.4) reported that exposure to a nonintimate interpersonal trauma produced the worst reactions (the nonintimate interpersonal trauma group), and 504 (49.8%; SE = 2.2) reported that exposure to an intimate interpersonal trauma produced the worst reactions (the intimate interpersonal trauma group). Of the female participants, 162 (25.6%, SE = 2.2) reported that exposure to a noninterpersonal trauma produced the worst reactions, 57 (9.0%, SE = 1.5) reported that exposure to a nonintimate interpersonal trauma produced the worst reactions, and 414 (65.4%, SE = 2.5) reported that exposure to an intimate interpersonal trauma produced the worst reactions. Of the male participants, 204 (53.9%, SE = 3.9) reported that exposure to a noninterpersonal trauma produced the worst reactions, 84 (22.2%, SE = 3.0) reported that exposure to a nonintimate interpersonal trauma produced the worst reactions, and 90 (23.8%, SE = 3.2) reported that exposure to an intimate interpersonal trauma produced the worst reactions. As expected, there was a significant association between gender and the type of trauma reported as producing the worst reactions, with women tending to nominate an intimate interpersonal trauma and men tending to nominate 1 of the other 2 types of traumas (design-based $\chi^2_{1.97,116.23} = 42.2$, $P < .0001$).

Table 1 shows the frequency with which the selected sample (weighted N = 1,012) reported each specific trauma and nominated each specific trauma as producing the worst reactions. Participants reported experiencing a weighted average of 2.4 of the 14 PTEs of interest at least once (SE = 0.07). This average differed significantly across the 3 groups (unweighted $F_{2,1050} = 21.92$, $P < .001$), with post hoc comparisons indicating that participants in the intimate and nonintimate interpersonal trauma groups experienced more types of PTE (means of 2.7 and 2.5 PTEs, respectively) than participants in the noninterpersonal trauma group (a mean of 2.0 PTEs). Of the study participants, 278 (27.4%; SE = 1.6) met criteria for a lifetime diagnosis of PTSD, and 98 (9.7%; SE = 1.2) met criteria for a current (as of the last month) diagnosis of PTSD. Rates of lifetime PTSD differed with respect to trauma group, with 40.3% (SE = 2.8) of those in the intimate interpersonal trauma group meeting *DSM-IV* criteria for a lifetime diagnosis of PTSD with respect to that experience, compared to 27.1% (SE = 5.1) of those in the nonintimate interpersonal trauma group and 9.8% (SE = 1.7) of those in the noninterpersonal trauma group (design-based $\chi^2_{1.90,112.33} = 30.1$, $P < .0001$).

Results of the binary logistic regression analyses, including adjusted Wald tests for trauma type, odds ratios,

**Table 1. Percentage Reporting Each Potentially Traumatic Event (PTE) and Each PTE Experienced as Producing the Worst Reactions in the Current Sample (weighted N = 1,012), With or Without Producing Worst Reactions**

| Potentially Traumatic Event (PTE) | % (SE)[a] of Sample Reporting PTE as Producing the Worst Reactions | % (SE)[a] of Sample Reporting PTE |
|---|---|---|
| Noninterpersonal PTEs | | |
| Toxic chemical exposure | 0.65 (0.26) | 7.62 (1.33) |
| Automobile accident | 14.01 (1.45) | 24.97 (1.76) |
| Other life-threatening accident | 4.65 (0.85) | 11.97 (1.49) |
| Natural disaster | 3.48 (0.77) | 13.37 (1.53) |
| Man-made disaster | 2.59 (1.04) | 8.02 (1.32) |
| Life-threatening illness | 10.82 (1.42) | 21.13 (1.59) |
| Nonintimate interpersonal PTEs | | |
| Kidnapping | 1.29 (0.53) | 3.78 (0.95) |
| Beaten up by someone else | 4.05 (0.82) | 15.43 (1.72) |
| Mugged or threatened with a weapon | 8.64 (1.15) | 25.09 (1.96) |
| Intimate interpersonal PTEs | | |
| Beaten up by caregiver | 6.13 (0.85) | 13.17 (1.25) |
| Beaten up by spouse or romantic partner | 9.93 (1.34) | 19.26 (1.52) |
| Rape | 14.41 (1.52) | 22.44 (1.60) |
| Sexual assault | 13.01 (1.26) | 32.85 (2.08) |
| Stalking | 6.34 (1.29) | 21.72 (1.80) |
| Total | 100.0 | n/a |

[a]Jackknife standard errors of percentage estimates.
Abbreviation: n/a = not applicable.

confidence intervals for odds ratios, and *P* values are shown in Table 2. Adjusted Wald tests for the trauma group variable were significant for 9 of the 17 symptoms, indicating that for these symptoms, trauma group reliably predicted symptom endorsement. These 9 symptoms were intrusive memories of the trauma (B1), flashbacks (B3), psychological distress in response to trauma-related cues (B4), avoidance of thoughts or feelings related to the trauma (C1), avoidance of activities, places, or people that reminded of the traumatic event (C2), detachment from others (C5), restricted affect (C6), hypervigilance (D4), and exaggerated startle response (D5). Of these 9 symptoms, 7 (B1, B3, B4, C1, C2, D4, D5) are core symptoms of PTSD, with trauma type failing to predict only 2 core symptoms: nightmares (B2) and physiological reactions to trauma reminders (B5). In contrast, only 2 of the 8 noncore (dysphoria) symptoms of PTSD (C3–D3) were predicted: detachment from others (C5) and restricted affect (C6).

On the basis of a corrected significance level of $P < .003$, participants in the intimate interpersonal trauma group were significantly more likely than participants in the noninterpersonal trauma group to endorse all 9 of these symptoms. Compared to those in the nonintimate interpersonal trauma group, those in the intimate interpersonal trauma group were significantly more likely to endorse psychological distress in response to trauma-related cues (B4), avoidance of thoughts or feelings related to the trauma (C1), detachment from others (C5), and restricted affect (C6). The nonintimate interpersonal and noninterpersonal trauma groups differed significantly in their likelihood of endorsement of avoidance of activities, places, or people that reminded of the traumatic event (C2), hypervigilance (D4), and exaggerated startle response (D5) only. Gender was not significantly associated with endorsement of any symptoms at the $P < .003$ level.

Additional series of binary logistic regression analyses were undertaken to assess whether this pattern of results held when controlling for the number of times participants had been exposed to their nominated trauma. For 164 participants, exposure data for nominated traumas were missing or ongoing exposure to their nominated PTE was reported; these participants were excluded from the analysis, leaving a weighted sample size of 848. The number of times the nominated trauma had been experienced ranged from 1 to 500 (mean [SE] = 5.1 [0.9], with a median equal to 1). As frequency of exposure was highly skewed, we ran 2 series of analyses: one treating frequency of exposure as a continuous variable and the other treating it as a binary variable (single vs multiple exposures). The number of times the nominated trauma had been experienced was not significantly associated with endorsement of any symptoms at the $P < .003$ level. Likewise, gender was not significantly associated with symptom endorsement at the $P < .003$ level when controlling for exposure. The relationships between trauma type and symptom endorsement were consistent with the previously mentioned results, with the exception of flashbacks (B3), for which there was no longer any association between trauma type and symptom endorsement once exposure was controlled for at the $P < .003$ level. However, the adjusted Wald test for the contribution of the trauma type variable approached significance in each analysis ($F_{2,58} = 5.41$, $P = .007$, and $F_{2,58} = 6.07$, $P = .004$, for the continuous and binary analyses, respectively), and the odds ratios for symptom endorsement for those experiencing intimate interpersonal PTEs relative to noninterpersonal PTEs were significant (odds ratio [OR] = 2.1, $P = .003$, and OR = 2.2, $P = .002$, respectively).

Finally, as many participants reported experiencing multiple types of PTEs, potentially falling into more than 1 of the 3 classes of traumatic events, we ran yet another series of binary logistic regression analyses to control for the number of classes of PTE that participants had experienced. Again, this had little impact on the previous results. While the number of classes of PTE experienced was positively and significantly related to endorsement of symptoms B2 (nightmares; OR = 1.7, $P = .001$), C7 (sense of foreshortened future; OR = 1.8, $P < .001$), and D5 (exaggerated startle response; OR = 1.5, $P = .002$), the relationships between class of PTE reported as causing the worst reactions and endorsement of these symptoms were not influenced.* The only symptom for which results changed was D4 (hypervigilance), such that when number of classes to which participants had experienced was controlled for, those reporting a nonintimate interpersonal PTE as causing the worst reactions were no longer more likely to endorse this symptom relative to those reporting a noninterpersonal PTE.

*Results of these analyses are available from the author upon request.

**Table 2. Results of Binary Logistic Regression Analyses for Each *DSM-IV* Symptom of PTSD[a]**

| *DSM-IV* PTSD Symptom | Covariate | OR | 99.7% CI | *P* Value |
|---|---|---|---|---|
| **B1: Repeated unwanted memories** | Intimate interpersonal vs nonintimate interpersonal | 1.5 | (0.7–3.6) | .119 |
| $F_{2,58} = 10.64$, $P = .0001$[b] | Intimate interpersonal[c] vs noninterpersonal | 2.7 | (1.4–5.4) | <.001* |
| | Nonintimate interpersonal vs noninterpersonal | 1.8 | (0.8–4.0) | .030 |
| | Female vs male | 1.4 | (0.7–2.7) | .180 |
| B2: Nightmares | Intimate interpersonal vs nonintimate interpersonal | 1.3 | (0.5–3.1) | .404 |
| $F_{2,58} = 2.10$, NS[b] | Intimate interpersonal vs noninterpersonal | 1.6 | (0.8–3.1) | .044 |
| | Nonintimate interpersonal vs noninterpersonal | 1.2 | (0.5–2.8) | .423 |
| | Female vs male | 1.3 | (0.7–2.4) | .208 |
| **B3: Flashbacks** | Intimate interpersonal vs nonintimate interpersonal | 1.3 | (0.5–3.0) | .411 |
| $F_{2,58} = 7.58$, $P = .0012$[b] | Intimate interpersonal[c] vs noninterpersonal | 2.2 | (1.2–4.3) | <.001* |
| | Nonintimate interpersonal vs noninterpersonal | 1.8 | (0.8–4.0) | .033 |
| | Female vs male | 1.4 | (0.7–2.8) | .174 |
| **B4: Psychological distress** | Intimate interpersonal[c] vs nonintimate interpersonal | 3.2 | (1.3–7.9) | <.001* |
| $F_{2,58} = 24.45$, $P < .0001$[b] | Intimate interpersonal[c] vs noninterpersonal | 4.5 | (2.3–8.8) | <.001* |
| | Nonintimate interpersonal vs noninterpersonal | 1.4 | (0.6–3.1) | .192 |
| | Female vs male | 1.4 | (0.8–2.5) | .105 |
| B5: Physiological reactivity | Intimate interpersonal vs nonintimate interpersonal | 1.3 | (0.6–3.1) | .312 |
| $F_{2,58} = 3.55$, NS[b] | Intimate interpersonal vs noninterpersonal | 1.9 | (0.9–4.1) | .009 |
| | Nonintimate interpersonal vs noninterpersonal | 1.4 | (0.6–3.7) | .225 |
| | Female vs male | 1.2 | (0.6–2.4) | .548 |
| **C1: Avoiding thinking about the event** | Intimate interpersonal[c] vs nonintimate interpersonal | 3.2 | (1.3–7.7) | <.001* |
| $F_{2,58} = 28.63$, $P < .0001$[b] | Intimate interpersonal[c] vs noninterpersonal | 5.0 | (2.6–9.7) | <.001* |
| | Nonintimate interpersonal vs noninterpersonal | 1.6 | (0.7–3.7) | .090 |
| | Female vs male | 1.8 | (1.0–3.3) | .004 |
| **C2: Avoiding people etc that reminded of event** | Intimate interpersonal vs nonintimate interpersonal | 0.8 | (0.4–1.8) | .495 |
| $F_{2,58} = 10.36$, $P = .0001$[b] | Intimate interpersonal[c] vs noninterpersonal | 2.4 | (1.2–4.5) | <.001* |
| | Nonintimate interpersonal[c] vs noninterpersonal | 2.8 | (1.2–6.6) | <.001* |
| | Female vs male | 1.3 | (0.7–2.2) | .230 |
| C3: Amnesia | Intimate interpersonal vs nonintimate interpersonal | 1.6 | (0.6–4.3) | .132 |
| $F_{2,58} = 3.54$, NS[b] | Intimate interpersonal vs noninterpersonal | 2.0 | (0.9–4.4) | .012 |
| | Nonintimate interpersonal vs noninterpersonal | 1.2 | (0.4–3.5) | .566 |
| | Female vs male | 1.1 | (0.5–2.1) | .756 |
| C4: Diminished interest | Intimate interpersonal vs nonintimate interpersonal | 2.0 | (0.7–5.5) | .044 |
| $F_{2,58} = 5.16$, NS[b] | Intimate interpersonal vs noninterpersonal | 2.5 | (1.0–6.2) | .002 |
| | Nonintimate interpersonal vs noninterpersonal | 1.3 | (0.5–3.2) | .410 |
| | Female vs male | 1.0 | (0.5–2.1) | .896 |
| **C5: Detachment from others** | Intimate interpersonal[c] vs nonintimate interpersonal | 3.2 | (1.2–8.9) | .001* |
| $F_{2,58} = 15.19$, $P < .0001$[b] | Intimate interpersonal[c] vs noninterpersonal | 4.7 | (2.0–11.2) | <.001* |
| | Nonintimate interpersonal vs noninterpersonal | 1.5 | (0.6–3.4) | .171 |
| | Female vs male | 1.4 | (0.7–2.9) | .127 |
| **C6: Restricted affect** | Intimate interpersonal[c] vs nonintimate interpersonal | 4.1 | (1.5–11.3) | <.001* |
| $F_{2,58} = 31.04$, $P < .0001$[b] | Intimate interpersonal[c] vs noninterpersonal | 7.9 | (3.5–17.7) | <.001* |
| | Nonintimate interpersonal vs noninterpersonal | 1.9 | (0.8–4.5) | .018 |
| | Female vs male | 1.0 | (0.5–1.8) | .888 |
| C7: Sense of foreshortened future | Intimate interpersonal vs nonintimate interpersonal | 1.6 | (0.2–10.6) | .423 |
| $F_{2,58} = 1.56$, NS[b] | Intimate interpersonal vs noninterpersonal | 1.9 | (0.6–5.6) | .081 |
| | Nonintimate interpersonal vs noninterpersonal | 1.1 | (0.2–5.6) | .790 |
| | Female vs male | 1.3 | (0.4–4.1) | .424 |
| D1: Sleep difficulty | Intimate interpersonal vs nonintimate interpersonal | 1.5 | (0.6–3.7) | .212 |
| $F_{2,58} = 0.79$, NS[b] | Intimate interpersonal vs noninterpersonal | 1.2 | (0.6–2.6) | .442 |
| | Nonintimate interpersonal vs noninterpersonal | 0.8 | (0.4–1.9) | .492 |
| | Female vs male | 1.4 | (0.7–2.7) | .155 |
| D2: Irritability | Intimate interpersonal vs nonintimate interpersonal | 1.6 | (0.6–4.1) | .150 |
| $F_{2,58} = 1.71$, NS[b] | Intimate interpersonal vs noninterpersonal | 1.4 | (0.7–2.8) | .092 |
| | Nonintimate interpersonal vs noninterpersonal | 0.9 | (0.4–2.2) | .765 |
| | Female vs male | 1.3 | (0.7–2.3) | .150 |
| D3: Difficulty concentrating | Intimate interpersonal vs nonintimate interpersonal | 1.9 | (0.6–5.6) | .078 |
| $F_{2,58} = 3.08$, NS[b] | Intimate interpersonal vs noninterpersonal | 1.9 | (0.8–4.4) | .017 |
| | Nonintimate interpersonal vs noninterpersonal | 1.0 | (0.4–2.6) | .935 |
| | Female vs male | 1.1 | (0.7–1.9) | .542 |
| **D4: Hypervigilance** | Intimate interpersonal vs nonintimate interpersonal | 1.2 | (0.4–3.6) | .588 |
| $F_{2,58} = 13.04$, $P < .0001$[b] | Intimate interpersonal[c] vs noninterpersonal | 3.1 | (1.4–6.7) | <.001* |
| | Nonintimate interpersonal[c] vs noninterpersonal | 2.5 | (1.0–6.3) | .002* |
| | Female vs male | 1.2 | (0.6–2.2) | .411 |
| **D5: Exaggerated startle response** | Intimate interpersonal vs nonintimate interpersonal | 1.3 | (0.5–3.3) | .442 |
| $F_{2,58} = 24.49$, $P < .0001$[b] | Intimate interpersonal[c] vs noninterpersonal | 4.4 | (2.0–9.8) | <.001* |
| | Nonintimate interpersonal[c] vs noninterpersonal | 3.5 | (1.7–7.4) | <.001* |
| | Female vs male | 1.6 | (0.9–2.9) | .021 |

[a]Odds ratios (ORs) for endorsing each symptom are calculated for each PTE relative to each other and for female gender relative to male gender. Trauma types more significantly associated with symptom endorsement are in bold.
[b]Adjusted Wald tests assess overall contribution of PTE type only to the prediction of each symptom.
[c]Individuals in this group are significantly more likely to endorse this symptom than individuals in the comparison group.
*Significant at $P < .003$.

However, the difference in ORs and confidence intervals was marginal (OR = 2.4; 99.7% CI, 0.98–5.91; $P = .004$; see Table 2).

## DISCUSSION

The results of this study support previous findings that interpersonal trauma is more likely to result in PTSD than noninterpersonal trauma, with intimate interpersonal trauma most likely to do so. However, analyses of individual symptom endorsement reveal a more complex pattern of phenomenological differences. The group that most strongly endorsed the profile of core PTSD symptoms was the intimate interpersonal trauma group. This group was differentiated from the noninterpersonal trauma group in the frequency of endorsement of 7 of the 9 core symptoms of PTSD[14] in addition to the 2 key emotional numbing symptoms (detachment and restricted affect). These core PTSD symptoms have been found to be more closely related to comorbid fear or phobic disorders than the PTSD dysphoria symptoms[34] with the intrusive symptoms distinguishing PTSD from other forms of posttraumatic psychopathology such as depression.[35] With the exception of flashbacks (B3), these differences were maintained when controlling for frequency of the nominated trauma.

Differentiation between the 2 interpersonal trauma groups was specific to distress at reminders (B4) and attempts to suppress and avoid thoughts and feelings relating to these events both actively (C1) and involuntarily (numbing), through detachment (C5) and restricted affect (C6). The findings suggest that in the context of the overwhelming impact of violation and betrayal following intimate trauma associated with feelings of guilt and shame and the often unavoidable or inescapable nature of the trauma (with survivors potentially still living with or in proximity to perpetrators), survivors appear to experience a more substantive shutdown or suppression of emotional response than survivors of nonintimate traumas. Of further clinical significance, such numbed or suppressed responses have previously also been identified as an indicator of poor prognosis.[10]

The intimate and nonintimate interpersonal trauma groups did not differ on the externally focused core PTSD symptoms of physiological reactivity in response to trauma-related cues (B5); avoidance of activities, places, and people that reminded of the traumatic event (C2); hypervigilance (D4); and exaggerated startle response (D5). The absence of difference on these externally focused symptoms suggests that the impact on the behavioral manifestations of responding to environmental threat is comparable, even though the impact of intimate interpersonal trauma on distress at reminders and cognitive and emotional avoidance and suppression is greater than that of nonintimate interpersonal trauma. Experience of interpersonal trauma, regardless of perpetrator, appears to fuel a need for surveillance and vigilance for potential threat in the environment, avoidance of threat cues, and fear-based physical reactivity to perceived threat cues. Consistent with this reasoning, the sole differences between the nonintimate interpersonal trauma and the noninterpersonal trauma groups were symptoms focused on predicting and avoiding threat in the external environment such as avoidance of activities, places, and people that reminded of the traumatic event (C2); hypervigilance (D4); and exaggerated startle response (D5), all of which were higher in the interpersonal trauma group. These findings suggest that a mark of interpersonal trauma, intimate or otherwise, is the ongoing experience of an environment that is perpetually unsafe due to the ever-present potential of human threat. This model is consistent with evolutionary survival models of PTSD (eg, see reference 16), a model that fits less well with traumas of nonhuman origin. The nonintimate interpersonal and noninterpersonal groups did not significantly differ on endorsement of the more internal core PTSD symptoms of reexperiencing the trauma (B1–B5), avoidance of thoughts and feelings (C1), or emotional numbing (C6).

Women were more likely than men to nominate an intimate interpersonal form of trauma as causing the worst reactions, reflecting women's greater likelihood of experiencing rape or sexual assault. Interestingly, despite previous reports of higher rates of PTSD among women than men,[4,28,36–38] this study found that after the effects of trauma type were accounted for, gender did not predict endorsement of any PTSD symptoms. In particular, it is inconsistent with previous findings that women are more likely than men to develop PTSD following assaultive violence.[37] It is possible that distinguishing between nonintimate and intimate interpersonal forms of trauma may help account for the particularly pathogenic nature of gender-based forms of violence such as rape and sexual assault when determining the relative susceptibility of men and women to PTSD.[39,40]

Some caution is warranted in interpretation of these findings. First, this study is cross-sectional and based on retrospective reports of both PTE exposure and PTSD symptoms. Longitudinal studies of PTSD symptoms following PTE exposure are likely to provide more unbiased estimates of the differential impact of PTE type on symptom endorsement. Second, this study assessed PTSD symptoms in relation to a PTE nominated by each individual participant as causing the worst reactions. As such, PTSD symptoms in relation to other PTEs experienced by the individual were not assessed. However, controlling for the number of classes of PTE to which each participant had been exposed had little effect on results. Third, the classification of PTEs into the 3 classes of noninterpersonal, nonintimate interpersonal, and intimate interpersonal was guided by the literature and was consensus-based where the literature was less clear, specifically in the case of sexual assault for which limited information was available regarding the specifics of each individual's exposure. Finally, the findings of this study cannot be generalized to those exposure types, such as combat, not included in the analysis.

In conclusion, this study confirmed that survivors of intimate interpersonal trauma appear to experience particularly severe intrusive memories and reminders of

past trauma and suppression of emotional responsivity compared with survivors of nonintimate interpersonal trauma and noninterpersonal trauma. As such, the impact of violation and betrayal following intimate trauma and the often unavoidable nature of the trauma appears to result in substantive suppression of emotional response. However, the mark of trauma at the hands of another, whether intimate or nonintimate, is the heightened perception of an environment as unsafe and unpredictable, due to the potential of human threat.

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