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Differences in Female and Male Victims and Perpetrators of Partner Violence With Respect to WEB Scores

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Abstract

Measurements of intimate partner violence (IPV) based on acts of violence have repeatedly found substantial bilateral violence between intimates. However, the context of this violence is not well defined by acts alone. The objective of this research was to compare differences in women and men within each IPV status category (victim, perpetrator, and both) with respect to levels of battering as defined by their scores on the Women's Experience With Battering Scale (WEB), which asks gender-neutral questions about the abuse of power and control and fear in an intimate relationship. In our study, women disclosed higher levels of battering on the WEB, despite IPV status (victimization or both victimization and perpetration). In addition, female IPV victims were 5 times more likely than their male counterparts to disclose high rates of battering on the WEB. Depressive symptoms, symptoms of posttraumatic stress disorder, African American race, and IPV victimization were independently associated with higher WEB scores.

Keywords

intimate partner violence; victim; perpetrator; battering; mental health; Women's Experience With Battering Scale

The bulk of the empirical work related to intimate partner violence (IPV) has addressed either female victims or male perpetrators. To add to this literature, it is timely to conduct research with both women and men that addresses the full range of IPV behaviors (victimization,

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perpetration, and both). To do this, it will be necessary to identify tools and conduct studies that can help interpret positive IPV screens in heterogeneous populations.

Research on IPV in women has predominately focused on their victimization, for very valid reasons. A recent study reported that 29% of women have experienced physical, sexual, or psychological IPV in their lifetimes (Coker et al., 2002). Investigations in emergency departments (EDs) have revealed lifetime IPV prevalence rates of 33% to 54% in female patients (Abbott, Johnson, Koziol-McLain, & Lowenstein, 1995; Ernst, Nick, Weiss, Houry, & Mills, 1997). Other research has documented that women are more likely to be injured and to involve law enforcement for IPV assaults than men (Phelan et al., 2005). In contrast, in a study of female perpetration, Lipsky, Caetano, Field, and Bazargan (2004) reported that in an ED setting, 56% of the women who had been victimized in the past year also acknowledged perpetration behaviors. Women who endorsed perpetration behaviors in that study were more likely to be African American and to disclose alcohol and drug abuse. Kernsmith (2005) found that female perpetrators were more likely to use violence in response to prior abuse than men.

Likewise, IPV research on men has focused on their perpetration of IPV, again for very valid reasons. In a population-based survey in Iowa, Peek-Asa et al. (2005) found that 14% of men had performed at least one act of physical abuse, and 35% had perpetrated acts of emotional abuse. Far fewer studies have surveyed men about their IPV victimization. Mechem, Shofer, Reinhard, Hornig, and Datner (1999) found that almost 13% of male patients surveyed in EDs reported IPV victimization within the past year by female partners. In addition, 37% of these acts involved weapons. However, Muelleman and Burgess (1998) reported that male patients injured by partners had high rates of IPV perpetration (51%).

Although it is well acknowledged that the majority of victims of injury-related violence are heterosexual women, the prevalence rate for the use of physical aggression in intimate relationships is approximately equal for both men and women in heterosexual relationships. Johnson and Ferraro (2000) described 4 types of violence between intimates. *Violent resistance* is primarily defensive or reactive on the part of the victim, usually a woman. *Common couple violence* represents a slight predominance of male over female violence but without the coercive emotional abuse and power and control dynamics that characterize *intimate terrorism*, which is primarily perpetrated by men against women but can also occur in same-sex relationships. Last, Johnson and Ferraro considered at least the theoretical construct of *mutual violent control* by two violent individuals of equal power. Johnson and Ferraro asserted that the vast majority of violence detected by family conflict surveys represents common couple violence, whereas the criminal justice system and battered women's shelters predominantly see people who experience the other forms of IPV. These distinctions are somewhat supported by work with clinical populations; 56% of the violence in a sample of mutually violent couples was found to be low level, mild, gender neutral, bidirectional, and without injury (Vivian & Langhinrichsen-Rohling, 1994).

Bookwala, Sobin, and Zdaniuk (2005) reviewed data from the National Survey of Families and Households and found differences in how conflict is handled, both by gender and by age. Men were more likely to have calmer discussions than women; these findings were particularly noticeable with age, with younger women being the least likely to have calm discussions. On the other hand, younger men were more likely to report injuring partners than were women. Interestingly, no older men reported injuring partners. In further support of this concept of bidirectional violence, Archer (2000) conducted a meta-analysis and reported that women were more likely than men to use physical aggression, but they were also more likely to be injured by partners. In a study of teenagers, Hilton (2000) found that boys were more aggressive toward other boys than toward girls. In contrast, girls were more likely to be aggressive toward boys than toward other girls. For both male and female respondents, intimates were targeted most

for physical aggression. These studies all suggest that both men and women exhibit perpetrator and victimization behaviors and that gender alone may not be the sole determinant of aggression.

Currently, many of the scales used to quantify IPV measure only discrete acts of violence, whereas the Women's Experience With Battering Scale (WEB) assesses the more comprehensive concept of battering, defined as a syndrome of control and increasing entrapment that accompanies the use of physical force in intimate relationships (Smith, Tessaro, & Earp, 1995). The WEB was developed by Smith, Earp, and Devellis (1995) and is intended to accurately classify people as battered or nonbattered and gain a victim's perspective of an assault. Compared with other scales used to measure IPV, the WEB is shorter and measures specific experiences. Recent studies have used the WEB to identify abused women (Bonomi et al., 2006) and have found that the WEB may identify more IPV victims than tools measuring physical acts of violence (Coker, Pope, Smith, Sanderson, & Hussey, 2001).

The objective of this research was to compare differences in women and men within each IPV status category (victim, perpetrator, and both) with respect to WEB scores. It was hypothesized that female IPV victims would report higher WEB scores than male IPV victims, consistent with higher levels of being battered. It was further hypothesized that women disclosing both victimization and perpetration behaviors would have higher WEB scores than men disclosing both behaviors, consistent with more injuries in women. With regard to perpetrators, we hypothesized that both male and female perpetrators would have low WEB scores.

Methods

Selection of Participants and Setting

The study site was a large southeastern city's only public hospital and Level 1 trauma center. The hospital is a university-affiliated teaching hospital, and it treats the inner-city and medically indigent populations of the two most populous counties in the state. Over 80% of patients are African American, and most are uninsured. The ED treats over 105,000 patients annually. The university institutional review board and the hospital research oversight committee approved this study.

All patients between the ages of 18 and 55 years were approached in the ED waiting room during set study times, 3 days a week for 8 hours a day. Research assistants reviewed ED patient registration logs to identify potential participants. Participants were excluded if they could not read English at a fifth grade level, were intoxicated, were acutely psychotic, or were too ill to complete a 20-minute survey. All participants were taken to a semiprivate booth in the waiting room to provide consent and to participate in the survey on a computer kiosk.

Data Collection and Processing

In addition to collection demographic data (age, race, gender, marital status, educational level, current employment status, and current insurance status), questions related to IPV, depressive symptoms, symptoms of post-traumatic stress disorder (PTSD), suicidality, and substance abuse were asked using validated surveys on the computer kiosk. Participants stopped the survey during the computer screening process if they were called to see physicians, if they became too sick, or if they chose to stop the screening. All patients who completed the survey received specific resource lists tailored to their specific health needs as indicated by the surveys. Data were analyzed using SAS 9.1.

Methods of Measurement

IPV status measures—For patients who were in relationships within the past year, the George Washington University Universal Violence Prevention Screening Protocol (UVPSP; Dutton, Mitchell, & Haywood, 1996) was used to screen for IPV victimization. This five-question scale assesses a patient for physical violence, threat of violence, sexual violence, and emotional violence. A positive response to any of the questions yields a positive screen for IPV victimization. A study conducted in the same clinical setting demonstrated a positive predictive value of 71% to 89% for each UVPSP item and sensitivity of 78% to 95% for the physical and emotional abuse screening questions compared with the Index of Spouse Abuse (Heron, Thompson, Jackson, & Kaslow, 2003).

Intimate partner perpetration during the past year was assessed using a scale developed by Rhodes, Boslaugh, and Kahn (2006) at the University of Chicago. The scale consists of nine questions that assess verbal aggression, object aggression, physical aggression, physical abuse, and sexual abuse. A positive response to any two questions yields a positive screen for IPV perpetration. An early version of this scale was found to have moderate to good sensitivity for perpetration (70.0% to 95.5%), but specificity was weaker (44.7% to 50.6%).

Thus, for this study, women and men were categorized as victims if they had UVPSP scores of 1 or more. In addition, women and men were categorized as perpetrators if they had perpetrator screening scores of 2 or more. Furthermore, women and men were categorized as both victims and perpetrators if they had UVPSP scores of 1 or more and perpetrator screening scores of 2 or more.

WEB—Only those patients who were in relationships in the past year and had been categorized as victims, perpetrators, or both were given the WEB to determine their levels of victimization and battering. The WEB consists of 10 items scored on a Likert-type scale. A cumulative cutoff score of less than 20 was used to identify patients as having low WEB scores. A score of 20 or more classified patients as experiencing high levels of abuse (i.e., victims). The scale was shown to have high internal consistency reliability ($\alpha = .99$) and was found to have high known-group validity with battered women compared with nonbattered women, $t(208) = -41.79, p < .001$ (Smith, Earp, et al., 1995).

We asked patients to answer the WEB items only with respect to their experiences with their current or most recent partners. The items are gender neutral, so we did not modify them for men. Items included on the WEB are shown in Table 1.

Mental health—Mental health symptoms also were assessed using the Beck Depression Inventory–II (BDI-II; Beck, Steer, & Brown, 2006), Part 3 of the Posttraumatic Stress Diagnostic Scale (PDS; Foa, Riggs, Dancu, & Rothbaum, 1993), and the Beck Scale for Suicide Ideation (BSS; Beck, Kovacs, & Weissman, 1979). The BDI-II is a 21-item measure used to detect symptoms of depression and the severity of reported symptoms. It has a classification rate of 88% (sensitivity = 71%, specificity = 88%). A score of 20 or more represents a positive screen for moderate or severe depressive symptoms (Beck et al., 2006). The PDS is a 17-item questionnaire that assesses three categories of symptoms with PTSD: reexperience, avoidance, and hyperarousal. It has a classification rate of 74% (sensitivity = 89%, specificity = 65%). A score of 21 or more results in a positive screen for moderate or severe PTSD symptoms (Foa et al., 1993). The BSS is a 21-item questionnaire used to measure suicidal intent. It has high internal consistency of .89 and an interrater reliability of .83 (Beck et al., 1979). A score of 11 or more yields a positive screen for suicidal ideation (Beck, Brown, & Steer, 1997).

Substance use—Substance abuse was assessed using several tools. The CAGE (cut down, annoyed, guilty, eye-opener) screener was used to ascertain alcohol abuse (Ewing, 1984). A

score of 2 or more is considered positive for alcoholism (Soderstrom et al., 1997). Sensitivity and specificity range from 60% to 95% and 40 to 95%, respectively (Nilssen & Cone, 1994). Drug use was measured by a single question: "Have you used any street drugs in the past 4 weeks?" A positive response indicated a possible drug-abuse problem. Participants also were asked "Do you smoke cigarettes?" to assess smoking status. We do not have psychometric data on our drug use or smoking questions.

Data Analysis

Prevalence rates were calculated for demographics, mental health symptoms, and substance-abuse variables for both men and women. Chi-square and Fisher's exact tests were conducted to determine if there were any gender differences for these variables. Chi-square analyses were run and odds ratios calculated to determine any differences between gender and high WEB scores, stratified by IPV status.

In addition, a stepwise regression using backward elimination was performed to determine associations with higher WEB scores. First, a model was run using age, gender, race, marital status, education, current employment, insurance status, IPV victim status, IPV perpetrator status, BDI score, PDS score, BSS score, alcohol abuse, drug use, and smoking behavior. A second model was performed using only the variables that were significantly different for men and women in the bivariate analysis. This full model excluded age, race, marital status, education, and BSS score. The variables left in both models were then run in a final stepwise regression model.

Results

A total of 3,072 patients consented to participate in the survey, of whom 2,737 (89%) completed the full survey. A total of 772 participants reported victimization, perpetration, or both. For women, 22% screened positive for victimization, 7% screened positive for perpetration, and 12% disclosed both victimization and perpetration. For men, 21% screened positive for IPV victimization, 5% screened positive for perpetration, and 13% disclosed both victimization and perpetration. This constituted our study group for analysis. We included all complete records when available, but for some questions, patients chose not to answer specific questions or quit the survey because they were called back to the ED for medical evaluation. Table 2 details the demographic information for participants.

To determine if women were more likely to have higher WEB scores, independent of IPV status, χ^2 analyses were run and odds ratios calculated within each IPV category. Chi-square analysis demonstrated that there were significant differences between the IPV victims' gender and WEB scores (27.1% of female victims vs. 6.3% of male victims had WEB scores ≥ 20 , $p < .001$). Women who disclosed both victimization and perpetration were also more likely than men who disclosed both IPV behaviors to have WEB scores of 20 or more (45.9% vs. 29.2%, $p = .007$). No differences were detected between male and female perpetrators; in fact, only one perpetrator had a WEB score of 20 or more. Table 3 summarizes these findings.

During the first stepwise regression, race ($F = 10.18$), BDI score ($F = 10.17$), and PDS score ($F = 4.51$) were significant. During the second stepwise regression using significant univariate categories, IPV victimization ($F = 8.24$), BDI score ($F = 20.06$), PDS score ($F = 13.43$), and alcohol abuse ($F = 4.44$) were found to be significant. With these significant variables combined in a final regression model, higher WEB scores were only associated with African American race ($F = 1.72$), IPV victimization ($F = 7.89$), BDI score ($F = 18.26$), and PDS score ($F = 10.29$) were associated with higher WEB scores when controlling for all other variables mentioned above.

Discussion

Our results support the use of the WEB as a gender-neutral scale for distinguishing between acts of abuse and violence in intimate relationships and the level of victimization being experienced. Although both sexes were equally likely to disclose victimization, perpetration, or both victimization and perpetration behaviors, the WEB was able to differentiate important gender-based differences in the emotional reactions to and contextual experience of IPV for men and women.

Although traditionally, women have been considered to be the predominant victims and men the perpetrators of IPV, the picture may be more complex than previously thought. Lipsky et al. (2004) also found similar rates of perpetration and victimization in men and women. Sorenson, Upchurch, and Shen (1996) found that married men and women were equally likely to report that they had been hit, been shoved, or had something thrown at them. However, the prevalence of behaviors does not necessarily reflect on the consequences of those behaviors. In the current study, we found that the WEB might be a useful measure of the severity of actual IPV victimization.

We found a high 1-year prevalence of IPV victimization (22%) in our population. This rate is somewhat higher than rates found in other ED studies (Abbott et al., 1995; Dearwater et al., 1998; Glass, Dearwater, & Campbell, 2001; Nilssen & Cone, 1994). Of all IPV-positive patients (victims, perpetrators, and both), approximately half disclosed only victimization. Interestingly, one third of IPV-positive patients disclosed both victimization and perpetration behaviors, consistent with other studies that reported that the majority of IPV victims also disclose perpetration behaviors (Lim, Rioux, & Ridley, 2004).

In our study, women disclosing any victimization (with or without perpetration) were more likely to score high on the WEB than men who disclosed victimization with or without perpetration, indicating that women who perpetrate IPV are more likely to be striking back in response to their own victimization experiences. Johnson and Ferraro (2000) would classify this behavior as violent resistance. Furthermore, female victims were 5 times more likely than male victims to have high WEB scores, indicating that female IPV victims are more likely to be exposed to classic battering or, in Johnson and Ferraro's terminology, intimate terrorism than male victims. Of importance, participants of either gender who disclosed only victimization scored higher on the WEB than those who disclosed only perpetration, validating the conceptual framework of IPV as an abuse of power and control. The fact that the WEB might be better for determining the level of victimization being experienced supports Smith, Tessaro, et al.'s (1995) argument that battering or victimization is more than discrete acts of violence and is influenced by a person's psychological vulnerability or perceptions of susceptibility to physical and psychological danger, loss of power, and loss of control in a relationship. Male victims may experience discrete acts of IPV, but they may not necessarily feel a loss of power or control, as evidenced by lower WEB scores in our study.

Almost half of women (46%) and 29% of men who disclosed both IPV victimization and perpetration behaviors had high WEB scores, indicating that bidirectional IPV is unhealthy for both genders. Further work will be needed to determine if this bidirectional IPV is common couple violence, in which the dynamic is one of conflict between partners of more or less equal power. Likewise, it is unknown whether common couple violence is characterized mainly by minor forms of violence or whether it can also escalate into serious and life-threatening forms of violence (Johnson, 1995). Many of the patients experiencing bidirectional IPV in our study also reported a loss of power and control and high levels of battering. One could theorize that self-reported perpetration acts were violent resistance in response to intimate terrorism in those patients with high WEB scores. In comparison, no man who disclosed only perpetration and

only one woman who disclosed only perpetration had a WEB score of 20 or more. Thus, those who disclose both victimization and perpetration behaviors are more likely to be engaged in common couple violence than those who self-report only perpetration behaviors. Further work should examine whether those who have high WEB scores in the bidirectional IPV category are more likely to report violence toward their partners as an act of self-defense instead of an act of aggression. Likewise, more work will need to be done with those in the bidirectional IPV category who have low WEB scores to determine if they are predominantly perpetrators or if the pattern in their relationship is one of low-level, sporadic acts of situational violence.

Several studies have demonstrated an association with IPV and increased levels of mental health symptoms (Coker et al., 2002; Kaslow et al., 2001). Romito, Turan, and De Marchi (2005) reported that compared with nonabused women, women who were currently experiencing IPV were almost 6 times more likely to report psychological distress, and women who had experienced IPV in the past were 3 times more likely to have psychological symptoms. In our study, we found that depressive symptoms and PTSD symptoms were associated with higher WEB scores, even when controlling for IPV status, gender, and other demographic factors. This suggests that feelings of being battered and power and control issues are associated with moderate to severe depressive and PTSD symptoms. Often physicians focus on the physical injuries associated with IPV and neglect to ask about mental health symptoms. Our results support the concept that the perception of being battered, regardless of self-reported IPV status, is associated with moderate to severe mental health symptoms.

There were certain limitations to this study. We studied a convenience sample of nonemergent ED patients, so only those who were not acutely ill or severely injured were screened. Therefore, we may have missed the more severe levels of IPV. Also, the results are based solely on self-report. Recall bias or unwillingness to report may have affected the findings. However, psychometrically sound measures were used for each construct. This study was conducted in one inner-city ED in a large southern city, and therefore the study population may not be generalizable to other settings or other parts of the county. Last, the WEB was designed to gain a woman's perspective of her battering experience and to classify her as battered or nonbattered; it has not previously been used with men. However, the items are gender neutral, and the men in our sample did not have any problems responding to items about feelings of fear, power, and control in their intimate relationships.

Conclusions

We found that men and women endorsed similar rates of IPV victimization and perpetration. Although much prior research has looked at female victimization and male perpetration, future research should focus on the overlap of these behaviors. This study demonstrated that women disclosed higher levels of battering regardless of IPV status (victimization, perpetration, and both) than their male counterparts on the WEB. In addition, only one person in our study who disclosed only IPV perpetration had a high WEB score. Depressive symptoms, PTSD symptoms, African American race, and IPV victimization were independently associated with higher WEB scores. By using the WEB, providers can obtain more detailed information from patients about the severity of the abuse they are experiencing.

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Biographies

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Nadine J. Kaslow is a professor with tenure in the Emory University School of Medicine Department of Psychiatry and Behavioral Sciences and a chief psychologist in the Grady Health System. She holds a joint appointment in the Department of Psychology, the Department of Pediatrics, and the Department of Emergency Medicine and the Rollins School of Public Health. She has published over 160 articles and chapters on the assessment and treatment of family violence, the assessment and treatment of depression and suicide in youth and adults, couples and family therapy, and women's mental health.

Table 1
Items on the Women's Experience With Battering Scale

My partner made me feel unsafe even in my own home.
I felt ashamed of the things my partner did to me.
I tried not to rock the boat because I was afraid of what my partner might do.
I felt like I was programmed to react in a certain way.
I felt like my partner kept me a prisoner.
My partner could scare me without laying a hand on me.
I hid the truth from others because I was afraid not to.
I felt owned and controlled by my partner.
My partner made me feel like I had no control over my life.
My partner had a look that went straight through me and terrified me.

Table 2
Women and Men Compared by Demographic Variables, IPV Status, Mental Health Symptoms and Substance Abuse (IPV-positive only)

Variable	Men		Women		p
	n	%	n	%	
Race (n = 772)					
Black	29	8.1	31	7.5	
White	318	89.1	371	89.4	
Other	10	2.8	13	3.1	ns
Marital status (n = 771)					
Single	248	69.5	306	73.9	
Separated/divorced	68	19.0	72	17.4	
Widowed	2	0.6	5	1.2	
Married	39	10.9	31	7.5	ns
Education (n = 441)					
Less than ninth grade	13	7.3	22	8.4	
Some/completed high school	71	39.7	78	29.8	
Some/completed college	95	53.1	162	61.8	ns
Insurance (n = 768)					
None	293	82.1	262	63.7	
Medicaid/Medicare	31	8.7	117	28.5	
Private	33	9.2	32	7.8	<.0001
Employed (n = 770)					
Yes	172	48.2	154	37.3	
No	185	51.8	259	62.7	.0023
IPV status (n = 772)					
Victim	190	53.2	219	52.8	
Perpetrator	47	13.2	74	17.8	
Victim and perpetrator	120	33.6	122	29.4	ns
Depression (BDI-II) (n = 772)					
Low (<20)	251	70.3	254	61.2	
Moderate/severe (≥20)	106	29.7	161	38.8	.008
PTSD (PDS) (n = 772)					
Low (<21)	304	85.1	320	77.1	
Moderate/severe (≥21)	53	14.8	95	22.9	.0046
Suicide ideation (BSS) (n = 772)					
Low (<11)	322	90.2	374	90.1	
Moderate/severe (≥11)	35	9.8	41	9.9	ns
Alcohol abuse (CAGE) (n = 471)					
Yes (<2)	108	44.8	146	63.5	
No (≥2)	133	55.2	84	36.5	<.0001
Drug use (n = 771)					
Yes	138	38.7	98	23.7	
No	216	60.5	308	74.4	
Not sure	3	0.8	8	1.9	<.0001
Cigarette smoking (n = 770)					
Yes	232	65.0	208	50.4	
No	125	35.0	205	49.6	<.0001

Note: IPV = intimate partner violence; BDI-II = Beck Depression Inventory-II; PTSD = post-traumatic stress disorder; PDS = Posttraumatic Stress Diagnostic Scale; BSS = Beck Scale for Suicide Ideation; CAGE = cut down, annoyed, guilty, eye-opener.

Table 3
Women's Experience With Battering Scale (WEB) Scores and Gender, Stratified by IPV Status

IPV Status	WEB Score	Women, <i>n</i> (%)	Men, <i>n</i> (%)	<i>p</i>	Odds Ratio	95% Confidence Interval
Victim (<i>n</i> = 407)						
	Low (<20)	159 (72.9)	177 (93.6)			
	High (≥20)	59 (27.1)	12 (6.3)	<.0001	0.18	0.09 to 0.35
Perpetrator (<i>n</i> = 121)						
	Low (<20)	73 (98.7)	47 (100.0)			
	High (≥20) ^a	1 (1.3)	0 (0.0)	<i>ns</i>		
Victim and perpetrator (<i>n</i> = 242)						
	Low (<20)	66 (54.1)	85 (70.8)			
	High (≥20)	56 (45.9)	35 (29.2)	.0072	0.48	0.28 to 0.82

^a Odds ratio could not be determined because of zero cell.