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The Relative Effects of Intimate Partner Physical and Sexual Violence on Post-Traumatic Stress Disorder Symptomatology

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Abstract

This study examined the relative effects of intimate partner physical and sexual violence on Post-Traumatic Stress Disorder (PTSD) symptomatology. Severity of physical and sexual violence as well as PTSD severity were assessed in a sample of 62 help-seeking battered women. The results of this study were consistent with prior research, finding significant and positive relationships between physical and sexual violence as well as sexual violence and PTSD symptoms. In order to further clarify these relationships, the unique effects of sexual violence on PTSD were examined after controlling for physical violence severity. Results indicated that sexual violence severity explained a significant proportion of the variance in PTSD severity beyond that which was already accounted for by physical violence severity. These findings have important implications for mental health and social service professionals who work with battered women.

Keywords

trauma; posttraumatic stress disorder; domestic violence; intimate partner violence; abuse; sexual abuse

The literature on intimate partner sexual violence is sparse, and that which does exist focuses primarily on a few narrow aspects, including legality, prevalence rates, and different types of marital rape. Fourteen percent of married women report one or more incidents of marital rape (Russell, 1982). Although all 50 states now recognize wife rape as a crime, some form of exemption still remains for husbands in more than half of our states (Bergen, 1996). As a consequence, married women may hesitate to question forced sex because they believe they have no right to refuse sexual advances made by their husbands (Weingourt, 1985). In fact, raped wives will often not recognize themselves as such (Gelles & Straus, 1988). Instead, a wife may view the rape as part of a marital conflict for which she is to blame or that her own sexual inadequacy was responsible (Finkelhor & Yllo, 1985). The harsh result is that the personal shame and self-blame that raped wives experience is often reinforced by an equally blaming culture (Pagelow, 1988).

Only in the last decade or so has research begun to address the relationship between marital rape and post-trauma symptoms. Kilpatrick, Best, Saunders, and Veronen (1988) found no significant differences between marital, date, and stranger rape victims in terms of psychiatric disorders (e.g., major depression, obsessive-compulsive disorder, social phobia, and sexual dysfunction). Likewise, Riggs, Kilpatrick, and Resnick (1992) found similar types and levels of post-trauma distress when comparing marital rape to stranger rape victims. These studies refute the cultural stereotype that marital rape is somehow less traumatizing than stranger rape.

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Moreover, a handful of studies have found post-traumatic stress disorder, fear, anxiety, depression, and sexual dysfunction to be consequences of marital rape (Frieze, 1983; Hanneke & Shields, 1985; Kemp, Green, Hovanitz, & Rawlings, 1995; Shields, Resick, & Hanneke, 1990; Whatley, 1993). Although Russell (1982) notes that marital rape is not exclusively found in battering relationships, it is nearly impossible to find a large enough sample of women to study who have experienced sexual violence yet have not been physically assaulted by their husbands as well (Frieze, 1983; Russell, 1982; Shields et al., 1990). Therefore, marital rape findings must be considered in the context of other dimensions of partner abuse.

In order to better understand this context, it is important to first examine post-trauma symptomatology among battered women in general. There seems to be growing agreement among researchers that the psychological symptoms seen in battered women are the negative consequence of ongoing trauma (Holtzworth-Munroe, Smutzler, & Sandin, 1997). In recent years, it has become apparent that much of the battered woman's syndrome overlaps with Post-Traumatic Stress Disorder (PTSD) symptoms, including difficulties falling or staying asleep, nightmares, flashbacks, increased startle responses, and numbed affect (Walker, 1991). PTSD "stresses the abnormal nature of the stressor which causes the mental health symptoms, not individual pathology" (Walker, 1991, p. 22). In a recent meta-analysis, Golding (1999) found a weighted mean prevalence rate of 63.8% in 11 studies of PTSD in battered women. These data indicate that PTSD is one of the most frequent symptom outcomes of partner abuse.

In light of these findings, it is important to re-examine the post-trauma reactions of marital rape victims within this context, that is, whether women who experience sexual violence as well as battering suffer psychological consequences more, less, or equivalent to women who experience battering only. A handful of recent studies examining the impact of marital rape have made the comparison between women who were battered only and those who were both battered and raped. Regardless of whether PTSD, depression, anxiety, fear, self-esteem, or sexual dysfunction were used as psychological outcome measures, battered and raped women displayed the highest levels of symptomatology compared to battered-only women and non-victims (Russell, 1982; Shields et al., 1990; Shields & Hanneke, 1983; Whatley, 1993). The consistency of this finding across studies and symptom domains indicates that the experience of sexual and physical assault may be more traumatic than physical assault only.

However, the relationship between physical and sexual assault within marriage and subsequent PTSD may be more complex than these initial findings suggest. First, consider the finding that the severity of PTSD symptoms is directly related to the level of physical violence (Astin, Lawrence, & Foy, 1993; Houskamp & Foy, 1991; Kemp et al., 1995). Second, relationships in which sexual violence has occurred tend to be more severely physically violent (Amir, 1971; Bowker, 1983; Frieze, 1983; Kilpatrick et al., 1988; Shields & Hanneke, 1983). Therefore, it is reasonable to suggest that the severity of violence, in addition to the marital rape, may result in higher levels of PTSD for these women.

To date, no study has disentangled the relationships among intimate partner physical and sexual violence severity and post-trauma distress. It is possible that the association between sexual violence and PTSD is an artifact of the co-occurrence of increased physical violence severity in these relationships. It is also possible, however, that sexual violence severity is uniquely related to PTSD severity.

Being better able to understand the relative effects of physical and sexual violence in predicting PTSD symptomatology has important implications for the victims. For example, if sexual violence severity is uniquely related to PTSD severity, then professionals who interface with these victims may want to focus more on sexual violence than has been historically customary. Bergen (1996) found that only 52% of domestic violence shelters and 17% of rape crisis centers

routinely inquired about intimate partner sexual violence. In addition, 34% of service providers offer no specific outreach to marital rape victims, fewer than 5% provide brochures on marital rape, and only 4% specifically refer to marital rape victims in their mission statements. Not only do these practices send the message that experiences of sexual violence are less traumatic than severe physical violence, but such beliefs also ultimately limit the quality and quantity of services offered to victims. By better understanding the unique relationship that sexual violence may have with post-trauma distress, professionals will be better able to tailor their services for, and to validate the experiences of, this often underserved and silent population.

To that end, this study is designed to disentangle the relative effects of physical and sexual intimate partner violence on PTSD symptomatology by examining the following hypotheses in a sample of acutely battered women:

1. Severity of physical violence will be significantly and positively related to severity of sexual violence.
2. Severity of physical violence will be significantly and positively related to severity of PTSD symptoms.
3. Severity of sexual violence will be significantly and positively related to severity of PTSD symptoms.
4. After controlling for severity of physical violence, severity of sexual violence will continue to significantly predict severity of PTSD symptoms.

METHOD

Participants

A total sample of 62 battered women were recruited from local battered women's shelters and community agencies serving the needs of battered women. The entire sample represented help-seeking battered women.

Mean age of the sample was 34.2 years (*SD* = 9.9; range = 19–59). Participants had an average education of 13.0 years (*SD* = 2.0; range = 10–18). The majority of the sample was evenly split between Caucasian and African-American participants (i.e., 47.5% each). At the time of the assessment, 39% were single, 35.6% were married, 23.8% were separated or divorced, and 1.6% were cohabiting. The majority of the participants had an annual household income of less than $20,000 (see Tables 1 and 2).

Approximately 85% of the sample had left their abusive partners at the time of assessment. Sixty-one percent of the sample were residing in a battered women's shelter. An average of about 122 days had passed since the last physically and/or sexually abusive episode (*SD* = 215.9; range = 1–1176). Approximately 13% of the most recent abusive episodes included forced sex (see Tables 1 and 2).

Instruments

Supplemented Conflict Tactics Scale—The supplemented conflict tactics scale (CTS; Straus, 1979, 1990) is a 19-item measure that assesses ways of responding to conflict among couples. Internal consistency for husband to wife violence (as reported by the wife) has been measured at .83 for physical aggression (Hornung, McCullough, & Sugimoto, 1981). For this research project, only the severe violence sub-scale was used from the CTS. In order to capture a greater scope of severe physical violence, the original six items that comprise this sub-scale were supplemented by four items that probe for additional types of physically abusive behaviors (see Appendix A). This 10-item scale was used to measure severity of physical

violence in the present study, and it was found to have excellent internal consistency (.89) in this sample.

Following the recommended scoring guidelines for the CTS (Strauss, 1995), the midpoints for the chosen response categories were summed. The midpoints were the same for the first three categories (i.e., 0 = 0, 1 = 1, 2 = 2). For category three (3 to 5 times), the midpoint equaled four; for category four (6 to 10 times), the midpoint equaled eight; for category five (11 to 20 times), the midpoint equaled 15; and for category 6 (more than 20 times), the recommended midpoint was 25. A severity of physical violence score was computed by summing the weighted scores for the 10 items that comprise the scale.

In order to assess severity of sexual violence, three sexual abuse items were generated (see Appendix B). This three-item sexual violence scale was found to have good internal consistency (.76) in this sample. As described in the previous paragraph, the recommended weighted scoring system was used in order to compute a severity of sexual violence score.

PTSD Symptom Scale—The PTSD symptom scale (PSS; Foa, Riggs, Dancu & Rothbaum, 1993) is a 17-item self-report scale based on DSM-III-R PTSD criteria, including re-experiencing, avoidance, and arousal symptom clusters (e.g., “Have you had recurrent or intrusive distressing thoughts or recollections about the trauma?”). The zero to three response scale captures the frequency of each symptom over the past two weeks. The PSS was found to have satisfactory internal consistency (.91), high test-retest reliability, and good concurrent and convergent validity with rape victims (Foa et al., 1993).

Procedure

Prior to enrollment in the study, the women were informed that their participation was entirely voluntary and they could withdraw at any time. Participants were also informed that all information would be kept completely confidential. Written consent was obtained from all participants prior to assessment.

Once enrolled, women completed the self-report symptoms measures (e.g., PSS) and the modified CTS. Participants completed the written questionnaires first in order to avoid the potential of score inflation secondary to talking about the abuse. Participants then met with a female clinician regarding their experiences of relationship abuse. This structured interview gathered more information related to the most recent and worst incidents of abuse as well as demographic information. After completion of the interview and questionnaires, which took approximately one hour, each participant met privately with the clinician to debrief about how she felt participating in the study and to discuss any issues that may have arisen. Each woman was paid a modest amount for her participation in the study and was given a list of community resources.

RESULTS

In order to rule out the potential confounding effects of current shelter status, an ANOVA was performed comparing shelter and community groups on physical violence, sexual violence, and PTSD severity. Results indicated that significant differences between shelter and nonshelter participants on physical violence severity, F (1, 55) = 4.10, p = .05, and a trend was found for PTSD severity F (1, 55) = 3.42, p = .07. No significant group differences were found for sexual violence severity, F (1, 55) = .17, p = .68. Although shelter participants reported significantly more severe physical violence, the trend for PTSD severity indicated more severe symptoms for nonshelter women. Because the only significant group differences were found for physical violence, which will serve as a covariate in the planned regression analyses, the sample was collapsed across shelter status for the remaining analyses.

A general description of the relationships between physical and sexual violence severity (Hypothesis 1), physical violence and PTSD severity (Hypothesis 2), and sexual violence and PTSD severity (Hypothesis 3) was obtained by calculating 2-tailed, Pearson product-moment correlations. Results indicated significant and positive relationships between physical and sexual violence severity ($r = .62$, $p = .000$) and sexual violence and PTSD severity ($r = .42$, $p = .001$). A trend in the expected direction was found between physical violence and PTSD severity ($r = .23$, $p = .08$).

In order to determine the relative predictive nature of physical and sexual violence severity for PTSD symptomatology, a hierarchical, multiple regression equation was calculated. Due to missing data on the CTS, regression analyses were performed on 57 participants. The PSS total score was used as the dependent variable. In order to control for the effects of physical violence severity, this variable was entered in the first block of the equation. Sexual violence severity scores were entered in the second block.

In the partial model, there was a trend for a positive relationship between physical violence severity and PTSD symptoms ($R = .232$, $F(1, 55) = 3.12$, $p = .08$). In the full model, however, the relationship between physical violence severity and PTSD symptoms became highly nonsignificant ($p = .80$). Results indicated that severity of sexual violence significantly predicted level of PTSD symptoms even after controlling for the effects of physical violence ($\beta = .43$, $p < .01$). The full model explained nearly 17% of the variance ($R^2 = 16.7$), with sexual violence severity uniquely accounting for approximately 11% of the variance ($\Delta R^2 = .113$) beyond that which was already explained by physical violence severity ($\Delta R^2 = .054$).

DISCUSSION

The intent of this study was to examine the relative effects of intimate partner physical and sexual violence on PTSD symptomatology. This focus emerged out of several earlier studies in the domestic violence literature. First, intimate partner sexual violence results in similar types and levels of post-trauma distress as other forms of rape (e.g., Riggs et al., 1992). Second, women who experience both physical and sexual partner violence report higher levels of PTSD than women who experience physical violence alone (e.g., Shields et al., 1990). Third, relationships in which sexual violence has occurred also tend to be more severely physically violent (e.g., Kilpatrick et al., 1988). Extant research, however, has not adequately disentangled the relationships among physical and sexual violence and post-trauma distress. In pursuit of this goal, this study examined whether sexual violence severity was uniquely related to PTSD severity after controlling for the level of physical violence.

In order to further substantiate the basic relationships among physical and sexual violence and PTSD, Pearson product moment correlations were calculated. Results indicated significant and positive relationships between each of these variables. These findings, therefore, were consistent with that of previous research and laid the empirical foundation for further analyses that aimed to distinguish the unique relationships of physical and sexual violence with PTSD.

In order to control for the effects of physical violence severity, hierarchical regression analysis was used. Results indicated that sexual violence severity significantly predicted PTSD after controlling for physical violence severity. These results support the hypothesis that sexual violence is uniquely related to PTSD, explaining a significant proportion of the variance beyond that which is already accounted for by physical violence. These results suggest that, in the case of intimate partner violence, the severity of sexual violence may account for the bulk of subsequent PTSD symptoms. Even within the context of ongoing physical violence the experience of sexual violence directly results in more severe PTSD.

It is unclear exactly why sexual violence results in more PTSD. One possibility is that the accumulation of multiple traumas (i.e., ongoing physical and sexual violence) results in more symptomatology. This hypothesis seems unlikely, however, given that severity of physical violence was controlled for in this study. It is also possible that there is something unique to the experience of sexual violence that results in more severe PTSD. Consistent with this explanation, Kessler, Sonnega, Bromet, Hughes, and Nelson (1995) found rape to be most likely associated with PTSD for men and women. Among women who reported rape to be their most upsetting trauma, 45.9% developed PTSD. In contrast, for women who considered physical attacks to be most upsetting, only 21.3% developed PTSD. These findings lend support to the notion that there indeed may be something unique to the experience of sexual violence that increases the likelihood of developing PTSD.

The findings of the present study have notable clinical implications in that they underscore the importance for mental health and social service professionals to screen for potential episodes of sexual violence, particularly where physical partner violence is already known. Gathering this piece of information alone will assist clinicians in predicting the potential severity of post-trauma reactions. Therefore, more appropriate treatment interventions can be tailored to the specific needs of this population.

In addition, Bergen's research (1996) has suggested that domestic violence shelters and rape crisis centers inadequately assess for and intervene with marital rape victims. Given that women who experience sexual violence seem to suffer from more severe PTSD, it would be important for agencies that serve battered women to expand their outreach efforts to target these victims. In addition, given the strong relationship between sexual violence and more severe forms of physical violence, assessing for sexual violence may give advocates more complete information that would be helpful in safety planning with battered women.

Overall, the findings of the present study suggest that sexual violence within intimate relationships is an important independent contributor to severity of post-trauma distress. Given this new knowledge, it would be relevant for future research to examine other post-trauma responses that may be unique to battered women who also experience sexual violence within their relationships. Such information would continue to further the knowledge base within the area of intimate partner sexual violence and would ultimately help to better meet the needs of this often silent and underserved population.

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APPENDIX A

Severity of Physical Violence Scale

1. Has your partner kicked, bit, or hit you with a fist?
2. Has your partner thrown you bodily?
3. Has your partner hit you or tried to hit you with something?
4. Has your partner beat you up (multiple blows)?
5. Has your partner attempted to choke or strangle you?
6. Has your partner threatened you with a knife or a gun?

7. Has your partner used a knife on you or shot you with a gun?
8. Has your partner tried to drown you?
9. Has your partner threatened to kill you or your children?
10. Has your partner injured you to the extent that you needed medical care?

APPENDIX B

Severity of Sexual Violence Scale

1. Has your partner verbally pressured you to have sex?
2. Has your partner physically forced sex on you?
3. Has your partner made you commit sexual acts that you found repulsive?

TABLE 1

Summary of Continuous Variables

Variable	*n*	*M*	*SD*	Minimum	Maximum
Physical violence severity	58	62.62	61.04	0.00	250.00
Sexual violence severity	59	20.12	22.17	0.00	75.00
PSS total score	61	27.16	9.92	8.00	47.00
Age (years)	61	34.20	9.90	19.00	59.00
Education (years)	59	13.02	1.96	10.00	18.00
Time since last assault (days)	62	121.79	215.89	1.00	1176.00

TABLE 2

Summary of Categorical Variables

Variable	Categories	*f*	Valid percent	Cumulative percent
Race	African-American	29	47.5	47.5
	Caucasian	29	47.5	95.1
	Asian-American	1	1.6	96.7
	American Indian	1	1.6	98.4
	Other	1	1.6	100.0
Annual household income	less than $5,000	16	39.0	39.0
	$5,000 to $10,000	4	9.8	48.8
	$10,001 to $20,000	6	14.6	63.4
	$20,001 to $30,000	7	17.1	80.5
	$30,001 to $50,000	6	14.6	95.1
	more than $50,000	2	4.9	100.0
Subject location	Shelter	38	61.3	61.3
	Community	24	38.7	100.0
Left abusive partner	Yes	53	85.5	85.5
	No	9	14.5	100.0
Last abusive episode includes forced sex	Yes	8	12.9	12.9
	No	54	87.1	100.0