

THE BATTERED WOMAN SYNDROME: Effects of Severity and Intermittency of Abuse

Donald G. Dutton, Ph.D., and Susan Painter, Ph.D.

The concept of a battered woman syndrome was tested by assessing 50 battered women and 25 emotionally abused women who had recently left their relationships. For both groups, essential features of the syndrome were present and were significantly interrelated. Dynamic features of the prior abusive relationship correlated significantly with these sequelae. The concept of intermittency is proposed as an alternative to the cycle of violence theory as main contributor to the syndrome. Predictability of abuse was found to be unrelated to the intermittency measure.

Since its initial description by Walker (1979, 1984), the battered woman syndrome has been widely discussed (Douglas, 1987; Schuller & Vidmar, 1992) and has been used as a basis for self-defense in cases where battered women have killed their abusers (Thyfault, Browne, & Walker, 1987). Walker (1979) initially described a three-stage battering cycle (tension build-up, battering, contrition) that was predictable to the victim. Sequelae of this repetitive abuse and its anticipation included psychophysiological stress, lowered self-esteem, and learned helplessness, which undercut motivation to leave the abusive relationship.

Douglas (1987) defined the battered woman syndrome as "a collection of specific characteristics and effects of abuse on the battered woman" (p. 40), and subdivided it into three major categories: the traumatic effects of victimization by violence, learned helplessness deficits resulting from the violence and others' reactions to it, and self-destructive coping responses to the vio-

lence. She argued that effects of such victimization were similar or identical to those for post-traumatic stress disorder: learned helplessness, re-experiencing of the trauma, intrusive recollections, generalized anxiety, lowered self-esteem, and social withdrawal. Finally, two apparently opposite emotional responses are common: "psychic numbing," or reduced responsiveness to the world, and generalized hyperarousal (such as exaggerated startle responses). These responses are believed to be related to cumulative exposure to the abuse stressor. Douglas did not attempt to quantify the abuse stressor per se or to specify the essential dimension of spouse abuse trauma.

Douglas also described a secondary complex of abuse sequelae that included idealization of the abuser, denial of danger, and suppression of the victim's own anger. These responses, also common in the trauma literature (van der Kolk, 1987), are viewed as coping responses that occur under extreme duress. Dutton and Painter

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(1981), for example, cited Anna Freud's (1942) description of "identification with the aggressor" as an explanation of how battered women, amongst others, cope with a long-term relationship with a potentially lethal other. Idealization of the abuser is related to strength of the continued attachment to him after relationship termination (Dutton & Painter, 1981).

Dutton and Painter argued that the perceptual responses of self-derogation and idealization of the abuser were related to two structural features of the abusive relationship: a power differential and intermittency of abuse. These features have been found to increase attachment to an abusive other in a wide variety of human and animal studies (Fischer, 1955; Harlow & Harlow, 1971; Rajecki, Lamb, & Obsmacher, 1978; Scott, 1963). The concept of intermittency of abuse means that treatment occurs in negative-positive alternations, in which the onset of positive treatment is contiguous with the offset of negative treatment. In abusive relationships, the negative treatment typically precedes the positive. What is essential to generating attachment is the extremity of both the good treatment and the maltreatment, and the temporal juxtaposition of one extreme with the other (usually maltreatment followed immediately by good treatment). While the onset of the negative treatment may be predictable, this predictability may be unrelated to extremity or to temporal juxtaposition. Dutton and Painter maintained that intermittency (or periodicity), not predictability, was the main contributor to the battered woman syndrome and to traumatic attachment.

Schuller and Vidmar (1992) have written a critical assessment of the battered woman syndrome from the perspective of its use as a self-defense plea. They have raised two issues. First, they maintained that the "cycle of violence" cited originally by Walker (1984) as descriptive of the stressor is not always present. Walker's data revealed, for example, that only 65% of her cases demonstrated a tension-building phase and 58% a

contrition phase. Schuller and Vidmar concluded that "not all couples go through the cycle of violence nor is there a universal time frame for the cycle" (p. 280). Second, they noted that the internal reliability of the symptoms comprising the "syndrome" has not been empirically verified. In other words, it is not known how internally reliable are the symptoms of the battered woman syndrome, and how much they co-vary.

The current study attempts to address these questions. It assesses three major sequelae of the battered woman syndrome: trauma symptoms, self-esteem deficits, and traumatic bonding or paradoxical attachment to the former male partner (Dutton & Painter, 1981), to establish the extent to which these factors intercorrelate and thus constitute a syndrome. It then relates the strength of these sequelae to what we believe are central features of long-term abusive relationships: power differentials and intermittency of abuse. It is hypothesized that attachment, self-esteem deficits, and trauma symptoms will intercorrelate significantly to form a syndrome and that this syndrome will endure over a six-month period. It is further hypothesized that the magnitude of these sequelae will relate significantly to the intermittency of abuse and to power differentials in the former relationship.

METHOD

Women with a history of physical or emotional abuse were recruited for this study over a six-month period through three sources: transition houses, a court-mandated treatment program for wife assaulters (who were their partners), and newspaper advertisements. To qualify for the research sample, a woman had to have left the relationship within the past six months. Sample source had no significant effect on any assessment measure, except that transition-house women and partners of treatment-program men reported more frequent and severe physical abuse than did women recruited through newspaper advertisements.

A total of 75 women participated in the study. Their average age was 31.4, mean amount of time in the relationship was 11.5 years (range six months to 44 years), and mean time separated was 20.5 weeks. On average, these women had initiated 2.1 prior separations; half of them had experienced some form of abuse in a previous relationship; and 22 were childless. The 75 subjects were divided into a Battered group ($N=50$) and an Emotionally Abused (EA) group ($N=25$). The criterion for inclusion in the EA group was fewer than two incidents of physical violence during the relationship, accompanied by extreme emotional abuse.

Procedure

The women were assessed for abuse experience by the Conflict Tactics Scale (CTS) (Straus, 1979) and the Psychological Maltreatment of Women Inventory (PMWI) (Tolman, 1989). The total sample reported very high degrees of verbal aggression directed toward them in the relationship they had just left. For example, the mean report of verbal aggression was 55.2 on the CTS, which places this sample beyond the 99th percentile for population norms published by Straus, Gelles, and Steinmetz (1980). Women in the Battered group reported physical aggression scores by their male partner of 37.5 (and severe physical aggression scores of 13.4), again beyond the 99th percentile for population norms.

An assessment was made of intermittency and predictability of abuse. Evaluations of both groups were made at two points—just after leaving the abusive relationship (Time 1) and six months later (Time 2)—to ascertain whether associations between dependent measures had persisted over time. The subjects completed a test battery, described below, of independent and dependent measures. Additionally, structured interviews were conducted at Time 1 and a second set of follow-up dependent measures was collected at Time 2. All subjects were paid for participation. All inter-

views were audiotaped with the subject's permission.

Independent Measures

The Conflict Tactics Scale. The CTS (Straus, 1979) is divided into three subscales: reasoning (3 items), indicating a problem-solving orientation; verbal aggression (7 items), indicating verbal and nonverbal (e.g., symbolic displays of force, smashing objects) means of threatening or hurting the other; and violence (9 items), indicating the use of physical force as a means of conflict resolution. Items on the violence subscale range in severity from "pushing" to "using a weapon on the other." Respondents are asked to rate the type and number of conflict tactics used by both the self and the other person specified in the dyad.

Psychological Maltreatment of Women Inventory. Although the CTS is useful for studying intrafamily violence, it does not include a broad range of nonphysical aggression. In order to assess this, Tolman's (1989) PMWI was included. The PMWI is composed of 58 items (rated from 1=never to 5=very frequently) that delineate forms of emotional/verbal abuse and dominance/isolation. Dominance/isolation includes items related to rigid observance of traditional sex roles, demands for subservience, and isolation from resources. In contrast, emotional/verbal abuse includes withholding emotional resources, verbal attacks, and behavior that degrades women. Factor analyses support the inclusion of the two factors. In the present sample, the Cronbach's alpha for the dominance/isolation subscale was .82 and for the emotional/verbal subscale .93.

Intermittency of abuse. The measure of intermittency was designed to assess the juxtaposition of extreme positive and negative behavior. Respondents were asked to describe the first, last, and worst incident of abuse in detail (for emotionally abused women these were incidents of conflict and emotional abuse). For each incident, a variety of behavior that included verbal and

physical abuse items and threats was listed. Postabuse behavior was also assessed, including negative behavior (threats, etc.) and positive "contrition" behavior (Walker, 1978). A measure of intermittency was created by having the respondent rate (on a scale of -5=very negative, to +5=very positive) the extremity of her partner's behavior before, during, and after each incident of abuse. The Intermittency scale was the sum of the three positive scores (one for each of the first, worst, and last incidents) minus the three negative scores. Hence, the scale had a theoretical range of -15 to +15.

Predictability of abuse. Respondents were asked four questions pertaining to whether they could predict abusive outbursts from their partner. As part of their description of the first, worst, and last incidents of abuse, they were asked if they could tell when their partner was going to become abusive. In addition, they were asked if their partner went through predictable and abrupt shifts in mood and became suddenly angry. These questions were combined to form an eight-point scale of Predictability.

Power. Two measures of the respondent's rating of her own and her partner's power were taken. First, the Decision Power Index (Blood & Wolfe, 1960), which assesses who has the final say on six issues (buying a car, having children, what apartment to take, what job either partner should take, whether a partner should work or not, and how much money to spend each week on food), was used. Second, a subjective measure of power was used, called power differential, which simply asked the respondent to indicate on a ten-point scale how much power both she and her partner had 1) before the violence/abuse started, 2) after the violence/abuse started but before she left, and 3) now that she had left. The definition of power on this question was deliberately left unspecified. Finally, a variable called power shift was calculated, which assessed the increase in male power differential (with the woman) before and after battering/abuse.

Socially desirable responding. The Marlowe-Crowne Social Desirability Scale (MC) (Crowne & Marlowe, 1960) is a self-report measure that contains items about everyday events that are desirable but rare. Paulhus (1991) reported that it measures a subject's tendency to respond in a deceptive manner. Participants are required to check whether each item is true or false.

Dependent Measures

Dependent measures for this study were collected at Time 1 and again at Time 2, six months later.

Attachment. To assess attachment, a scale of attachment developed by Kitson (1982) was used and was supplemented with some items from a scale by NiCarthy (1982). The Kitson scale, devised to assess attachment during divorce, measures the bereavement aspect of separation and contains items such as "I frequently find myself wondering what he is doing" and "I spend a lot of time still thinking about him." Kitson (1982) reported the psychometric qualities of the scale, including an alpha of .80. Supplementing the assessment of attachment were ten items from an "idealization" measure developed by NiCarthy; these included items such as "no one could ever understand him the way I do," "without him I have nothing to live for," and "I love him so much, I can't think of being with anyone else." The NiCarthy scale added an element of continuing obsession with the partner that was not included in the Kitson scale. Since the composite scale was new, an item-whole correlation for each item was performed and only those items that had correlations over .55 were retained. Cronbach's alpha for the entire 20-item scale was .92.

Self-esteem. Since self-esteem is frequently mentioned in the literature on the effects of battering, it was assessed, using the Rosenberg (1965) Self-esteem Scale. This 10-item self-report scale has reported alphas of .77 and .88 (Robinson, Shaver, & Wrightsman, 1991). Responses range from "strongly disagree" to "strongly agree" on a

four-point scale; the higher the score, the greater the self-esteem.

Trauma symptoms. The Trauma Symptom Checklist (TSC-33) (Briere & Runtz, 1989) is a brief (33-item), reliable instrument showing predictive and construct validity. It has been shown to discriminate female victims of childhood sexual abuse from nonvictimized women. The TSC-33 contains five subscales: dissociation, anxiety, depression, hypothesized post-sexual abuse trauma (PSAT), and sleep disturbance. The PSAT-hypothesized includes those symptoms thought to be most characteristic of sexual abuse experiences but that may also occur as a result of other types of trauma. Analysis of the internal consistency of the five subscales indicated reasonable reliability, with an average subscale alpha of .71 and a total alpha for the TSC-33 of .89 (Briere & Runtz, 1989).

RESULTS

Violence Profiles

Respondents reported CTS annual physical aggression scores by their former partner as follows: Battered group $M=37.5$ ($SD=17.6$), EA group $M=1.2$ ($SD=2.0$), indicating frequent physical abuse for the Battered group. On the Tolman PMWI, the Battered group's scores were as follows: domination/isolation= 79.1 ($SD=25.9$) and emotional abuse= 95.5 ($SD=15.9$), indicating that frequent emotional abuse accompanied physical abuse for these women. Corresponding scores for the EA group were: domination/isolation= 43.1 ($SD=27.5$) and emotional abuse= 69.4 ($SD=20.1$). The Battered group indicated a mean Intermittency score for their partners of 19.0 ($SD=6.7$) on the 30-point Intermittency scale assessing alternating good-bad treatment and a mean Predictability score of 5.7 out of a possible 8 ($SD=1.5$). Interestingly, the EA group also reported intermittency of emotional abuse, with similar crests (first, worst, and last incident) and troughs. The subjective ratings of how good or bad treatment was during abusive episodes was

based on emotional and verbal abuse. For this group, the Intermittency score was 15.8 ($SD=5.8$) and the Predictability score was 5.1 out of a possible 8 ($SD=1.2$). Social desirability measures (the Marlowe-Crowne Scale) did not correlate significantly with reports of partners' physical or emotional abuse, leading to the conclusion that these reports were uncontaminated by the respondents' motive to "image manage" by suppressing or inflating reported abuse rates.

Intercorrelations of Dependent Measures

TABLE 1 shows intercorrelations of the dependent variables at Time 1 and Time 2, broken down separately for the Battered and EA groups. For the Battered group, significant correlations were found between all pairs of the three dependent measure scales at both Time 1 and Time 2.

For the EA group, TSC-33 scores correlated significantly with attachment ($+ .44$, $p < .01$) and self-esteem ($- .40$, $p < .01$). However, unlike the Battered group, EA women showed no significant correlation between attachment and self-esteem ($- .21$, NS). This pattern was repeated at Time 2. For battered women, the three sequelae of battering measured in this study were significantly intercorrelated. This intercorrelation exhibits durability up to six months.

TABLE 2 shows the intercorrelations of Time 1 with Time 2 measures taken six months later for the entire sample. Despite the lengthy interval between Time 1 and Time 2, each dependent measure taken at

Table 1
INTERCORRELATIONS WITHIN TIME PERIOD

GROUP	TIME 1		TIME 2	
	TRMA	ATTACH	TRMA	ATTACH
Battered				
Attachment	+ .39***		+ .55***	
Self-esteem	+ .22*	-.28	-.67***	-.48**
Emotionally Abused				
Attachment	+ .44**		+ .41**	
Self-esteem	-.40**	-.21	-.56**	-.17

Note TRMA=Trauma ATTACH=Attachment
* $p < .05$, ** $p < .01$, *** $p < .001$

Table 2
INTERCORRELATIONS OF TIME 1
AND TIME 2 MEASURES

TIME 1	TIME 2		
	TRAUMA SYMPTOMS	ATTACHMENT	SELF-ESTEEM
Trauma symptoms	+ .48***	+ .27**	-.36**
Attachment	+.34**	+.68***	-.17
Self-esteem	-.16	-.07	+.27*

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

Time 1 correlated significantly with its counterpart measure taken at Time 2.

Relationship Variables and Battered Woman Syndrome

TABLE 3 shows Pearson correlations between predictor variables from the prior relationship and battered woman syndrome measures. The strongest associations between individual predictor and dependent variables in this study were intermittency correlated with attachment to the abuser at Time 1 (+.62) and Time 2 (+.60). Both were significant ($p < .001$).

To estimate better the overall effect of relationship variables on postrelationship measures, composite measures were constructed and entered into a multiple regression on the various dependent measures of the study. Relationship variables included intermittency, power shift (change in victim-partner power differential pre-post battering), total physical abuse, dominance, emotional abuse, and length of relationship. In this analysis, relationship variables accounted for a substantial amount of the postrelationship variables' variance. At Time

1, 41% of attachment scores were accounted for by a composite variable composed of power shift ($\beta = -.36$), dominance/isolation ($\beta = -.33$), and length of relationship ($\beta = .18$).

Self-esteem scores at Time 1 were 29% accounted for by relationship variables: length of relationship ($\beta = .33$), power differential ($\beta = .24$), physical abuse by the partner ($\beta = .58$), and intermittency of abuse ($\beta = .60$).

Relationship variables did best at accounting for attachment at Time 2 (55% of variance). This was a composite variable composed of dominance/isolation ($\beta = .23$), power differential ($\beta = -.21$), and intermittency ($\beta = .31$). Trauma symptoms at Time 2 had 47% of their variance accounted for by relationship variables, suggesting a delayed effect of relationship trauma on symptom onset. Both dominance/isolation ($\beta = .47$) and total physical abuse ($\beta = .21$) were instrumental in this regression.

Finally, a discriminant function analysis was run on composite distress by assigning women to high and low battered woman syndrome groups on the basis of self-esteem, experienced trauma symptoms, and continuing attachment at Time 2. Using all available predictor variables, a five-variable composite explained 81% of the variance in composite distress and correctly classified 91.3% of the women according to distress group assignment. The main contributors to this composite variable (with beta weights) were dominance/isolation ($\beta = .81$), intermittency ($\beta = .77$), total physical abuse by partner ($\beta = .59$), emotional abuse ($\beta = .49$), and power shift ($\beta = .45$).

Table 3
SIGNIFICANT CORRELATIONS OF PREDICTOR TO DEPENDENT MEASURES

MEASURE	ATTACHMENT		TRAUMA SYMPTOMS		SELF-ESTEEM	
	TIME 1	TIME 2	TIME 1	TIME 2	TIME 1	TIME 2
Intermittency of abuse	+.62***	+.60***				
Power differential	+.27**	+.31**				
Physical violence (CTS)					-.58***	
Dominance/isolation	-.33*		+.44**			-.27*
Emotional abuse			+.29*			

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

DISCUSSION

Both hypotheses of the current study were confirmed. Battered women experienced three aspects of the battered woman syndrome: high rates of trauma symptoms, lowered self-esteem, and heightened "paradoxical attachment" to the batterer. These effects were all significantly intercorrelated, forming a syndrome, or complex, that persisted for at least six months. Furthermore, these effects were significantly related to the intermittency of positive-negative treatment, to power differentials in the former relationship, and to the extremity of the battering. Examination of the symptom scores for the Emotionally Abused group revealed that patterns at Time 1 changed somewhat when physical abuse occurred only once. For this group, the significant negative correlation of attachment to self-esteem did not occur, but other intercorrelations remained significant (as with the Battered group). This different pattern for the Emotionally Abused women was repeated at Time 2.

The trauma symptoms experienced by women in the current sample included heightened anxiety, dissociation, depression, and sleep disturbance. Almost half the variance in these symptoms was attributable to relationship variables (that is, the severity and intermittency of psychological abuse, domination, and battering in the relationship just ended) as much as six months after relationship dissolution. Composite distress, or battered woman syndrome, scores (composed of persistent attachment to the abuser, trauma symptoms, and low self-esteem) for these women were largely accounted for by dominance/isolation, intermittency of abuse, total physical abuse, emotional abuse, and power shift (losses in power to the woman and increases in power to the man following abuse). Hence, a rather direct link is established between these abuse factors and post-relationship distress as assessed by a composite battered woman syndrome score. The power of these relationship variables in correctly predicting postrelationship distress

(91.3% correct classification into distress categories) lends support to this link. In effect, the totality of symptom scores comprising the battered woman syndrome is affected by the severity of physical abuse, the intermittency of abuse-good treatment, dyadic power losses to the woman, and emotional abuse. It is suggested that each of these contributors be thoroughly assessed in court cases involving battered women.

Intermittency vs. Cycle of Violence

Criticisms of the battered woman syndrome (Schuller & Vidmar, 1992) have focused on the "cycle of violence" aspect of battering described by Walker (1979, 1984), whereby abusive males go through three distinct phases: tension build-up, acute battering, and contrition or loving respite. The present data suggest that intermittency of abuse, not a battering cycle per se, is a major determinant of postseparation distress and the battered woman syndrome. Whereas a "cycle of violence" perspective describes violence as going through predictable (and mood-driven) cycles, the term "intermittency," as defined in this research, simply indicates that extreme positive behavior and extreme negative behavior occur with temporal contiguity; they need not be cyclical or predictable. While women in our sample did find their partner's behavior predictable (generating mean scores on predictability of 5.7 out of a possible 8), predictability and intermittency were not significantly correlated (Pearson's $r = .11$, NS). Indeed, predictability did not correlate significantly with any extremity measures of negative or positive behavior, and it was intermittency, not predictability, that forecast postrelationship distress. It appears that it is the extremity and juxtaposition of positive and negative behavior that contribute to battered woman syndrome, rather than the predictability of abuse per se. Intermittency can be cyclical, as in the case of abusive men with borderline personality organization (Dutton, *in press*; Dutton & Starzomski, *in press*), but it can influence at-

tachment, trauma, and self-esteem without cyclicity.

Dutton and Painter (1981) have described the theoretical basis for the development of strong and continuing attachment in abusive relationships because of intermittency, and have reviewed research on animal learning in which intermittent good-bad treatment was shown to increase attachment to 230% of the level of that from consistent good treatment (Rajecki, Lamb, & Obsmacher, 1978). Such attachment appears to constitute a cornerstone of the battered woman syndrome, and may contribute to the apparently precipitous decision some battered women make to return to their partner.

Intermittency has a stronger effect on attachment at Time 2 than at Time 1, confirming another prediction of traumatic bonding theory as originally proposed by Dutton and Painter (1981). The metaphor they proposed for traumatic bonding was that of an abuse victim attached to the perpetrator by an elastic band that begins to stretch with her initial leaving. With time away from the relationship, the pressure on the stretching band continues to build until she returns, apparently impulsively, to the abuser. The delayed effect of dynamic relationship variables on postrelationship attachment and the experience of trauma symptoms is a noteworthy phenomenon for professionals working with battered women.

Dutton and Painter (1981) also suggested that microsystem (dyad) power imbalances contribute to low self-esteem and attachment in the person with less power. The contributions of the power shift variable to attachment at Time 1 and the power differential measure to attachment at Time 2 are consistent with this suggestion.

Implications for Research

Clearly, more empirical work needs to be done on the battered woman syndrome. The present study did not, for example, attempt to assess affective reactions such as psychic numbing or hyperreactivity, and

little is known about the experiences shaping these apparently opposite emotional responses. Herman (1992) described trauma effects as a dialectic process characterized by extreme affective states: "floods of intense, overwhelming feeling and arid states of no feeling at all" (p. 47). With time and healing, the balance and integration of these states eventually results in a stabilizing of affective lability.

The present study also did not examine learned helplessness (Walker, 1979), an acquired motivational deficit thought to undercut attempts to leave the batterer. However, since our sample was contacted after leaving, they may not, ipso facto, have demonstrated this effect as strongly as would battered women still in an abusive relationship. It is sampling problems such as these that continue to make the empirical study of battering sequelae problematic. However, for the variables studied, self-esteem, attachment, and trauma symptoms demonstrate a similarity in how they "behave" in response to features of prior abuse such as intermittency and power differentials. These features, along with the extremity of physical and emotional abuse, should constitute part of the assessment of battering dynamics.

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