

Testing a Typology of Batterers

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A. Holtzworth-Munroe and G. L. Stuart (1994) proposed a tripartite typology of men who batter their female partners based on the severity of violence, extent of violence, and personality disorder characteristics. The current study attempts to empirically validate this typology using data from 75 domestically violent (DV) men and their partners, and 32 maritally distressed, nonviolent (DNV) comparison couples. Mixture analysis results generally supported the model, although 2 types were not distinguishable on personality disorder characteristics as predicted. Generally violent batterers were significantly more violent within and outside the relationship. The pathological group was moderately violent within and outside the relationship and endorsed numerous psychological symptoms. Family-only batterers endorsed fewer symptoms and were less violent. Violence in the family of origin, attachment, and communication skills also differentiated the 3 types and DNV men.

Efforts to conceptualize the causes of domestic violence have led to the development of “typologies” of male batterers. Holtzworth-Munroe and Stuart (1994) summarized these typologies and proposed a model based on the convergence across a wide variety of previously developed typologies (e.g., Gondolf, 1988; Hamberger & Hastings, 1986; Saunders, 1992). This metatypology suggests that batterers can be meaningfully divided into three types on the basis of (a) severity/frequency of their violence within the relationship, (b) generality of violence (i.e., only within the relationship or also outside the relationship), and (c) psychopathology/personality disorder characteristics. Holtzworth-Munroe and Stuart argued that three types of batterers—labeled *generally violent/antisocial*, *dysphoric/borderline*, and *family only*—can be identified and that these three types of men are influenced by different etiological factors that affect the development of violent behavior. The present study was a test of Holtzworth-Munroe and Stuart’s model using a community sample of batterers.

According to this model, family-only batterers engage in the least severity and frequency of violence and the least amount of

emotional and sexual abuse of partners and typically are not violent outside the family. They show little psychopathology; however, if pathology is present, it is most likely to be a passive-dependent personality pattern. The dysphoric/borderline type engage in moderate to severe wife abuse, including psychological and sexual abuse. They may manifest some extrafamilial violence and criminal behavior. These men are the most depressed, psychologically distressed, and emotionally volatile and show borderline and schizotypal personality patterns. They are likely to have alcohol and drug abuse issues. Finally, the generally violent/antisocial type engage in moderate to severe marital violence, including psychological and sexual abuse. These men engage in the most extrafamilial violence and criminal activity. They are likely to have alcohol and drug problems and are most likely to have antisocial and narcissistic personality patterns.

Holtzworth-Munroe and Stuart (1994) suggested that these three types of batterers differ systematically on a set of distal and proximal factors that influence the development of violent behavior in partner relationships. They proposed that certain genetic/prenatal factors, early childhood family experiences (i.e., exposure to violence in the home), and deviant peer experiences in childhood and adolescence increase the likelihood of becoming violent and influence which type of batterer a violent man becomes. These distal factors influence behavior in adult partner relationships by their relationship to the more proximal factors of attachment problems in adulthood, impulsivity, poor social skills, and violence-supportive attitudes and beliefs. For example, a man who grew up in a violent household may have difficulty forming appropriate attachments in adult relationships (Holtzworth-Munroe & Stuart, 1994). A man who was part of a deviant peer group as an adolescent may develop violence-supportive beliefs or attitudes within that peer group; these beliefs may then increase his likelihood of being violent in a partner relationship.

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According to the model, the greater the presence of the distal risk factors (i.e., difficult temperament, violence/abuse in family of origin, and deviant peer group), the more likely a man is to become violent and the more likely he is to be more frequently and severely violent, both within and outside the relationship. Therefore, men who experience high levels of these risk factors are most likely to be in the generally violent/antisocial type. In terms of proximal risk factors, generally violent men should again exhibit high levels of impulsivity, attachment difficulties (avoidant/dismissing attachment style), social skills deficits, and violence-supportive attitudes. Dysphoric/borderline batterers should also show social skills deficits and moderate levels of impulsivity but are likely to be preoccupied or ambivalent rather than dismissing in their attachment style and are somewhat less likely to have violence-supportive beliefs. Finally, family-only batterers should show moderate levels of impulsivity, secure or possibly preoccupied attachment, and some social skills deficits with their partners but generally should not report violence-supportive beliefs and attitudes.

To date, two empirical studies have addressed the validity of the Holtzworth-Munroe and Stuart (1994) model (Hamberger, Lohr, Bonge, & Tolin, 1996; Tweed & Dutton, 1998). Hamberger et al. attempted to empirically validate this typology on a sample of court-referred batterers. They used cluster analysis of the Millon Clinical Multiaxial Inventory (MCMI; Millon, 1983) and found that approximately 85% of their sample fitted into clusters defined by psychopathology in a manner generally consistent with the model; however, rather than the predicted dysphoric/borderline type, they described a passive aggressive/dependent type, and this type unexpectedly had the highest frequency of spousal violence. A third group was labeled *nonpathological* in that men in this category showed no elevations on the MCMI. This study relied on self-report data obtained from the batterers; no data from victims were available, and the study did not include a comparison group against which to compare their nonpathological group of batterers to assess how they might differ from nonviolent men. In addition, the use of a clinical sample limits generalizability. Holtzworth-Munroe and Stuart's model suggests that the largest group of batterers, family-only batterers, are less likely than the other two types to seek mental health services to address violence issues; thus, they are likely to be underrepresented in clinical samples, particularly those including large numbers of adjudicated men.

Tweed and Dutton (1998) also attempted to empirically validate the presence of the generally violent/antisocial type (labeled *instrumental*) and the dysphoric/borderline type (labeled *impulsive*) in a largely adjudicated sample of batterers. They found general support for this distinction using cluster analysis of the MCMI-II (Millon, 1987). The instrumental type reported more severe physical violence. The impulsive batterers reported higher levels of borderline personality characteristics, although impulsive and instrumental batterers did not differ on antisocial characteristics.

The primary goal of the present study was to empirically test the theoretical typology proposed by Holtzworth-Munroe and Stuart (1994). We sought to determine whether the Holtzworth-Munroe and Stuart model would fit the data of a community sample of batterers. Given the presence of the three proposed types, we were also interested in examining whether these three types of batterers differ in the ways hypothesized by the model in terms of the distal and proximal factors influencing behavior associated with type.

The study compared the three types in terms of one of the distal factors, childhood experiences of witnessing interparental violence, and being the victim of child physical abuse. The model suggests that greater exposure to interparental violence leads to more frequent and severe domestically violent behavior; therefore, generally violent/antisocial batterers should report the most interparental violence. The model further suggests that dysphoric/borderline batterers will report having experienced the most child physical abuse. Exposure to repeated or severe abuse in childhood may contribute directly to the development of borderline personality features and insecure adult attachment styles (Feldman, 1997).

In terms of proximal risk factors, this study examined two variables proposed by the model to differ across batterer type, attachment style, and social skills. First, the Holtzworth-Munroe and Stuart (1994) model hypothesizes that the three types of batterers will differ in attachment to current partner, with generally violent/antisocial batterers showing a dismissing or avoidant attachment style, dysphoric/borderline batterers a preoccupied attachment style, and family-only batterers either no disturbance in attachment or perhaps a preoccupied style. Tweed and Dutton's (1998) instrumental (generally violent/antisocial) batterers showed a pattern of highly dismissing and secure with low preoccupied attachment to their romantic partner. The impulsive (dysphoric/borderline) types, on the other hand, exhibited a fearful type of insecure attachment pattern to current partners. We also examined whether the three types of batterers differed in their level of jealousy; the model predicts that borderline/dysphoric batterers should show the highest levels of jealousy. Second, the model also suggests that all batterers should show social skills deficits in interactions with their spouses relative to nonviolent men. Although the model does not make specific predictions about how these three types of batterers may be different in how they interact with their spouses, we were interested in investigating whether such differences exist.

In addition to these factors specifically identified by the Holtzworth-Munroe and Stuart (1994) developmental model, we were interested in examining whether the three types of batterers would differ in terms of psychopathology in predicted ways. Generally violent/antisocial batterers are predicted to report the highest levels of alcohol and substance abuse and narcissistic and aggressive-sadistic behavior. Dysphoric/borderline batterers are expected to report high levels of depression, dependency, schizoid, and schizotypal behaviors. Family-only batterers are expected to report the fewest psychological symptoms. Further, we were interested in examining whether any type of psychopathology would distinguish family-only batterers from maritally distressed, nonviolent (DNV) men. Finally, the Holtzworth-Munroe and Stuart model also predicts that generally violent/antisocial and dysphoric/borderline batterers engage in more emotional abuse than family-only batterers, with generally violent/antisocial batterers engaging in the most of such behavior. We examined differences in emotional abuse using wives' reports.

The present study included several important methodological improvements over previous work. First, our study was a test of Holtzworth-Munroe and Stuart's (1994) metatypology that included measures of all three of the variables that define the typology. Only one previous study that examined differences in these three types (Hamberger et al., 1996) included measures of

severity of violence, generality of violence, and Axis II-related psychopathology. Unlike the Hamberger et al. study, the present study used a community sample, which increases generalizability and provides a more appropriate test of the model because one of the types is predicted to be underrepresented in clinical settings. The present study used victim reports of batterer violence and emotionally abusive behavior, which are expected to be more valid than batterers' self-reports, given the tendency to underreport. The present study included a nonviolent comparison group, which allowed us to examine differences between the various types of violent men, as well as their DNV counterparts, while controlling for marital distress. The present study also used a behavioral observation methodology; previous research has relied almost exclusively on self-report. Finally, as recommended by Holtzworth-Munroe and Stuart, we used mixture analysis to test the typological model.

Method

Participants

Couples were recruited through the media, from a combination of public service announcements and advertisements. They were paid \$200 for participating in the study. We used wives' responses to a telephone screening interview as the basis for preliminary classification, then once in the lab, we used both husbands' and wives' reports to establish a completely nonviolent comparison group. To be classified as domestically violent (DV; $n = 51$), the husband, on the basis of the wife's report, had to have (a) pushed, grabbed, shoved, slapped, hit, or tried to hit his wife with something six or more times in the past year; (b) kicked, bit, or hit her with a fist at least twice in the past year; or (c) beat her up, threatened her with a knife or gun, or used a knife or gun on her at least once in the past year. Husbands were classified as low level violent (LLV; $n = 24$) if their wives reported some male-to-female violence in their histories but not enough in the past year to qualify for the DV condition. Seventy-eight percent of the LLV sample reported some male-to-female violence in the previous year as reported by the wife, husband, or both.

Husbands were classified as DNV ($n = 32$) if their wives' score on the Short Marital Adjustment Test (Locke & Wallace, 1959) was 90 or below and both the husband and the wife denied ever using violence throughout the history of their marriage. The purpose of the DNV comparison group, matched on levels of marital satisfaction, was to determine whether any differences found were attributable to marital violence as opposed to high levels of marital distress common among violent couples. In addition, the DNV comparison group allowed us to explore differences between seemingly "normative" men who are sometimes violent and men in unhappy marriages who never resort to violence.

For the present study, DV and LLV couples were combined, as the LLV batterers may map directly on to the hypothesized family-only cluster. Complete data were obtained on 75 battering (DV + LLV) couples and 32 nonviolent (DNV) couples.

Overview of Procedures

Couples made two visits to the laboratory at Time 1. During their first visit, they independently completed a series of questionnaires and semi-structured individual interviews. The interview was designed to assess a variety of factors related to violence (e.g., general violence and violence experienced during childhood), and it also generated husband and wife descriptions of violent and nonviolent arguments. Couples returned to the laboratory again for a communication assessment where they were videotaped while discussing areas of conflict in their relationship. After the participants had filled out a problem inventory in which they each rated the

perceived severity of a list of typical areas of disagreement in their marriage (e.g., in-laws, sex, money, and communication), the interviewer identified the two areas rated most highly problematic by both spouses. The couples were then interviewed to help them make the problem areas more specific. Couples were asked to sit quietly for 2 min so that we could collect a baseline for physiological readings. Couples then talked for 15 min in the laboratory about the two problem areas. The interactions were videotaped and several psychophysiological measures were continuously taken during the marital interaction.

Note that this same data set has been used in a series of articles comparing DV, DNV, and happily married couples in terms of marital interaction (Berns, Jacobson, & Gottman, 1999; Cordova, Jacobson, Gottman, Rushe, & Cox, 1993; Jacobson et al., 1994), marital power (Babcock, Waltz, Jacobson, & Gottman, 1993), psychophysiological responding (Gottman et al., 1995), attachment (Babcock, Jacobson, Gottman, & Yerington, in press), and marital stability (Jacobson, Gottman, Gortner, Berns, & Shortt, 1996). The LLV group has not been previously reported on, and this article is the first to explore the Holtzworth-Munroe and Stuart (1994) typology using this data set.

Measures

The independent variables (assessing internal validation of the hypothesized three batterer types) were measures of violence and psychopathology. The dependent variables (assessing external validity or clinical meaningfulness of the categories) included measures of exposure to violence in the family of origin, behavior during marital interactions, attachment styles, jealousy, emotionally abusive behavior, and jealousy and additional measures of psychopathology hypothesized by Holtzworth-Munroe and Stuart (1994) to vary between different types of batterers.

Violence/abuse. Five measures of violence and emotional abuse were administered. Questionnaire measures included the Conflict Tactics Scale (CTS; Straus, 1979) and the project-designed Emotional Abuse Questionnaire (EAQ; Rushe, Waltz, & Gottman, 1992). The CTS is the most widely used measure of marital violence; it assesses frequency of aggressive acts committed by self and partner. Significant interpartner agreement on reports of physical aggression have also been demonstrated using the CTS (Jouriles & O'Leary, 1985). The EAQ is a project-designed, partner-report measure. It contains 66 items pertaining to threatening, controlling, degrading, and sexually abusive behaviors done in the past by the spouse. Each item is rated on a 4-point scale ranging from 1 (*never*) to 4 (*very often*); Cronbach's alpha on the total scale was .90. Jealousy was computed from the sum of the following 6 items on the EAQ ($\alpha = .82$): "I have to do things to avoid my partner's jealousy" (Item 1), "My partner accuses me of flirting with other people" (Item 10), "In social situations my partner complains that I ignore him/her" (Item 12), "My partner is suspicious that I am unfaithful" (Item 15), "My partner says I act too seductively" (Item 33), and "My partner acts jealous" (Item 64).

Generality of violence was coded from husbands' self-reports during individual interviews administered at Time 1. Participants were asked if they had ever been violent with family members, friends, coworkers or bosses, acquaintances, strangers, or police officers. The batterer's report of the number of people toward whom he was violent as an adult (18 years of age or older) besides his partner was summed into a continuous scale called *Number of General Assaults* ($\alpha = .74$). Reports of family-of-origin abuse experienced as a child and frequency and severity of interparental violence witnessed in the home were also obtained from this individual interview. Child abuse was based on one interview item asking about the number of times the participant reported having been whipped, beaten, kicked, or hit with an object (not spanked) by a parent as a child. Frequency and severity of interparental violence was calculated from summing two items, the number and severity of father-to-mother plus mother-to-father assaults reported ($\alpha = .58$ and $.47$, respectively).

Psychopathology. The MCMI-II (Millon, 1987) was administered to assess personality styles and clinical syndromes. The MCMI-II is a 175-

item, true-false self-report inventory for use with clinical populations. This widely used instrument has 22 clinical scales that roughly parallel the *Diagnostic and Statistical Manual of Mental Disorders* (3rd ed., rev.; American Psychiatric Association, 1987). Scores greater than 75 are considered to be clinically elevated. For purposes of this study, we examined 11 scales hypothesized by Holtzworth-Munroe and Stuart (1994) to differ between types of batterers as either independent or dependent variables. The Antisocial, Borderline, and Dysthymia scales were entered into the mixture analysis as they define the three hypothesized groups. Individuals who score high on the Antisocial scale tend to engage in "duplicitous or illegal behavior" and are "irresponsible and impulsive" (Millon, 1987, pp. 28-29). Individuals who score high on the Borderline scale tend to experience intense, labile moods; tend to be "preoccupied with securing affection;" and may exhibit "simultaneous feelings of rage, love, and guilt toward others" (Millon, 1987, p. 30). High scorers on the Dysthymia scale exhibit feelings of discouragement, guilt, apathy, or low self-esteem (Millon, 1987, p. 32) similar to a low-grade depression. Eight other variables are thought to differ between the three different types of batterers. The Alcohol Dependence and Drug Dependence scales reflect recurrent or recent history of alcohol or drug abuse. The Narcissistic scale reflects "egotistic self-involvement," and high scorers may "exploit others to their own advantage" (Millon, 1987, p. 28). The Aggressive-Sadistic scale captures individuals who are not publicly antisocial but may obtain sadistic pleasure from humiliating others and may behave in dominating, antagonistic, and persecutory actions (Millon, 1987, p. 29). The generally violent/antisocial type of batterer is expected to score highest on the Alcohol Dependence, Drug Dependence, Narcissistic, and Aggressive-Sadistic scales (Hamberger & Hastings, 1986; Holtzworth-Munroe & Stuart, 1994). The Schizotypal scale reflects eccentric behavior, either emotional hypersensitivity or flattening, and an inability to maintain personal attachments (Millon, 1987, p. 30). Finally, people who score high on the Schizoid scale tend to be distant and asocial, unfeeling and inexpressive (Millon, 1987, p. 20). Given Hamberger and Hastings's previous findings of a schizoid/borderline cluster, we expected the dysphoric/borderline batterers to score higher on the Schizotypal and Schizoid scales.

Coding of affect during marital interaction as an index of social skill. The SPAFF (Specific Affect; Gottman, McCoy, Coan, & Collier, 1996) coding system was used to code affect of husbands and wives on videos of the laboratory interaction. The SPAFF is a "cultural informant coding system in which coders consider an information gestalt consisting of verbal content, voice tone, content, facial expression, gestures, and body movement" (Gottman et al., 1996, p. 233). Specific affect was coded on a second-by-second basis using vertical interface time code and a time-synchronized on-line rating dial. Coders watched the videotaped interaction once doing no coding, then watched again and coded 1 spouse, then watched a third time and coded the other spouse. Each interaction was coded independently by two coders. Interrater reliabilities between the two coders averaged .89 (Cohen's kappa) across the total sample. The affects coded included 6 positive affects (humor, affection, validation, interest, joy, and affection-humor). Because no specific predictions were made about different types of positive affect, the 6 positive codes were collapsed into one code category called *positive*. There were 9 negative affects (anger, disgust, domineering, belligerence, whining, sadness, tension/fear, defensiveness, and listening with stonewalling) and 1 neutral code. Men high on social skill were expected to exhibit high rates of positive affect and less caustic and abusive forms of negative affect (e.g., anger, sadness, tension, and defensiveness) during a marital interaction. Men who had poor social skills were expected to manifest high rates of emotionally abusive negative behavior, such as contempt, domineering, belligerence, and stonewalling. The duration (number of seconds) that husbands displayed each of the 11 affect codes was entered into the multivariate analyses.

Attachment. The Adult Attachment Scale (AAS; Collins & Read, 1990) is an 18-item Likert-type questionnaire and is one of the most widely used measures of adult attachment (Holtzworth-Munroe, Stuart, &

Hutchinson, 1997). Cronbach's alphas for the Anxiety Over Abandonment, Avoidance of Dependency, and Comfort With Closeness scales are .75, .72, and .69, respectively (Collins & Read, 1990). The alphas within our sample were .65, .62, and .59, respectively. The Anxiety Over Abandonment scale is thought to reflect anxious-ambivalent or preoccupied attachment. The Avoidance of Dependency scale is related to avoidant or dismissing attachment, and the Comfort With Closeness scale is related to a secure or autonomous attachment pattern. The Attachment Questionnaire (AQ; West, Sheldon, & Reiffer, 1987) is a 75-item questionnaire that assesses four pathological patterns of attachment: compulsive self-reliance, compulsive caregiving, compulsive care seeking, and angry withdrawal. Cronbach's alphas equal .90, .50, .90, and .89, respectively (West & Sheldon, 1988); within our sample, alphas were .79, .71, .76, and .85, respectively. Compulsive self-reliance is thought to be related to schizoid and avoidant personalities, compulsive caregiving to masochistic personality, compulsive care seeking to dependent personality, and angry withdrawal to borderline personality and impulse disorders (West & Sheldon, 1988).

Data Analysis

The present study used Basford and Watson's (1996) MIXCLUS2¹ mixture analysis program, which is designed to fit a mixture of normal distributions to factorial data. Mixture analysis is similar to cluster analysis in terms of placing participants into distinct categories based on multiple variables. However, it differs in that it can be used to explicitly test a model and renders goodness-of-fit statistics as to how well the data adhere to the model. This nonhierarchical technique "is designed to identify clusters or groups of entities such that there is relative homogeneity within the groups and heterogeneity among the groups. Under the mixture maximum likelihood approach to clustering, the entities are assumed to be a sample from a mixture in various proportions of a specified number of populations. The MIXCLUS2 program fits a mixture of multivariate normal distributions and enables the entities to be allocated to groups on the basis of the estimated posterior probabilities of the population membership" (Basford & Watson, 1996, Introduction). Unlike cluster analysis, mixture analysis calls for the use of nonstandardized variables (K. E. Basford, personal communication, October 13, 1997). There are several advantages of the mixture method of clustering. First, there is no absolute allocation of entities to groups; rather, they are given a probability of belonging to each group and an outright allocation can be made by assignment to the group with the largest probability. Second, as it is a nonhierarchical method, there is no inappropriate early joining or splitting of entities. This makes mixture analysis less restrictive in the final arrangement of entities within groups. Finally, mixture analysis is a model-based clustering technique in which one can specify the anticipated group means and proportion of the sample falling into those categories, rather than theoretically relying on a distance measure and grouping strategy to determine the group composition.

First, rather than participants being assigned to a particular group, they are given a probability of belonging to each group; the researcher can then assign the participant to the group with the largest probability. Second, mixture analysis is a more flexible method as it is nonhierarchical, and therefore there is no inappropriate early joining or splitting of entities. Finally, mixture analysis is a model-based clustering technique that allows for testing of theories. The researcher can specify the expected group means and the proportion of the sample that is expected to fall into each group (Basford & Watson, 1996; McLachlan & Basford, 1988).

The MIXCLUS2 program uses Dempster, Laird and Rubin's (1977) EM (expectation and maximization) algorithm (Basford & Watson, 1996). "The EM algorithm is a two-step iterative process that requires an initial

¹ The MIXCLUS2 program and manual are available on-line at www.biometrics.ag.uq.edu.au/software.htm.

estimate of the solution" (Basford & Watson, 1996, Introduction). Although these initial values can be based on several sources, for example, the results of principal components analysis, hierarchical analysis (cluster analysis), or randomly, for the present study we specified initial values according to the theory by examining the sample means and then estimating how the means of the three types of batterers would differ. Based on Holtzworth-Munroe and Stuart's (1994) model, five variables were chosen as the criterion variables for the mixture analysis: (a) wife report of husband violence on the CTS (frequency of violence), (b) number of people to whom the batterer was violent other than his spouse (general violence), (c) antisocial personality pattern (from the MCMI-II), (d) borderline personality pattern (from the MCMI-II), and (e) dysthymia (from the MCMI-II). Specifically, initial values for the generally violent/antisocial type were specified as 1 *SD* above the mean on wife-reported violence, general violence, and antisocial personality and at the mean on borderline and dysthymia. Initial values for the dysphoric/borderline type were specified as 1 *SD* above the mean on borderline and dysthymia and at the mean on wife-reported violence, general violence, and antisocial personality. Finally, initial values for the family-only type were specified as 1 *SD* below the mean on all five of the clustering variables. The proportion of participants falling into each of the three types was also specified according to the theory: 25% antisocial, 25% borderline, and 50% family only (Holtzworth-Munroe & Stuart, 1994). Alternative start values (e.g. ± 0.5 *SD* around the sample mean) and proportions were tested (33% in each cell) without significantly changing the pattern of results.

Once batterers were clustered using mixture analysis, the goodness of fit of the clusters to the sample was examined and three types were compared on clinically meaningful variables outlined by the theory (the external validation phase). The three types of batterers were compared with each other and with the DNV husbands on self-report measures of exposure to violence in the family of origin, behavior during marital interaction, attachment style, partner report of emotional abuse and jealousy, and psychopathology (substance dependence, depression, narcissism, and dependency) using one-way multivariate analyses of variance (MANOVAs) with planned contrasts between the types. To explore differences between types of batterers, we conducted three planned contrasts: generally violent/antisocial versus dysphoric/borderline; generally violent/antisocial and dysphoric/borderline versus family only; and family only versus DNV to test whether these low-frequency batterers have any behavioral, psychological, or attachment differences as compared with a normative comparison group.

Results

Initial Analyses

Demographic data are reported in Table 1. The DNV husbands were significantly older and reported a higher income than the two violent groups. There were significant group differences on violence, as designed. Note that the three groups did not differ on level of marital satisfaction.

The LLV and DV groups were combined for all further analyses. Five variables entered into the mixture analysis: (a) frequency of violence (wife report of husband violence), (b) general violence, (c) antisocial, (d) borderline, and (e) dysthymia. The intercorrelations and covariances among these criterion variables are displayed in Table 2. Note that the three MCMI-II measures were highly intercorrelated.

For the mixture analysis, a three-group solution was specified. Examining the posterior probabilities that a case belongs to the group assigned, we found that 95% ($n = 71$) had a greater than 95% certainty that they belonged in one group. Four cases had less than a .95 probability that they belonged in any one group. In two cases, the estimated probability was approximately 23% that the participant belonged to Group 1 and approximately 77% that the participant belonged to Group 2. In two other cases, the overlap was between Group 2 and Group 3, with a 40% versus 60% probability that they fitted in either of those two groups. The four less certain cases were assigned to their best fit category. Twenty-four percent of the batterers were classified into Group 1 (generally violent; $n = 18$), 23% into Group 2 (pathological; $n = 17$), and 53% into Group 3 (family only; $n = 40$).

The final classifications generated by the mixture analysis program were entered into an SPSS/PC file. A MANOVA was conducted on the criterion variables by group assignment, multivariate $F(10, 136) = 42.82, p < .001$. Table 3 shows the mean differences on the criterion variables between the three types and their univariate F statistics. There were significant group differences on all of the criterion variables, except for the Dysthymia scale. Exam-

Table 1
Demographic, Marital Satisfaction, and Violence Variables: Means, Standard Deviations and F Statistics by Group

Variable	DV ($n = 51$)		LLV ($n = 24$)		DNV ($n = 32$)		df^a	F
	M	SD	M	SD	M	SD		
Age (years)	35.82	9.17	32.52	8.10	42.31	9.82	2, 104	8.71 ^{b***}
Education (years)	13.90	2.58	14.54	2.23	14.47	2.33	2, 105	0.82
Income (\$)	1,648.86	955.26	1,756.25	686.72	2,679.69	1,952.29	2, 103	6.63 ^{b***}
SES ^c	32.88	20.38	41.89	16.88	36.79	20.26	2, 97	1.57
Marital satisfaction ^d								
Husband's report	93.33	17.55	100.96	17.95	94.66	14.02	2, 98	1.67
Wife's report	84.57	21.84	92.88	18.59	87.50	18.66	2, 102	1.36
Husband violence								
Husband's report ^e	10.35	20.64	1.74	3.62	0.16	0.52	2, 100	5.68 ^{f**}
Wife's report ^g	21.15	24.94	1.29	1.55	0.00	0.00	2, 105	18.87 ^{f***}

Note. All variables are from husbands' reports unless otherwise noted. DV = domestically violent; LLV = low level violent; DNV = maritally distressed, nonviolent; SES = socioeconomic status.

^a Degrees of freedom vary due to missing data. ^b Difference between LLV and DV significant at $p < .05$. ^c Coded by occupational title using Stevens and Cho's (1985) revision of Duncan's (1961) socioeconomic status measure. ^d Assessed with the Dyadic Adjustment Scale (Spanier, 1976). ^e Husband's report of his own violence in the past year on the Conflict Tactics Scale (CTS) Violence subscale. ^f Difference between DV and LLV significant at $p < .05$. ^g Wife's report of husband's violence in the past year on the CTS Violence subscale.

** $p < .01$. *** $p < .001$.

Table 2
Intercorrelations and Covariances Among the Criterion Variables Entered Into Mixture Analysis

Variable	1	2	3	4	5
1. Marital violence ^a		14.16	131.54	142.38	137.61
2. General violence	.37***		15.87	14.57	7.52
3. Antisocial	.17	.41***		479.97	204.59
4. Borderline	.21*	.35***	.64***		444.59
5. Dysthymia	.19*	.15	.24*	.63***	

Note. Correlations are presented below the diagonal; covariances are presented above the diagonal. Significance of correlations reported were based on one-tailed tests within the domestically violent and low-level-violent samples only ($n = 75$).

^a Wife's report of husband's violence in the past year on the Conflict Tactics Scale Violence subscale. All other variables are based on husband's report.

* $p < .05$. *** $p < .001$.

ining the group means, we found that generally violent batterers were the most frequently violent, both toward their wives and toward others. Generally violent and pathological batterers scored higher than family-only batterers on both the Antisocial and Borderline scales of the MCMI-II. Family-only batterers were less violent both in and outside the home and had the lowest levels of psychopathology, as predicted. Contrary to the model, pathological batterers scored significantly higher on the Antisocial scale than the highly violent/generally violent batterers, and the three groups did not differ on reports of dysthymic mood.

The majority (89%) of batterers classified as generally violent came from the original DV sample, and the majority (83%) of the batterers from the original LLV group were classified as family only, as expected.

Distal Risk Factors: Exposure to Violence in the Family of Origin

To test the relationship between early childhood family experiences and batterer type, we conducted a MANOVA, entering self-reported frequency of severe child abuse (whipping, beating, etc.) and frequency and severity of witnessing interparental violence in the home while growing up. Table 4 reports the multivariate and univariate F statistics from this analysis. There were no

significant differences between the violent types and the nonviolent group on experience of physical abuse as a child; however, there were significant differences on both the frequency and severity of interparental violence witnessed in the home. Generally violent and pathological batterers reported witnessing the most frequent and severe parental violence, as expected.

Proximal Risk Factors: Social Skills Deficits, Attachment, and Jealousy

To determine whether the three types of men differed in their behavior in a problem-discussion task, we compared the three types of batterers with DNV husbands using SPAFF codes. Table 5 shows the between-groups differences in affect displayed by the batterers and DNV husbands during a 15-min conflict discussion. There were significant group differences on husbands' displays of contempt and whining, with generally violent and pathological batterers showing a greater tendency to behave contemptuously toward their spouses in the lab.

Results of between-groups differences on questionnaire measures of jealousy, emotional abuse, and attachment are reported in Table 6. Because the overall Emotional Abuse and Jealousy scales are not independent, they were not entered into a MANOVA; only the univariate F s are reported here. There were systematic and

Table 3
Differences Between Types of Batterers on Criterion Variables Using a Three-Group Solution in a Mixture Analysis

Variable	Generally violent ($n = 18$)		Pathological ($n = 17$)		Family only ($n = 40$)		$F(2, 72)$
	M	SD	M	SD	M	SD	
Marital violence	33.78	37.02	16.47	15.53	6.08	5.78	12.10 ^{a,c***}
General violence	3.83	1.20	1.29	1.16	0.40	0.59	88.57 ^{a,b,c***}
Antisocial	77.17	20.58	100.24	16.45	58.48	13.94	40.20 ^{a,b,c***}
Borderline	66.33	18.47	75.88	18.63	47.15	24.74	11.64 ^{b,c***}
Dysthymia	45.94	34.45	38.71	31.98	48.63	28.98	0.61

Note. Multivariate $F(10, 136) = 42.82, p < .001$.

^a Contrast between generally violent versus pathological was significant. ^b Contrast between pathological versus family only was significant. ^c Contrast between generally violent versus family only was significant. *** $p < .001$.

Table 4
Differences Between Three Types of Batterers and Maritally Distressed, Nonviolent (DNV) Husbands on Report of Violence in the Family of Origin

Variable	Generally violent (<i>n</i> = 18)		Pathological (<i>n</i> = 17)		Family only (<i>n</i> = 40)		DNV (<i>n</i> = 32)		<i>F</i> (3, 103)
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Child physical abuse	2.00	1.78	1.21	1.74	1.35	1.71	0.78	1.39	2.18
Interparental violence									
Frequency	1.94	2.10	1.98	3.17	0.85	1.41	0.68	1.40	3.10**
Severity	1.86	1.41	1.13	1.45	0.91	1.33	0.45	0.98	4.89***

Note. Multivariate $F(36, 273) = 2.54, p < .001$.

* Contrast between generally violent and pathological versus family only was significant.

* $p < .05$. ** $p < .01$.

significant group differences on the EAQ total score. The wives of the generally violent and pathological men reported that their husbands were significantly more emotionally abusive than family-only batterers (see Table 6). Whereas generally violent and pathological batterers did not differ significantly on the total score of the Emotional Abuse scale, pathological batterers were, according to their wives, more jealous than generally violent batterers, as predicted by the theory. Wives of family-only batterers reported more emotional abuse by their husbands than did wives in the DNV group.

We conducted a MANOVA on the two attachment questionnaires comparing the three types of batterers and the DNV comparison husbands on the attachment-related subscales in planned comparisons. Multivariate tests of significance revealed that there were significant group differences for the two attachment measures, multivariate $F(21, 279) = 2.82, p < .001$. Univariate analyses of variance revealed significant group differences on Anxiety Over Abandonment and Avoidance of Dependency scales on the AAS (Collins & Read, 1990), with generally violent batterers

displaying significantly more avoidant and less anxious attachment patterns than pathological batterers, as the theory predicts. Also as expected, pathological batterers reported higher levels of anxious-ambivalent attachment and reported the most angry withdrawal on the AQ (West et al., 1987), although not significantly more than the generally violent batterers. Family-only batterers reported high levels of compulsive care seeking, which is one of the few variables to distinguish the family-only batterers from the DNV husbands.

We conducted follow-up, profile analyses (Tabachnick & Fidell, 1996) on the two attachment scales to examine how the pattern of attachment styles differed within the four clusters of men. Results are displayed graphically in Figures 1 and 2. On the AAS (Collins & Read, 1990), the profiles deviated significantly from parallelism, $F(6, 204) = 5.32, p < .001$; level, $F(3, 103) = 2.80, p < .05$; and flatness, $F(2, 102) = 26.16, p < .001$. Interaction contrasts revealed that these differences were attributable solely to differences in patterns between the generally violent and pathological batterers, $F(1, 103) = 18.61, p < .001$. Specifically, generally

Table 5
Differences in Affect Between Three Types of Batterers and Maritally Distressed, Nonviolent (DNV) Husbands Observed During Marital Interaction With Their Wives

Affect	Generally violent (<i>n</i> = 17)		Pathological (<i>n</i> = 16)		Family only (<i>n</i> = 38)		DNV (<i>n</i> = 31)		ME due to group <i>F</i> (3, 98)
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	
Positive	17.41	18.71	14.88	25.35	40.24	45.25	29.45	37.21	2.54
Defensive	217.77	150.34	166.13	135.92	160.50	128.65	222.13	130.11	1.62
Anger	2.29	5.95	16.56	52.47	15.74	94.06	0.13	0.34	0.52
Tension/fear	11.12	9.31	36.94	88.34	15.79	21.21	14.26	32.11	1.40
Sadness	3.77	15.01	3.81	11.27	1.68	6.49	0.29	0.64	0.92
Whining	0.24	0.44	0.69	1.62	0.16	0.37	0.03	0.18	3.19*
Contempt	20.29	30.70	33.13	44.91	11.16	24.75	5.97	11.52	4.05***
Domineering	116.53	163.31	104.13	122.59	74.03	132.04	57.90	99.61	0.99
Belligerent	12.00	21.84	14.81	38.38	5.92	14.76	5.48	23.11	0.83
Stonewalling	11.18	45.57	12.31	40.78	0.34	1.02	8.00	43.25	0.69
Disgust	0.00	0.00	0.63	2.50	0.08	0.49	0.00	0.00	1.54

Note. Multivariate $F(27, 278) = 2.89, p < .001$. Means indicate mean duration (number of seconds) during the 15-min interaction participants displayed the specific affect listed.

* Contrast between generally violent and pathological versus family only is significant.

* $p < .05$. ** $p < .01$.

Table 6
Differences Between Three Types of Batterers and Maritally Distressed, Nonviolent (DNV) Husbands on Questionnaire Measures

Measure	Generally violent		Pathological		Family only		DNV		F(3, 101)
	M	SD	M	SD	M	SD	M	SD	
Emotional Abuse Questionnaire									
Total score	151.69	45.08	145.18	37.48	124.97	41.63	101.93	39.57	7.04 ^{b,c***}
Jealousy	10.18	2.97	13.65	5.36	10.90	5.03	9.43	4.35	3.16 ^{**}
Adult Attachment Scale									
Anxiety over abandonment	15.30	1.44	17.55	2.13	16.35	2.73	15.69	2.29	3.33 ^{**}
Avoidance of dependency	19.06	4.12	13.80	2.51	17.00	3.27	17.84	3.45	7.95 ^{a****}
Comfort with closeness	18.19	1.85	17.92	1.90	18.90	2.12	19.39	2.15	2.47
Attachment Questionnaire									
Compulsive self-reliance	22.79	2.78	25.91	4.57	23.29	5.42	24.40	5.01	1.62
Compulsive caregiving	29.27	3.00	28.10	3.38	30.29	3.32	28.41	4.04	2.39
Compulsive care seeking	20.96	5.09	20.23	4.48	21.64	4.20	18.31	5.08	3.16 ^{**}
Angry withdrawal	23.79	4.33	27.30	5.10	23.95	5.80	21.59	5.78	4.06 ^{**}

^a Contrast between generally violent versus pathological was significant. ^b Contrast between generally violent and pathological versus family only was significant. ^c Contrast between family only versus DNV was significant. **p* < .05. ***p* < .01. ****p* < .001.

violent batterers reported low anxiety and high avoidance, whereas pathological batterers evidenced high anxiety and low avoidance. On the AQ (West et al., 1987), profiles on the four attachment scales deviated significantly from parallelism, $F(9, 245) = 2.69, p < .01$; level, $F(3, 103) = 2.86, p < .05$; and flatness, $F(3, 101) = 88.04, p < .001$. Differences on the AQ were attributable to patterns unique to pathological batterers and DNV men. Pathological batterers evidenced a pattern of high self-reliance and angry withdrawal, which differed significantly from generally violent batterers, $F(1, 103) = 4.51, p < .05$. Men in the DNV comparison group showed a unique pattern of low angry withdrawal and low compulsive care seeking, which distinguished them from family-only batterers, $F(1, 103) = 7.52, p < .01$.

Psychopathology

We conducted a MANOVA, entering the MCMI-II scales posited to be potentially important differences between the types of batterers, according to Holtzworth-Munroe and Stuart (1994). The scales entered into this MANOVA were not used as criterion

variables in the mixture analysis. These included Substance Dependence, Depression, Narcissistic, Aggressive-Sadistic (a more severe variant of antisocial personality), Schizotypal, Schizoid, and Dependent Personality Pattern scales. Results of this MANOVA are reported in Table 7. There were significant between-groups differences on the Alcohol and Drug Dependence scales, as well as the Narcissistic, Aggressive-Sadistic, and Schizotypal scales. Specific comparisons revealed that generally violent and pathological groups combined had higher average scores than the family-only batterers on all five of these scales. Pathological batterers were significantly higher than generally violent batterers on the Aggressive-Sadistic and Narcissistic scales; however, both types had averages close to or within the clinical range (72.6-100.4).

Discussion

The present study tested the validity of Holtzworth-Munroe and Stuart's (1994) typology of male batterers using a community

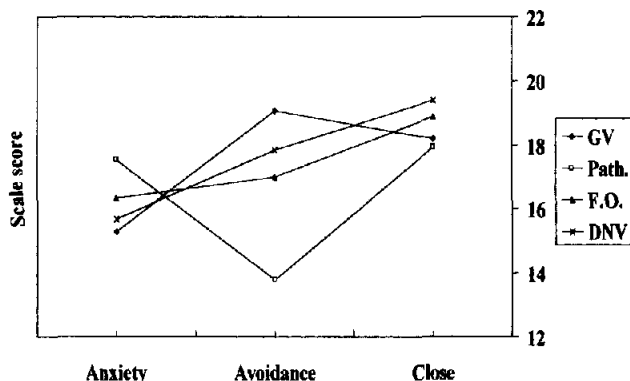


Figure 1. Attachment profiles on Adult Attachment Scale on three batterer types and the maritally distressed, nonviolent (DNV) comparison group. GV = generally violent; Path. = pathological; FO = family only.

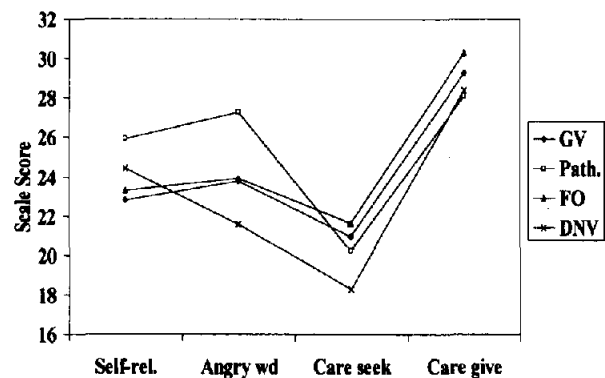


Figure 2. Attachment profiles on Attachment Questionnaire on three batterer types and the maritally distressed, nonviolent (DNV) comparison group. GV = generally violent; Path. = pathological; FO = family only; Self-rel. = compulsive self-reliance; Angry wd = angry withdrawal; Care seek = compulsive care seeking; Care give = compulsive caregiving.

Table 7

Differences Between Three Types of Batterers and Maritally Distressed, Nonviolent (DNV) Husbands on Selected MCMI-II Scales

Axis and MCMI-II scale	Generally violent (n = 18)		Pathological (n = 17)		Family only (n = 40)		DNV (n = 32)		F(3, 103)
	M	SD	M	SD	M	SD	M	SD	
Axis I									
Alcohol Dependence	59.67	29.70	65.52	13.22	41.23	23.75	34.50	22.66	9.19 ^{b***}
Drug Dependence	69.44	21.75	78.88	14.37	47.68	16.84	46.09	20.29	17.63 ^{b***}
Major Depression	43.94	27.01	51.53	19.09	45.45	23.44	34.43	23.14	2.31
Axis II									
Dependent	42.78	33.73	32.18	26.44	47.85	29.94	45.25	29.63	1.13
Narcissistic	72.61	25.59	92.12	17.59	62.55	23.07	68.31	26.30	6.30 ^{a,b***}
Aggressive-Sadistic	76.83	24.86	100.35	21.73	64.53	24.10	63.53	23.59	11.03 ^{a,b***}
Schizotypal	57.11	18.62	65.00	12.80	50.23	18.55	50.72	17.31	3.45 ^{b*}
Schizoid	60.83	19.38	68.00	15.46	63.05	21.86	62.78	20.49	0.40

Note. Multivariate $F(36, 273) = 2.54, p < .001$. MCMI-II = Millon Clinical Multiaxial Inventory—II.

^a Contrast between generally violent versus pathological was significant. ^b Contrast between generally violent and pathological versus family only was significant.

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

sample. The results indicate that batterers can be meaningfully divided into three types, differing as predicted on degree of violence within the relationship and on degree of general violence. The three types, labeled *generally violent*, *pathological*, and *family only*, also differed in terms of the presence of personality disorder characteristics, with the generally violent and pathological types showing significantly more antisocial and borderline characteristics than the family-only type. The generally violent and pathological types were not distinguishable from each other in the predicted manner in terms of these personality patterns; both showed elevated levels of borderline and antisocial characteristics.

The results of the present study generally support the validity of Holtzworth-Munroe and Stuart's (1994) model and suggest that further empirical exploration of this model is warranted. This support for the model's validity suggests that it may be accurately capturing actual differences between batterers and may therefore have important treatment implications. The types differed as predicted in terms of the extent of their emotionally abusive behavior, history of witnessing interparental violence, attachment styles, jealousy, and presence of alcohol and drug abuse issues.

One component of the classification system that continues to lack clarity is the personality disorder factor. Both the present study and previous studies examining this model (Hamberger et al., 1996; Tweed & Dutton, 1998) have not found clear distinctions between the most severely violent and moderately violent men in the predicted directions. We found that the group of pathological batterers was elevated on most of the Axis II scales explored, including Antisocial, Aggressive-Sadistic, and Narcissistic, which theoretically were thought to be related to the generally violent type of batterer. In addition, Tweed and Dutton found no differences between their instrumental (generally violent) and impulsive (pathological) types on the MCMI-II Antisocial and Aggressive-Sadistic scales, although they did find differences on borderline personality patterns and dysthymia. Hamberger et al. also failed to distinguish between these types in the predicted manner.

This lack of consistent findings regarding a distinction between the generally violent and pathological types may be due to meth-

odological problems. The available validity studies have all used the MCMI or MCMI-II to assess psychopathology, and the confusion about group differences may be due to limitations of these measures. The Antisocial and Borderline scales of the MCMI-II have a high correlation ($r = .64$ within our violent sample) and a high percentage of overlapping items (e.g., the Antisocial scale shares 53% of its items with the Borderline scale). This problem appears to have been somewhat alleviated with the revised MCMI (MCMI-III; Millon, 1994), which has only three items (18%) shared between these scales. Researchers attempting to type batterers on the basis of psychopathology might consider using the MCMI-III, a diagnostic interview, or independent measures of each personality disorder. However, borderline and antisocial personality disorders are known to share common features of impulsivity and externalizing behavior problems. Future researchers should grapple with differentiating antisocial and borderline personality, both methodologically and conceptually.

Even given these methodological and conceptual issues, the lack of validation found for the predicted distinction in psychopathology between the generally violent and pathological types does raise a question regarding the usefulness of psychopathology as a typing factor for these two types in particular. One interpretation is that borderline personality organization is a prevalent characteristic across batterers with moderate to high frequency of battering behavior but is not particularly present for those with low frequency of violence and little to no violence outside the relationship. This interpretation is consistent with Dutton's (1995a, 1995b) description of the "abusive personality," which emphasizes the role of borderline characteristics in battering; however, both generally violent and pathological batterers were also elevated on antisocial characteristics relative to the family-only batterers.

An alternative approach to distinguishing generally violent and pathological batterers is to focus on attachment patterns (see Babcock et al., in press; Holtzworth-Munroe, Hutchinson, & Stuart, 1997). In the present study, both types were distinct in the predicted manner: Generally violent men were more dismissing and avoidant, whereas pathological men were more preoccupied

and ambivalent. The pathological men were also more jealous, on the basis of wives' reports, a behavior likely to be associated with the preoccupied attachment style these men were reporting. An attachment approach may provide more of an etiological framework than an Axis II pathology perspective does. Future research should address the relative contributions of Axis II patterns and attachment styles in distinguishing between generally violent and pathological batterers.

The comparison of the family-only type with the DNV comparison sample provides insight into how men who are engaging in relatively low levels of violence differ from those who are in similarly distressed relationships but are nonviolent. Interestingly, very little seemed to distinguish these two types; they appear very similar in terms of degree of abuse witnessed or experienced in the family of origin and level of psychopathology, as well as in behaviors while interacting in a problem-discussion task with their wives. What does distinguish family-only batterers from DNV men is the presence of a compulsive care-seeking attachment style. According to West and Sheldon (1988), compulsive care seeking is a feature of anxious-ambivalent attachment. They stated that "as a consequence of this anxiety, these individuals attempt to confirm their security with the attachment figure in a concrete manner by displaying urgent and frequent care-seeking behaviors" (West & Sheldon, 1988, p. 154). Three facets of compulsive care seeking are: (a) defining life in terms of difficulties that one must obtain help from others to resolve, (b) organizing relationships around receiving support and nurturance, and (c) assuming that others will take on responsibility for one's decisions and needs (West & Sheldon, 1988).

It may be that men who are less securely attached and who find themselves relying heavily on their partners for support and a sense of safety may become violent when their partner does not provide the high level of reassurance and assistance they desire. It may be particularly difficult for these men to experience their own dependency, as it is not likely to be consistent with their views of what men "should" be like. By not meeting stereotypic gender role expectations for men to be self-sufficient and independent, the batterer may also resort to violence to affirm his own masculinity.

The three types of violent men and the DNV comparisons showed remarkably few differences in terms of their behavior while interacting in a conflict discussion task with their spouses. Given these findings, as well as the fact that the model makes no predictions about differences between these three types, it may be that their deficits in communication are actually similar. The one exception was the generally violent and pathological types' high level of contempt, an extreme form of anger expression. This high level of anger expression is consistent with the presence of borderline personality characteristics in both of these groups, with anger problems a common symptom of borderline personality disorder. More fine-grained analysis of sequences of behavior may be useful in discovering differences in interactional styles.

Methodological Issues

The results of the present study are limited by some methodological issues. First, some characteristics of the sample limit generalizability. Specifically, although one strength of the study was the availability of reports from both wives and husbands, the sample was obviously limited to those couples in which both

spouses were willing to participate in a research project. It is important to note that couples were never interviewed together about the violence in the relationship, and type classification was based on wives' reports, such that men in the study could completely deny having been violent if they chose to. Nonetheless, couples in which 1 or both partners were unwilling to discuss the relationship in a research context would likely not participate. This could include wives who were extremely frightened or who may not have wanted to identify the couple to professionals as experiencing domestic violence for fear of reprisal from the husband. This limitation is inherent to studying both partners; however, the inclusion of wives' reports adds to the validity of the findings, in that wives' reports of violent and abusive behaviors appear to be more accurate. Thus, the typology seems to hold up, even when using wives' reports of violent behavior, increasing confidence in its validity.

Other issues regarding the sample include the fact that high frequency of violence was oversampled for in the present study. Because we were interested in an overall sample that included a high representation of "clinically significant" violence, and because simply recruiting couples who had some violence resulted in a high number of couples with very low frequency of violence, we specifically recruited for high frequency of violence. Consequently, although the sample used in the present study included a full range of violence, from one minor to many severe acts, the approach to sampling overemphasized the more severely violent couples. The study included only heterosexual couples; future typology research needs to also address same-gender couples. Finally, this study examined only some of the distal and proximal variables hypothesized to differ between types. Other variables, such as genetic/temperamental factors, peer influences, criminal history, impulsivity, nonmarital social skills, and attitudes not included in this study, may help to better distinguish different types of batterers.

The present study also offers a number of methodological improvements, which increase confidence in the validity of the findings. The use of a community sample of DV men seems to be a crucial element in testing this model because one of the types identified are unlikely to be present in adjudicated samples. The use of victims' reports of batterers' violence, emotional abuse, and jealousy also increases confidence in the validity of the findings, given batterers' tendency to minimize abusive behavior. The use of a behavioral observation assessment of communication behaviors within the couple relationship also provides the first more objective measure of the behavior of these three types of batterers in a couples context.

Implications for Intervention

At the broadest level, the results of the present study suggest that for generally violent and pathological batterers, treatment is unlikely to be successful unless it takes into account the Axis II pathology present in these types. Short-term, psychoeducational, or exclusively socioculturally based treatments focusing on anger management, for example, seem unlikely to be successful with populations exhibiting the level of character pathology that appears to be present in both of these types. These treatments seem to assume that circumscribed skills acquisition or attitude change are sufficient; however, the presence of significant Axis II pathol-

ogy and/or attachment difficulties suggests that there may be a variety of broader, more complex behavioral problems likely to interfere with changing abusive behavior. Models of treatment designed specifically to address the problems associated with Cluster B pathology (American Psychiatric Association, 1987) may be more appropriate for these men, with an emphasis on changing abusive behavior. Incorporation of innovations in personality disorder treatment may increase the effectiveness of therapy for generally violent and pathological batterers (e.g., dialectical behavior therapy; Linehan, 1993). In contrast, family-only batterers showed little pathology, and treatments that focus more exclusively on violence, abusive behavior, and relationship problems may be successful with these men. These treatments may need to take into account family-only batterers' tendency toward dependency on their partners.

Research on treatment matching using these three types as the matching variable is likely to be useful. For example, Saunders (1996) has demonstrated the utility of taking personality disorder characteristics into account in predicting treatment outcome. Antisocial batterers showed better outcome in feminist-cognitive-behavioral group therapy, whereas dependent batterers showed more positive outcomes in a psychodynamic-process group treatment. A longer-term approach to therapy might be more effective for batterers who fit in the pathological group, whom our data suggest are likely to have moderate to severe levels of violence, problems with jealousy, and attachment problems. It is possible that these men are experiencing posttraumatic symptoms and personality problems that are often seen in individuals who have experienced childhood trauma (Feldman, 1997).

In summary, the present study found support for Holtzworth-Munroe and Stuart's (1994) model, with the exception of personality disorder characteristics not distinguishing between the generally violent and pathological groups in the predicted fashion. Further clarification of the distinctions between these groups is needed, particularly in terms of personality patterns and attachment styles. The model shows promise as a means of identifying meaningful differences between batterers, and the implications for treatment matching should be further explored empirically.

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