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Understanding Intimate Male Violence Against Women:
Contributions of Attachment Orientations,
Sexist Attitudes, and Personality Disorders

presented by

Anne M. Mauricio

has been accepted towards fulfillment
of the requirements for

Ph.D. degree in Counseling Psychology

A handwritten signature in cursive script, reading "Frederick L. Lopez". Below the signature is a horizontal line, and underneath that line, the text "Major professor" is printed.

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**UNDERSTANDING INTIMATE MALE VIOLENCE AGAINST WOMEN:
CONTRIBUTIONS OF ATTACHMENT ORIENTATIONS, SEXIST ATTITUDES,
AND PERSONALITY DISORDERS**

By

Anne Marie Mauricio

A DISSERTATION

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Michigan State University
in partial fulfillment of the requirements
for the degree of**

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Department of Counseling, Educational Psychology, and Special Education

2001

ABSTRACT

UNDERSTANDING INTIMATE MALE VIOLENCE AGAINST WOMEN: CONTRIBUTIONS OF ATTACHMENT ORIENTATIONS, SEXIST ATTITUDES, AND PERSONALITY DISORDERS

By

Anne Marie Mauricio

The purpose of this study was to test a model wherein psychological constructs- adult attachment orientations, borderline personality disorder, and antisocial personality disorder- and patriarchal attitudes, a construct central to sociopolitical theory, would be independently and significantly predictive of male violence perpetrated toward female partners. Participants (N = 239) were heterosexual men who were recruited from court-mandated batterer intervention programs. It was further hypothesized that multiple violence patterns distinct in frequency, generality, and severity of psychological, verbal, and physical violence would be observed, and that adult attachment orientations, personality disorders, and sexist attitudes toward women would be differentially important in predicting these patterns. Hypotheses about interrelationships among attachment orientations, personality disorders, sexist attitudes toward women, and frequency, generality, and severity of psychological, verbal, and physical violence were also tested. Specifically, antisocial batterers, borderline batterers, participants indicating no personality disorder, and participants meeting criteria for both personality disorders were compared on measures assessing severity and frequency of psychological, verbal, and physical violence, generality of violence, attachment, and sexist attitudes toward women.

Results indicated three distinct violence dimensions consistent with hypotheses and attachment orientations, personality disorders, and sexist attitudes about women were differentially important in predicting each of violence patterns. One dimension included predominantly psychological and verbal violence and was partner specific. A second dimension included minor violence and some severe physical violence, was partner-specific, and reflected a pattern of violence that was escalating, initiated by the perpetrator, and resulted in injury to the victim. The third dimension included predominantly severe physical violence and was not partner-specific. Borderline personality disorder scores, anxious attachment, and sexist attitudes about women significantly predicted scores on the first violence dimension. Anxious and avoidant attachment orientations, as well as sexist attitudes about women, were significant predictors of the second violence dimension. Antisocial and borderline personality disorder scores were significant predictors of the final violence dimension. Tests exploring group differences between antisocial batterers, borderline batterers, participants indicating no personality disorder, and participants meeting criteria for both personality disorders suggested that men with greater pathology reported greater frequency and severity of violence against female partners. Implications for practice and policy are discussed.

DEDICATION

To all the victims of domestic violence past, present, and future

ACKNOWLEDGEMENTS

I wish to first thank my advisor, Dr. Frederick G. Lopez. I greatly appreciate your encouragement, assistance, support, and commitment in helping me complete this project. Also, thank you for introducing me to attachment theory, which has shaped my work as a scientist-practitioner. I also thank my other committee members – Dr. Linda Forrest, Dr. Betsy Becker, and Dr. Merry Morash, who each made valuable contributions towards this project. I particularly appreciated the diversity of perspectives that each of you contributed, which translated to a higher quality of work.

I am very grateful to the Blue Cross and Blue Shield of Michigan Foundation, the American Psychological Association, and the Society for the Study of Social Issues for their helping funding this project. Additionally, I am extremely grateful to Diane Mello-Goldner for her financial donation to this project, which was amazingly thoughtful in both the amount and in the spirit in which it was made.

I also want to thank my friends, who provided support and encouragement during my stay at Michigan State University. A special thank you goes to Tracy Simko, who always helped me maintain perspective of the “bigger picture” throughout graduate school, and to Sally Theran, who helped me discover the confidence to complete this project, when most needed.

Thank you to my family for their inspiration and the valuable lesson that all goals, even completing a Ph.D., are within reach. I am forever grateful to my parents, Joseph and Juliette, for their hard work and sacrifice, which made my educational endeavors possible and worthwhile. Finally, a very special thanks to my partner, James Afremow. Your eternal optimism provided me with the necessary diligence to complete this project.

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INTRODUCTION

Studies exploring intimate violence against women by men in the U.S. indicate that it is a serious and pervasive problem that permeates every race, religion, and social class (see National Institute of Justice, 1998). Some studies predict that approximately one in three women will report assault by their intimate male partner at some point in their life (Browne, 1993; Koss, 1990; Straus & Gelles, 1986). The lethality of male violence against female partners is equally alarming as its prevalence. For example, Frieze and Browne (1989) found that an intimate male partner committed approximately 50% of all female murders.

Although widespread damage due to domestic violence is widely evident, there is significant disagreement regarding the etiology of this phenomenon. In addition, until recently, theoretical models explaining origins of male violence against intimate female partners have been unidimensional (O' Neil & Harway, 1997). However, research findings demonstrating that batterers are a heterogeneous group with diverse behavioral, cognitive, and emotional characteristics suggest that unidimensional theories are inadequate and support arguments for etiologic explanations drawing from multiple theories (see Holtzworth-Munroe & Stuart, 1994). More specifically, current research findings suggest that there may be subtypes of male batterers with distinct patterns of violence, and different theoretical assumptions may predict violence specific to different subtypes (Hamberger, Lohr, Bonge, & Tolin, 1996). In general, typology research supports a three-group taxonomy that categorizes batterers as family-only aggressors, antisocial/generally violent, or borderline/dysphoric/emotionally volatile (Hamberger et al., 1996; Holtzworth-Munroe, Meehan, Herron, & Rehman, 2000; see Holtzworth-

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Munroe & Stuart, 1994). Frequency and severity of psychological, verbal, and physical violence are important variables distinguishing the three subgroups.

Sociopolitical and psychological theories are two conceptual lenses that have been frequently applied to explain male violence against women (see National Institute of Justice, 1998). Sociopolitical theories of male-perpetrated violence against female partners have been mainly advanced by feminist scholars who argue that violence against women is caused by patriarchal attitudes and institutions perpetuating male domination (Avis, 1992; Bograd, 1988; Dobash & Dobash, 1979; Pagelow, 1992; Pence, 1989). Alternatively, the premise of psychological theories is that individual-level psychological differences such as personality disorders, early trauma, developmental arrest, or emotional problems predict violent behavior (Dutton, 1995; Dutton, Ginkel, & Starzomski, 1995; Dutton & Starzomski, 1993; Flournoy & Wilson, 1991; Lansky, 1993). As feminists reject psychological explanations of violence for neglecting the patriarchal sociopolitical context that has contributed to the victimization of women (Bograd, 1990; Dobash & Dobash, 1979), feminist perspectives have been criticized for neglecting the contribution of individual psychological variables that have differentiated batterers from nonabusive men (Hamberger & Hastings, 1991).

These two diverse understandings of why men batter have historically been viewed as competing theories, and feminist scholars have been reluctant to accept an etiologic model of battering that emphasizes individual variables, potentially devaluing the contribution of sexist sociopolitical infrastructures to domestic violence (Heise, 1998). Consequently, few studies have simultaneously drawn from both paradigms, and the heuristic value of models that integrate sociopolitical and psychological theories is uncertain. Although each perspective appears to be necessary to explain battering, no one

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theory is adequately comprehensive to address all factors that influence domestic assault. Studies exploring etiologic explanations of battering have demonstrated support for each of these diverse theoretical conceptualizations, suggesting that each of these perspectives should continue to be included in the discourse on the etiology of battering (Carden, 1994; National Institute of Justice, 1998). Feminist theory has significantly advanced conceptual understandings regarding the abuse of women and an analysis concerned with gender and power continues to be important in understanding relationship violence. Nonetheless, because research demonstrates that individual-level psychological factors play an important role in battering (Sugarman & Frankel, 1996), utilizing the feminist hypothesis to collaborate and not compete with individual-level psychological explanations of violence may be instrumental in decreasing recidivism among batterers.

Two psychological variables that appear to be predictive of male violence toward female partners are adult attachment orientations and personality disorders. Insecure adult attachment has been found to predict variables associated with acts of violence against women (Dutton, Saunders, Starzomski, & Bartholomew, 1994). In addition, adult insecure attachment has successfully distinguish abusers from non-abusers (Tweed & Dutton, 1998), and abusers report more anger than non-abusers to scenes depicting relationship dynamics (e.g., fear of abandonment) that may explain intimate violence (Dutton & Browning, 1988). Research has also demonstrated that personality disorders related to the need to control others (e.g., narcissistic and antisocial) and related to self-concept and identity (e.g., borderline) are particularly prominent among batterers (Hamberger & Hastings, 1988). For example, Hastings and Hamberger's (1988) found that batterers demonstrated more borderline symptomatology than non-batterers, and Dutton, Starzomski, and Ryan (1996) found that descriptions of batterer personalities and

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behaviors fit the clinical classifications of borderline personality disorder. Murphy, Meyer, and O'Leary (1993) found that violent men, as compared to nonviolent men, consistently demonstrated higher scores on a measure of borderline and antisocial personality disorder.

According to the proposed three-group batterer taxonomy mentioned earlier (Holtzworth-Munroe & Stuart, 1994), adult attachment orientations and dimensions of antisocial and borderline personality disorders play an important role in differentiating between batterer types. Additionally, sexist attitudes toward women, an individual-level variable that could be interpreted as a product of patriarchal institutions, also plays an important role in distinguishing between the three batterer subtypes. Specifically, the three batterer subgroups, each with their distinct pattern of violence, can be described as follows. Antisocial batterers have characteristics congruent with antisocial personality disorder, are avoidantly attached, report very sexist attitudes toward women, and report the greatest frequency and severity of all types of violence. Borderline batterers exhibit characteristics congruent with borderline personality disorder, are anxiously attached, report moderately sexist attitudes toward women, and report less frequent and less severe physical violence compared to antisocial batterers. However, the frequency and severity of psychological and verbal abuse reported is comparable to or greater than that of the antisocial batterer. Family-only aggressors evidence no personality disorder, report the least sexist attitudes toward women, and report the least frequent and severe psychological, verbal, and physical violence. As implied, this subgroup generally restricts its violence to family members. Although it is expected that family-only aggressors will report more insecure attachment compared to non-abusive men, to date

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While there is extant empirical support for relationships between batterer types and personality disorders (Holtzworth-Munroe et al., 2000), hypotheses regarding relationships between adult attachment orientations and batterer subgroups are predominantly generated from theory (see Holtzworth-Munroe & Stuart, 1994). However, research findings supporting specific relationships between attachment-related constructs and batterer subtypes support these theory-generated hypotheses (see Holtzworth-Munroe & Stuart). For example, the borderline batterer has a history of parental rejection, reports very high levels of jealousy, and is hypersensitive to abandonment by his female partner, and is characterized by extreme dependency on his partner (Hamberger et al., 1996). The hypersensitivity to fear of abandonment and extreme dependency evidenced by the dysphoric/borderline batterer is consistent with anxious attachment (Bowlby, 1988). The antisocial batterer has been described as narcissistic and self-centered, and he views his partner as an object that should meet his needs. His most distinctive characteristic is his lack of empathy and inability to experience intimacy with another person (Hamberger et al., 1996). The complete lack of empathy, detached interpersonal style, and fear of engulfment typical of the antisocial batterer resembles avoidant attachment (Bowlby, 1988).

Bowlby (1988) noted that anxious attachment produces a vulnerability to disorders that exaggerate negative affect and distress in order to secure the attention of an attachment figure. Fear of abandonment, clinging behaviors, and an uncertainty as to whether the attachment figure will respond accompany overwhelming negative affect. As a consequence, the anxiously attached individual will display frequent care-seeking

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behaviors to elicit the support of the attachment figure. On the contrary, avoidant attachment makes one prone to behaviors that minimize distress and vulnerable to disorders that deny the presence of negative affect. Because avoidantly attached individuals expect to be rebuffed, they become compulsively self-reliant and deny any need for attachment. Psychopathology characteristic of anxious attachment reflects borderline traits, while psychopathology of avoidant attachment reflects antisocial personality traits.

Following Bowlby, many researchers have underscored the importance of attachment theory in understanding personality disorders (Brennan & Shaver, 1998; Livesley, Schroeder, & Jackson, 1990; Sheldon & West, 1990). Some findings have specifically provided evidence of relationships between anxious attachment and borderline personality disorder (Fonagy et al., 1996; Patrick, Hobson, Castle, Howard, & Maughan, 1994; Rosenstein & Horowitz, 1996; West, Keller, Links, & Patrick, 1993), or avoidant attachment and antisocial personality disorder (Gacano & Meloy, 1991; Gacano & Meloy, 1992; Gacano, Meloy, & Berg, 1992).

Because extant typologies demonstrate relationships between personality disorders and batterer subtypes, informed hypotheses about relationships between dimensions of attachment and batterer subtypes can be advanced. Empirically supported relationships between antisocial and borderline personality disorders and batterer subgroups as well as relationships between attachment orientations and these personality disorders support expectations that borderline batterers are anxiously attached and that antisocial batterers are avoidantly attached. Being able to predict attachment orientations specific to each of the batterer subgroups could deepen etiologic understandings of violence distinct to each of the subgroups.

Problem Statement

One purpose of this study was to examine the relationship between attachment style and attitudes toward women with personality disorders. Specifically, group 1 participants meeting criteria for personality disorders were compared to group 2 participants who did not. The study hypothesized that participants with personality disorders would have more negative verbal, and physical attitudes toward women with personality disorders.

Another purpose of this study was to examine the relationship between constructs such as antisocial personality disorder, sociopolitical theory, and attitudes toward female participants. It was hypothesized that participants with antisocial personality disorder would have more negative attitudes toward female participants. It was also hypothesized that participants with antisocial personality disorder would be distinct in frequency of attitudes toward female participants. It was further hypothesized that participants with antisocial personality disorder would be consistent with previous research on attachment orientation. It was also hypothesized that participants with antisocial personality disorder would be differentially impacted by attachment orientation. It was further hypothesized that participants with antisocial personality disorder would have more negative attitudes toward female participants. It was also hypothesized that participants with antisocial personality disorder would be conceptualized as having more negative attitudes toward female participants.

Problem Statement

One purpose of this study was to test hypotheses about anticipated relationships between attachment orientations, personality disorder, sexist attitudes toward women, and frequency, generality, and severity of psychological, verbal, and physical violence. Specifically, group differences between antisocial batterers, borderline batterers, participants meeting criteria for both personality disorders, and participants indicating no personality disorder on measures assessing severity and frequency of psychological, verbal, and physical violence, generality of violence, attachment orientations, and sexist attitudes toward women were explored.

Another purpose of this study was to test a model proposing that psychological constructs-such as adult attachment orientations, borderline personality disorder, and antisocial personality disorder- and patriarchal attitudes, a construct representative of sociopolitical theory, are both independently predictive of male violence perpetrated toward female partners. Additionally, it was expected that multiple violence patterns distinct in frequency and severity of psychological, verbal, and physical violence, and consistent with previous typology research, would be observed. It was expected that adult attachment orientations, personality disorders, and sexist attitudes toward women would be differentially important in predicting the three distinct violence patterns. Patriarchal attitudes were operationalized as sexist attitudes toward women, which were conceptualized as a product of patriarchal institutions.

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REVIEW OF THE LITERATURE

Intimate Violence against Women: Prevalence and Severity

Studies exploring intimate violence against women by men in the U.S. indicate that it is a serious and pervasive problem (see National Institute of Justice, 1998, 2000). Straus, Gelles, and Steinmetz (1980) estimated that 1.8 million women are abused by their husband or boyfriend each year. More recently, in a 1993 national survey (as cited in National Institute of Justice, 1998), approximately 3.9 million women reported abuse by their spouse or partner the previous year. Some studies predict that approximately one in three women will report assault by their intimate male partner at some point in their life (Browne, 1993; Koss, 1990; Straus & Gelles, 1986). Estimates regarding the percent of women who have experienced abuse by a husband or boyfriend range from 14 % to 34 % (Browne, 1993; National Institute of Justice, 1998, 2000; Straus & Gelles, 1986). Despite the prevalence of male violence against female intimate partners, it is believed that these figures underestimate the true prevalence of such violence. According to the Bureau of Justice Statistics (1994), "family violence is difficult to measure because it most often occurs in private, and victims may be reluctant to report it because of shame or fear of reprisal by the offender" (p. 6).

The lethality of male violence against female partners is equally alarming as its prevalence. For example, Frieze and Browne (1989) found that an intimate male partner committed approximately 50% of all female murders. Another study revealed that a husband or boyfriend committed 28% of all violent crimes against women (Bachman, 1994), and the Center for Study and Prevention of Violence (as cited by the National Institute of Justice, 1998) found that the perpetrator of 42% of female murders between 1988 and 1991 was the female's partner. More recently, the National Institute of Justice

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(2000) found that between 26% and 49% of female homicides were committed by intimates. Research also indicates that the negative physical and mental health consequences of male violence toward female partners are serious. For example, between 22 % and 35 % of women who seek emergency room care do so as a result of male violence (Adams, 1990). Battered women also report significantly more depressive and post-traumatic stress disorder symptomatology than do other women (Campbell & Lewandowski, 1997). The urgency to attend to domestic violence is further highlighted by findings that battering permeates every race, religion, social class, and educational level (Bureau of Justice Statistics, 1995; National Institute of Justice, 1998, 2000; Straus & Gelles, 1986).

What is Battering?

In the domestic violence literature, battering is defined as "... a pattern of assaultive and coercive behaviors, including physical, verbal, sexual, and psychological attacks, as well as economic coercion, that adults or adolescents use against their intimate partners" (p. 3). Assaultive and coercive behaviors are defined as physical, emotional, verbal, sexual, and economic violence, as well as intimidation (i.e., using male privilege to legitimize controlling behaviors), threats to the victim and her children, and isolation. The goal of the perpetrator's assaultive and coercive behaviors is to gain power and control within the relationship. Because the majority of batterers are heterosexual men and their victims are their female partners (National Institute of Justice, 1998; 2000), this manuscript will focus on male perpetrated heterosexual violence. Moreover, among studies exploring the etiology of domestic violence, research investigating the man's abusive behavior has proven to be a fruitful line of inquiry with significant implications

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for the prevention and treatment of battering. This study builds on extant literature regarding male violence toward female partners.

ETIOLOGIC EXPLANATIONS OF WHY MEN BATTER

Although widespread damage due to domestic violence is clearly evident, findings regarding the etiology of this phenomenon are inconclusive. In addition, until recently, theoretical models explaining origins of male violence against intimate female partners have been unidimensional and diverse understandings of why men batter have been viewed as competing theories (O' Neil & Harway, 1997). However, research findings demonstrating that batterers are a heterogeneous group with diverse behavioral, cognitive, and emotional characteristics suggest that unidimensional theories are inadequate and support arguments for etiologic explanations drawing from multiple theories (see Holtzworth-Munroe & Stuart, 1994). Specifically, current research findings suggest that there may be subtypes of male batterers with distinct patterns of violence, and different theoretical assumptions may predict violence specific to different subtypes (Hamberger, Lohr, Bonge, & Tolin, 1996). In general, typology research supports a three-group taxonomy that categorizes batterers as family-only aggressors, antisocial/generally violent, or borderline/dysphoric/emotionally volatile (Hamberger et al. 1996; Holtzworth-Munroe, Meehan, Herron, & Rehman 2000; see Holtzworth-Munroe & Stuart, 1994). Frequency and severity of psychological, verbal, and physical violence are important variables distinguishing the three subgroups. Violence enacted by the antisocial/generally violent group is generally physical and severe, and violence enacted by the borderline group is predominantly psychological. The family-only aggressor's violence is least severe and least frequent.

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Theories of relationship violence have generally emphasized either sociopolitical or psychological explanations of male violence against women, or attributed the violence to the interpersonal family dynamics (see National Institute of Justice, 1998). Following is a description of all three theoretical perspectives. However, only empirical support for psychological and sociopolitical explanations of battering are reviewed, as only these two perspectives are central to this study's hypotheses. That is, only relationships between constructs central to psychological and sociopolitical theories and violence patterns specific to the three batterer subtypes identified above were explored.

Family-level Explanations

Theoretical perspectives attributing violence to family dynamics describe violence as rooted within family interactional patterns that include poor communication and ineffective conflict-resolution skills (Straus, Gelles, & Steinmetz, 1980). According to this perspective, all persons involved in the conflict are contributors to the violence and responsible for the escalation of the violence. The victim is perceived as contributing to her own victimization by engaging in interactions that facilitate her partner's abusive behavior. Moreover, this theory's premise is that the manifestation of problem behaviors such as violence is indicative of a dysfunctional family system, and changing maladaptive interactional patterns will result in the deterrence of violence (Giles-Sims, 1983). This etiological explanation of violence is critiqued for neglecting the non-neutrality of power dynamics present in the family system, and, in essence, colluding with the batterer (Bograd, 1984). In addition, because family-based understandings of violence do not distinguish between the perpetrator and victim of violence and advocate couples or family counseling, this theory is also critiqued for failing to hold the batterer accountable for his

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Sociopolitical Explanations

Sociopolitical theories of male-perpetrated violence against female partners have been mainly advanced by feminist scholars who argue that violence against women is caused by patriarchal attitudes and institutions perpetuating male domination (Avis, 1992; Bograd, 1988, 1990; Dobash & Dobash, 1979; Pagelow, 1992; Pence, 1989). According to this perspective, the power differential between men and women in our society contributes to and perpetuates the abuse of women. Furthermore, patriarchal attitudes condoning male violence and maintaining the status quo of male domination are perceived as contributing to violence against women. Feminists also assert that because men, not women, are almost always the perpetrators of violence in heterosexual relationships, battering must be understood as resulting from normal male socialization. Female perpetrated violence in heterosexual or lesbian relationships is explained as a means of self-defense or behavior motivated by feelings of vulnerability and a desire to identify with the aggressor (Macchietto, 1992; Walker, 1996). As such, a gender analysis of power is essential to the feminist interpretation of woman abuse (Bograd, 1990). Such an analysis suggests that male dominance is legitimized and battering is perceived as a behavior that creates and maintains an imbalance of power between the man and his female partner. Feminists propose that aggression toward female partners has been tolerated as an acceptable means of conflict resolution and, historically, legal sanctions have not been imposed on such perpetrators of abuse. In addition, sexist political, social, and economic infrastructures hinder women from leaving abusive relationships, further acknowledging tolerance of woman abuse.

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Feminist perspectives of violence against women has been criticized for failing to explain why all men do not batter and emphasizing sociopolitical contributions of male violence against women. In addition, the theory does not consider the contribution of individual psychological variables that have been found to differentiate batterers from nonabusive men (Hamberger & Hastings, 1991). Dutton (1994a) argued that without attending to individual level predictors, it is impossible to predict which men will batter.

The feminist model is currently the dominant perspective guiding community approaches in understanding and treating battering behavior (Tolman & Edleson, 1995). Treatment adhering to this paradigm emphasizes holding the batterer accountable for his violent, controlling behaviors. The profeminist model assumes that challenging and eliminating the man's sexist attitudes are essential to ending the violence. Moreover, this treatment modality suggests that an etiologic explanation of battering that includes individual, psychological differences of the batterer exonerates male violence. Some feminists argue that addressing the batterer's psychological motivations colludes with the batterer in denying responsibility for his behavior (Adams & McCormick, 1982). Research investigating the effectiveness of these "one-size-fits-all" batterer intervention programs is inconsistent (National Institute of Justice, 1998; Tolman & Edleson, 1995). One possible explanation for these inconsistent findings is that the heterogeneity of batterers suggests the need for less generic programs. In fact, patriarchal attitudes differ among the three batterer subtypes generally identified in batterer typology research, with the antisocial/generally violent batterer indicating the most conservative and sexist attitudes toward women (see Holtzworth-Munore & Stuart, 1994).

Empirical support for sociopolitical explanations of battering. Smith's (1990) telephone survey study is one empirical work that directly investigated relationships

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between patriarchal attitudes and battering. The author investigated whether men who assault their female partners, compared with men who do not, adhere to values supporting familial patriarchy and condoning violence against their spouses. Findings indicated that patriarchal attitudes and male approval of violence toward female partners were positively related with woman assault.

In another study, Eisikovits, Edleson, Guttman, and Sela-Amit (1995) examined the ability of an aggregated set of cognitive and attitudinal measures, including a measure of attitudes toward wife beating, to distinguish between violent and nonviolent men. Their findings suggested that violent men are more tolerant of wife beating compared to nonviolent men. In fact, attitudes toward wife beating were the strongest factor in distinguishing between violent and nonviolent men in their sample.

Haj-Yahia (1997) tested a model that integrated sociopolitical, social-learning, and interpersonal understandings of battering within a sample of 434 engaged Arab men. The author found relationships among beliefs about wife beating, sex role attitudes, attitudes toward women, and marriage role expectations. Men in Haj-Yahia's sample who endorsed more masculine sex role stereotypes, negative and conservative attitudes toward women, and patriarchal expectations of marriage were more likely to support attitudes that justify wife beating.

Finn (1986), among a sample of 300 college undergraduates, found a positive relationship between sex role stereotypes and attitudes supporting physical violence in a marital relationship. In addition, Finn found that men supported more traditional sex role attitudes than women and were more likely to endorse the use of force in marriage. Using regression analysis, Finn's findings also supported the sociopolitical hypothesis in that, after controlling for sex, traditional sex role attitudes were the strongest predictor of

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Limitations in studies supporting sociopolitical explanations of battering. Studies investigating the relationship between patriarchal attitudes and battering have some common limitations. First, data are generally collected via a self-report survey. This limitation threatens the internal and external validity of studies that collect data from the partner or the abuser. Because abused women often do not reveal their abuse to their interviewer (Smith, 1994), a significant number of women may not report their abuse, threatening the validity of those studies (e.g., Smith, 1990) that collect data regarding marital violence from battered women. Because abusers' tend to present themselves favorably and "fake good" (Arias & Beach, 1987), particularly if they are aware that their violent behavior is being studied and is wrong, they may provide dishonest responses and threaten the validity of batterer studies. In addition, self-report data are generally collected retrospectively, threatening the accuracy of the data due to problems recalling past events. Questions regarding the representativeness of both men and partners who do report abuse threaten the generalizability of the study's findings. Generalizability is also threatened because men generally included in these studies are court-referred.

Another limitation is that findings from empirical research investigating the relationship between patriarchy and battering are inconsistent. Whereas the studies reviewed above have demonstrated support for the sociopolitical hypothesis, other reviews have not supported the hypothesis that gender role socialization and patriarchal cultures contribute to battering. For example, Hotaling and Sugarman (1990) found that male traditional sex role expectations was not a consistent risk marker for male violence

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against intimate female partners. In another study, Sugarman and Frankel (1996) failed to support their hypothesis that violent husbands have significantly more conservative attitudes towards women than do nonviolent husbands. Moreover, violent husbands did not possess a more traditional masculine gender orientation than nonassaultive husbands.

Quantitative studies exploring the etiology of woman assault also rarely use adequate comparison groups. This limits conclusions that can be made regarding the relationship between patriarchal beliefs and battering. For example, we cannot be certain that nonviolent men do not also hold patriarchal attitudes. When studies do include comparison groups, demographic differences (i.e., education, socioeconomic status, etc.) between violent and nonviolent men threaten the validity of findings.

A final noteworthy limitation is that patriarchy is a difficult construct to define and operationalize. Most studies testing sociopolitical explanations of male violence against women use individual patriarchal attitudes as a measure of a patriarchal political, social, and economic structures, with the expectation that attitudes prominent within patriarchal institutions will trickle down to individuals. Feminist theorists define a patriarchal attitude as adhering to cultural prescriptions that women should be dominated and that any means to that end is acceptable (Bograd, 1992). However, given feminist theory's emphasis on systemic contributions to domestic violence, studies that operationalize patriarchy as an individual-level variable (i.e., individual patriarchal attitudes) only provide a limited test of the feminist hypothesis of battering. The few studies that have compared rates of violence among more and less patriarchal societies have found that abuse rates of women are lower in more patriarchal societies (Sorenson & Telles, 1991) or found insignificant correlations between structural inequality and patriarchal beliefs (Yllo, 1983). However, these studies also demonstrated that battering

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increases as traditional power differentials decrease. For example, among male-dominant couples and societies, as women transfer increased earning potential and social and political power to relational dynamics, they are at greater risk for violence. These authors proposed that violence might be compensatory behavior used by the man to make-up for power loss outside the home and to communicate to his female partner that change in power dynamics outside the home will not alter relational power dynamics.

Psychological Explanations

According to psychological theories, the root of violence can be found in individual level psychological variables (Bowlby, 1984; Dutton, 1995; Lansky, 1993; Russell, 1988). For example, psychological differences such as personality disorders, early trauma, developmental arrest, or emotional problems are assumed to predict violent behavior. Research supporting this perspective has explored differences between abusive and nonabusive men has found that abusive men exhibit more psychopathology and personality disorders than nonabusive men (Dutton & Starzomski, 1993; Dutton, Ginkel, & Starzomski, 1995; Flournoy & Wilson, 1991; Murphy, Lee-Meyer, & O' Leary, 1993). Moreover, research has consistently demonstrated that batterers share some common intrapersonal characteristics and interpersonal behaviors (Dutton & Strachan, 1987; Goldstein & Rosenbaum, 1985; Holtzworth-Munroe, 1992; Strachan & Dutton, 1992). These commonalities are perceived as risk markers that predispose a man to be violent with his female partner (Hotaling & Sugarman, 1986).

Historically, feminists have rebuffed psychological explanations of violence as advocating victim blaming and allowing the perpetrator to forego accepting responsibility for the violence. Feminists also critiqued psychological explanations of battering for viewing violent behavior independent of the violent individual's sociopolitical context

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and neglecting to highlight the societal nature of the problem (Avis, 1992; Bograd, 1984; Bograd, 1990; Dobash & Dobash, 1979). However, there has been a recent surge of interest in psychological explanations of battering, and accompanying empirical support for these explanations highlights the necessity of continuing with this line of inquiry (Dutton, 1995; Dutton & Strachan, 1987; Goldstein & Rosenbaum, 1985; Holtzworth-Munroe, 1992; Murphy, Lee-Meyer, & O' Leary, 1994; Strachan & Dutton, 1992; Zeanah & Zeanah, 1989).

Attachment. One individual psychological variable receiving increased attention in domestic violence research is attachment, and many researchers and clinicians are advancing attachment theory as a conceptual framework for understanding why men batter (see National Institute of Justice, 1998). Research investigating battering has found that abusiveness may have origins in early interactions between the child and caregivers. For example, Elbow (1977) found that the abuser had parents who were rejecting and critical. Elbow hypothesized that unresolved anger associated with this paternal rejection may result in battering. Dutton (1988) found that early humiliation and verbal abuse by the mother was correlated with later battering behavior in a group of males. More recently, Dutton (1994b) found that maternal rejection was an important predictor of abusive behavior. Insecure attachment has also been found to predict variables associated with acts of violence against women (Dutton et al., 1994). In addition, insecure attachment has successfully distinguish abusers from non-abusers (Tweed & Dutton, 1998), and abusers report more anger than non-abusers to scenes depicting relationship dynamics (e.g., fear of abandonment) that may explain intimate violence (Dutton & Browning, 1988). Attachment has also been theorized as a variable important in

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Attachment theory. Attachment theory (Bowlby, 1978; 1982; 1980) posits that, for the purpose of safety and survival, humans are innately driven to seek attachments or close enduring emotional bonds with others. The human disposition to form attachments with others begins at birth, when infants depend upon primary caregivers to meet basic needs and provide security. If caregivers are responsive and sensitive to an infant's needs, secure attachments between the infant and caregivers will develop, providing the infant with the necessary security for exploring the environment. A securely attached infant will use his/her caregiver as a base from which to explore the environment, confident that the caregiver will be available when he/she returns. If caregivers are not responsive to infant needs, the infant will not establish the same sense of security regarding the caregiver's proximity. Consequently, the insecure infant will not experience the same freedom as the secure infant to explore his/her environment, as a much of his/her energy will be devoted to maintaining proximity to the attachment figure (Ainsworth, Blehar, Waters, & Wall, 1978).

Bowlby (1988) observed that a human infant goes through a series of predictable emotional reactions when separated from its mother. The series includes protest, despair, and detachment. During protest, the infant will cry and actively search for the caregiver. Despair will result in the infant experiencing passivity and sadness, and detachment will be manifested as an avoidance of the mother if she returns. During the protest phase, infants whose caregivers do not respond to their cries may exhibit hostile, overt expressions of anger in an effort to seek proximity to the caregiver. These hostile behaviors are a manifestation of the infant's anger at having an unmet attachment need.

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Internal working models. During early attachment experiences, an infant will build a cognitive representation or internalized set of beliefs about self and other, defined by Bowlby (1973; 1988) as “internal working models.” The working model of self influences the infant’s perceptions about his/her self worth, competence, and lovability, whereas the working model of other is responsible for expectations about the availability, and trustworthiness of primary caregivers. If primary caregivers are available and responsive to a child’s needs, the child will internalize a model of self as lovable and competent and a model of others as trustworthy and consistently available. Alternatively, if the primary caregiver is rejecting, unavailable, and unresponsive to the child’s needs, the child will internalize a model of self as unlovable and a model of others as rejecting, untrustworthy, and unavailable. Bowlby suggested that these models of self and other function as relatively stable and enduring expectations, which regulate one’s interpersonal behaviors throughout life.

Attachment patterns in infancy. Distinct infant attachment patterns were initially identified by Ainsworth et al. (1978) in the classical Strange Situation studies. Based on infants’ responses to separation from and subsequent reunion with caretakers, Ainsworth identified three principal patterns of infant attachment: secure, anxious-ambivalent, and anxious-avoidant. Infants categorized as secure exhibited the least amount of distress in response to the caregiver’s absence, were able to engage in exploratory behavior with or without the caregiver present, and were most easily comforted by the caregiver’s return. Ainsworth concluded that these infants had a model of self that was worthy and competent and a model of others as reliable and responsive. Infants categorized as anxious-ambivalent exhibited great distress in the absence of their caregiver and were unable to engage in exploratory behavior in the caregiver’s absence. These infants were

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not easily comforted upon reunion with the caregiver and appeared ambivalent about this reconnection, perhaps fearful of a future absence. The anxious-ambivalent infant perceives the caregiver as inconsistently available and internalizes a view of self as unworthy. Infants categorized as anxious-avoidant did not seek proximity to the caregiver upon her return and rebuffed the caregiver's attempts to reconnect. These infants appeared less concerned with the mother's proximity and their exploratory behavior was not affected by the caregiver's proximity. The anxious-avoidant infant appears to have deactivated attachment needs and adopts a compulsive self-sufficiency, with a corresponding model of self as unwanted and model of others as rejecting and untrustworthy.

Although some replications of the classical Strange Situation have borne results consistent with the original study (Egeland & Sroufe, 1981; Main, 1990), other replications have identified an additional disorganized/disoriented pattern (Main & Solomon, 1990). During the Strange Situation, disorganized infants evidence a combination of avoidant and anxious responses. They simultaneously avoid proximity and exhibit needy behavior upon the caregiver's return. Disorganized infants have an internalized model of other as threatening and rejecting and an internalized model of self as unworthy and unlovable.

Attachment patterns in adulthood. Bartholomew and Horowitz (1991) are two of many researchers who have extended attachment theory into adulthood. Although some researchers investigating adult attachment have employed a 3-category model (e.g., secure, ambivalent, and avoidant), Bartholomew and Horowitz proposed a 4-category model of adult attachment that dichotomizes a person's image of self and a person's image of other into positively and negatively valenced categories. The internalization of a

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positive or negative model of self depends upon the individual's experienced self-worth. The internalization of a positive or negative model of other depends upon the degree to which the individual expects the other to be accepting and trustworthy. The four adult attachment styles yielding from Bartholomew and Horowitz's model are secure, preoccupied, fearful, and dismissive. The secure person possesses a positive sense of self-worth and has an internalized expectation that the other will be accepting and trustworthy. The preoccupied person possesses a sense of unworthiness accompanied with a positive view of others. This combination of a negative self-model and a positive other-model may lead the person to continuously seek the approval of others. The fearful person experiences the self as unworthy and expects the other to be untrustworthy and rejecting. This may result in a person who desires connection with others to alleviate feelings of tenuous self-worth but avoids interacting with others due to expectations of rejection. The dismissive person possesses a sense of self-worth that is positive coupled with an expectation that others are untrustworthy and unreliable. A positive self-model accompanied with a negative self-model may result in an individual who finds intimacy and attachment threatening. As such, the dismissive person may be prone to manifest a detached style of relating.

Anxious and avoidant attachment orientations. Attachment has also been conceptualized as a two-dimensional structure. These dimensions are anxious and avoidant attachment (Brennan, Clark, & Shaver, 1998). Recent research supported the conceptualization of attachment as a two-dimensional structure rather than a three or four-group taxonomy (Lopez & Brennan, 2000). Research with adults has also demonstrated that four attachment categories can be conceptualized as two dimensions, comparable to the two dimensions underlying infant attachment patterns (Bartholomew &

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Horowitz, 1991; Brennan & Shaver, 1995; Simpson, 1990). These two dimensions are discomfort with closeness, or the extent to which an individual feels uncomfortable in close relationships, and anxiety over abandonment, or the extent to which an individual fears abandonment from romantic partners. As with infant attachment categories, the two dimensions underlying adult attachment styles reflect anxious and avoidant attachment. Anxious attachment incorporates both fear of abandonment and anger at partners who are experienced as insufficiently available and responsive. Avoidant attachment embodies a pattern of excessive self-reliance developed as a defensive strategy to cope with the partner's unavailability. Avoidant attachment protects the individual from feelings of insecurity and vulnerability. Whereas the avoidant dimension is closely related with a negative model of others, a negative model of self is associated with abandonment anxiety or anxious attachment (Brennan et al., 1998). In an effort to develop a common measurement for assessing adult romantic attachment styles, Brennan et al. factor-analyzed items from virtually all extant self-report adult romantic attachment measures. They found two independent factors corresponding to the anxious and avoidant dimensions already proposed by other researchers.

Romantic love as an attachment process. Hazan and Shaver (1987) conceptualized romantic relationships as an attachment process and proposed that the attachment dynamics between partners in a love relationship might parallel the attachment behaviors of individuals in early relationships with caregivers. Specifically, Hazan and Shaver developed a self-report categorical measure of three adult attachment styles based on the three attachment patterns found in infancy. Hazan and Shaver demonstrated that the same three types of infancy attachment patterns existed in adulthood and that the relative prevalence of the three styles in infancy and adulthood is

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roughly equal. They conjectured that the continuity of patterns is due to the persistence of internal working models of self and other that developed in relationship to early caregivers. Their findings also indicated that adults with different attachment orientations experienced their love relationships differently. Whereas secure adults indicated that happiness, acceptance, and trust were common experiences in their love relationships, insecure adults reported greater dissatisfaction and less happiness and acceptance in their love relationships. Specifically, avoidant adults indicated that it was difficult for them to accept and trust others, reported greater fear of intimacy, and were less likely to accept their partner's faults. Anxious-ambivalent adults were more likely to fall in love at first sight, desired greater reciprocation from their intimate partners, and experienced a greater range of emotional fluctuation in their relationships.

Many other researchers have subsequently applied attachment theory to adult romantic relationships. For example, motivated by the premise that jealousy is a response activated by the attachment system in reaction to a loss or a perceived loss of the attachment figure, Sharpsteen and Kirkpatrick (1997) expected to find differences in participants' experiences of jealousy in romantic relationships based on their attachment style. They found that attachment style was predictive of quantitative and qualitative individual differences in jealousy experiences. Anxiously attached participants' reported significantly more jealousy than securely attached participants, and although securely attached participants were able to express anger at a straying partner, anxiously attached participants were less likely to confront their partners and express their anger. Moreover, consistent with attachment theory, avoidantly attached participants worked to maintain their self-esteem in a jealousy-provoking situation, further distancing them from their partners. Simpson, Rholes, and Nelligan (1992) explored the moderating effect of

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attachment style on support seeking and support giving between partners in a romantic relationship when confronted with an anxiety-provoking situation. Their findings revealed that under anxiety-arousing circumstances secure women tend to seek out support from partners, whereas avoidant women do not. Moreover, secure men tend to offer their stressed partners more support, whereas avoidant men are less inclined to do so. In a longitudinal study of 144 couples, Simpson (1990) found that, irrespective of gender, a secure attachment style was associated with greater relationship interdependence, commitment, trust, and satisfaction when compared with participants with an insecure attachment style. Consistent with Simpson's findings, Scharfe and Bartholomew (1995) found that, after controlling for relationship satisfaction, attachment style predicted how one would respond to a partner's "destructive behavior" over an 8-month period. Specifically, although secure individuals were able to respond constructively to their partner's destructive behavior, individuals with fearful attachment were unable to do so. Couple participants with a secure attachment style were more able to use effective problem solving and strategies such as open discussion in response to their partner's potentially destructive behaviors. Taken together, this sample of studies applying attachment theory to the study of adult romantic relationships demonstrate that attachment theory provides a valuable conceptual framework for understanding relationship functioning.

Fear of abandonment and fear of intimacy. Given Hazan and Shaver's seminal findings, it is possible that individuals within a love relationship might continue to react to unmet attachment needs in the same manner that they responded to unmet attachment needs with their primary caregivers. As such, an infant who responded to the unavailability or inconsistency of the primary caregiver with hostile, overt expressions of

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anger might result in an adult prone to react to his lover with anger when a threat of separation or fear of abandonment exists (Dutton et al., 1994). Given that securely attached persons have internal working models of others as dependable, trustworthy, and capable of intimacy and models of self as worthy of love, it is probable that aggressive proximity seeking behaviors are more likely to be used by persons with insecure attachment styles who experienced untrustworthy, unpredictable, and/or rejecting primary caregivers. Fearful and preoccupied individuals who seek approval from others to validate their tenuous self-worth may be most likely to feel vulnerable when confronted with the prospects of abandonment. As such, it is expected that these attachment patterns are most likely to manifest angry protest behavior in an effort to maintain proximity to their partner.

The attachment needs of the dismissive person may differ from those of the preoccupied and fearful person. Dismissive individuals maintain a positive self-image by maintaining emotional distance from others. The dismissive individual may demonstrate angry protest behavior in response to his partner's attempts for increased intimacy. Mayseless' (1991) theoretical exploration of adult attachment patterns and courtship violence suggested that dismissive persons maintain power in a romantic relationship by rebuffing the partner's attempts to become intimate. However, if the dismissive male is unsuccessful at rebuffing his partner's attempts, he may become hostile and aggressive due to fears of increased intimacy. This is consistent with the work of attachment theorists who suggest that a primary caregiver who intrudes or "... forces affection on the infant..." may result in the infant's overt expressions of anger (Hazan & Shaver, 1987, p. 512).

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Attachment and battering: A review of empirical studies. Extant empirical work exploring the utility of attachment theory in explaining the etiology of battering lends support to the hypothesized relationship between attachment orientation and battering. Dutton et al. (1994) investigated whether attachment style was correlated with a constellation of variables previously associated with male batterers. Whereas secure attachment was negatively and significantly correlated with these variables, anxious attachment was positively and significantly correlated with them. Findings also indicated that the assaultive group demonstrated higher scores on the constellation of variables previously associated with battering and indicated higher levels of psychological maltreatment against their female partners. The authors also found that fearful attachment was a significant predictor of psychological abuse. Dutton et al. proposed that chronic childhood frustration of attachment needs may dispose adults to express extreme "intimacy-anger" when adult attachment needs are unmet.

In another study, Dutton, Starzomski, and Ryan (1996) found that abusive behavior was significantly correlated with early recollections of lower parental warmth and higher parental rejection. In addition, men with a history of assaultive behavior scored significantly higher than the nonassaultive control group on a measure of fearful attachment. The authors also found that measures of paternal and maternal rejection were significantly positively correlated with fearful attachment, whereas measures of paternal and maternal warmth were significantly negatively correlated with fearful attachment.

Dutton and Browning (1988) compared three groups of men – physically assaultive, verbally assaultive, and nonassaultive- on expressed anger toward a series of three videotaped scenarios depicting conflict between a man and his female partner. The conflict in the first scene depicted abandonment (e. g., verbalized expression of more

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autonomy), and the conflict in the second scene depicted engulfment (e.g., verbalized request for him to spend more time with her). The third scene included a conflict between a man and his female partner but depicted neither abandonment nor engulfment. Physically assaultive men reported the most anger, whereas the nonassaultive group reported the least anger. Moreover, the physically assaultive group reported the most anger to the abandonment scenario as compared with the other two groups. The physically assaultive group was also most likely to indicate that the abandonment scene was reflective of their actual relationship. This study's findings demonstrated that assaultive males express more anger in response to relationship conflict and abandonment. Given that attachment theory supports a relationship between fear of abandonment and anxious attachment (Mayseless, 1991), this study's findings also suggested that physically assaultive men may have more attachment anxiety than do nonviolent men.

Woike, Osier, and Candela (1996) investigated the relationship between the inclusion of violent imagery in Thematic Apperception Test (TAT) stories, attachment style, and gender. The authors proposed that insecure attachment styles might have difficulty regulating affect associated with the loss of their lover and may use violence to gain control over their lover and maintain her in close proximity. Findings indicated that heterosexual men with preoccupied attachment styles were most likely to report stories containing violent imagery with a male as the perpetrator and a female as the victim.

Bookwala and Zdaniuk (1998) compared the attachment patterns of individuals who reported being in non-aggressive dating relationships to those who reported being in mutually aggressive relationships. They found that, after controlling for relationship satisfaction and length of relationship, participants involved in mutually aggressive

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relationships reported more preoccupied and fearful-avoidant attachment styles and acknowledged more interpersonal problems than did participants in non-aggressive relationships. Controlling for interpersonal problems, only the relationship between preoccupied attachment and aggression was significant.

Roberts and Noller's (1998) findings indicated that abandonment anxiety predicted violence perpetrated against one's partner but male anxiety about abandonment also predicted whether or not they were victims of relationship violence. However, an individual's abandonment anxiety was only associated with the use of violence if the partner was also uncomfortable with closeness. This significant interaction suggests that abandonment anxiety may be exacerbated by a partner's fear of intimacy and that violence may be the tactic used by the anxious partner to maintain the other in close emotional and/or physical proximity.

Limitations of research using attachment theory to explain battering. Although the above findings are pivotal in supporting the hypothesis that attachment theory may be useful in explaining battering behavior, each study has some significant limitations. Dutton et al. (1994) used a control group that was significantly smaller than the treatment group. Furthermore, the control group reported an average of 1.34 acts of violence against their partner the previous year. This finding raises questions about the distinctiveness of the two groups. Second, the self-report nature of the study warrants caution in interpreting findings as men may have underreported abuse. A final noteworthy limitation is the nonrepresentativeness of the treatment group. Because only the participants' psychological maltreatment against their partners was measured, findings cannot be generalized to men who physically abuse their partners.

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Dutton, Starzomski, and Ryan's data (1996) were also retrospective and collected via self-report being subject to self-report bias and other general limitations of retrospective data. In addition, because study measures were presented as part of a mandatory assessment, completion rates were close to 100%. Alternatively, participants may have felt coerced into participation and consequently responded more haphazardly and dishonestly than if they had perceived greater choice in whether or not to participate, thus threatening the data's validity. Next, although the control group matched the assaultive group on demographic characteristics, there were only 45 participants in the control group and 140 participants in the assaultive group.

Dutton and Browning (1988) noted that because of within-group variance and small sample sizes the study's statistical tests lacked power and that this study must be replicated with a larger sample to provide stronger support for the hypothesis that physically assaultive males react more strongly to abandonment scenarios. Another limitation is that the use of videotaped scenarios as mechanisms for priming attachment dynamics, such as fear of abandonment, need to be further validated. The authors also did not screen out men who are violent outside their romantic relationship from the physically assaultive group. Violence enacted toward persons in the general population may be indicative of a broader learned pattern of violence rather than prompted by cognitive, affective, or behavioral triggers that prompt relationship-specific violence. Also, although the author's hypotheses were specific to perpetrators of relationship-specific violence, this study's findings can only be generalized to generally violent men. Finally, although Dutton and Browning demonstrated a relationship between physically abusive behavior and fear of abandonment, they did not demonstrate a direct relationship

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A significant limitation of Woike et al.'s study was the small number of participants reporting violent imagery within each attachment category. The small cell sizes threatened the validity of significant between group differences for the different attachment styles. The manner in which violent imagery was categorized is a final methodological issue worth noting. For example, it is unclear why fatal disease was included as a category of violent imagery used to predict domestic violence.

An important limitation of Bookwala and Zdaniuk's (1998) study is that data on attachment style were only collected from one member of the relationship. This limitation precludes investigation of the effect of a mismatch of attachment styles between couple members on the occurrence of relationship aggression as well as whether self and partner attachment styles were differentially related to the occurrence of aggression. Additionally, no data regarding precipitants to the violence reported by participants were collected, making it impossible to determine whether the violence may have been self-defensive in response to experienced abuse. Moreover, 25% of the participants were not in a relationship during the time of the study and reported on relationship aggression from their previous relationship. Perhaps these participants elected to terminate the relationship because of the violence and had no previous experience in a violent relationship. Finally, the nature of their cross-sectional design precludes certainty that regarding the causal relationship between insecure attachment and relationship aggression.

Roberts and Noller's (1998) findings are correlational in nature and prohibit inferences regarding causal relationships between attachment patterns and relationship

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violence. To more accurately ascertain the nature of associations between attachment patterns and relationship violence, longitudinal studies exploring effects of adult attachment on couples' use of violence are needed. Roberts and Noller's findings are also limited by the use of self-report measures, which are unable to fully assess the conflictual interactions of violent couples. Moreover, particularly for non-reciprocal couple violence, the validity of self-report data regarding couple violence is subject to question given the perpetrator's tendency to underreport acts of violence.

Personality disorders among batterers. Research has demonstrated that understanding relationships between personality disorders and violence may play an important role in improving current etiologic explanations of woman assault (Murphy, Lee-Meyer, & O' Leary, 1993). Personality disorders related to the need to control others (e.g., narcissistic and antisocial) and related to self-concept and identity (e.g., borderline) are particularly prominent among batterers (Hamberger & Hastings, 1988). For example, Hastings and Hamberger's (1988) found that batterers demonstrated more borderline symptomatology than non-batterers, and Dutton, Starzomski, and Ryan (1996) found that descriptions of batterer personalities and behaviors fit the clinical classifications of borderline personality disorder. Murphy, Lee-Meyer, and O'Leary (1993) found that violent men, as compared to nonviolent men, consistently demonstrated higher scores on a measure of borderline and antisocial personality disorder.

Hastings and Hamberger's (1988) findings indicated that batterers demonstrated more borderline symptomatology and negativistic, passive-aggressive tendencies than non-batterers did, but not more narcissistic and antisocial symptomatology. Although there were no group differences on the antisocial factor, batterers did score lower on measures of non-conformity than nonbatterers did.

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Further support for the borderline batterer is provided by Dutton, Starzomski, and Ryan (1996). Their findings indicated that descriptions of batterer personalities and behaviors fit the clinical classifications of borderline personality disorder and borderline personality organization (BPO). Although BPO may be less severe than borderline personality disorder, both diagnoses reflect personality problems characterized by identity issues and use of primitive defenses such as splitting, which are often reflective of borderline personality disorder. Splitting is a defensive mechanism characterized by the individual's inability to integrate good and bad images of significant persons in the individual's life (Kernberg, 1975). Dutton et al.'s findings also suggested a relationship between abusiveness and early recollections of parental rejection, a factor believed to be influential in the development of borderline personality (Sack, Sperling, Fagen, & Foelsch, 1996). Specifically, it is argued that fear of abandonment is central to both batterers and persons with borderline personality disorder. The batterer, however, reacts to this real or perceived abandonment with violence.

Murphy, Lee-Meyer, and O'Leary (1993) found that batterers who experienced a history of severe physical abuse exhibited more evidence of psychopathology, including personality disorders, and were more violent toward their current partners. Moreover, they explored differences between violent and nonviolent men on pathology. They found that violent men consistently demonstrated higher scores on measures of borderline and antisocial personality disorder.

Other research using the MMPI has also supported a subgroup of batterers with antisocial tendencies. Flourny and Wilson (1991) found that a subgroup of batterers in their sample had profiles suggesting antisocial characteristics as well as a tendency to externalize responsibility for behavior. In another study, 75% of a male sample

expressing concern for their violent behavior toward their female partner exhibited a profile indicating antisocial personality and a tendency to externalize responsibility for problem behaviors (Hale, Zimostad, Duckworth, & Nicholas, 1988). Flourny and Wilson called for research that matches different batterer subgroups with different treatment approaches. Effectiveness of the different treatment approaches could be compared across batterer subgroups.

Dutton (1995) also concluded that there are subgroups of batterers, and behavioral and emotional characteristics of these subgroups reflected criteria for borderline and antisocial personality disorders. The emotionally volatile subgroup enacts violence as a response to fear of abandonment and intense anxiety about intimacy. Characteristics of this subgroup resemble borderline personality disorder. The psychopathic batterer, exhibiting characteristics reflective of antisocial personality disorder, is unempathic and perceives woman as responsible for her abuse. These men fear engulfment and use violence to regulate intimacy. Dutton also conjectured that some batterers may not evidence pathology indicative of a personality disorder. Dutton's conclusions are consistent with batterer typology research that categorizes batterer subtypes along three dimensions – antisocial personality disorder, borderline personality disorder, and no personality disorder. Further exploration of relationships between batterer subtypes and personality disorders appears necessary to increase understandings of male violence against intimate female partners.

Limitations of studies exploring personality disorders among batterers. One common limitation is that control samples, which may also include subgroups of men exhibiting personality disorders, are rarely employed. When control samples are included, often there are group differences on demographic variables between violent and

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nonviolent men. Specifically, batterers report more unemployment, less education, and higher rates of violence and divorce in their families of origin (Hastings & Hamberger, 1988). Such differences limit interpretations regarding research findings suggesting relationships between personality disorders and batterers.

Another limitation associated with sampling is that participants in these studies are generally recruited from treatment programs to which they have been court-referred. Batterers participating in a treatment program of their own volition may exhibit different personality profiles. Also, because of the nature of the referrals, modest sample sizes and self-response bias plague these studies. Because reports of one's childhood history are retrospective in nature, studies reporting relationships between abusiveness and developmental histories common to persons with personality disorders are also limited.

One final noteworthy limitation is that, among batterers, average scores on clinical scales used to identify psychopathology do not always exceed cut-off scores. This may be true because batterers are a heterogeneous group. Although some may experience more antisocial psychopathology, others may experience more borderline symptomatology. Consequently, average scores on specific clinical sales (i.e., borderline personality disorder) may not reflect the true level of pathology (i.e., associated with borderline personality disorder) in the batterer subgroups. For example, whereas borderline batterers may average scores higher than the cut-off score, the average score for all batterers may be lower than the average score.

MOVING TOWARD AN INTEGRATIVE ETIOLOGIC PERSPECTIVE

Diverse understandings of why men batter have historically been viewed as competing theories. Researchers have variously argued the importance of sociopolitical and psychological variables. More recently, different tenets of the theoretical models

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have been appreciated as valuable contributions to etiologic explanations of woman assault, and practitioners as well as researchers are beginning to embrace multidimensional models (Ganley, 1989; Heise, 1998; Miller, 1994; Rosenbaum & Mauro, 1989). Although each perspective appears to be necessary to explain battering, no one theory is adequately comprehensive to address all factors that influence domestic assault. In a review of studies exploring the etiology of battering, Dutton (1994a) suggested that unidimensional explanations of battering are inadequate in identifying all factors that contribute to male-perpetrated violence against their female partners. In addition, he proposed that increased research investigating moderating variables from the perpetrator's developmental history "... are necessary to complete the predictive picture" (p. 170).

Integration of psychological and sociopolitical theories has been particularly slow because feminist scholars are reluctant to accept an etiologic model of battering that emphasizes individual variables, potentially devaluing the contribution of sexist sociopolitical infrastructures to domestic violence (Heise, 1998). Such resistance is well-founded "... in the context of a discourse on violence that has been traditionally slow to acknowledge the significance of gender inequalities and power differentials in the etiology of violence directed at women" (Heise, p. 263).

As recent findings suggest that abuse has its origins in early interactions with the primary caregiver, it seems appropriate to explore how individual differences in attachment may influence battering. Theoretical arguments that attachment dynamics, such as fear of abandonment and fear of intimacy, may explain battering (Dutton & Browning, 1988; Mayseless, 1991) further underscore the utility of attachment theory in advancing etiologic understandings of battering. Other findings that antisocial and

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borderline personality disorders are prominent among men who abuse their female partners suggests that such disorders may be important variables to include in multidimensional etiologic models of woman assault. However, a feminist analysis concerned with gender and power significantly contributes to the explanation of violent relationship dynamics, and it should not be dismissed. Rather, feminist theory and psychological theories should be concurrently examined to advance etiologic explanations of battering.

As evidenced by this study's literature review, there is support for both sociopolitical and psychological conceptualizations of battering. However, because these diverse understandings of violence have historically been viewed as competing perspectives, few studies have simultaneously drawn from both paradigms. Consequently, the heuristic value of models that draw upon theories is uncertain. However, because unidimensional models have proven to be limited, practitioners and researchers are beginning to embrace multidimensional models that draw upon these two paradigms to understand the origins of male violence toward female partners (Ganley, 1989; Heise, 1998; Miller, 1994; Rosenbaum & Mauro, 1989).

Following, the need for etiological explanations of battering that draw from multiple theories will be further highlighted by research supporting batterer typologies. Studies demonstrating that batterers are a heterogeneous group that may be categorized into subtypes with distinct emotional, behavioral, and cognitive characteristics will be presented. The different batterer subtypes will be reviewed, and empirical as well as theoretical support for relationships among the different subtypes, anxious and avoidant attachment orientations, and borderline and antisocial personality disorders is discussed. Differences among batterer subgroups on sexist and/or negative attitudes toward women,

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a construct pertinent to sociopolitical explanations of battering, will also be presented. Arguments that inconsistent findings regarding the efficacy of batterer intervention programs may be explained by “one-size-fit-all” interventions that do not accommodate for differences among batterers will be addressed. Research supporting the argument that different types of intervention may be more or less effective depending upon the batterer’s distinct characteristics will be presented (Saunders, 1996).

Taken together, empirical and theoretical support suggest three batterer subtypes- the generally violent/antisocial batterer, the borderline/dysphoric batterer, and the family only batterer. Each subtype has distinct attachment dynamics and corresponding attachment orientations and exhibits a unique violence pattern. Batterer subtype also appears to be predictive of a batterer’s negative and/or sexist attitudes toward women, with generally violent/antisocial batterers reporting more sexist and/or negative attitudes. The generally violent antisocial batterer exhibits personality characteristics reflective of antisocial personality disorder, whereas the borderline batterer exhibits personality characteristics reflective of borderline personality disorder. The family only batterer generally does not report pathology reflective of any personality disorder.

Given extant typology research, a reasonable conjecture is that different batterer subtypes will enact different patterns of violence and that different theoretical assumptions and corresponding constructs will predict the different violence patterns associated with each of the subtypes. Support for this hypothesis implies that one-size-fits all interventions modeled on single theories may need to be replaced with interventions modeled on multiple theories. Another possibility is that multiple types of interventions with different interventions modeled on different theories are necessary. Although interventions motivated by psychological paradigms may prove efficacious in

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treating borderline batterers, interventions modeled on feminist theory may be effective in decreasing recidivism for the antisocial batterer.

Multidimensional Theories and the Importance of Batterer Typologies

Research findings investigating the effectiveness of current batterer intervention programs, most of which incorporate a gendered analysis of violence, are inconsistent (National Institute of Justice, 1998; Tolman & Edleson, 1995). One explanation for these inconsistent findings is that batterers are not a homogenous group of men, and current interventions do not adequately address the needs of this population (National Institute of Justice). The intervention paradigm predominantly employed (i.e., profeminist, sociopolitical model) may be successful in decreasing violent behavior among some, but not all, batterers. Because recidivism studies do not account for within group differences among batterers, the success rate for the group of batterers impacted by existing interventions may be underestimated. Moreover, if current programs are having minimal or no impact for the other groups of batters, it may be a worthwhile endeavor to explore alternative treatment paradigms. More specifically, alternative interventions may need to be tailored to accommodate the needs of different batterer types.

The hypothesis that inconclusive treatment effects may be due to different types of batterers is supported by recent empirical findings that confirm batterer typologies (Gondolf, 1988; Hamberger et al., 1996; Holtzworth-Munroe & Stuart, 1994; Saunders, 1992). Holtzworth-Munroe and Stuart reviewed extant batterer typologies. They concluded that batterer types could be differentiated based upon severity of violence, generality of violence, and psychopathology or personality disorders. Using these three dimensions, the authors proposed a batterer typology consisting of three subtypes: family only, dysphoric/borderline, and violent/antisocial. Family only batterers were described

as the least likely to engage in psychological or sexual abuse and severe marital violence, or have legal problems. Their violence is generally restricted to their family, and they have little evidence of psychopathology. Dysphoric/borderline batterers were described as engaging in moderate to severe violence, with their violence also likely to be directed toward their family. They may demonstrate borderline or schizoid personality characteristics and alcohol or drug abuse. Holtzworth-Munroe and Stuart also described this group as the most psychologically distressed, dysphoric, and emotionally volatile. The antisocial cluster was described as engaging in moderate to severe violence and most likely to be psychologically or sexually abusive. They are also most likely to have a history of legal involvement and violence outside of their family. They also exhibit personality characteristics congruent with antisocial personality disorder.

Next, Holtzworth-Munroe and Stuart addressed different developmental variables that contributed to the violence perpetrated by the three different subtypes. Attitudes toward women and attachment orientations were two of the variables included in their developmental model. They found that the antisocial group consistently demonstrated the most conservative attitudes toward women. The family only batterer had the most liberal attitudes about women. Findings regarding the dysphoric/borderline batterer's attitudes were inconsistent. Holtzworth-Munroe and Stuart found no studies that directly examined the link between attachment orientations and batterer type. However, they were able to locate studies that explored relationships between batterer type and constructs related to attachment. For example, dysphoric/ borderline batterers appear to have an anxious attachment orientation. This group was the most pathologically dependent on and were most likely to view their partners as an extension of themselves. Generally violent/antisocial batterers appear to have an avoidant attachment orientation.

They view their partners as objects, demonstrate no or minimal empathy for their partner, and appear to be self-absorbed in intimate relationships. Although family-only batterers appear to be overly dependent on their wives, they appear to have the fewest attachment-related problems. Holtzworth-Munroe and Stuart were also able to find studies examining the relationship between attachment in battering in general. Findings from these studies seem to indicate that a fear of rejection or abandonment, pathological dependency, and jealousy- situations that can be interpreted as a threat to one's relationship and elicit attachment behaviors- are risk markers for violence. Moreover, violent men as compared to nonviolent men are more likely to have unresolved attachment issues and be more dependent on their partners.

Holtzworth-Munroe and Stuart's developmental analysis was significant because it integrated many of the available theories explaining violence toward female partners. Specifically, the authors suggested that different theoretical assumptions might predict violent behavior specific to the different subtypes. Although the authors argued a need to replicate research demonstrating the existence of batter typologies, a more important line of inquiry is to investigate risk markers specific to the different subtypes. Such inquiry would elucidate the different factors contributing to the violence perpetrated by each specific type and may inform us how to differentially intervene with each of the subtypes.

Empirical support for batterer typologies. Holtzworth-Munroe and Stuart's (1994) review was a critical piece of work because it presented a typology, inclusive of all past typologies, that could be empirically validated. Hamberger et al. (1996) tested the theoretical model proposed by Holtzworth-Munroe and Stuart. They found three main personality clusters- nonpathological, antisocial, and negativistic/dependent. The nonpathological group showed no evidence of personality disorders, indicated the lowest

depression and lowest violence severity and frequency, and was the least prone to anger. The antisocial group exhibited antisocial characteristics and was most prone to anger and drug abuse. As expected, men in the antisocial group also indicated the most extrafamilial violence and had the most extensive arrest records. Lastly, the borderline group indicated borderline symptomatology and had significantly higher depression as compared to Clusters 1 and 2. Overall, Hamberger et al.'s findings are consistent with the theoretical model proposed by Holtzworth-Munroe and Stuart.

In another study, Holtzworth-Munroe et al. (2000) identified four clusters of men who are violent towards their wives. Three of the clusters resembled Holtzworth-Munroe and Stuart's (1994) proposed typology. There was a generally violent subgroup that reported hostile attitudes toward women and attitudes tolerant of violence. This group had a history of criminal behavior and reported the highest levels of general and marital violence, as well as the highest levels of dismissing attachment. A borderline group also emerged, and men in this group reported significantly more fear of abandonment, anxious attachment, jealousy, and emotional dependency than did men in the other three subgroups. This group also reported the highest scores on a measure of borderline personality organization. The third subgroup was a family only batterer subgroup, and, consistent with the proposed typology, this subgroup reported the lowest levels of marital and general violence and indicated the least pathology. The fourth unexpected group was labeled the "low-level antisocial" group. Although this group's antisocial scores resembled the two more extreme violent groups, their scores on other predictors of violence fell in between the family only subgroup and the two more extreme violent subgroups. Holtzworth-Munroe et al. suggested that this group is comparable to the family-only groups that have emerged in other typology studies that recruited men from

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intervention programs, whereas the family only subgroup in this study represent men who were recruited from the community. The low-level antisocial group in this study was more similar to family-only subgroups from other typology studies, whereas the family only subgroup in this study is a new subgroup evidenced in this study due to the inclusion of community as well as clinical samples. In fact, the family-only subgroup in this study is less violent and less pathological than family-only subgroups found in other studies

Holtzworth-Munore et al. (2000) noted that the low level antisocial group's scores on most measures fell intermediate to the family only subgroup and the generally violent subgroup, suggesting that these three subgroups follow along a continuum of "antisociality." Alternatively, the borderline group forms a distinct subgroup scoring significantly higher than the other three subgroups on a set of measures theoretically consistent with borderline personality. As such, the authors argued that an antisocial dimension and a borderline dimension are necessary to conceptualize batterer typologies.

Tweed and Dutton's (1998) study supported this conceptualization. They found two subgroups, with one group scoring significantly higher on a measure of antisocial personality and the second subgroup scoring significantly higher on a measure of borderline personality. As expected, the antisocial group reported more frequent and more severe violence than did the borderline group, whereas the borderline group reported a more symptoms consistent with a history of trauma than did the antisocial group. Also as expected, the borderline group reported the most fearful attachment. However, unexpectedly, both the antisocial and borderline group reported preoccupied attachment. Tweed and Dutton explained this finding as due to the antisocial batterer's need for dominance and control over his partner. Specifically, his preoccupation with maintaining his attachment to his partner is motivated by his need to control his partner.

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Saunders (1992, 1993) found three distinct batterer types- family only, generally violent, and emotionally volatile aggressors. Family-only aggressors reported low levels of childhood victimization, anger, jealousy, or depression. As expected, they were also the group least likely to be violent with others outside their family. Generally violent batterers were less likely to respond with anger to intimacy conflicts, had rigid role expectations of women, and were most likely to engage in acts of violence outside their home. They were also most likely to have an arrest record. The emotionally volatile group included men that were depressed, suicidal, angry, and fearful of abandonment.

Gottman et al. (1995) explored differences in physiological responses among two batterer subtypes evidenced in their study. Type I batterers reported greater levels of violence toward persons other than their partners and significantly more elevated scales on measures of antisocial and sadistic aggression. Type I batterers were also described as more “belligerent and contemptuous.” Type I batterers also evidenced lowered heart rate activity in response to marital conflict. Type II batterers evidenced increased heart rate activity in response to marital conflict and scored significantly higher on a measure of dependency. Gottman et al.’s findings are the first to suggest a physiologically based typology of male batterers, which is consistent with previously theorized and empirically derived batterer typologies. Moreover, the authors proposed that Type I’s heart rate may decrease in response to violent activity, because the Type I batterer perceives the violence as instrumental in seeking purposeful control of his partner. This supposition is consistent with Tweed and Dutton’s (1998) explanation for the unexpected finding that antisocial batterers reported preoccupied attachment.

Batterer typologies and attachment orientations. Although there is evidence that adult attachment orientations may be an important predictor of violence among batters

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(see National Institute of Justice, 1998), there is minimal empirical support (see Holtzworth-Munroe et al., 2000) for the hypothesis that different attachment orientations may be associated with different batterer types. However, recently, it has been purported that each batterer type may be characterized by a distinct pattern of attachment. For example, Holtzworth-Munroe et al. found that generally violent batterers reported avoidant attachment, whereas borderline batterers reported anxious attachment. Research findings of specific relationships between attachment-related constructs and batterer subtypes support the hypothesis that avoidant attachment may be descriptive of the generally violent antisocial batterer, whereas anxious attachment may be descriptive of the dysphoric/borderline batterer (Holtzworth-Munroe & Stuart, 1994).

The dysphoric/borderline batterer has a history of parental neglect and rejection, reports high levels of jealousy and marital dissatisfaction, is ambivalent about his relationship, and is characterized by extreme dependency on his partner. He is hypersensitive to abandonment and rejection by his female partner and may use violence to manipulate his partner into maintaining close proximity (Hamberger et al., 1996). The hypersensitivity to fear of abandonment and extreme dependency evidenced by the dysphoric/borderline batterer is consistent with Bowlby's (1988) description of anxious attachment.

The generally violent/antisocial batterer has a childhood history of victimization that includes experiencing and witnessing extreme violence. He has extremely negative attitudes toward women and supports the use of violence. He has been described as narcissistic and self-centered, viewing his partner as an object to meet his needs. His most distinctive characteristic is his lack of empathy and inability to experience intimacy with another person (Hamberger et al., 1996). Although violence toward his partner may

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just be another behavioral manifestation of his generally violent and criminal behavior, it may also be precipitated by his partner's attempts for increased intimacy (Mayseless, 1991). The complete lack of empathy, detached interpersonal style, and fear of engulfment typical of the antisocial batterer resembles avoidant attachment.

The family-only batterer may experience some hypersensitivity to threats of rejection and may exhibit some attachment dynamics consistent with anxiously attached men. In addition, it is expected that, compared to non-violent men, family-only aggressors will report more overall insecure attachment. However, it is anticipated that this batterer subgroup will have the fewest attachment-related problems and no specific corresponding attachment orientation. Generally, family-only batterers report less marital dissatisfaction compared to the two other batterer subgroups.

Batterer typologies and antisocial and borderline personality disorders. Evidenced by the review of batterer taxonomies, personality disorders play an important role in differentiating among batterer types. For example, personality characteristics of Saunders' (1992) emotionally volatile batterer were consistent with traits of the borderline personality disorder, and characteristics of Saunders' antisocial batterer were consistent with traits of the antisocial personality disorder. Hamberger et al.'s (1996) use of the MCMI-I to cluster batterers highlights the importance of personality disorders in distinguishing among batterer types, and Saunders (1993) found that emotional traits and behaviors specific to batterers classified as generally violent or emotionally volatile were correlated in expected directions with expected MCMI-I scales.

Elbow's (1977) early typology based on clinical observations also identified batterer subtypes consistent with personality disorders (see Hamberger & Hastings, 1988). For example, three of Elbow's categories overlapped with specific personality

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disorders. The first type, the controller, uses violence to manipulate his partner to meet his needs. He reacts with violence when the partner does not respond as expected. This batterer type is described as antisocial. The second type, the incorporator, has characteristics consistent with borderline personality. He fears his partner's abandonment will result in a loss of self and requires "... a symbiotic relationship with the partner to feel complete (p. 765)", and he uses violence to maintain his partner in close proximity. Characteristics of Elbow's third type, the approval seeker, are consistent with narcissistic personality disorder. He needs to receive recognition and external validation and expects his partner to provide constant validation. Her failure to do so is interpreted narcissistic injury, and violence is his defense to such injury.

Antisocial and borderline personality disorders and attachment orientations.

Bowlby (1988) argued that the quality of one's early attachments determine internal representations of self and other. In turn, these mental representations influence interpersonal functioning and impact later psychological health. Secure attachments early in life contribute to healthy psychological development, whereas insecure attachments make one vulnerable to psychopathology. Specifically, anxious attachment produces a vulnerability to disorders that exaggerate negative affect and distress in an effort to get the attention of an attachment figure. Fear of abandonment, clinging behaviors, and an uncertainty as to whether the attachment figure will respond accompany overwhelming negative affects. As a consequence, the anxiously attached individual will display frequent care-seeking behaviors to elicit the support of the attachment figure. On the contrary, avoidant attachment makes one prone to behaviors that minimize distress and vulnerable to disorders that deny the presence of negative affect. Because avoidantly attached individuals expect to be rebuffed, they become compulsively self-reliant and

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deny intimacy needs. Psychopathology of anxious attachment reflects borderline traits, whereas psychopathology of avoidant attachment reflects antisocial personality traits. As such, attachment theory provides a rich conceptual framework for understanding borderline and antisocial personality disorders.

Following Bowlby, many researchers have underscored the importance of attachment in understanding personality disorders (Brennan & Shaver, 1998; Livesley, Schroeder, & Jackson, 1990; Sheldon & West, 1990). Some findings have specifically provided evidence of relationships between anxious attachment and borderline personality disorder (Fonagy et al., 1996; Patrick et al., 1994; Rosenstein & Horowitz, 1996; Sable, 1997; West, Keller, Links, & Patrick, 1993), or avoidant attachment and antisocial personality disorder (Gacano & Meloy, 1991; Gacano & Meloy, 1992; Gacano, Meloy, & Berg, 1992).

Sable (1997) used attachment theory to expand understanding of the etiology of borderline personality disorder, as well as a framework for clinical work with borderline clients. She proposed that borderline personality disorder should be conceptualized as a “condition of profound insecure attachment, with extreme vacillations between desire for proximity...and a dread of engagement” (p. 171). She highlighted Bowlby’s (1979) claim that borderline personality disorder may result in response to trauma or a disruptive event (i.e., bereavement) that makes the primary caregiver unavailable. Rosenstein and Horowitz’s (1996) findings suggested that antisocial behavior was associated with avoidant dimensions of attachment, whereas affective disorders such as depression and dysthymia were associated with anxious dimensions of attachment. Rosenstein and Horowitz’s findings are consistent with batterer typology research indicating that borderline batterers are more likely to report depression (Holtzworth-Munroe & Stuart’s,

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1994). A limitation of Rosenstein and Horowitz's study is that personality traits specific to personality disorders assessed by the MCMI-I are not mutually exclusive, and one trait may apply to more than one disorder. West et al. (1993) empirically confirmed links between borderline personality disorder and anxious attachment. Attachment dynamics and behavior patterns that were characteristic of borderline outpatients in their sample are also hallmarks of anxious attachment. Fonagy et al. (1996) found that the proportion of borderline patients with anxious attachment among their sample was significantly greater than chance. Possible comorbidity of diagnoses and inadequate numbers of males with borderline personality disorders were limitations common to West et al. and Fonagy et al. Because findings from this line of inquiry are generalized to male batterers, the small number of borderline men is especially problematic.

Empirical support for the relationship between antisocial personality disorder and avoidant attachment is not as extensive as the extant empirical support for the relationship between borderline personality disorder and anxious attachment. Nonetheless, there is some support for this relationship. In an early study, Bowlby (1944) studied the "broken mother-child relation" among a group of 44 juvenile thieves. Bowlby observed that these young thieves were emotionally withdrawn and isolated, and he described them as "affectionless psychopaths." The relational style of Bowlby's delinquent juveniles appears congruent with avoidant attachment. Thus, Bowlby's early observations provide some evidence of the association between antisocial behavior and avoidant attachment. More recently, Gacano et al. (1992) found that participants diagnosed with antisocial personality disorder demonstrated a diminished capacity to form attachments and relationships with others and an increased likelihood to devalue others. The relational style of their antisocial participants parallels avoidant attachment.

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As noted earlier, direct empirical support for relationships between attachment patterns and batterer subtypes is lacking. However, given extant support for relationships between attachment patterns and personality disorders, informed hypotheses can be made about relationships between personality disorders and batterer subtypes. Associations between antisocial personality disorder and avoidant attachment suggest that the antisocial/generally violent batterer subtype may be avoidantly attached. Similarly, links between borderline personality disorder and anxious attachment suggest that the borderline/dysphoric batterer may be anxiously attached.

Batterer typology and differential treatment effectiveness. Typology research is a fairly new line of inquiry, and only one study (Saunders, 1996) has directly investigated the relationship between batterer type and treatment outcome for different therapy orientations. Saunders found that the antisocial batterers completing a feminist-cognitive-behavioral intervention had more favorable outcomes than did antisocial batterers completing a psychodynamic intervention. In addition, batterers with dependent traits who completed the psychodynamic intervention reported lower recidivism compared to dependent batterers who completed the feminist-cognitive-behavioral intervention. Because a no-treatment control group was not used, Saunders cautioned against interpreting outcome as conclusively related to intervention. For example, because participants were court-referred, arrest may have been an alternative motive for decreased recidivism. Despite limitations, Saunders' (1996) study suggests that "one-size-fit-all" interventions may not meet the needs of all batter types.

Methodological limitations common to past typology research. Sampling issues are a predominant methodological weakness in the typology studies discussed above. Specifically, these studies rely on samples recruited from court-mandated interventions.

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Variance on severity, frequency, and generality of violence among these samples may not be sufficiently large. As evidenced by Holtzworth-Munore et al.'s (2000) study, using both community samples as well as clinical samples could alter study findings and make it difficult to compare such studies with those that only use clinical samples. The generalizability of findings from studies relying on clinical samples to violent men in the community (i.e., adolescents, men who rely mostly on psychological abuse and never become involved with the criminal justice or other social systems) is limited. Also threatening generalizability is the absence of random sampling in typology research. In addition, the number of men categorized into batterer subgroups is often small, threatening the power of analyses conducted to make comparisons across subgroups. Another noteworthy problem is the likelihood that batterers may, in an effort to minimize the violence, under-report violence. Additionally, some batterer subtypes may be more inclined to respond in a socially desirable manner than are others. Next, no typology study has included a control group to ensure that conclusions about clusters of personality characteristics evidenced by the different types do not generalize to nonviolent men. Regarding the measurement of constructs employed in typology studies, it is not clear whether there is conceptual agreement about indicators of abuse (Gondolf, 1988). For example, are researchers conceptualizing frequency and severity of abuse on the same continuum or the same scale? Moreover, although there is agreement as to what types of abuse comprise battering (National Institute of Justice, 1998), typology studies do not account for all these types of abuse in their measurement of this construct. For example, although economic abuse is a behavior identified as battering, no efforts have been made to include a measure of this behavior in typology research.

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Theoretical limitations common to past typology research. First, although Holtzworth-Munroe and Stuart (1994) proposed a developmental model of batterer types based on theory, typology studies, to date, have been predominantly descriptive. If proposed typologies are to have any clinical utility, this line of inquiry must move beyond type description and formulate hypotheses regarding the developmental trajectories of the batter subtypes. Investigating hypotheses regarding why the different types enact violence should prove fruitful toward this end. A second theoretical limitation is that not all typology studies include both behavioral and personality variables to predict batterer types. However, Holtzworth-Munroe and Stuart's review demonstrated that both types of variables are valuable in developing batterer typologies. In addition, some researchers (Gondolf, 1988) have suggested that different phases of violence rather than different types of violent men may explain the evidenced heterogeneity of batterers. However, personality disorders are stable characteristics (Diagnostic and Statistical Manual-IV, 1994) and have been shown to differentiate among batterer types (Dutton, 1988).

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THE PROBLEM STATEMENT

Research investigating subtypes of male batterers supports a three-group taxonomy that categorizes batterers as family-only aggressors, antisocial, or borderline (Hamberger et al. 1996; Holtzworth-Munroe et al. 2000; Holtzworth-Munroe & Stuart, 1994). According to the proposed three-group taxonomy, adult attachment orientations, sexist attitudes toward women, and dimensions of antisocial and borderline personality disorders play an important role in differentiating among the types of batterers. Frequency, severity, and generality of psychological, verbal, and physical violence are also important variables distinguishing the three subgroups. It is expected that each subgroup will display distinct patterns of violence with respect to frequency, severity, and generality of the various types of abuse.

The three batterer subgroups can be described as follows. Antisocial batterers report characteristics congruent with antisocial personality disorder, avoidant attachment, strong sexist attitudes toward women, and violence toward persons other than their partner (e.g., friends, strangers, other family members, and police). They also report the greatest frequency and severity of physical violence and indicate a more extensive arrest history in comparison to the other subtypes. Borderline batterers indicate characteristics congruent with borderline personality disorder, are anxiously attached, report moderately sexist attitudes toward women, and report the greatest frequency of psychological and verbal abuse but report less frequent and less severe physical violence than antisocial batterers. Family-only aggressors evidence no personality disorder, report the least sexist attitudes toward women, and report the least frequent and severe psychological, verbal, and physical violence. As implied by its label, this subgroup generally restricts its violence to family members. Although it is expected that family-only aggressors report

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more insecure attachment compared to that of non-abusive men, to date, there are no assumptions in the literature about specific relationships between adult attachment orientations and this subgroup.

One purpose of this study is to test hypotheses about anticipated interrelationships among anxious and avoidant attachment orientations, personality disorder, sexist attitudes toward women, and frequency, generality, and severity of psychological, verbal, and physical violence. Specifically, group differences on measures assessing severity and frequency of psychological, verbal, and physical violence, generality of violence, attachment, and sexist attitudes toward women among antisocial batterers, borderline batterers, and participants indicating no personality disorder will be explored.

Given typology research's support for different batterer subtypes, it has also been suggested that different theoretical assumptions may predict patterns of violence specific to the different subtypes (see Holtzworth & Munroe, 1994). The individual and society are two levels of analysis dividing assumptions regarding factors that motivate male heterosexual relationship violence (see National Institute of Justice, 1998). An individual analysis suggests that individual psychological or personality variables are predictive of male violence toward female partners, and a social-level analysis proposes that patriarchal social, political, and economic structures promote sexist and/or negative attitudes toward women that contribute to violence. Although extant research supports both sociopolitical and psychological conceptualizations of battering, these diverse understandings of violence have historically been viewed as competing perspectives (Miller, 1994). Consequently, few studies have simultaneously drawn from both paradigms, and the heuristic value of models that integrate sociopolitical and psychological theories is uncertain. However, limitations of unidimensional models have recently been

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acknowledged, and multidimensional models that draw upon both theories to understand the origins of battering are being embraced (Ganley, 1989; Heise, 1998; Miller, 1994; Rosenbaum & Mauro, 1989).

Attachment theory is one psychological perspective that has been advanced as a conceptual framework for understanding battering. Research indicating that abusiveness has origins in relationships with early caregivers (Elbow, 1977; Dutton, 1988; Dutton et al., 1994) and theoretical arguments that attachment dynamics, such as fear of abandonment, explain battering (Mayseless, 1991) suggest the utility of attachment theory in furthering etiologic understandings of battering. Research has also demonstrated that personality disorders related to the need to control others (e.g., narcissistic and antisocial) and related to self-concept and identity (e.g., borderline) are particularly prominent among batterers (Hastings & Hamberger, 1988). Further understanding of relationships among personality disorders, adult attachment orientations, and patterns of male violence enacted toward female partners may enrich current etiologic explanations of woman assault.

Another purpose of this study was to test a model wherein constructs central to both sociopolitical (e.g., patriarchal attitudes) and psychological theories (e.g., adult attachment orientation; borderline and antisocial personality disorders) are considered unique, significant predictors of violence among a sample of men attending court-referred batterer intervention programs. In addition, the model will test the hypothesis that interactions representing patriarchal attitudes and the psychological constructs will also be unique, significant predictors of violence. Patriarchal attitudes are operationalized as sexist attitudes toward women, understood to be the product of patriarchal institutions.

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Given this understanding, it is important to note that measuring patriarchal attitudes at the individual-level provides a very limited test of the feminist hypothesis.

Finally, it was expected that the data would reveal multiple violence patterns distinct in frequency, severity, and generality of psychological, verbal, and physical violence. Given the expectation that different theoretical assumptions are differentially important in understanding the etiology of the distinct patterns of violence, the primary purpose of this study was to explore differential effects of adult attachment orientations, personality disorders, and sexist attitudes toward women in predicting patterns of violence.

Hypotheses

This dissertation tested the following specific hypotheses.

1. Adult attachment dimensions and personality disorder scores will be significantly related. More specifically:
 - 1a. Antisocial personality disorder scores will have a significant, positive relationship with avoidant attachment orientation scores.
 - 1b. Borderline personality disorder scores will have a significant, positive relationship with anxious attachment orientation scores.
 - 1c. Antisocial personality disorder scores will be unrelated or negatively related with anxious attachment orientation scores.
 - 1d. Borderline personality disorder scores will be unrelated or negatively related with avoidant attachment orientation scores.
2. Both antisocial and borderline personality disorder scores will have significant **Positive** relationships with sexist or negative attitudes toward women.

- 2a. The relationship between antisocial personality disorder scores and negative attitudes toward women will be significantly greater than the relationship between borderline personality disorder scores and negative attitudes toward women.
3. Both anxious and avoidant adult attachment orientations will have significant positive relationships with sexist or negative attitudes toward women.
- 3a. Given the previously hypothesized relationship between antisocial personality disorder and avoidant attachment, the relationship between avoidant attachment and negative attitudes toward women will be significantly greater than the relationship between anxious attachment and negative attitudes toward women.
4. Relative to their counterparts categorized as having borderline personality disorder, participants categorized as having antisocial personality disorder will score significantly higher on measures of severe physical violence, generality of violence, frequency with which participant escalates and initiates violence, level of injury partner sustained due to violence, sexist attitudes against women, avoidant attachment, and number of assault-related arrests and general arrests.
5. Participants categorized as having borderline personality disorder will score significantly higher than participants categorized as having antisocial personality disorder on measures of psychological and verbal violence, as well as anxious attachment.
6. Constructs central to psychological (e.g., anxious and avoidant adult attachment and antisocial and borderline personality disorders) and sociopolitical (e.g., sexist attitudes toward women) understandings of male perpetrated violence toward women will

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be independently and significantly related in a positive direction with men's self-reports of relationship violence.

7. After controlling for main effects, interactions between attachment orientations and sexist attitudes toward women as well as interactions between personality disorders and sexist attitudes toward women will significantly enhance the prediction of violence. Specifically, among participants with high scores on anxious or avoidant attachment as well as among participants with high scores on borderline or antisocial personality disorders, the relationship between sexist attitudes and violence will be greater than among participants with low scores on measures of insecure attachment or personality disorders.

8. The data will reveal multiple patterns of violence among men arrested for violence against their female intimate partners. More specifically, three distinct patterns are anticipated:

- (a) violence that targets predominantly the partner, although other family members may also be targeted, includes psychological violence that is moderate in frequency, and minimal or no physical violence,
- (b) violence that is partner-specific, includes frequent psychological and verbal abuse, and physical violence that is only minor in severity, and
- (c) violence that is not partner-specific (e.g., general violence), is predominantly physical violence, which is more severe than the violence exhibited in the other two patterns, and moderate psychological violence.

9. Contributions of anxious and avoidant attachment, antisocial and borderline personality disorders, and sexist attitudes toward women to relationship violence will vary depending upon the violence dimension assessed. Specifically:

- 9a. Anxious and avoidant attachment as well as sexist attitudes toward women will be positively and significantly important predictors of pattern 8a, while personality disorders will not be significant.
- 9b. Anxious attachment, borderline personality disorder, and sexist attitudes toward women will be positively and significantly important predictors of pattern 8b.
- 9c. Avoidant attachment, antisocial personality disorder, and sexist attitudes toward women will be positively and significantly important predictors of pattern 8c.

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METHODOLOGY

Participants

Participants were 239 heterosexual men with at least an 8th grade reading level who were enrolled in a batterer intervention program. Eighty-five percent of the participants had been referred to the intervention program by court mandate. Thirteen percent reported that they were self-referred to the intervention program, and another 2% reported that they enrolled in the intervention program upon their partner's request. Forty percent of the sample had a high school diploma or graduate equivalent, 29% had at least one year of college, 15% had at least one year of high school, 8% had a college degree, 5% had only a junior-high school education, and 3% had a graduate degree. Thirty-nine percent of the sample self-reported that they were married, 22% were single and not living with a girlfriend, 20% were single and living with a girlfriend, 10% were divorced, and 9% were separated. The age of participants ranged from 18 to 57 years old, with a mean of 33 ($SD = 8.97$). The racial ethnic breakdown of the sample was 68% Caucasian, 15% African-American, 10% Hispanic, 2% Native American, 1% Asian, and 4% self-identified as "other". Participants' reported ages ranged from 18 to 54 ($M = 33.24$; $SD = 8.97$).

Data were collected from an additional 67 participants who were not included in the data analyses for the following reason. Initially, CTS directions asked participants to identify violent behavior in the one-year period prior to their participation in the study, and PMWS directions asked participants to identify psychologically abusive behavior in the six-month period prior to their participation in the study. However, after data had been collected from 67 men, a batterer intervention program coordinator facilitating data collection suggested that the nature of the CTS and PMWS directions could result in men

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underreporting acts of violence. Specifically, she highlighted that men who are court-mandated to attend batterer intervention programs are also being monitored by the criminal justice system. As such, while participating in programs, men are committing less frequent and less severe violence than prior to their arrest, or than they would if they were not being monitored. The coordinator recommended that I also ask men to report on the one-year (for CTS items) or six-month (for PMWS items) period prior to their arrest. Subsequent data collections asked participants ($n = 239$) to answer questions about acts of violence committed from the perspective of two time points. Time point one was the one-year or six-month time period before their participation in the study, and time point two was the one-year or six-month time period before their arrest. Once all data were collected, the initial 67 participants were compared with the 239 participants included in the final sample on key variables (i.e., attachment orientations, personality disorders, arrest information, social desirability, and all violence-related variables). For those participants providing data from two time perspectives, scores for CTS minor and severe physical violence subscales, the CTS verbal aggression subscale, and both PMWS subscales were computed by averaging data from time points 1 and 2. For the initial 67 participants, scores on these subscales were reports of violence in the time period directly before the study. Results from a MANOVA indicated that the initial 67 participants (group 1) were significantly different from the 239 participants included in the final sample (group 2), $F(17, 288) = 1.84, p < .05$. Univariate tests demonstrated significant group effects for verbal aggression, $F(1, 304) = 8.08, p < .01$, and PMWS emotional/verbal violence subscale scores, $F(1, 304) = 4.16, p < .05$, with group 1 scoring significantly higher than group 2. Given the significant differences between groups 1 and 2, data collected from the first 67 participants were not analyzed.

Procedures

To facilitate data collection, this researcher established collaborative relationships with nine batterer intervention programs participating in the Batterer Intervention Services Coalition of Michigan. Intervention program participants were invited to participate in this study by the investigator during one of their weekly group sessions. One week prior to the invitation to participate, their group counselor informed men about the investigator's impending visit. Participants were informed that their participation in this study was voluntary and anonymous, and that fifteen dollars would be applied toward intervention program fees for those men choosing to participate. The counselor also informed the men that an 8th grade reading level was required for participation, and about the confidential and anonymous nature of the study. After being invited to participate in the study, men interested in participating first completed informed consent forms and were then given a packet of self-report questionnaires. The order in which the questionnaires were administered was varied from participant to participant. Participation time was approximately 45 minutes. Men not interested in participating or not meeting requirements for participation met with their counselor and worked on an alternative assignment.

Measures

Demographic and participant background questionnaire (see Appendix C). This questionnaire was developed to gather information regarding the participants' ethnicity, age, educational level, relationship history, arrest history, history of services received due to violence toward a partner, and number of weeks in the current treatment program.

Basic Reading Inventory: Graded Passage-Form B. (BRI; Johns, 1997; see Appendix D). The BRI is an individually administered informal reading test used to

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assess the respondent's reading level. There are five forms (A, B, C, LN, LE). Form B should be used for silent reading. Each form is comprised of a graded word list and a graded passage. Participants in this study were given the graded passage. After reading the 8th grade level passage, participants were asked to respond in writing to 10 comprehension questions (i.e., “What is this passage about?”). If the participant responds inaccurately to more than 3 questions, his comprehension of the material is below the 8th grade level. The Basic Reading Inventory has been in publication since 1978, and, since that time, it has been used extensively by various types of professionals in education and psychology.

Personality Diagnostic Questionnaire –Revised. (PDQ-R; Hyler, Rieder, Williams, Spitzer, Hendler, & Lyons, 1988; see Appendix E and F). The PDQ-R is a self-report measure that screens for personality disorders described in the Diagnostic and Statistical Manual (DSM-III-R; APA, 1987). Scores can be computed as both continuous and categorical variables. Categorical scores can be compared with cut-off scores and used to determine whether a person meets criteria for a specific personality disorder. Participants in this study only completed borderline (Appendix E) and antisocial (Appendix F) subscales. “Some people consider me a drifter” and “lying comes easily to me and I often do it” are representative of items on the PDQ-R antisocial subscale. “I feel empty or bored much of the time” and “my feelings toward another person can often change drastically” are representative of items on the PDQ-R borderline subscale. The PDQ-R has been shown to have high negative predictive power, but low positive predictive power (Hyler, Skodol, Oldham, Kellman, & Doidge, 1992; Hyler, Skodol, Oldham, Kellman, Oldham, & Rosnick, 1990). That is, the PDQ-R has been shown to

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generate a relatively low rate of false-negative diagnoses but a generally high rate of false positive diagnoses. Given that the population to be sampled in this study is likely to respond in a socially desirable manner (Arias & Beach, 1997), this bias was not optimal but acceptable.

The PDQ-R is valid for use with both clinical and nonclinical samples (Hyler et al., 1990; Hyler et al., 1992). Among an inpatient sample, the PDQ-R was shown to differentiate persons with high likelihood for personality disturbance from those with a low likelihood, suggesting that the PDQ-R is efficient in screening inpatients for DSM-III personality disorders (Hyler et al., 1990). Among a group of outpatient clients, agreement between PDQ-R subscales and ratings by two independent psychiatrists was comparable to agreement between the two psychiatrists (Hyler et al., 1992). In a nonclinical college student sample, participants scoring above the clinical threshold on PDQ-R subscales also had elevated scores on the SCL-90, a self-report measure of psychopathology. In addition, participants scoring above the clinical threshold on the PDQ-R had SCL-90 scores comparable to clinical outpatient samples (Johnson & Bornstein, 1992). In another nonclinical sample, Wierzbicki and Gorman, (1995) found that MCMI-II and PDQ-R borderline subscales were significantly correlated .57, and MCMI-II and PDQ-R antisocial subscales were significantly correlated .37, suggesting construct validity of the PDQ-R borderline and antisocial subscales. In the present study, Cronbach alpha coefficients of .66 and .58 were obtained for the borderline and antisocial subscales, respectively, indicating that the PDQ-R is a marginally reliable measure of these 2 personality disorders for the population sampled in this study. Fossati et al. (1998) found somewhat comparable internal consistency coefficients, with an alpha equal to .70 for the borderline scale and .63 for the antisocial scale.

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Experiences in Close Relationships. (ECR; Brennan, Clark, & Shaver, 1998; see Appendix G). The ECR-short form is a 36-item measure of adult romantic attachment orientation comprised of 2 scales: orientation toward anxious adult attachment and orientation toward avoidant adult attachment. Each subscale is comprised of 18 items. “I worry about being abandoned [and] I worry a lot about my relationships” are representative of items comprising the anxious attachment orientation subscale. “I prefer not to show a partner how I feel deep down [and] I get uncomfortable when a romantic partner wants to be very close” are representative of items comprising the avoidant attachment orientation subscale. On a scale of 1 to 7 ranging from agree strongly to disagree strongly, respondents were asked to rate their level of agreement for each item. When participants were clustered into four groups based on their scores on avoidant and anxious attachment subscales, the groups corresponded to Bartholomew’s four-category model of adult attachment, demonstrating that the ECR is a valid measure of dimensions underlying attachment styles. Moreover, a correlational analysis including the avoidant and anxious attachment orientation subscales and 60 subscales assessing attachment-related constructs revealed that the anxious attachment orientation subscale was significantly correlated with anticipated measures (i.e., jealousy, romantic anxiety, need for approval) and the avoidant attachment orientation subscale was significantly correlated with anticipated measures (i.e., avoidance, dismissiveness, defensiveness). Alpha coefficients for the anxious and avoidant scales are .94 and .91, respectively, indicating good internal consistency. In the present study, Cronbach alpha coefficients were .90 and .85 for the anxious and avoidant subscales, respectively.

Attitude Toward Women Scale. (AWS; Spence & Helmrich, 1972; see Appendix H). The AWS-short form (Spence, Helmrich, & Stapp, 1973) is a 15-item measure

describing the rights, roles, and privileges of women in society. The AWS provides considerable variability in scores, especially among men (Spence & Hahn, 1997). Items on the AWS are accompanied by a 4-point response ranging from agree strongly to disagree strongly. “Swearing and obscenity are more repulsive in the speech of a woman than a man [and] a woman should be as free as a man to propose marriage” are representative of AWS items. Factor analysis of the AWS yielded only one major factor (Spence et al.). Separate reliability analyses for females and male subjects yielded Cronbach alphas of .86 and .90, respectively (Smith & Bradley, 1980). Daugherty and Dambrot (1986) reported Spearman-Brown split half reliability coefficients of .86. Yoder, Rice, Adams, Priest, and Prince (1982) have reported test-retest reliability coefficients of .74 for males and .80 for females over a ten-week period. Construct validity was established using a criterion groups method on several samples, with results always in the predicted direction (Spence & Helmrich, 1972). In the present study, a Cronbach alpha coefficient of .73 indicated that the AWS is a reliable measure of negative attitudes against women for the population sampled in this study.

Although the AWS has been criticized as “outdated” (see McHugh & Frieze, 1997) due to a trend toward more egalitarian attitudes over the last few decades, Swim and Cohen (1997) found that AWS scores, like scores on their “Modern Sexism Scale”, were correlated with more conservative attitudes toward women. Moreover, study findings suggesting a trend toward liberalism and egalitarianism have been predominantly conducted with college samples, a group in our society that is most likely to have changed conservative attitudes about women to more liberal attitudes. Given the nature of the sample in this study, it is expected that the AWS is still a valid measure in predicting conservative attitudes toward women. Nonetheless, due to criticism that the AWS does

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not validly measure contemporary sexist attitudes against women, participants were asked to respond to 5 additional questions, which were developed by this researcher, assessing sexist attitudes toward female intimate partners (see Appendix I, questions 28-32). These questions were accompanied by the same 4-point response rating as the AWS. “The only way to get my needs met in my relationship with my girlfriend or wife is to threaten to hit, slap, or push her” and “The worst thing in a relationship is if a woman is afraid of a man” are examples of these additional items. These items were aggregated to create the subscale “chauvinism”, with a Cronbach alpha coefficient of .82. Because this chauvinism subscale was significantly correlated ($r = .31, p < .001$) with AWS scores, AWS scores and chauvinism subscale scores were standardized and summed to create a new composite variable “sexism.” This new composite variable will, from this point on, represent the sociopolitical construct – sexist attitudes against women – in all analyses. The Cronbach alpha coefficient for the new composite scale sexism was .73.

Conflict Tactics Scale. (CTS; Straus, 1979; 1990a; see Appendix J). The CTS is an 18-item self-report inventory consisting of a list of actions the respondent might take in a conflict with his partner. The modes of conflict are scored on 3 subscales: reasoning, verbal aggression, and physical violence. “Got information to back up my side of things” is representative of items on the reasoning subscale. “Insulted or swore at her” is representative of items on the verbal subscale. “Slapped her [and] threatened her with a knife or gun” are representative of items on the physical violence subscale. Participants were asked to indicate their use of violent tactics in the 12-month period prior to their arrest or other motivating factor that precipitated their beginning counseling.

As a measure of husband-to-wife violence, the CTS has demonstrated high internal consistency for the subscales verbal aggression and physical violence with alpha

coefficients of .80 and .83, respectively. However, an alpha coefficient of .50 for the reasoning subscale suggests inadequate reliability. A comparison of student reports and parent reports of mother-to-father violence demonstrated that father and student reports for verbal aggression and physical violence were strongly correlated, with a correlation coefficient of .51 for the verbal aggression subscale and .64 for the physical violence subscale. Mother-student reports for the verbal aggression and physical violence subscales were also significantly correlated with correlation coefficients of .43 and .33, respectively. Correlation coefficients of .19 for father-student reports and -.12 for mother-student reports for the reasoning subscale suggested that parent-student reports were not strongly correlated for this subscale. These findings demonstrate evidence of concurrent validity for the CTS verbal aggression and physical violence subscales, but not the reasoning subscale. The high rates of verbal aggression and physical violence found with the CTS subscales are consistent with previous in-depth interviews, providing additional evidence of the construct validity of the CTS verbal aggression and physical violence subscales. Further evidence of CTS' validity is demonstrated by anticipated relationships between CTS violence subscales and variables predictive of male violent behavior toward female partners (i.e., the lower a husband's economic and prestige resources, the greater his tendency to use violence to maintain a male-dominant power position; Straus, 1979; 1990a).

The CTS has been criticized for neglecting to consider the context in which partner violence occurs as well as the impact or negative consequences experienced as a result of the violence (Straus, 1990b). For example, the CTS does not assess who initiated the violence or the injury sustained by partners as a result of relationship violence. These criticisms are concerning because they highlight the CTS' limitation in

assessing violence severity and whether the perpetrator is using violence to maintain control of the victim (see Straus, 1990b). In response to criticism regarding the CTS' inability to assess violence severity, Straus (1990c) developed a coding scheme that distinguishes assaults that are "minor [or] less dangerous" from those assaults which are severe [and] have a greater likelihood of causing injury. "Slapped her" is an example of physical violence that Straus categorizes as minor violence, and "threatened her with a knife or gun" is an example of a physical act of violence that Straus categorizes as severe violence. As directed by Straus (1990c), subscales assessing minor and severe violence were created. Due to limitations of the CTS, participants also answered questions regarding the following – whether they initiated the violence (see Appendix C, Demographic and Background Questionnaire question 16); injuries partner sustained from past violence (see Appendix C, Demographic and Background Questionnaire questions 23a –23c, 25, 26, and 27); whether they escalated violence between them and their partners (see Appendix C, Demographic and Background Questionnaire questions 19-21); and whether they were violent toward general others as well as their partner (see Appendix C, Demographic and Background Questionnaire questions 18a –18f). Items assessing the last 3 violence characteristics were aggregated creating the following subscales –generality of violence, injury, and violence escalation. Cronbach alpha coefficients for these subscales were .67, .67, and .58, respectively. In the present study, Cronbach alpha coefficients for reasoning, verbal, and physical violence subscales were .49, .86, and .69, respectively. Given its low reliability in the present sample as well as the absence of previous reliability and validity data, the CTS reasoning subscale was dropped from the analyses. Cronbach alpha coefficients for minor and severe physical violence subscales were .86 and .69, respectively.

Psychological Maltreatment of Women Scale. (PMWS; Tolman, 1989, 1999; see Appendix K). The PMWS is a measure of the psychological maltreatment of women. It contains 14 items that the respondents were asked to rate on a Likert scale ranging from (1) never to (5) very frequently. For this study, respondents were asked to rate the frequency of acts of psychological abuse 6 months prior to their arrest or other event motivating them to commence a batterer intervention program. A factor analysis of the long form revealed two subscales: emotional/verbal abuse and dominance/isolation. Emotional/verbal abuse items include withholding emotional support, verbal attacks, and humiliation. "I called my partner names [and] I treated my partner like an inferior" are representative of items in the emotional/verbal abuse domain. Dominance/isolation items tap the respondent's demands for subservience. "I interfered in my partner's relationships with other family members [and] I restricted my partner's use of the telephone" are representative of dominance/isolation items.

To increase content validity of the short-form, items from the two subscales on the short version were purposively selected from their parent scales on the long version. Cronbach alpha coefficients for the dominance/isolation and emotional/verbal short subscales were .88 and .92, respectively. A factor analysis of the short form revealed that the 14 items on the short form loaded on the same factor as when included in a factor analysis of the 58 items on the long form. In the present study, Cronbach alpha coefficients of .85 and .75 were obtained for the emotional/verbal abuse and dominance/isolation items, respectively.

Marlowe-Crowne Social Desirability Scale. (SDS; Crowne & Marlowe, 1964; see Appendix L). The SDS is the instrument most often used in domestic violence research to measure a socially desirable response bias. This study used a short-form of the SDS that

contains 10 items. "I am quick to admit making a mistake" is representative of items on the short form of the SDS. Participants were asked to respond on a 7-point Likert scale the extent to which they agree or disagree with inventory items. The correlation between the long and short form of the SDS is .87 (Greenwald & Satow, 1970).

The Cronbach alpha coefficient for SDS scores within a sample of 232 undergraduate students in a Canadian university was .72 (Loo & Thorpe, 2000). An administration of the SDS to a sample of 236 undergraduate students in an American university revealed a Cronbach alpha coefficient of .77 (Crino, Svoboda, Rubenfeld & White, 1983). A one-month test-retest reliability coefficient for two administrations of the SDS to 60 undergraduate students was .86 (Crino et al.). In another study, factor analysis of the SDS revealed one factor, with an internal consistency coefficient of .70 (Ballard, 1992). To determine whether SDS items are sensitive enough to assess the construct it is intended to measure, Ballard, Crino, and Rubenfeld (1988) asked a sample of undergraduate students to rate the degree of social desirability of specific items and the degree to which they would be willing to respond affirmatively in public to these items. Findings indicated that desirability ratings and willingness to disclose ratings were correlated in expected directions. Moreover, Crino et al. found that the Marlowe Crowne SDS and the Edwards' Social Desirability Scale were correlated .39, and then .35 at a second administration of the two scales one month later. In the present study, a Cronbach alpha coefficient of .75 was obtained.

Analyses

First, intercorrelations of all key variables were computed. It was expected that social desirability would be correlated with some violence measures. Correlation coefficients describing relationships between personality disorder scores and adult

attachment orientations, personality disorder scores and sexist attitudes toward women, and adult attachment orientations and sexist attitudes toward women were computed. T_2 , a modification of Hotelling's statistic- T_1 (see Steiger, 1980) was computed to test for significant differences as predicted among these pairs of correlation coefficients. In interpreting the significance of correlation coefficients, Bonferroni corrections were made to control for Type I error.

Next, using the PDQ-R as a categorical measure, men in the sample were categorized into four groups – those meeting criteria for antisocial personality disorder, those meeting criteria for borderline personality disorder, those meeting criteria for both antisocial and borderline personality disorder, and those meeting criteria for no personality disorder. Differences among these four groups on all violence-related measures and attachment orientations were explored by conducting two one-way multivariate analyses of covariances (MANCOVA). The independent variable for both MANCOVAs was personality disorder and it had four levels- antisocial, borderline, both antisocial and borderline, and none. SDS scores were the covariate for both MANCOVAs. The dependent variables in the first MANCOVA were ECR anxious and avoidant attachment orientation scores. The dependent variables in the second MANCOVA were all violence-related constructs. This included CTS minor violence, severe violence, and verbal abuse subscales, PMWS verbal/psychological abuse and dominance/isolation subscales, injury partner sustained as a result of relationship violence, generality of violence, frequency with which participant initiates and escalates violence, number of participant relationships with violence, sexist attitudes against women, and number of general and assault-related arrests. Given that a significant multivariate F for both MANCOVAs was expected, a series of planned, orthogonal

contrasts were conducted to determine whether specific group differences between participants categorized as antisocial and participants categorized as borderline are consistent with the hypotheses 4 and 5 outlined above. Type I error for the contrasts was controlled by adjusting .05 alpha by the number of contrasts conducted. Bonferroni post hoc comparisons were used to explore group differences between all four personality disorder groups on the dependent variables, given that there were no specific hypotheses about differences between the four groups on the dependent variables.

It is important to note that the group of participants who met criteria for both borderline and antisocial personality disorders was an unexpected finding. It was anticipated that the data would reveal three groups – participants meeting criteria for borderline personality disorder, antisocial personality disorder, or no personality disorder, with men meeting criteria for only one category and the proportion of men meeting criteria for each of the three categories as relatively equal. The initial data analyses plan included computing two one-way MANCOVAs with three levels, allowing for specific comparisons between participants meeting criteria for borderline personality disorder and participants categorized as having antisocial personality disorder (see hypotheses 4 and 5). Although the unexpected fourth group allows for 2 x 2 MANCOVAs as a means to explore group differences on all key variables, one-way MANCOVAs were computed as planned because study hypotheses only targeted group differences between participants categorized as borderline and participants categorized as antisocial. There were no a priori hypotheses regarding group differences between participants meeting criteria for both personality disorders or for participants meeting criteria for no personality disorder. However, because the number of men meeting criteria for no personality disorder was 55% of the overall sample, Bonferroni post-hoc comparisons were computed to explore

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how this group differed from the other personality disorder groups. Additionally, Bonferroni post-hoc comparisons were computed to explore how participants meeting criteria for no personality disorder differed from the other personality disorder groups, to better understand patterns of relationships among key variables evidenced in this study's sample.

Next, a hierarchical regression was conducted to test whether constructs central to psychological explanations (e.g., attachment and personality disorders) and constructs central to sociopolitical explanations (e.g., sexist attitudes against women) of male violence toward female partners were independent, positive, significant predictors of violence. Violence was a composite variable created by aggregating measures assessing frequency of violence (i.e., PMWS and CTS scores), after standardizing PMWS and CTS scores. The significance of interaction effects, after controlling for main effects, in predicting violence was also tested.

Because past research supporting batterer typologies (see Holtzworth-Munroe & Stuart, 1994) suggested that batterer subgroups evidence distinct patterns of violence, a principal components exploratory factor analysis was computed. Items assessing frequency with which participants initiate and escalate violence, items assessing the generality of participant violence, items assessing injury experienced by participant partners, CTS verbal abuse, reasoning abuse, and minor and severe physical abuse subscales, and PMWS subscales were included in the factor analysis.

As expected, the factor analysis yielded more than one pattern of violence, and a series of hierarchical regression analyses with the different dimensions of violence as the outcomes were conducted. Results of these analyses indicated whether attachment orientations, sexist attitudes toward women, and borderline and antisocial personality

disorders were differentially important predictors of the distinct violence patterns that emerged from the exploratory factor analysis. Hypotheses specific to each analysis outlined above were tested.

Sample Size

According to Cohen (1969, & 1992), to detect a medium effect size for all analyses, while maintaining power equal to .80 and alpha set at .05, the one-way MANCOVAs with 4 groups required 45 participants in each group. For a priori contrasts, a minimum of 64 participants in each group to be included in the a priori contrast was required. The multivariate hierarchical regression analysis with nine independent variables and one covariate required a total of 119 participants, and 85 participants were needed to test for the significance of computed correlation coefficients. Given that 9 variables were entered into the exploratory factor analysis, approximately 45-90 participants were needed for this analysis, given recommendations that 5-10 persons are included in the factor analysis for each variable in the model (Cone & Foster, 1993; Tabachnick & Fidell, 1983). Finally, Steiger (1980) reported that T_2 , a modification of Hotelling's statistic- T_1 , can be used "with confidence on sample sizes as small as 20 (p. 250)."

The obtained sample was adequate to meet power requirements for most analyses. However, in the interest of maintaining power equal to .80, the number of men categorized as antisocial (< 64) and the number of men categorized as borderline (< 64) did not allow a priori contrasts to test for medium effect sizes of between group differences at alpha equal to .05. Although risking an increased possibility of Type II error, group sizes were adequate to detect large effect sizes of between group differences at alpha equal to .10. Again in the interest of maintaining power equal to .80, for the

MANCOVAs, the number of men categorized as antisocial (< 45) precluded tests for medium effect sizes at alpha equal to .05 and power equal to .80. However, the number of men categorized as antisocial did meet requirements for tests of large effect sizes with alpha equal to .05 and power equal to .80. Type II error for hypotheses tested by MANCOVAs was more than would be expected if the number of men categorized as antisocial had been adequate to discern medium effect sizes.

Design

This study employed a passive correlational design. There was no manipulation of variables or group assignment via random or nonrandom methods. Because this type of design only describes relationships among variables in the study, no causal inferences can be made about the relationships among the variables in this study. A convenience sample was used; thus, the generalizability of the results is limited. However, field designs tend to have high external validity as compared to laboratory studies (Heppner, Kivlighan, & Wampold, 1992)

RESULTS

The following section provides a detailed description of all data analyses and findings. First, sample descriptive statistics are provided. Next, a correlation matrix of all key variables is presented, and Hotelling's T^2 statistics are computed to assess whether predicted differences among correlation coefficients are supported. Then, results from MANCOVAs testing for group differences between personality disorder groups on violence-related measures as well as measures of adult attachment orientations are presented, along with results from planned, orthogonal contrasts testing specific hypotheses regarding group differences on these variables between antisocial and borderline participants. Univariate test results exploring group differences between all the personality disorder groups, as well as follow-up Bonferroni post-hoc comparisons are then presented. Next, a hierarchical regression is computed to test whether constructs central to both sociopolitical (e.g., "sexism") and psychological (e.g., adult romantic attachment orientations and personality disorders) theories independently and significantly predict variance in a composite measure of violence enacted toward female romantic partners. Following this, a factor analysis was conducted to determine whether the data indicated more than one pattern of violence enacted toward female intimate partners. Finally, given that more than one pattern of violence emerged, findings from a series of hierarchical regressions with the different patterns of violence as outcomes are presented. These regressions explored whether sexism, anxious and avoidant adult attachment, and borderline and antisocial personality disorders were differentially predictive of the distinct patterns of violence.

Sample Descriptives

Number of significant relationships participant had in the last year. Eighty-five percent of the sample reported having only 1 significant relationship in the past year. Six percent reported having 2 significant relationships, whereas another remaining 6% reported having none. The remaining participants reported three or more significant

relationships in the past year. Fifty-eight of the participants reported that their most significant relationship lasted 12 months or longer, and 11% of the participants reported that their most significant relationship lasted 1 month or less. Sixty-six percent of the participants reported that they were still involved with the woman they had been fighting with at the time of their arrest.

Number of participant relationships with physical violence. Participants were asked to report the number of relationships in which they engaged in minor (e.g., slapping, hitting, or pushing) or severe (e.g., burning, choking, or cutting) physical violence the year prior to data collection. Sixty percent of the sample indicated that they used minor violence in only one of their relationships in the past year, whereas 4% indicated that they used minor violence in 2 or more of their relationships during the past year. Thirty-four percent denied any physical violence in any of their relationships during the past year. Eighty-eight percent of the sample denied any severe physical violence in any of their relationships during the past year. Twelve percent reported using severe physical violence in only one of their relationships during the past year.

Arrest history. Only 12% of the sample reported no arrest history, whereas 29% of the sample reported no assault-related arrest history. Twenty percent of the participants reported only one arrest in their lifetime; 17% reported 2 arrests; 50% reported 3 or more arrests in their lifetime. Fifty percent of the sample reported only 1 assault-related arrest in their lifetime; 16% reported 2 or more assault-related arrests; 10% reported 3 or more assaulted-related arrests in their lifetime. Mean number of general arrests for the sample was 3.9 (SD = 5.0), and mean number of assault-related arrests was 1.2 (SD = 1.28).

Number of weeks participant had been at the intervention program. The number of weeks participants had been at the intervention program ranged from 1 to 52 (M = 9.6; SD = 7.26), and 29% of the participants had been in counseling before due to being violent toward their female intimate partner.

Initiation and escalation of violence. Forty-four percent of the sample indicated that they had “never” been responsible for initiating physical violence toward their female partner. Thirty percent reported that they had only initiated violence “once”, 21% reported that they had initiated violence a few of the times, and 5% reported that they had initiated violence at least “half of the time”. Fifty-nine percent of the sample reported that they had hit, slapped, or pushed their partner after yelling at and/or calling her names, and 18% of the sample reported that they had burned, punched, or cut their partner after yelling at and/or calling her names.

Generality of violence. Seventeen percent of the sample reported that they had been violent toward a sibling in the past year, and only 8% reported that they had been violent toward a parent in the past year. Thirteen percent of the participants reported that they had been violent toward another relative or friend in the past year. Twenty-nine percent reported that they had been violent toward a stranger in the past year, and 6% reported that they had been violent toward a police officer in the past year.

Injury experienced by participant partners. Fifty percent of the participants reported that their partner had never experienced any injury, including a minor cut, bruise or swelling, as a result of relationship violence. Thirty-six percent of the sample reported that their partner had experienced a minor, cut, or bruise as a result of relationship violence only once and 13% of the sample reported their partner had experienced a minor cut, bruise, or swelling as a result of relationship violence two or more times. Fifteen percent of the participants reported that their partner had experienced a burn, major cut or bruise, or fracture as a result of relationship violence, and 2% reported that their partner had experienced major bleeding or wounds or had been knocked out as a result of relationship violence. Ten percent of the participants reported that their partner had needed hospital care as a result of relationship violence in the past year, and 12% reported that she had needed some other medical attention. Finally, 16% of the participants

reported that their partner missed her regular activities (e.g., shopping, family/friend social activities) as a result of relationship violence.

Violence: CTS subscales. Frequency with which participant reported physical violence toward a female intimate partner in the year before his commencing the intervention program ranged from 0-79 ($M = 4.7$; $SD = 7.9$). The reported frequency of acts of severe physical violence ranged from 0 -25 ($M = 1.3$; $SD = 3.7$), and the frequency of acts of minor physical violence ranged from 0-55 ($M = 3.4$; $SD = 6.6$). Frequency of acts of verbal aggression during that time period ranged from 0-150 ($M = 34.8$; $SD = 35.2$).¹

Violence: PMWS subscales. The frequency of acts comprising the emotional/verbal abuse subscale committed by participants 6 months prior to commencing the intervention program ranged from 1- never to 5- very frequently ($M = 2.15$; $SD = .79$). The frequency of acts comprising the dominance/isolation abuse subscale reported by participants ranged from 1- never to 4- frequently ($M = 1.8$; $SD = .71$).

Personality disorders: PDQ -R antisocial and borderline personality disorder subscales. Fifty-five percent ($n = 132$) of the participants did not meet criteria for any personality disorder. Nineteen percent ($n = 45$) met criteria for borderline personality. Seven percent ($n = 17$) of the sample met criteria for antisocial personality disorder. Another 19% ($n = 45$) met criteria for both antisocial and borderline personality disorders.

Sexist attitudes against women. Range of responses for individual AWS items was 0 (disagree strongly) to 3 (agree strongly), with high scores reflecting more traditional attitudes against women ($M = 13.11$; $SD = 6.45$). Range for total AWS scores was 0-35, with approximately 50% of the sample reporting a score of 12 or higher. This

¹ Observed scatterplots for all dependent measures in the MANOVA or regression analyses were linear and/or normal to meet necessary data assumptions for these analyses. Maximum frequencies were outliers.

finding suggests that the AWS had significant within-group variability to validly assess sexist attitudes against women among this study's sample.

Correlational Analyses

Intercorrelations among selected demographic variables, as well as measures of social desirability, violence, negative attitudes against women, attachment orientations, and borderline and antisocial personality disorders were computed. Table 1 presents a correlation matrix demonstrating relationships between selected demographic variables and other key variables. A brief summary of Table 1 follows. Given the number of correlations computed, Bonferroni corrections will be made to control for Type I error. As such, the significance of all correlation coefficients was tested at $p < .001$. Specific correlation coefficients will be discussed for bivariate relationships testing hypotheses identified earlier.

Social desirability scores. Social desirability scores were significantly and negatively correlated with most measures of violence as well as items and subscales assessing additional background information regarding participants' history of intimate violence. Unexpectedly, social desirability scores were not correlated with CTS minor and severe physical violence subscales, injury experienced by partner, number of participant relationships with severe violence, or the composite variable sexism. Social desirability scores were significantly and negatively correlated with both measures of personality disorders and anxious attachment, but not avoidant attachment.

PDQ-R personality disorder scores. As expected, PDQ-R antisocial personality disorder scores were significantly and positively correlated with avoidant attachment ($r = .29, p < .001$), and PDQ-R borderline personality disorder scores were significantly and positively correlated with anxious attachment ($r = .57, p < .001$). Unexpectedly, PDQ-R antisocial scores were also significantly and positively correlated with anxious attachment, and PDQ-R borderline scores were also significantly and positively correlated with avoidant attachment. However, given the significant intercorrelation

between the two PDQ-R scales ($r = .57, p < .001$), partial correlations were computed to assess relationships between PDQ scales and attachment orientations and test hypotheses 1a-1d. After controlling for PDQ-R antisocial personality disorder scores, borderline personality disorder scores were significantly and positively correlated with anxious attachment ($r = .45, p < .001$), but unrelated to avoidant attachment. After controlling for PDQ-R borderline personality disorder scores, antisocial personality disorder scores were unrelated to both avoidant and anxious attachment. These findings support hypothesis 1b but fail to support hypotheses 1a, 1c, and 1d.

PDQ-R borderline personality disorder scores were also significantly and positively correlated with number of relationships with severe physical violence, generality of violence subscale scores, escalation of violence, both PMWS subscales, CTS minor physical violence subscale, CTS verbal aggression subscale, frequency with which participants initiated violence, and number of assault-related arrests. PDQ-R antisocial personality disorder scores were significantly and positively correlated with generality of violence, escalation of violence, both PMWS subscales, CTS minor physical violence and verbal abuse subscales, frequency with which participant initiated violence, number of assault-related arrests, number of general assaults, and number of violent intimate relationships participant had in the past year. Both PDQ-R borderline and antisocial personality disorder scores were significantly and negatively correlated with age. As expected, the data suggested significant positive correlations between antisocial personality disorder scores and general as well as severe violence. However, unexpectedly, the data also suggested significant positive correlations between borderline personality disorder scores and generality of violence as well as severe violence.

Adult attachment orientations. Adult avoidant attachment orientations were significantly and positively related with generality of violence and escalation of violence, suggesting that persons who score high on avoidant attachment are also likely to score high on measures assessing generality of violence and participant responsibility for

escalating violence. Contrary to expectation, CTS subscale scores assessing severe violence were not related to avoidant attachment. Anxious adult attachment orientations were significantly and positively related to escalation of violence, PMWS subscales, CTS minor and verbal aggression subscales, and frequency with which participant initiated violence. As expected, persons reporting anxious attachment were more likely to report psychological and verbal violence.

Sexism. Partial correlations were again computed to test relationships between personality disorders and sexist attitudes and to test hypotheses 2 and 2a, given the correlation between the two PDQ-R scales. After controlling for PDQ-R antisocial personality disorder scores, borderline personality disorder scores were significantly and positively correlated with sexist attitudes ($r = .19, p < .001$). After controlling for PDQ-R borderline personality disorder scores, antisocial personality disorder scores were unrelated to sexist attitudes. These findings offer partial support for hypothesis 2 and fail to support hypothesis 2a.

As expected, the composite variable sexism was significantly and positively correlated with anxious ($r = .19, p < .001$) and avoidant attachment ($r = .27, p < .001$) orientations. This finding supports hypothesis 3. As expected, the relationship between avoidant attachment and sexism was greater than the relationship between anxious attachment and sexism. Using the formula presented by Steiger (1980) to compute T_2 revealed that T_2 equals 1.102 ($df = 236$) and is smaller than T_c (1.645, $df = 236$). As such, although the relationship between avoidant attachment and sexism is greater than the relationship between anxious attachment and sexism, the difference between the correlation coefficients is not significant. This finding failed to support hypothesis 3a.

The composite variable sexism was also significantly and positively correlated with generality of violence subscale scores, PMWS dominance/isolation subscale scores, CTS minor violence subscale scores, frequency with which participant initiates violence, and number of relationships participant had in the past year. Unexpectedly, the

composite variable sexism was not significantly correlated with CTS severe physical violence subscale scores, PMWS emotional/verbal subscale scores, or CTS verbal aggression subscale scores.

Table 1

Intercorrelations among Selected Demographic Variables and Measures of Social Desirability, Sexism, Violence, Personality Disorders, and Adult Attachment

	1. # relationships with severe violence	2. # relationships with minor violence	3. generality of violence	4. injury	5. sexism	6. escalation of violence	7. antisocial	8. borderline	9. avoidant attachment	10. anxious attachment
1.	1.00	.29*	.23*	.20*	.15	.28*	.05	.20*	.15	.12
2.		1.00	.17*	.31*	.12	.35*	.16	.13	.10	.11
3.			1.00	.10	.29*	.13	.25*	.32*	.20*	.11
4.				1.00	.09	.48*	.13	.14	.14	.16
5.					1.00	.27*	.19*	.26*	.27*	.19*
6.						1.00	.21*	.27*	.19*	.26*
7.							1.00	.57*	.29*	.40*
8.								1.00	.29*	.57*
9.									1.00	.18*
10.										1.00

Note: * $p \leq .001$

Table 1 (Continued)

	11. social desirability	12. PMWS: Emotional/ Verbal subscale	13. PMWS: dominance/ isolation subscale	14. CTS: severe physical violence	15. CTS: minor physical violence	16. CTS: verbal violence	18. frequency of violence initiation	19. # of arrests for assault	20. # of general arrests	21. # of relationships in the past year	22. # of months of longest relationship in past year	23. age
1.	-.08	.07	.18*	.02	.00	.06	.17*	.12	.05	.10	.12	-.12
2.	-.17*	.13	.19*	.11	.12	.09	.39*	.12	.07	.35*	.24*	-.02
3.	-.19*	.07	.19*	.10	.28*	.19*	.16	.18*	.17*	.19*	-.08	-.28*
4.	-.10	.27*	.20*	.20*	.31*	.18*	.39*	.05	.01	.08	.17*	-.10
5.	-.16	.04	.18*	.10	.18*	.00	.18*	.03	-.03	.18*	-.14	-.13
6.	-.17*	.38*	.33*	.21*	.33*	.30*	.58*	-.01	-.01	.07	.09	.06
7.	-.44*	.43*	.36*	.21*	.32*	.41*	.23*	.21*	.37*	.17*	-.04	-.18*
8.	-.46*	.50*	.47*	.13	.26*	.45*	.24*	.18*	.22*	.14	-.13	-.31*
9.	-.16	.14	.13	.04	.15	.15	.13	.08	.12	.00	-.02	-.09
10.	-.32*	.41*	.48*	.09	.19*	.32*	.23*	.04	.11	.12	-.02	-.12

Note: * $p \leq .001$

Table 1 (Continued)

	11. social desirability	12. PMWS: Emotional/ Verbal subscale	13. PMWS: dominance/ isolation subscale	14. CTS: severe physical violence	15. CTS: minor physical violence	16. CTS: verbal violence	18. frequency of violence initiation	19. # of arrests for assault	20. # of general arrests	21. # of relationships in the past year	22. # of months of longest relationship in past year	23. age
11.	1.00	-.46*	-.27*	-.10	-.13	-.43*	-.22*	-.12	-.15	-.09	.05	.13
12.		1.00	.66*	.19*	.33*	.60*	.33*	.05	.12	.13	.03	-.09
13.			1.00	.22*	.40*	.37*	.36*	.19*	.21*	.05	.01	-.11
14.				1.00	.45*	.18*	.17*	.15	.10	.03	-.11	-.08
15.					1.00	.48*	.30*	.16	.16	-.01	-.05	-.15
16.						1.00	.24*	.06	.18*	-.09	.01	-.20*
17.							-.03	-.07	-.01	.12	.00	-.09
18.							1.00	.11	.02	.11	.11	-.05
19.								1.00	.40*	.13	-.02	-.02
20.										.07	-.05	-.16
21.										1.00	.02	-.08
22.										.40*	1.00	.17*
23.												1.00

Note: * $p \leq .00$

Group Comparisons between Personality Disorders: Multivariate Analyses of Covariance

Two one-way multivariate analyses of covariances (MANCOVA) were computed with personality disorder as the independent variable. For this analysis, the PDQ-R was used as a categorical measure. The independent variable had four levels- antisocial personality disorder, borderline personality disorder, no personality disorder, and persons with cut-off scores for both antisocial and borderline personality disorders. It was not anticipated that participants might meet criteria for both antisocial and borderline personality disorders. Nonetheless, this fourth group was included in the MANCOVAs on the basis that doing so might reveal additional information regarding specific differences between the personality disorder groups.

Only 17 participants in the sample had cut-off scores indicating antisocial personality disorder. Forty-five participants met criteria for borderline personality disorders, and another 45 participants met criteria for both antisocial and borderline personality disorders. One hundred and thirty-two participants did not meet criteria for any personality disorder. These group sizes are only nearly adequate to discern a large effect size with alpha equal to .05 and power equal to .80, given a 4-group design. This suggests that unless there is a large effect, between group differences will not be detected and there is a risk for Type II error (see Cohen, 1992).

Between-group differences on adult attachment orientations. Dependent variables in the first MANCOVA model were ECR anxious and avoidant adult attachment orientation scores. SDS scores were entered as the covariate. When the model was run with the interaction between social desirability and personality disorder groups included, The MANCOVA did not produce a significant multivariate effect for personality disorder group. However, because the interaction term was not significant, meeting the MANCOVA assumption of homogeneity of slopes, the model was run a second time without the interaction term included in the analyses. MANCOVA assumptions regarding normality, independence, and homogeneity of variances were met. Results

indicated a significant multivariate effect for personality disorder group, Wilks' \underline{F} (6, 466) = 8.23, $p \leq .001$.

Following the significant multivariate F , planned orthogonal contrasts were conducted to determine if group differences between participants meeting criteria for antisocial and borderline personality disorder on the dependent variables are consistent with hypotheses 4 and 5 identified in an earlier section. Given that the MANCOVA tested for group differences on 2 dependent variables, Type I error in testing the group differences between the two personality disorders was controlled by Bonferroni corrections ($.05/2$) and alpha was equal to $.025$. Contrast results indicated no significant group differences between participants meeting criteria for antisocial and borderline personality disorders on adult anxious, ($t(235) = 1.45, p > .025$), or avoidant attachment ($t(235) = .13, p > .025$), orientations. Given this finding, the expectation that participants meeting criteria for antisocial personality disorder would score significantly higher on adult avoidant attachment orientation than participants meeting criteria for borderline personality disorder was not supported. The expectation that participants meeting criteria for borderline personality disorder would score significantly higher on adult anxious attachment orientation than participants meeting criteria for antisocial personality disorder was also not supported (see hypotheses 4 and 5).

However, univariate F tests indicated that the four groups of the independent variable in the MANCOVA differed significantly on both anxious, $\underline{F}(3, 234) = 14.26, p \leq .001$, and avoidant, $\underline{F}(3, 234) = 3.91, p \leq .01$, attachment dimensions (see Table 2). As such, Bonferroni post-hoc analyses were conducted to explore these group differences. Post-hoc comparisons indicated that participants categorized as borderline scored significantly higher than participants not meeting criteria for any personality disorder on ECR adult avoidant attachment orientation scores, ($t(235) = 1.81, p < .05$), and ECR anxious attachment orientation scores, ($t(235) = 2.24, p < .001$). Participants meeting criteria for both personality disorders also scored significantly higher than participants

not meeting criteria for any personality disorder on ECR anxious attachment orientation scores, ($t(235) = 2.56, p < .001$).

Table 2

Adjusted Mean Scores and Standard Deviations for all Four Personality Disorder Groups on Anxious and Avoidant Attachment Orientations

Group	N	Anxious Attachment		Avoidant Attachment	
		<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
No Personality Disorder	132	3.18	1.15	2.76	.97
Borderline Personality Disorder	45	4.38	1.03	3.27	1.12
Antisocial Personality Disorder	17	3.06	1.21	3.34	1.03
Both Personality Disorders	45	3.72	1.28	3.27	.93

Between-group differences on violence-related variables. Dependent variables in the second MANCOVA model were sexism, PMWS subscales – dominance/isolation and emotional/verbal violence, CTS subscales -verbal aggression, minor physical violence, and severe physical violence, as well as additional items and subscales assessing participant violence. These additional items and subscales included generality of violence, frequency with which participant initiates and escalates violence, injury partner sustained as a result of violence, number of participant intimate relationships with severe or minor physical violence, number of general arrests, and number of assault-related arrests. SDS scores were again entered as the covariate. However, when the model was run with the interaction between social desirability and personality disorder groups included, results indicated that the interaction between the covariate and the independent variable was significant, Wilks' $F(42, 657) = 1.81, p \leq .01$, violating a key assumption of the MANCOVA model - homogeneity of slopes. However, univariate F statistics indicated that this assumption had only been violated for five of the dependent variables entered in the model – sexism, CTS verbal aggression subscale scores, PMWS

emotional/verbal subscale scores, CTS severe violence subscale scores, and number of participant intimate relationships with minor violence. Moreover, MANCOVA assumptions regarding normality, independence, and homogeneity of variances for variables meeting the homogeneity of slopes assumption were met. Given this observation, main effects of personality disorder group for those variables for which the homogeneity of slopes assumption was not violated were interpreted (see Table 3). Univariate F statistics for these variables indicated no significant differences between the four personality disorder groups, so no post-hoc comparisons or a priori contrasts were computed. Expected group differences between participants categorized as antisocial and participants categorized as borderline on violence-related variables were not supported (see hypotheses 4 and 5).

Between-group differences for the five dependent variables not meeting the homogeneity of slopes assumption were assessed via an alternative procedure (see Huitema, 1980). The covariate was transformed into a categorical variable, with participants categorized into one of four groups. Participants scoring in the 25th percentile on the covariate were categorized as low SDS. Participants scoring between the 25th and 50th percentile on the covariate were categorized as moderate SDS. Participants scoring between the 50th and the 75th percentile on the covariate were categorized as moderate-high SDS. Participants scoring between the 75th and the 100th percentile on the covariate were categorized as high SDS. Then, a two-way multivariate analysis of variance (MANOVA) was computed. Personality disorder groups and social desirability groups were entered as the two factors and an interaction of these two factors was included in the model. Sexism, CTS verbal aggression subscale scores, PMWS emotional/verbal subscale scores, CTS severe violence subscale scores, and number of participant intimate relationships with minor violence were the dependent variables in the model. MANOVA assumptions regarding normality and independence were met and homogeneity of variances across the groups was met for PTWS emotional/verbal subscale scores. Given

the violation of equal error variances across the groups for four of the five dependent variables, Pillai's V was used to test for significant multivariate main and interaction effects due to its robustness under violations of MANOVA assumptions (Haase & Ellis, 1987).

Table 3

Adjusted Mean Scores and Standard Deviations for all Four Personality Disorder Groups on Dependent Measures Meeting Homogeneity of Slopes MANCOVA Assumption

Dependent Variable	Groups							
	No Personality Disorder (N = 132)		Borderline Personality Disorder (N = 45)		Antisocial Personality Disorder (N = 17)		Both Personality Disorders (N = 45)	
	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
How often Participant Initiated Violence? PTWS	.65	.88	1.09	.90	1.18	1.29	1.32	1.18
Dominance/ Isolation Scores	10.84	3.63	13.93	4.61	12.88	6.98	16.34	5.46
CTS Minor Physical Violence Scores	1.81	3.65	3.91	4.06	6.29	8.90	6.41	11.49
How often Participant Escalated Violence?	1.11	1.58	2.40	2.16	1.88	2.06	2.32	2.49
Generality of Violence	.98	1.75	2.07	3.24	.58	.87	2.57	3.34
Number of Assault-related Arrests	.93	.95	1.51	1.67	1.00	1.27	1.52	1.55
Number of Arrests	2.70	3.80	4.20	4.40	7.47	8.38	5.70	5.74
Frequency with which Partner Sustained Injury	.80	1.15	1.47	1.71	1.29	1.57	1.29	1.73
Number of Participant Relationships with Severe Physical Violence Last Year	.64	.59	.84	.64	1.12	2.34	.82	.15

Results indicated a significant multivariate main effect for personality disorder group, $F(15, 663) = 3.89, p \leq .001$, and social desirability group, $F(15, 663) = 3.82, p \leq .001$, as well as a significant interaction effect, $F(45, 1115) = 2.89, p \leq .001$. Tests of univariate effects demonstrated a significant interaction effect for CTS verbal aggression scores, $F(9, 223) = 2.29, p \leq .05$, CTS severe physical violence scores, $F(9, 223) = 2.45, p \leq .01$, and number of participant intimate relationships with violence, $F(9, 223) = 8.79, p \leq .001$, precluding interpretation of main effects for these dependent variables.

Univariate tests of main effects for sexism and PTWS emotional/verbal violence scores indicated significant personality disorder group, $F(3, 223) = 7.30, p \leq .001$, and social desirability group differences, $F(3, 223) = 5.62, p \leq .001$, on PTWS emotional/verbal violence scores only (see Table 4). A priori contrast results exploring differences between antisocial and borderline participant groups on PTWS emotional/verbal violence scores indicated no significant between-group differences, failing to support hypotheses 4 and 5. Bonferroni post-hoc comparisons exploring between-group differences for the four personality disorder groups on PTWS emotional/verbal violence scores indicated that the borderline group, ($t(235) = 5.01, p < .001$), antisocial group, ($t(235) = 3.03, p < .05$), as well as participants meeting criteria for both personality disorders, ($t(235) = 8.48, p < .001$), scored significantly higher than participants not meeting criteria for any personality disorder on PTWS emotional/verbal violence scores. Bonferroni post-hoc comparisons exploring between-group differences for the four social desirability groups on PTWS emotional/verbal violence scores indicated that participants reporting low social desirability scored significantly higher on PTWS emotional/verbal scores than participants reporting moderate, ($t(235) = 3.48, p < .001$), moderately high, ($t(235) = 5.65, p < .001$), and high, ($t(235) = 7.79, p < .001$), social desirability. Additionally, participants reporting moderate social desirability scored significantly higher on PTWS emotional/verbal scores than participants reporting high social desirability disorder, ($t(235) = 8.47, p < .001$).

Table 4

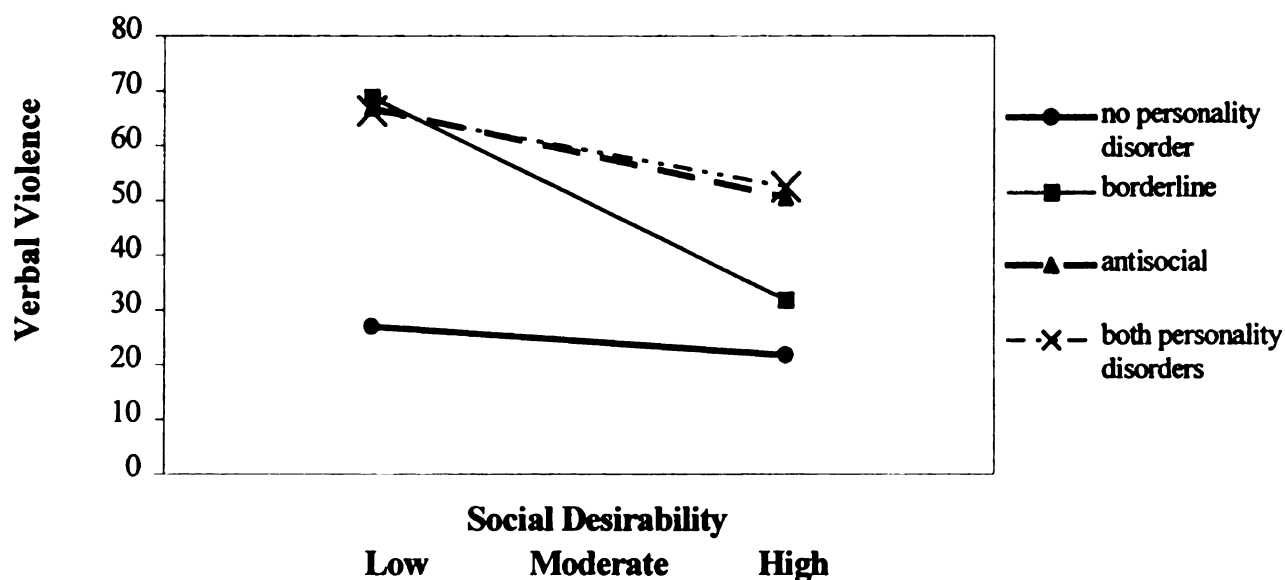
Mean Scores and Standard Deviations for all Four Personality Disorder Groups and Social Desirability Groups on PTWS Emotional/Verbal Scores and Sexism

Group	<u>N</u>	PTWS Emotional/Verbal Scores		Sexism	
		<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
No Personality Disorder	132	12.73	4.44	-.22	1.47
Borderline Personality Disorder	45	16.71	5.25	.37	1.82
Antisocial Personality Disorder	17	16.36	5.99	-.50	1.65
Both Personality Disorders	45	19.52	4.91	.48	1.72
Low SDS	56	18.79	5.56	.26	1.86
Moderate SDS	64	15.36	5.0	.27	1.54
Moderate-High SDS	61	13.95	4.77	-.03	1.66
High SDS	58	12.07	4.48	-.53	1.29

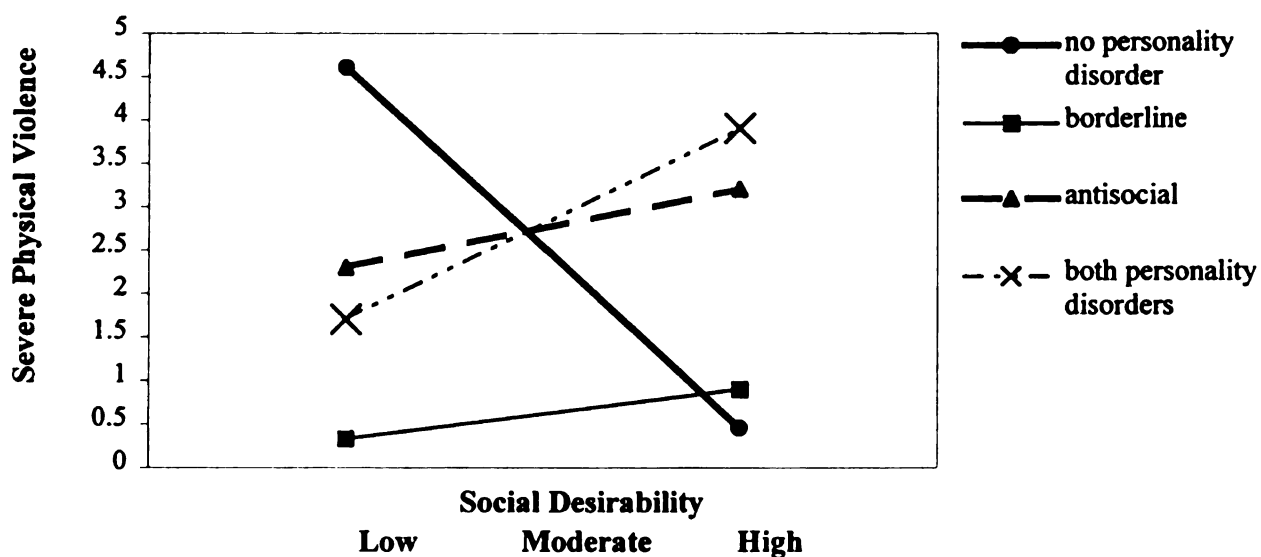
For the dependent variables verbal aggression, severe physical violence, and number of participant intimate relationships with violence, the significant interaction effect between personality disorder group and social desirability group was plotted as recommended by Shavelson (1988; see Figures 1-3).

Next, given that there were no predetermined hypotheses regarding differences between cell means, the two way MANOVA was arranged as an one-way MANOVA, as recommended by Shavelson (1988). A new variable with 16 levels (i.e., 4 personality disorder groups x 4 social desirability groups) was created and Tukey's post-hoc comparisons were conducted to explore differences between all possible pairs of means (see Table 5).

**Figure 1: Interaction for Two-Way Analysis of Variance:
Personality Disorder Group and Social Desirability Group
as Independent Variables and CTS Verbal
Violence Scores as Outcome**



**Figure 2: Interaction for Two-Way Analysis of Variance:
Personality Disorder Group and Social Desirability Group
as Independent Variables and CTS Severe Physical
Violence Scores as Outcome**



**Figure 3: Interaction for Two-Way Analysis of Variance:
 Personality Disorder Group and Social Desirability Group as
 Independent Variables and Number of Participant Violent
 Intimate Relationships as Outcome**

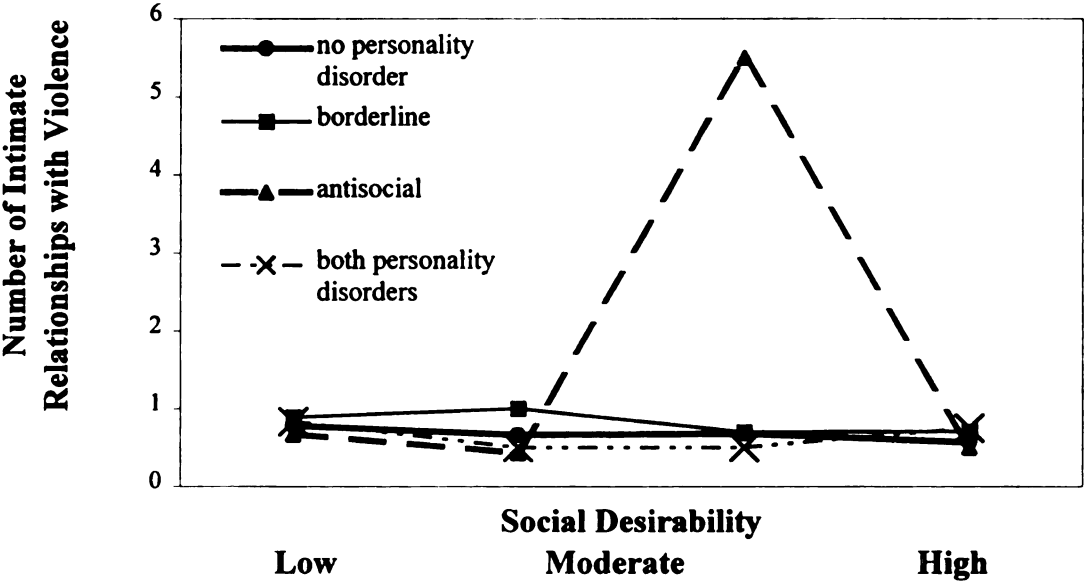


Table 5
Factors and Cell Sizes for New Sixteen-Level Factor Created by Collapsing Four-level
Personality Disorder Group Variable and Four-level Social Desirability Group Variable

Personality Disorder Groups					
Social Desirability Level		No Personality Disorder	Borderline Personality Disorder	Antisocial Personality Disorder	Both Personality Disorders
	Low SDS	n =9	n =18	n =6	n =23
	Moderate SDS	n =29	n =10	n =7	n =18
	Moderately High SDS	n =47	n =10	n =2	n =2
	High SDS	n =47	n =7	n =2	n =2

Pillai's V was again used to test for multivariate effects due to the violation of the assumption of homogeneity of variance across groups. This variance was expected given the variance in number of participants per cell. Results of the multivariate test demonstrated significant group differences, $F(45, 669) = 4.72, p \leq .001$. Tests of univariate effects indicated that there were significant group differences for CTS verbal aggression scores, $F(15, 223) = 7.06, p \leq .001$, CTS severe physical violence scores, $F(15, 223) = 2.12, p \leq .01$, and number of participant relationships with violent intimate relationships, $F(15, 223) = 6.03, p \leq .001$. Tukey post-hoc comparisons revealed only one significant mean difference for CTS severe physical violence scores. Participants meeting criteria for both personality disorders and reporting moderate social desirability scored significantly higher than participants meeting criteria for no personality disorder and reporting moderately-high social desirability, $(t(223) = 3.6, p < .05)$. For number of participant intimate relationships with violence, participants categorized as antisocial and reporting moderately high social desirability had significantly more violent intimate relationships than all other groups. With respect to CTS verbal aggression scores, participants meeting criteria for borderline personality disorder and reporting low social desirability indicated greater frequency of verbal aggression compared with participants not meeting criteria for any personality disorder. Additionally, participants meeting criteria for both personality disorders and reporting low social desirability reported greater frequency of verbal aggression compared with participants categorized as borderline and reporting moderately high social desirability as well as compared with participants not meeting criteria for any personality disorder (see Table 6).

Table 6

Significant Tukey post-hoc Comparisons on CTS Severe Physical Violence and Verbal Aggression Scores, and Number of Participant Intimate Violent Relationships

Dependent Variable	Reference Group	Comparison Group	Mean Difference	SE	t	p
CTS severe physical violence subscale scores	No personality disorder/ moderately high SDS	Both personality disorders/ moderate SDS	3.58	.99	3.62	.05
		No personality disorders/ low SDS	4.72	.58	8.14	.001
# of participant violent intimate relationships	Antisocial/ moderately high SDS	No personality disorders/ moderate SDS	4.84	.54	8.96	.001
		No personality disorders/ moderately high SDS	4.82	.53	7.92	.001
		No personality disorders/ high SDS	4.93	.53	9.3	.001
		Borderline personality disorder/ low SDS	4.61	.52	8.87	.001
		Borderline personality disorder/ moderate SDS	4.50	.57	7.89	.001
		Borderline personality disorder/ moderately high SDS	4.80	.57	8.4	.001
		Borderline personality disorder/ high SDS	4.79	.59	8.11	.001
		Antisocial personality disorder/ low SDS	4.83	.60	8.05	.001
		Antisocial personality disorder/ moderate SDS	5.07	.59	8.59	.001
		Antisocial personality disorder/ high SDS	5.0	.74	6.76	.001
		Both personality disorders/ low SDS	4.67	.55	8.49	.001
		Both personality disorders/ moderate SDS	4.67	.55	8.49	.001
		Both personality disorders/ moderately-high SDS	5.0	.74	6.76	.001
		Both personality disorders/ high SDS	5.0	.74	6.76	.001
CTS verbal aggression scores	Borderline personality disorder/ low SDS	No personality disorders/ low SDS	41.94	12.23	3.43	.05
		No personality disorders/ moderate SDS	47.14	8.9	5.3	.001
		No personality disorders/ moderately high SDS	41.07	8.31	4.95	.001
		No personality disorders/ high SDS	55.68	8.301	6.7	.001

Table 6 (continued.)

Significant Tukey post-hoc Comparisons on CTS Severe Physical Violence and Verbal Aggression Scores, and Number of Participant Intimate Violent Relationships

		Borderline personality disorder/ moderately high SDS	45.83	11.82	3.89	.01
	Both personality disorders/ low SDS	Borderline personality disorder/ moderately high SDS	42.9	10.97	3.91	.05
	Antisocial personality disorders/ low SDS	No personality disorders/ high SDS	53.97	12.83	4.21	.01
	Both personality disorders/ low SDS	No personality disorders/ moderate SDS	44.61	8.37	5.33	.001
		No personality disorders/ moderately high SDS	38.54	7.63	5.05	.001
		No personality disorders/ high SDS	53.16	7.63	6.97	.001
	Both personality disorders/ moderate SDS	No personality disorders/ high SDS	39.3	8.31	4.73	.001

Regression Analysis: Contributions of Personality Disorders, Adult Attachment Orientations, and Sexism to Male Violence Enacted toward Female Partners

A hierarchical regression was conducted to test the hypothesis that measures of psychological constructs and the composite variable sexism, a construct central to sociopolitical theory, each makes independent and significant contributions to the prediction of male violence perpetrated toward female partners, once social desirability response bias is controlled. In addition, the hierarchical regression tested the hypothesis that, after controlling for main effects, interactions representing patriarchal attitudes and the psychological constructs will also be unique, significant predictors of violence.

Violence was a composite variable created by aggregating the two measures assessing frequency of violence (e.g., PMWS and CTS overall scores), after standardizing PMWS and CTS overall scores. Specifically, all CTS items were summed and then standardized. Next, all PMWS items were summed and then standardized. The two standardized scores were then summed. SDS scores were entered as a covariate at the first step.

Psychological constructs central to psychological theories explaining violence, that is measures of anxious and avoidant adult attachment as well as measures of antisocial and

measures of anxious and avoidant adult attachment as well as measures of antisocial and borderline personality disorders, were entered as a block at the second step. The composite variable sexism was entered at the next step. Four interaction terms representing interactions between measures of personality disorders and sexism as well as measures of adult romantic orientations and sexism (i.e., antisocial * sexism; borderline * sexism; anxious attachment * sexism; avoidant attachment * sexism) were entered at the final step. As recommended by Aiken and West (1991), measures of sexism, attachment, and personality disorders were centered prior to creating the interaction terms and testing their significance. Data met regression assumptions regarding normality, linearity, and homoscedasticity.

Table 7 presents the results of these analyses. These results indicated that social desirability response bias was a unique, significant predictor of the composite variable violence, explaining 19% of the overall variance (adjusted $R^2 = .192$, $p < .001$).

Measures of psychological constructs also made significant independent contributions to the prediction of violence collectively accounting for 16% of the additional overall variance in the composite variable violence (adjusted $\Delta R^2 = .162$, $p < .001$). However, while measures of antisocial personality disorder, ($t(238) = 2.43$, $p < .05$), borderline personality disorder, ($t(238) = 3.75$, $p < .001$), and anxious attachment, ($t(238) = 2.26$, $p < .05$), were significantly and positively predictive of violence, avoidant attachment was not significant. The subsequent entry of the composite independent variable sexism was not significant in enhancing the prediction of violence². Not one of the four interaction terms entered at the final step were significant predictors of the composite dependent variable violence. These findings fail to support hypotheses 6 and 7 in that only constructs central psychological understandings of male violence toward women were significant in enhancing the prediction of the composite variable violence in this

² Sexism was not a significant predictor of the composite variable violence irrespective if its entry at Step 2, before entering the psychological variables, or Step 3, after entering the psychological variables.

regression analysis. Moreover, after controlling for main effects, none of the interaction terms were significant.

Factor Analysis of Violence Indexes

Because past research supporting batterer typologies (see Holtzworth-Munroe & Stuart, 1994) identified batterer subgroups with distinct patterns of violence, a second- order exploratory factor analysis was computed. A principal components analysis with varimax rotation of the item assessing frequency with which participant initiated violence, subscale assessing frequency with which participant escalated violence (violence escalation), subscale assessing injury experienced by participants' partners (injury), CTS verbal, severe, and minor violence subscales, and PMWS emotional/verbal and dominance/isolation subscales yielded three major factors with eigenvalues greater than 1.0. These 3 factors collectively accounted for 67.3% of the shared variance among all subscales or items assessing violence that were included in the factor analysis. The first, second, and third factors independently accounted for 42.9%, 13.19%, and 11.21% of the total variance, respectively. Table 8 presents the loadings of each of the measures or items assessing violence on the three factors. The CTS verbal aggression and PMWS emotional/verbal abuse and dominance/isolation subscales emerged as the variables most representative of the first factor. However, the CTS minor physical violence subscale also loaded on the first factor, suggesting that this variable is also important in the interpretation of the first factor. The injury and violence escalation subscales as well as the item assessing participants' responsibility in initiating violence emerged as the variables most representative of the second factor. The CTS minor and severe physical violence subscales also demonstrated moderate loadings on the second factor. Finally, the CTS severe and minor physical violence subscales and the generality of violence subscale emerged as the variables most representative of the third factor.

Table 7

Summary of Hierarchical Regression Analysis for Variables Predicting Composite Variable Violence (N = 239)

Variable	<u>B</u>	<u>SE B</u>	<u>β</u>
Step 1			
social desirability	-7.68E-02	.010	-.439**
Step 2			
anxious attachment	.200	.088	.147*
avoidant attachment	-3.15E-02	.094	-.018
borderline personality	.235	.063	.279**
antisocial personality	.150	.062	.163*
Step 3			
sexism	-.110	.060	-.102
Step 4			
sexism * anxious attachment	1.216E-02	.055	.013
sexism * avoidant attachment	1.910E-02	.070	.018
sexism * borderline personality	2.430E-02	.038	.047
sexism * antisocial personality	-5.49E-03	.034	-.011

Note: Adjusted $R^2 = .192$ for Step 1 ($p < .001$); Δ Adjusted $R^2 = .162$ for Step 2 ($p < .001$); Δ Adjusted $R^2 = .009$ for Step 3 (ns); Δ Adjusted $R^2 = .003$ for Step 4 (ns).

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

Table 8

Rotated Factor Matrix and Factor Loadings of Subscales and Item Assessing Violence

Measure	Factor		
	I	II	III
PMWS: emotional/verbal abuse	.884		
CTS: verbal aggression subscale	.790		
PMWS: dominance/isolation	.763		
Violence escalation		.832	
Injury		.781	
How often did you hit, slap, or push first?		.754	
CTS: minor physical violence	.535	.407	.488
CTS: severe physical violence		.331	.489
Generality of Violence			.874
Eigenvalues	3.86	1.19	1.01
%Variance	42.9%	13.2%	11.2%

Given the pattern of factor loadings, there appear to be three distinct patterns of violence. The first pattern of violence includes verbal and emotional abuse that is high in frequency, as well as acts of minor physical violence that are moderate in frequency. The second pattern of violence is one in which the participant is responsible for initiating as well as escalating the violence, and one that can result in the partner's injury. Although this second pattern of violence does not include emotional or verbal aggression, acts of minor physical violence do contribute to this factor's variance. The third pattern of violence includes predominantly physical violence, both minor and severe, toward his partner, as well as physical violence toward non-partners (e.g., family, strangers, friends,

and police). The results of this factor analysis lend support to hypothesis 8 in that three patterns of violence emerged, and these patterns of violence were reflective of the anticipated patterns. The first factor appears to be tapping partner intimidation through the use of verbal and psychological abuse, as well as minor physical violence, indicating a violence pattern wherein participants may be purposefully using violence as a means to intimidate and control their partner. This factor that will be labeled “partner-intimidation violence” is consistent with the hypothesis that a pattern of violence predominantly psychological and verbal in nature and targeting participant’s partner would emerge. Subscale loadings on the second factor indicated a pattern in which participants generally initiated the violence and engaged in escalating aggression that included both minor and severe physical violence. Emotional and verbal abuse did not load on this factor. Moreover, because this violence pattern is partner specific, the second factor will be labeled “partner-specific physical violence”. This factor is not consistent with hypotheses regarding anticipated violence patterns present in the data. Factor three appears to be assessing a more generalized form of aggression with acts of violence that are more severe than the first two violence patterns and do not specifically target partners. This final factor that will be labeled “general violence” is consistent with the hypothesis that the data would suggest a pattern of severe physical violence that includes persons other than participant’s partner.

Regression Analyses: Differential Contributions of Personality Disorders, Adult Attachment Orientations, and Sexism to Three Patterns of Violence

Given that the data suggested multiple patterns of violence, a series of three additional hierarchical regression analyses were conducted. For each of the three hierarchical regressions, a different dimension of violence was used as the dependent variable. Results of these analyses indicated whether attachment orientations, sexist attitudes toward women, and borderline and antisocial personality disorders were differentially significant predictors of the distinct violence patterns that emerged from the

exploratory factor analysis. Preliminary data analyses prior to running the three hierarchical regressions included computing correlation coefficients between violence patterns and key predictors as well as exploring personality disorder group differences on the factor scores.

Correlations among three violence patterns and key predictors. Interrelationships between the three patterns of violence and the key predictors were computed to explore bivariate relationships among each of the predictors and patterns of violence. Results of this analysis are presented in Table 9. All three patterns of violence are positively related with antisocial personality disorder scores. Unexpectedly, the relationship between partner-intimidation violence and antisocial personality disorder scores appears to be

Table 9

Intercorrelations between Violence Patterns and Key Predictors

	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. Partner-intimidation violence	1.00	.00	.00	.41**	.50**	.10	.42**	-.42**	.01
2. Partner-specific physical violence		1.00	.00	.21**	.21**	.19*	.24**	-.13*	.22**
3. General violence			1.00	.22**	.24**	.17*	.05	-.04	.27**
4. Antisocial Personality disorder scores				1.00	.57**	.23**	.40**	-.49**	.19*
5. Borderline personality disorder scores					1.00	.26**	.56**	-.51**	.26**
6. Avoidant Attachment						1.00	.19*	-.13	.27**
7. Anxious Attachment							1.00	-.40**	.19*
8. Social Desirability								1.00	-.16
9. Sexism									1.0

Note: * $p < .01$; ** $p < .001$

stronger than the relationship between general violence and antisocial personality disorder scores. Given the very strong relationships between antisocial personality disorder scores and social desirability response bias as well between antisocial personality disorder scores and borderline personality disorder scores, relationships among the three violence patterns and antisocial personality disorder scores, controlling for social desirability and borderline personality disorder scores, were computed. Partial correlation coefficients indicated that the relationship between general violence and antisocial personality disorder scores remained significant, while relationships between antisocial personality disorder scores and the other two violence patterns were no longer significant (see Table 10).

All three patterns of violence were also positively correlated with borderline personality disorder scores, with partner-intimidation violence and borderline personality disorder scores demonstrating the strongest relationship. While partner-intimidation violence and partner-specific physical violence are positively correlated with anxious attachment, partner-specific physical violence and general violence are positively correlated with avoidant attachment. Only partner-specific physical violence and general violence were positively correlated with the composite variable sexism. Both partner-intimidation and partner-specific physical violence patterns were negatively correlated with social desirability response bias.

Personality disorder group comparisons on factor scores. A series of three one-way ANOVAs were computed to assess personality disorder group differences on factor scores. Results from the first ANOVA revealed significant group differences on partner-intimidation violence, $F(3, 235) = 25.43, p \leq .001$. Scheffe's post-hoc comparisons indicated that participants with no personality disorder scored significantly lower than participants categorized as having borderline personality disorder, ($t(235) = 4.93, p \leq .001$), antisocial personality disorder, ($t(235) = 3.16, p \leq .05$), or both personality disorders, ($t(235) = 8.13, p \leq .001$). Results from the second ANOVA revealed

Table 10

Intercorrelations between Violence Patterns and Antisocial Personality Disorder Scores
Controlling for Social Desirability and Borderline Personality Disorder Scores

		1.	2.	3.	4.
1.	Antisocial personality disorder scores	1.00	.12	.11	.13*
2.	Partner-intimidation violence		1.00	-.13*	-.12
3.	Partner-specific violence			1.00	-.05
4.	General violence				1.00

Note: * $p \leq .05$

significant group differences on partner-specific physical violence, $F(3, 235) = 3.07$, $p \leq .05$. However, Scheffe's post-hoc comparisons indicated that specific between group differences did not reach statistical significance, after adjusting alpha levels to control for Type I error. Results from the third ANOVA revealed significant group differences on the general violence pattern, $F(3, 235) = 3.8$, $p \leq .01$. Scheffe's post-hoc comparisons indicated that participants with no personality disorder scored significantly lower than participants categorized as having both personality disorders, $t(235) = 3.08$, $p \leq .05$ (see Table 11).

Regression analyses. For each of the following regressions, SDS scores were entered as a covariate at the first step. Psychological constructs central to psychological theories explaining violence (i.e., anxious and avoidant adult attachment as well as measures of antisocial and borderline personality disorders) were entered as a block at the second step. The composite variable sexism was entered at the next step, and the four interaction terms were entered at the final step. Data met regression assumptions regarding normality, linearity, and homoscedasticity for each of the three regressions.

Table 11

Mean Scores and Standard Deviations for Four Personality Disorder Groups on Three Violence Patterns

Group	<u>N</u>	Partner-Intimidation Violence		Partner-specific Physical Violence		General Violence	
		<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>	<u>M</u>	<u>SD</u>
No Personality Disorder	132	-.42	.80	-.17	.78	-.17	.67
Borderline Personality Disorder	45	.32	.98	.24	1.09	.19	1.17
Antisocial Personality Disorder	17	.29	1.34	.26	1.03	-.06	.70
Both Personality Disorders	45	.80	.77	.17	1.35	.34	1.5

Results of the first regression using partner-intimidation violence as the dependent variable are presented in Table 12. These results indicated that social desirability response bias was a unique, significant predictor of this violence pattern, explaining 18% of the overall variance (adjusted $R^2 = .179$, $p < .05$). Social desirability was negatively related to the dependent variable, ($t(238) = -7.18$, $p < .05$). Measures of psychological constructs also made significant independent contributions to the prediction of the first pattern of violence collectively accounting for 14% of the additional overall variance in this pattern of violence (adjusted $\Delta R^2 = .135$, $p < .05$). However, only anxious attachment, ($t(238) = 2.58$, $p < .05$), and borderline personality disorder, ($t(238) = 3.21$, $p < .05$), were significantly and positively predictive of partner-intimidation violence. The composite independent variable sexism entered at the third step was also a significant predictor of partner-intimidation violence (adjusted $\Delta R^2 = .085$, $p < .05$), explaining an additional 9% of the overall variance. However, the relationship between sexism and the dependent variable was negative, ($t(238) = -2.53$, $p < .05$). The subsequent entry of the four interaction terms at the final step was not significant in enhancing the prediction of the first pattern of violence.

Table 12

Regression of Personality Disorders, Attachment Orientations, and Sexism in Predicting Partner-Intimidation Violence (N = 239)

Variable	<u>B</u>	<u>SE B</u>	<u>β</u>
Step 1			
social desirability	-4.23E-02	.006	-.423*
Step 2			
anxious attachment	.134	.052	.178*
avoidant attachment	-4.72E-02	.055	-.048
borderline personality	.119	.037	.246*
antisocial personality	6.621E-02	.036	.126
Step 3			
sexism	-8.86E-02	.035	-.144*
Step 4			
sexism * anxious attachment	-2.77E-02	.032	-.052
sexism * avoidant attachment	3.278E-02	.041	.053
sexism * borderline personality	6.310E-02	.022	.022
sexism * antisocial personality	1.542E-03	.020	.005

Note: Adjusted \underline{R}^2 = .179 for Step 1 ($p \leq .05$); Δ Adjusted \underline{R}^2 = .132 for Step 2 ($p \leq .05$); Δ Adjusted \underline{R}^2 = .018 for Step 3 ($p \leq .05$); Δ Adjusted \underline{R}^2 = .005 for Step 4 (ns).

* $p \leq .05$.

Results of the second regression with partner-specific physical violence as the dependent variable are presented in Table 13. These results indicated that social desirability response bias was a unique, significant predictor of scores on this violence dimension, explaining 2% of the overall variance (adjusted $R^2 = .017$, $p < .05$). Once again, social desirability was negatively related to the dependent variable, ($t(238) = -2.05$, $p < .05$). Measures of psychological constructs also made significant independent contributions to the prediction of the first pattern of violence collectively accounting for 7% of the additional overall variance in the dependent variable (adjusted $\Delta R^2 = .073$, $p < .05$). However, only measures of anxious, ($t(238) = 2.10$, $p < .05$), and avoidant, ($t(238) = 1.96$, $p < .05$), attachment were significantly and positively predictive of partner-specific physical violence. The subsequent entry of the composite independent variable sexism at the third step also made a significant independent contribution to the second pattern of violence, accounting for an additional 2% of the overall remaining variance in the dependent variable (adjusted $\Delta R^2 = .017$, $p < .05$). The four interaction terms entered at the final step also significantly contributed to variation in the dependent variable, accounting for an additional 4% of the remaining variance (adjusted $\Delta R^2 = .042$, $p < .05$). However, only the interaction of anxious attachment and sexism was the only variable accounting for explained variance at this step, ($t(238) = 3.31$, $p < .05$).

The significant interaction effect was plotted as advised by Aiken and West (1991) to help interpret the interaction (see Figure 4). Whereas the relationship between partner-specific physical violence and anxious attachment is linear and positive for participants reporting moderate sexism, this is not true for participants reporting low or high sexism. For participants with low sexism scores, the relationship between partner-specific physical violence and adult anxious attachment orientations is positive for those participants reporting low to moderate ECR adult anxious attachment scores. However, for those participants reporting moderate to high ECR adult anxious attachment orientation scores, the relationship between partner-specific physical violence and adult

Table 13

Regression of Personality Disorders, Attachment Orientations, and Sexism in Predicting Partner – Specific Physical Violence (N = 239)

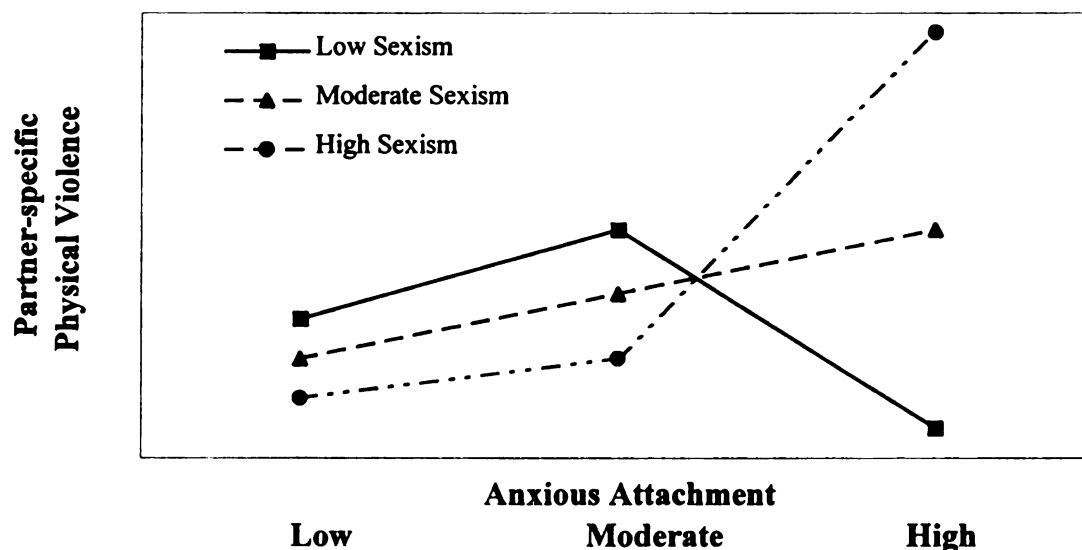
Variable	<u>B</u>	<u>SE B</u>	<u>β</u>
Step 1			
social desirability	-1.32E-02	.006	-.132*
Step 2			
anxious attachment	.126	.060	.161*
avoidant attachment	.125	.064	.128*
borderline personality	1.835E-02	.043	.038
antisocial personality	5.146E-02	.042	.103
Step 3			
sexism	8.584E-02	.041	.139*
Step 4			
sexism * anxious attachment	.114	.036	.214*
sexism * avoidant attachment	2.195E-03	.047	.004
sexism * borderline personality	5.963E-04	.025	.002
sexism * antisocial personality	-5.18E-03	.023	-.018

Note: Adjusted $\underline{R}^2 = .017$ for Step 1 ($p \leq .05$); Δ Adjusted $\underline{R}^2 = .073$ for Step 2 ($p \leq .05$); Δ Adjusted $\underline{R}^2 = .017$ for Step 3 ($p \leq .05$); Δ Adjusted $\underline{R}^2 = .042$ for Step 4 ($p \leq .05$).

* $p \leq .05$

anxious attachment orientations is diminishing or negative. For participants reporting high sexism, the relationship between partner-specific physical violence and adult anxious attachment orientations appears to be enhanced for those participants reporting moderate to high ECR adult anxious attachment orientation scores. As advised by Aiken and West (1991), t-tests to assess whether the slopes representing the anxious attachment orientation-partner-specific relationship were different from zero at high, moderate, and low sexism were conducted. Slopes were significantly different from zero when sexism was moderate, ($t(237) = 2.30, p < .025$), or high, ($t(237) = 2.99, p < .005$), but not when sexism was low. This finding suggests a significant relationship between partner-specific violence and adult anxious attachment scores at sexism equal to high and moderate values, but not low values.

Figure 4: Interaction between Sexism and Adult Anxious Attachment Orientations in Predicting Partner-specific Physical Violence



For further interpretation of the significant interaction term, a new variable with nine levels (i.e., low, moderate, high sexism x low, moderate, high ECR adult anxious attachment orientation scores) was created, and Tukey's post-hoc comparisons were conducted to explore all possible between group differences. Results supported the visual interpretation of the interaction effect. There were significant between-group differences on partner-specific physical violence, $F(8, 230) = 4.23, p < .001$. In general, participants with high ECR adult anxious attachment orientation scores and high scores on sexism scored significantly higher than the other groups (see Table 14).

Table 14

Significant Tukey post-hoc Comparisons on Partner-specific Physical Violence

Reference Group	Comparison Group	Mean Difference	SE	t	p
High anxious attachment/ high sexism	low anxious attachment/ low sexism	1.19	.269	4.42	.001
	low anxious attachment/ moderate sexism	1.31	.282	4.65	.001
	moderate anxious attachment/ low sexism	1.08	.275	3.93	.01
	moderate anxious attachment/ moderate sexism	1.25	.264	4.73	.001
	high anxious attachment/ low sexism	1.24	.322	3.85	.01

Results of the third and final regression, using the violence pattern labeled general violence as the dependent variable, are presented in Table 15. These results indicated that social desirability response bias was not a unique, significant predictor of this violence pattern. However, measures of psychological constructs entered at the second step (adjusted $\Delta R^2 = .10, p < .05$) and the composite variable sexism entered at the third step (adjusted $\Delta R^2 = .04, p < .05$) did significantly and positively enhance the prediction of the third pattern of violence. Psychological constructs entered as a block at the second step collectively accounted for 10% of the overall variance in the third pattern of

violence, whereas the composite variable sexism explained an additional 4% of the overall remaining variance. Of the 4 psychological predictors of violence entered at the second step, both PDQ-R antisocial violence, ($t(238) = 1.98, p < .05$), and borderline violence, ($t(238) = 3.01, p < .02$), personality disorder scores were significantly and positively predictive of the third pattern of violence. Entry of the four interaction terms at the final step did not significantly enhance the prediction of the third pattern of violence.

Overall, findings from the series of regressions using the three patterns of violence that emerged from the factor analysis as outcomes lend partial support to hypothesis 9. Specifically, hypothesis 9a was supported in that borderline personality disorder, anxious attachment, and sexism proved to be independently and significantly positive predictors of partner-intimidation violence. It is difficult to discern whether hypothesis 9b was met, given the inconsistency in the anticipated second violence pattern and the actual pattern reflected in the data. Nonetheless, both adult attachment orientations and sexism, as well as the interaction between anxious attachment and sexism, were significant and positive predictors of partner-specific physical violence. Hypothesis 9c was also partially supported in that antisocial personality disorder scores and sexism were independently and significantly positive predictors of general violence. However, unexpectedly, avoidant attachment was not significant and borderline personality disorder scores were significant.

Table 15

Regression of Personality Disorders, Attachment Orientations, and Sexism in Predicting General Violence (N = 239)

Variable	<u>B</u>	<u>SE</u> <u>B</u>	<u>β</u>
Step 1			
social desirability	-4.37E-03	.006	-.044
Step 2			
anxious attachment	-.105	.060	-.134
avoidant attachment	9.916E-02	.063	.102
borderline personality	.127	.042	.264*
antisocial personality	8.232E-02	.042	.157*
Step 3			
sexism	.128	.040	.208*
Step 4			
sexism * anxious attachment	-2.04E-02	.036	-.038
sexism * avoidant attachment	3.085E-02	.047	.050
sexism * borderline personality	2.617E-02	.025	.089
sexism * antisocial personality	6.869E-03	.022	.024

Note: Adjusted $R^2 = .002$ for Step 1 (ns); Δ Adjusted $R^2 = .10$ for Step 2 ($p \leq .05$); Δ Adjusted $R^2 = .038$ for Step 3 ($p \leq .05$); Δ Adjusted $R^2 = .014$ for Step 4 (ns).

$p \leq .05$

DISCUSSION

Overview

This chapter summarizes and interprets this study's key findings. Ways in which this study's findings advance inquiries regarding causes of heterosexual relationship violence against women are then highlighted. Where data did not support study hypotheses, possible explanations drawing upon extant research and theory are offered. In addition, implications of this study's findings for intervention as well as policy are addressed. Lastly, study limitations and recommendations for future research are discussed.

The purpose of this study was premised on the assumption that multiple and diverse theories are needed to understand the etiology of male violence perpetrated against female partners. This study specifically examined whether a model integrating constructs derived from attachment theory and feminist perspectives, compiled with constructs from general personality theories made important and unique contributions to explanations of male intimate violence that could enhance current understandings of battering. Multidimensional theories of battering are gaining increasing support among practitioners as well as researchers in the field of violence, predominantly due to limitations of unidimensional theories in explaining multiple patterns of violence evidenced among the heterogeneous population of men who batter their female intimates.

First, this study tested empirically or theoretically derived hypotheses regarding relationships among anxious and avoidant adult attachment orientations, antisocial and borderline personality disorders, sexist attitudes toward women, and frequency and severity of psychological, verbal, and physical violence. Next, a regression model indicating that constructs central to both feminist (e.g., sexist attitudes against women) and psychological theories (e.g., adult attachment orientation; borderline and antisocial personality disorders) are unique, significant predictors of violence among men attending court-referred batterer intervention programs was tested. Consistent with the perspective

that men who are violent exhibit multiple, distinct patterns of violence, it was also hypothesized that the data would reveal multiple violence patterns that were distinctive in frequency and severity of psychological, verbal, and physical violence. Moreover, it was anticipated that adult attachment orientations, personality disorders, sexist attitudes, and interaction terms included in the model would be differentially predictive of the distinct patterns of violence. These hypotheses were motivated by research demonstrating that there are subtypes of batterers each with diverse behavioral, cognitive, and emotional characteristics as well as with violence patterns distinct in frequency and severity of psychological, verbal, and physical violence. The heuristic value of different theories may depend upon batterer subtype, and understandings of the unique developmental characteristics of batterer subgroups may be an important step toward the construction of multidimensional etiologic models of battering as well as differential treatment interventions.

Correlational Analyses

Although borderline personality disorder scores were positively correlated with anxious attachment after controlling for antisocial personality disorder scores, antisocial personality disorder scores were unrelated to avoidant attachment after controlling for borderline personality disorder scores. Moreover, whereas sexist attitudes about women were correlated with borderline personality disorder as anticipated, sexism scores were unexpectedly unrelated to antisocial personality disorder. As expected, anxious and avoidant attachment was related to sexism; however, contrary to hypothesis, the relationship between avoidant attachment and sexism was not significantly greater than the relationship between anxious attachment and sexism.

Because both antisocial and borderline personality disorders are significantly related in the same direction with a number of key variables and with each other (see Table 1), some partial correlations were computed post-hoc to increase understanding of relationships between both personality disorders and key variables. After controlling for

borderline personality disorder scores, antisocial personality disorder scores were only positively and significantly related to minor physical violence scores and number of general arrests. After controlling for antisocial personality disorder scores, borderline personality disorder scores were positively and significantly related to violence escalation scores, PTWS emotional/verbal and dominance/isolation subscale scores, CTS verbal abuse subscale scores, and general violence scores. All of these significant relationships were consistent with expectations, with the exception of the association between borderline personality disorder and general violence.

Relationships between attachment orientations and other variables entered into the correlation matrix were anticipated. For example, participants scoring high on avoidant attachment also reported a greater frequency of general violence towards persons other than their partner, and participants with high scores on anxious attachment also indicated a greater frequency of verbal and psychological violence. However, the expectation that avoidant attachment would be related to severe physical violence was not substantiated. Finally, although both avoidant and anxious attachment were significantly correlated with participant responsibility for escalating violence, only anxious attachment was related with participant responsibility for initiating the violence.

Group Comparisons of Personality Disorder Groups on Violence and Attachment

Group comparisons between the four personality disorder groups demonstrated that batterers meeting criteria for borderline personality disorder did not score significantly higher than batterers meeting criteria for antisocial personality disorder on adult anxious attachment orientations, as expected. Additionally, participants meeting criteria for antisocial personality disorder did not score significantly higher than borderline batterers on adult avoidant attachment orientations.

This unsubstantiated hypothesis may be due to the possibility that some borderline and/or antisocial batterers in the sample have fearful attachment, thus their attachment style reflects both anxious and avoidant attachment. The finding that

borderline batterers scored significantly higher on avoidant attachment than participants not meeting criteria for any personality disorder supports this conjecture. Participants meeting criteria for both personality disorders also scored significantly higher than participants not meeting criteria for any personality disorder on anxious attachment. Moreover, Tweed and Dutton's (1998) findings suggested that some antisocial batterers may have preoccupied attachment. Although borderline batterers reported more anxious attachment than antisocial batterers, this difference may not be significant because some antisocial batterers may also have anxious attachment (i.e., fearful or preoccupied).

It is also noteworthy that personality disorders were associated with anxious and avoidant attachment orientations. This is consistent with research demonstrating a positive relationship between personality disorders and insecure attachment and consistent with the low prevalence of insecure attachment among batterers indicating no pathology (Holtzworth-Munore et al., 2000). Fifty-five percent of this study's sample indicated no personality disorder, and this group was significantly less anxious and less avoidant than the other groups, after controlling for social desirability.

Group comparisons among the four personality disorder groups on violence-related variables revealed that many anticipated group differences were not substantiated. One possibility for the absence of significant differences is that the number of participants in each of the personality disorder groups was unequal and/or not large enough to discern group differences. Given the small and unequal group sizes, it is possible that tests exploring group differences did not have adequate statistical power to detect these differences.

One observed group difference was that participants not meeting criteria for any personality disorder scored significantly lower on a measure of emotional/verbal abuse than all other groups, indicating an association between personality disorders and emotional/verbal abuse. Moreover, participants reporting low social desirability scored significantly higher on a measure of emotional/verbal abuse than participants reporting

moderate or high social desirability, supporting the expectation that batterers will minimize abuse perpetrated in an effort to present themselves in a desirable manner. Additionally, participants meeting criteria for both personality disorders and reporting moderate social desirability scored significantly higher on severe physical violence than participants meeting criteria for no personality disorder and reporting moderately high social desirability. Antisocial batterers reporting moderately high social desirability indicated significantly more violent intimate relationships than all other groups. This finding should be interpreted with caution due to the small and unequal cell sizes. Nonetheless, as indicated by their moderately high scores on social desirability, antisocial participants may want to present themselves desirably, but they do not perceive the presence of violence in their intimate relationships as a threat to their positive self-image.

Participants categorized as borderline batterers and reporting low social desirability scored significantly higher on verbal aggression than participants not meeting criteria for any personality disorder, irrespective of their social desirability scores. Finally, participants meeting criteria for both personality disorders and reporting low social desirability scored significantly higher on verbal aggression than borderline batterers with moderately high social desirability and batterers not meeting criteria for any personality disorder, irrespective of social desirability scores. With the exception of antisocial batterers, participants meeting criteria for personality disorders who also report low social desirability indicate greater levels of verbal abuse.

In general, results of group comparisons did not support this study's hypotheses regarding anticipated differences between antisocial batterers and borderline batterers. It was expected that the borderline group would report significantly more psychological violence than the antisocial group and that the antisocial group would report significantly more physical violence, particularly severe physical violence, than the borderline group. It was also expected that the antisocial group would indicate more violence that was not partner-specific when compared with the borderline group. However, it is important to

note that findings offer partial support for expected relationships between social desirability and self-reports of perpetrated abuse as well as partial support for expected relationships between personality disorders and perpetrated abuse.

A plausible explanation for the small number of participants meeting criteria for antisocial or borderline personality disorder is that the PDQ-R may have erroneously classified participants as having both antisocial and borderline personality disorders. A limitation of the PDQ-R is that, due to its low predictive positive power, false positives are a possibility (Hyler et al., 1990; Hyler et al., 1992). That is, research has shown that the PDQ-R may indicate a diagnosis when no personality disorder is present. Given that it is characteristic of the batterers to fake good, false positives were not expected to plague this study's findings. However, the classification of participants as both antisocial and borderline personality disorders may be attributable to the PDQ-R's poor discriminative validity. Moreover, the finding that participants indicating no personality disorder scored higher on social desirability than the other three personality disorder groups suggests that participants in this sample who did not meet criteria for any personality disorder may have responded more defensively. As such, antisocial and borderline personality disorders may in fact be more prevalent among participants classified with no personality disorder than PDQ-R scores suggest.

Adult Attachment, Personality Disorders, and Sexist Attitudes against Women in Predicting Male Relationship Violence against Female Partners

The data did not support a model integrating constructs from psychological and feminist theories. After controlling for social desirability, the psychological variables included in the model significantly enhanced the prediction of the composite variable violence. Among the psychological variables, all but avoidant attachment made independent contributions to explained variance. However, sexist attitudes made no significant contributions in explaining variation in the outcome measure after controlling for the psychological variables. Given that contributions of sexist attitudes toward the

enactment of male violence against female intimate partners are well-documented (Eisikovits, Edleson, Guttman, & Sela-Amit, 1995; Finn, 1986; Haj-Yahia, 1997), the absence of support for this hypothesis was unexpected. The absence of a relationship between sexist attitudes toward women and male violence against intimate female partners may also be attributable to a restricted range of variance on CTS minor and severe physical violence subscales. That is, maximum frequencies reported were outliers and visual distributions of the data suggested that, with the exception of these outliers, CTS minor and severe physical violence subscales had a restricted range of scores. The restricted range of scores on these measures may have reduced the ability of the regression analysis to detect significant effects. Additionally, it may be that sexism is related to some of the dimensions of violence included in the composite variable, yet unrelated to others. Once violence measures were aggregated, the relationship between the composite variable violence and sexism was no longer significant.

The finding that avoidant attachment was not a significant psychological predictor warrants comment. This finding is consistent with the body of research examining relationships between battering and insecure attachment. That is, although findings emerging from this line of inquiry generally support relationships between anxious attachment and domestic violence (Dutton & Browning, 1988; Dutton, Ginkel, & Starzomski, 1995; Dutton et al., 1994; Dutton, Starzomski, & Ryan, 1992; Tweed & Dutton, 1998), relationships between domestic violence and avoidant attachment were theorized but generally unsupported. Although attachment theory suggests that persons with dismissing attachment may exhibit a more general hostile manner of relating (Troy & Sroufe, 1987), there is no empirical support suggesting that such hostile relating is partner-specific. Moreover, although attachment theory conjectured that relationship dynamics common to avoidantly attached persons (e.g., fear of engulfment) may lead such persons to commit violence against a partner seeking intimacy (Mayseless, 1991), this expectation has not yet been empirically supported.

Violence Dimensions

Results of the factor analysis supported the hypothesis that there are multiple patterns of violence among men who have been arrested for domestic violence and court-mandated to a batterer intervention program. As hypothesized, three distinct patterns of violence emerged. Whereas the general violence pattern and the partner-intimidation pattern were consistent with this study's hypotheses, the partner-specific physical violence pattern was not. It was anticipated that there would be two dimensions of violence that would be predominantly partner-specific. However, it was expected that this second partner-specific violence pattern would include minimal or no physical violence with moderate amounts of verbal and psychological violence and might include some violence directed at family members other than his partner. However, results indicated that the second partner-specific violence dimension included both minor and severe physical violence that was almost equal in frequency to the general violence pattern. In addition, the factor loading for the variable assessing violence directed at persons other than his partner was close to zero, suggesting that this violence is partner-specific and does not include other family members. Partner injury and violence that is escalating and initiated by the batterer is also characteristic of this violence dimension.

The general violence pattern that was observed in this study appears to be consistent with the generally violent or antisocial batterer subtype that has been identified in batterer typology research. The partner-intimidation pattern appears to describe the violence typical of the borderline/dysphoric batterer. The third hypothesized violence pattern was expected to be enacted by the family-only batterer subtype (Holtzworth-Munore & Stuart, 1994; Holtzworth et al., 2000). The third pattern that emerged, however, does not describe the violent behavior typical of the family-only batterer.

It is probable that men exhibiting partner-specific physical violence were psychologically and verbally violent in earlier stages of the relationship, and at the time of their arrest, the violence had escalated to acts of physical violence, often resulting in

injury to the woman. As with partner-intimidation violence, this pattern may be instrumental in that the objective of the violence is to maintain power and control over the victim. When acts of psychological violence are no longer effective in meeting the perpetrator's objective, physical violence is used to yield power over the victim.

Parallels between the partner-specific physical violence and the partner-intimidation violence patterns suggest that that these two violence patterns may be subsets of behaviors on a continuum of male relationship violence against women. It may be that the two distinct patterns do not suggest distinct subtypes of men, each enacting a different pattern of violence, but distinct phases of battering through which most batterers progress. Another possibility is that a third, less severe violence pattern did not emerge from our data because the sample was comprised of men recruited from court-mandated batterer intervention programs. If the present sample had included men recruited from the community as well as from batterer intervention programs, a third less severe violence pattern might have emerged, given the expectation that community recruits would evidence less pathology and less frequent and severe violent behavior.

Accepting the argument that violent behavior is a continuum and that violent behaviors specific to the subtypes reflect to some extent different stages of the continuum does not exclude the possibility that there are subtypes of batterers. While the partner-intimidation violence and partner-specific violence patterns of violence observed in this study may reflect stages of a continuum of partner-specific violence, it may be that an antisocial batterer subtype enacting violent behaviors consistent with the general violence pattern observed in this study exists. There may only be two distinct violence patterns – generally violent and partner-specific-physical violence and the third pattern may be a phase of violence within the partner-specific violence pattern. This conceptualization is supported by studies that have found only two distinct batterer subtypes (Gottman et al., 1995; Tweed & Dutton, 1998), with one subtype described as generally violent antisocial batterer and the second subtype described as a dysphoric/borderline whose violence is

partner-specific. In addition, Holtzworth et al. (2000) proposed that batterers could be classified along two dimensions – antisocial and borderline tendencies and that classifying batterers along these dimensions may be a useful way to categorize batterers. Longitudinal research exploring associations between length of intimate relationship and frequency as well as severity of physical and psychological violence could help answer questions about the validity of batterer subtypes. If such research demonstrated more severe violence and increased injury to the partner with the progression of the relationship, the hypothesis that batterer subtypes reflect a continuum of behaviors would be supported.

Gondolf (1988) questioned whether research identifying batterer subtypes provided support for distinct subtypes with different causal explanations for their violent behavior or whether these findings only provide support for battering as a continuum of violent behaviors “...motivated by escalating male control and degradation of women” (p. 198). To some extent, this study provides some direction in answering this question. The series of hierarchical regressions conducted to explore differential contributions of attachment, personality disorders, and sexist attitudes in predicting each of three violence patterns observed in this study provides information as to whether different factors motivate the different violent behaviors representative of the three patterns.

Anxious attachment, borderline personality disorder scores, and sexist attitudes toward women were significant predictors of partner-intimidation violence. However, whereas anxious attachment and borderline personality disorder scores were positively related to partner-intimidation violence, the relationship between this pattern of violence and sexist attitudes was negative. The partner-intimidation violence pattern observed in this study is reflective of the violence exhibited by the borderline/dysphoric batterer, who is generally described as anxiously attached, jealous and possessive of his partner, and emotionally dependent upon his partner (Hamberger et al. 1996; Holtzworth-Munroe et al., 2000). Research and theory suggest that this batterer’s violence may be motivated by

fear of abandonment (Holtzworth et al.; Mayseless, 1991). The borderline batterer also reports characteristics consistent with borderline personality diagnosis (Gottman et al., 1995; Holtzworth et al.; Tweed & Dutton, 1998). To summarize, the predictors generally descriptive of the borderline batterer were significant in explaining variation in the partner-intimidation violence pattern, and the borderline batterer's violence and this violence pattern are comparable. Moreover, as group comparisons on factor scores suggested, participants categorized as borderline had higher scores on partner-intimidation violence, when compared with participants categorized as antisocial personality disorder or with no personality disorder³. As such, it is conceivable that the partner-intimidation violence pattern is attributable to the subset of borderline batterers in this sample.

One inconsistency between current findings and previous research is that the latter has demonstrated that borderline batterers generally express hostile attitudes toward women, whereas this study found that sexist attitudes toward women were negatively associated with the partner-intimidation violence pattern. However, this finding may be related to the anxious attachment of the subgroup of batterers enacting this violence pattern. That is, the four-group taxonomy of adult attachment styles proposed by Bartholomew and Horowitz (1991) suggests that the adult with a preoccupied attachment style is comparable to the anxious-ambivalent pattern initially identified by Ainsworth et al. (1978). Moreover, the adult with preoccupied attachment has internalized a positive model of other and a negative model of self. The negative relationship between sexist attitudes toward women and partner-intimidation violence may be due to the batterer's negative concept of self and positive internalized model of his partner. Given this interpersonal dynamic and the expectation that this batterer's violence is motivated by a desire to maintain his partner in close proximity (Dutton et al., 1994; Gottman et al.,

³ Although borderline batterers did score higher on this factor in comparison to participants categorized with antisocial personality disorder or with no personality disorder, these mean differences did not reach statistical significance.

1995; Mayseless, 1991), he may not support sexist attitudes toward women, if doing so incurs the threat of abandonment.

For partner-specific physical violence, only anxious and avoidant attachment orientations were significant psychological predictors. Sexist attitudes also significantly enhanced the prediction of partner-specific physical violence. Moreover, the interaction between sexist attitudes and anxious attachment was also significant. This significant interaction suggests that etiologic models of battering that integrate constructs from psychological theories and feminist theory may be necessary to advance understandings of at least some patterns of male violence against female partners. As suggested by this finding, it appears that anxiously attached men who concurrently have very sexist attitudes about women are the most likely to enact relationship violence.

Typology research has generally supported the finding that one of the batterer subtypes, the family-only batterer, indicates less psychopathology than the other subtypes (Hamberger et al., 1996; Holtzworth-Munroe & Stuart, 1994; Holtzworth-Munroe et al., 2000). This study's findings are consistent with typology research in that neither antisocial nor borderline personality disorder scores significantly enhanced the prediction of the partner-specific physical violence when adult attachment orientations were controlled. However, this body of research also suggests that the family only batterer exhibited the least severe violent behavior against his partner. In this study, the pattern that was not predicted by personality disorder scores did include severe physical violence as well as minor physical violence. This discrepancy suggests that this partner-specific violence pattern is not the constellation of behaviors typical of the family-only batterer.

The finding that neither personality disorder significantly predicted variance in the partner-specific physical violence pattern sheds doubt on whether the partner-intimidation and the partner-specific physical violence patterns are two distinct phases of one common violence pattern. Personality disorders are stable characteristics that are not subject to change (Diagnostic and Statistical Manual of Mental Disorders –DSM IV, 1994) without

many years of intensive psychotherapy (Gunderson, 1984). If it is expected that the same type of batterer is responsible for both partner-intimidation and partner-specific physical violence, then personality disorders should have been a significant predictor for both violence patterns. However, it is important to note that, group comparisons between personality disorder groups on factor scores suggested that participants categorized as borderline or antisocial had higher scores than participants with no personality disorder or categorized as having both personality disorders on partner-specific physical violence, although these differences were not statistically significant. The small number of participants meeting criteria for antisocial personality disorder and borderline personality disorder may have contributed to less than statistically significant differences on group comparisons. Nonetheless, participants categorized as both personality disorders may be qualitatively different from participants categorized as either antisocial or borderline personality disorder, and, if participants with both antisocial and borderline characteristics were eliminated from the analysis, borderline and antisocial personality disorder scores may have been significant predictors of partner-specific physical violence. Additionally, it is conceivable that personality disorder scores were not significant predictors of partner-specific violence due to limitations of the measure used to assess personality disorders, and that partner-specific physical violence is a subset of violent behaviors in a more comprehensive violence pattern. Moreover, the restricted range of scores on the physical violence measures (i.e., CTS minor and severe physical violence subscales) may have reduced the power of the regression analysis to determine whether borderline and antisocial personality disorder scores were statistically significant predictors of partner-specific physical violence.

Alternatively, the finding that personality disorders were not significantly predictive of partner-specific physical violence may suggest that this pattern is a truly distinct pattern. However, the partner-specific physical violence pattern found in this study may not be reflective of the violence typically enacted by the type that is generally

described as the family-only batterer. As suggested by Holtzworth-Munore et al. (2000), it may be that batterers recruited from court-mandated intervention programs exhibit greater frequency and severity of violence in comparison to batterers recruited from the community and that the family only batterer subtype is only present in samples that include men recruited from both the community and court-mandated programs. Given the exclusively clinical sample in this study, it is thus not surprising that the violence pattern typical of the family only batterer was not observed.

If it is assumed that partner-specific physical violence is a distinct violence pattern that is not associated with the family only batterer, it would be appropriate to make a prediction regarding what batterer type would be affiliated with this violence. In this study, these individuals indicated no pathology but did report attachment orientations that impeded intimacy and relationship security. Furthermore, the absence of personality disorders suggested that these batterers are more invested in maintaining violent behaviors because of rewards reaped from this behavior (e.g., control of their partner), as opposed to attributing inability to desist violent behavior to a long-standing personality disorder. That is, for these men, violence could be a planned behavior based on a cost-benefit analysis, and the benefits of the behavior outweigh the potential costs. The benefit received from the violence may be control over the partner's proximity. Consistent with this conjecture is the finding that partner-specific physical violence is escalated and initiated by the perpetrator, even at the expense of injuring the victim.

Both anxiously and avoidantly attached men in this category of batterers may use violence to regulate their partner's proximity. However, the goal of the violence for the anxiously attached man in this category may be to incite fear should the women try to establish some independence or disengage from the relationship. On the other hand, the avoidantly attached batterer's goal may be to keep the partner at a distance that ensures his protection from potentially painful relationship-related affect. Consistent with previous research on attachment and defensive mechanisms (see Fuendeling, 1998),

violence may be the avoidant batterer's strategy of regulating anxiety associated with both internal and interpersonal processes. The significance of both anxious and avoidant attachment orientations in predicting partner-specific physical violence suggests that the batterer perpetrating this violence may have a fearful attachment style, which combines abandonment anxiety with avoidant behavior (Brennan et al., 1998). Batterers with a fearful attachment style may elicit approach and/or avoidance behaviors from their partner, dependent upon internal (i.e., affect) or external (i.e., work-related stress) factors. Such "disorganized" attachment behaviors may contribute to the victim's sense of powerlessness in that there is no consistency between violence and the batterer's motivations for violence. This speculation could not be explored in the present study due to the absence of partner data assessing types of partner behaviors (i.e., intimacy demands, withdrawal) associated with participants' violence. Future studies should include partner data in order to test this hypothesis.

Of the cluster of psychological variables, only both personality disorder scores were predictive of the general violence pattern. Although it was anticipated that antisocial personality disorder would be a significant predictor, it was not expected that borderline personality disorder scores would enhance the prediction of this violence pattern. Perhaps, participants who were not borderline evidenced clinical profiles indicating otherwise due to the PDQ-R's tendency to over diagnosis. The finding that both personality disorders were significant predictors of a generally violent pattern that encompasses severe violence towards one's partner might reflect the reality that greater levels of psychopathology are associated with more severe violence against one's partner (Dutton & Starzomski, 1993; Flourney & Wilson, 1991; Hamberger & Hastings, 1988).

Another possibility is that the general violence pattern is attributable to batterers with antisocial tendencies as well as to batterers with borderline tendencies. Group comparisons between the four personality disorder groups on factor scores support this assumption. Specifically, participants categorized as having both personality disorders

had higher scores than participants categorized as antisocial and participants categorized as borderline had a relatively high mean compared with participants with no or antisocial personality disorder on the general violence pattern, although these differences were not statistically significant. Nonetheless, the general and severe physical violence enacted by antisocial batterers or batterers with characteristics from both personality disorders may differ in intent and motivation compared to that enacted by the borderline batterer. Specifically, it is plausible that the general and severe violence of the antisocial batterer or the batterer with both antisocial and borderline characteristics is reflective of antisocial tendencies, whereas the borderline batterer's physical and severe violence is explained by his desperate realization that abandonment is imminent. Given this threat, the borderline batterer is not concerned that his excessively violent behaviors may isolate him from his partner or actualize his fears of abandonment. This speculation is consistent with research findings suggesting that the batterer's violence escalates as the likelihood that he will be separated from his victim increases (National Institute of Justice, 2000). Moreover, the threat of abandonment may trigger negative affect that the borderline batterer cannot regulate inducing stress that he manifests through a more generalized hostility.

Sexist attitudes against women were a strong positive predictor of the general violence pattern. This is consistent with research suggesting that generally violent antisocial batterers enacting severe violence against their partners indicate stronger negative attitudes towards women than do other types (see Holtzworth-Munroe & Stuart, 1994). However, for those batterers enacting this more severe violence pattern in response to fear of imminent abandonment, the strong relationship between negative attitudes toward women and this violence pattern might be explained by their use of splitting to manage this desperate fear of abandonment. Consistent with theory and research on borderline personality, the batterer's perception of his female partner changes from positive to negative. Initially, the batterer's attempts to maintain proximity to his

attachment object were motivated by his internalization of his partner as the “all-good object.” However, should the batterer perceive abandonment as more of a reality than a threat, his partner may then be construed as the “bad object” who would have inevitably disappointed him (Kernberg, 1975; Millon, 1981).

Interestingly, social desirability scores were not a significant predictor of the general violence pattern. This was contrary to expectations that all batterers minimize their violent behavior, deny responsibility for their behavior, and fake good when providing self-report data regarding their battering behaviors (Arias & Beach, 1987). Assuming that the generally violent pattern corresponds with the violence enacted by the antisocial generally violent batterer, it may be that this subtype is distinct from other batterers and that his violence toward female partners is part of an indiscriminate pattern of violence. If so, then his battering may be one of many antisocial behaviors in his repertoire of antisocial behaviors. He may not be concerned about minimizing reports of his behavior and may not be influenced to respond in a socially desirable manner. Given that research with antisocial personality disorder persons has shown a lack of concern regarding potential consequences of antisocial behavior (see Diagnostic and Statistical Manual of Mental Disorders, APA, 1994), the antisocial batterer may not care about the consequences of his violent behavior. As a result, he may not experience any empathy for the victim or corresponding expected motivation to change his violent behavior.

CONCLUSIONS

This study did not support the view that psychological (i.e., attachment, personality disorders) and sociopolitical (i.e., sexism) constructs independently contributed to the prediction of relationship violence, without accounting for the distinct violence patterns evidenced by the data. Only three psychological variables – anxious attachment, and borderline as well as antisocial personality disorder scores were important in enhancing explanations of battering among this sample of men when violence was operationalized as a unidimensional construct. However, this study’s

findings revealed three distinct dimensions of violence, and when the differential contributions of psychological and sociopolitical constructs for the distinct dimensions were explored, findings suggested that both psychological and sociopolitical understandings of violence are necessary.

The three violence dimensions that were supported by this study's data are partner-intimidation violence, partner-specific physical violence, and general violence. Partner-intimidation violence is partner-specific and includes verbal and emotional abuse that is high in frequency, as well as acts of minor physical violence (i.e., "shoved her") that are moderate in frequency. Use of this violence pattern may be motivated by a purposeful intent to intimidate and control one's partner. The partner-specific physical violence dimension includes both minor and severe physical violence that is partner-specific. Partner injury and violence that is escalating and initiated by the male perpetrator is also characteristic of this violence dimension. The general violence dimension includes the most severe physical violence and targets the perpetrator's partner as well persons other than his partner.

Psychological constructs of adult attachment orientations and personality disorders as well as the sociopolitical construct of sexist attitudes about women made important contributions in enhancing the prediction of all three violence dimensions. However, while sexist attitudes were an important predictor for all three dimensions, yet the significance of each psychological variable varied from dimension to dimension. For example, anxious attachment and borderline personality disorder scores were important in explaining partner-intimidation violence, but only anxious and avoidant attachment were important in explaining partner-specific physical violence. Moreover, the interaction between sexist attitudes and anxious attachment was also significant. This significant interaction indicated that anxiously attached men who hold strong sexist attitudes about women are most likely to exhibit relationship violence. Only borderline and antisocial personality disorder scores were important in explaining the general violence pattern. The

finding that both personality disorders were significant predictors of a generally violent pattern encompassing severe violence might reflect the reality that greater levels of psychopathology are associated with more severe relationship violence.

Juxtaposition of the violence patterns observed in this study and previous typology research findings allows for hypotheses regarding the compatibility of patterns and types. The partner-intimidation pattern appears to describe the violence typical of the borderline/dysphoric batterer subtype, whereas the general violence pattern appears to be associated with the generally violent or antisocial batterer subtype that has been identified in batterer typology research (Holtzworth-Munroe et al., 2000; Holtzworth-Munroe & Stuart, 1994). The partner-specific physical violence pattern that actually emerged, however, does not describe the type of violent behavior expected from the family-only batterer. This may be because this study's sample was recruited from court-mandated interventions, whereas past typology research suggesting a family-only batterer type included men recruited from both the community and court-mandated intervention programs. The violent behavior of men recruited from the community is much less violent in comparison to the behavior of men arrested and mandated to a program because of their violence (Holtzworth-Munroe et al.). Another possibility is that men exhibiting partner-specific physical violence may have been psychologically and verbally abusive earlier in their relationship, and later escalated to physical violence when less severe abuse was no longer effective in maintaining power and control over their victim.

The batterer who progresses from less to more severe partner-specific physical violence and the borderline batterer type may be two distinct types. Given that personality disorders were not important in explaining partner-specific physical violence and that personality disorders are stable characteristics not subject to change without intensive psychotherapy, it is unlikely that the borderline batterer who relies on partner-intimidation violence is at a later time the batterer using partner-specific physical violence. Nonetheless, it is conceivable that the anxiously attached batterer who initially

uses partner-intimidation violence for the purpose of gaining control of his victim is the anxiously attached batterer who later exercises partner-specific physical violence when less severe violence has proven ineffective as a control strategy. However, this does not preclude the possibility that the borderline batterer's violence is a progressive phenomenon that escalates from partner-intimidation violence to more severe violence (i.e., general violence pattern) that, although directed predominantly at his partner, may also be directed at others.

Persons exercising partner-specific physical violence reported both anxious and avoidant attachment orientations. Although the partner-specific physical violence of the anxiously attached batterer may be representative of violence that has progressed from less to more severe levels, according to this study's findings, the avoidantly attached batterer never exhibited partner-intimidation violence. As such, the avoidant batterer's partner-specific physical violence is not another level of violence on a more comprehensive continuum of violence, but his only violence modality. Both anxiously and avoidantly attached batterers relying on partner-specific physical violence may use violence to regulate their partner's proximity. Although the anxiously attached batterer may use violence to make his partner fearful of abandoning him, the avoidantly attached batterer may use violence to maintain a proximity with his partner that protects him from potentially painful relationship-related affect (Fuendeling, 1998). Given the effectiveness of partner-specific physical violence in meeting the attachment needs of the avoidant batterer, there is no need to progress to a more severe form of physical violence. Moreover, verbal and psychological abuse may not meet the needs of the avoidantly attached batterer, given that these modes of violence may be ineffective in maintaining his partner in the desired proximity. The verbal and psychological violence of the borderline or anxiously attached batterer is an attempt to keep his partner engaged, but unlike these batterers, the avoidantly attached batterer wants to maintain sufficient emotional distance from his partner (see Gottman et al., 1995).

Moreover, in addition to anxiously attached batterers and avoidantly attached batterers enacting partner-specific physical violence, batterers with a fearful attachment style, which is comprised of both anxious and avoidant attachment dynamics, may also exhibit this pattern of violence. The violence of the fearful batterer is physical and partner-specific and initiated as well as escalated by him. Because his violence is motivated by both fear of abandonment and fear of intimacy, his victim remains unaware of what triggers his violence making her particularly vulnerable to feelings of powerlessness. Thus, the fearful batter's mode of violence is effective in meeting his attachment needs and maintaining control over his partner, and it is unnecessary to escalate violence to a very severe level typical of the generally violent pattern.

Overall, the picture painted by this study's findings is consistent with past typology research. That is, there appear to be subtypes of batterers and at least two of these subtypes are the antisocial, generally violent subtype, and the borderline subtype. Consistent with previous research, this study's findings also suggest that a pattern of violence that is general, severe in intensity, and high in frequency can be explained by the presence of antisocial personality disorder. A pattern of violence that is verbal and psychological in nature but may include some minor physical violence appears to be explained by borderline personality disorder and anxious attachment.

Although anxious attachment may be important in explaining violence expected to be enacted by the borderline batterer because it is the corresponding attachment style of borderline batterers, it is also possible that batterers who are anxiously attached and not borderline use this violence pattern against their partners. However, anxiously attached batterers who did not get their attachment needs met through the use of this violence pattern may escalate their violence to a more severe violence that might prove more effective in getting their attachment needs met. These batterers exhibit no clinical disturbances of self and their violence is always partner specific.

The borderline batterer's violence may also become progressively severe. However, the progression of violence evidenced by the borderline batterer may be qualitatively and quantitatively different from the progression of violence demonstrated by the anxious batterer. Quantitatively, the anxiously attached batterer's most severe violence may never be as severe as the most severe violence enacted by the borderline batterer. Qualitatively, the borderline batterer may only escalate his violence when perceived threats of abandonment become real and he fears he will lose his self due to the loss of his attachment object. At this point of desperation, the borderline batterer may progress to a more severe physical violence against his partner. It may be that this intrapsychic process explains why victims are at a much greater risk for harm and potential murder when they try to leave their batterer. Conceivably, the batterer cannot tolerate abandonment from his attachment object (Kernberg, 1975) and will employ any tactic to ensure that such abandonment does not occur. Moreover, the threat of abandonment may trigger negative affect that the borderline batterer cannot regulate, thus inducing stress that contributes to a more generalized hostility.

Given that the violence of the borderline batterer and anxious batterer are quantitatively and qualitatively different, it is possible that the anxious batterer who is not concurrently borderline represents a distinct batterer subtype. Avoidantly attached batterers may also be a distinct group responsible for initiating and escalating violence in their intimate relationships, and whose violence is limited to a pattern that includes minor and severe physical violence. However, the severity of their violence is not comparable to that of the antisocial batterer or the desperate borderline batterer prior to imminent abandonment by his partner. Finally, fearful batterers with both anxious and avoidant attachment dynamics and corresponding behaviors represent yet another category of batterers. Fearful batterers enact violence in response to fear of abandonment and/or fear of intimacy, and the frequency, intensity, and modality of their violence is always within

the range of partner-specific physical violence. Sexist attitudes about women make significant contributions to all violence patterns, but not in the same direction.

This study's findings contribute to the dialogue among practitioners and researchers in the domestic violence arena regarding whether research documenting types of batterers suggests that there are in fact distinct subtypes of batterers or whether types reflect developmentally progressive phases of relationship violence (Gondolf, 1988). This study's findings imply that there are different batterer types each with a corresponding pattern of violence, and the pattern of violence affiliated with some subtypes might include progression through different stages of violence that advance in severity. Moreover, at varying times, different batterer subtypes may use similar violence patterns.

Implications for Practice and Policy

Present efforts by batterer intervention programs to deter male violence are only moderately effective (Schmidt & Sherman, 1996; Tolman & Edleson, 1995). One explanation for this outcome is that unidimensional conceptualizations of violence are inadequate, and intervention programs founded on these theoretical models cannot successfully decrease recidivism among all types of batterers. In addition, recent empirical support has emerged that interventions founded on unidimensional understandings of violence may not adequately meet the needs of all batter types and that interventions may need to be tailored to accommodate the needs of different batterer types (Saunders, 1996). Given that there may be subtypes of male batterers with different etiologies of violence, different types of interventions may be needed. This study's findings suggest that different theories may be differentially important in understanding the different types of violence enacted by batterers and that interventions modeled on different theories are needed. The effectiveness of batterer intervention may be enhanced if decisions regarding intervention are based on an understanding of the batterer's history of violence and of the factors motivating his violence. The development of less generic

and more perpetrator-specific treatment paradigms may ultimately enhance the efficacy of batterer intervention programs.

One possibility is that different intervention programs can target different types of violence, and decisions regarding which techniques should be used to reduce violent behavior should be motivated by specific etiologic explanations of a particular violence type. For example, whereas some attachment styles may be prone to fear of abandonment, others may be threatened by fear of engulfment.⁹ Expression of unmet attachment needs consequential to these two interpersonal dynamics may be qualitatively distinct. Although both attachment dynamics trigger dysfunctional anger and subsequent violence, the type of violence corresponding with each attachment dynamic enacted by the batterer may be different. Interventions can help the batterer identify external stimuli associated with these dynamics and managing corresponding negative affect. Future research that more specifically explores the nature of associations between fears of abandonment vs. engulfment and violence may have significant implications for batterer interventions.

An intervention strategy contingent upon the pattern of violence exhibited could include separating batterers who are generally violent and more likely to enact severe violence from those batterers who are predominantly psychologically violent. The expectation is that techniques successful in motivating the generally violent batterer to desist violence may not be equally effective with the psychological batterer. Moreover, the effectiveness of intervention programs that simultaneously service these two types of batterers may be limited due to varying levels of motivation to change their violent behavior. For example, the goal of the anxiously attached psychological batterer who uses violence to control his partner's proximity due to his fear of abandonment appears to be relationship security. However, this batterer's hostile, violent tactics to prevent abandonment may actually cause his partner to seek distance from him and reinforce his anxious attachment and fear of abandonment, as well as his need to exercise violence as a

means to gain relationship security with future partners. For this batterer, intervention programs may want to increase awareness of experienced fears of abandonment and skills in constructively addressing this fear with his partner, along with increasing awareness that his current tactics may actually contribute to his feared abandonment. Doing so may lead to increased relationship security and eliminate his need to use violence in response to his fear. The understanding that participation in an intervention program might be self-serving could motivate the psychological batterer to consistently attend sessions and complete his intervention program.

Alternatively, the generally violent batterer whose violence derives from stable antisocial personality characteristics may not benefit from intervention strategies aimed at increasing awareness that interpersonal dynamics might lead to violence and contribute to unwanted relationship patterns. As such, he may experience no motivation to participate in such an intervention program or to change his violent behavior. Unlike the psychological batterer, cessation of violence may not be self-serving for the generally violent batterer. Some practitioners have expressed concern that some batterers are disruptive and impede the progress of other men in the group (Murphy & Dienemann, 1999). It may be that those men who are less motivated for change are disruptive to those men who are motivated for change, and an alternative intervention, such as incarceration, might be more appropriate for the unmotivated, antisocial batterer.

Although some batterers do have personality disorders, a significant number of batterers serviced by court-mandated batterer intervention programs may not. It is reasonable to expect that batterers without personality disorders may be more easily treated than diagnosed batterers and that post-treatment recidivism should be less within the former group. Moreover, although all batterers should be held accountable for their behavior, batterers without pathology may be more easily motivated to desist from violence if they are made to understand that violence will result in criminal sanctions as well as other legal consequences. Incorporating information regarding the certainty of

legal consequences for violence may increase effectiveness of intervention programs for at least some batterers (Tolman, Edleson, & Fendrich, 1996). However, intervention programs should ensure that the legal system has the capacity to follow through with consequences that the batterer can expect in response to his violence before implementing this strategy. Otherwise, the batterer may learn that consequences are less than certain leading him to conclude that the benefits of violence outweigh the costs. Moreover, if battering is planned behavior, policies such as mandatory arrest may be instrumental in decreasing violence against women in our communities.

Implementation of interventions based on the batterer's history of violence and factors motivating his violence would require careful pre-intervention assessment. This assessment should include measures that could inform practitioners regarding the batterer's motivation for violence as well as history of violence. For example, intervention recommendations for batterers with a history of general violence could be different from those recommendations made for batterers with a history of violence that has always been partner-specific. Moreover, batterers evidencing more clinical disturbances of the self (e.g., Axis II diagnoses) might require longer-term intervention and treatment modalities that address these disturbances. However, treatment targeting the pathology should not substitute interventions specifically aimed at cessation of violent behavior against woman, as there are no data supporting the expectation that treating the pathology would result in cessation of violence. Dutton, Bodnarchuk, Kropp, Hart, and Olgoff (1997) found that batterers with some personality disorders, including antisocial and borderline, had the worst post-treatment success in cessation of violence. This finding suggests that treatment targeting both the pathology as well as the batterer's violence may be necessary to achieve the goal of ending relationship violence against women. Moreover, according to Murphy and Dienemann (1997), practitioners have expressed concern that batterers with severe clinical pathology and personality disorders might impede the progress of less pathological batterers, suggesting that intervention

programs combining nonpathological batterers with batterers evidencing clinical pathology is counterproductive.

Conducting comprehensive assessments of men arrested for battering may also have some implications for victims of violence. Specifically, information about the batterer's frequency, severity, and generality of verbal, psychological, and physical violence could inform practitioners working with victims of violence. For example, clinicians working with victims of the antisocial batterer subtype, whose violence is predominantly physical and severe, may need to inform their clients that treatment may not be effective in decreasing recidivism for this batterer subtype. Victims of the generally violent/antisocial batterer may need to be warned that their perpetrator's successful follow through with a court mandated batterer intervention program does not suggest that their relationship will be violence free. Clinicians providing services to victims may want to work more collaboratively with service providers conducting assessments and group therapy with batterers, given that clinical data derived from such assessments and information about the perpetrator's behavior in group could warn victims if the perpetrator is unlikely or unwilling to rehabilitate. Additionally, although typology research suggests that the violence of some batterer subtypes may be less severe than that others, it is critical that findings from typology research not be interpreted as suggesting that only some batterers need intervention. Less severe violence frequently escalates to more severe, and sometimes, lethal violence. Practitioners need to inform victims that their perpetrator's verbal and psychological violence has the potential to escalate to physical violence and ensure victims that this pattern of escalation is beyond their control.

As with current intervention programs, assessment could be court-mandated as the first step of an intervention program, and all treatment programs could equip themselves to satisfy this mandate. Because treatment programs assessing the batterer may not provide the type of intervention needed by the batterer, collaboration between service

providers in a given community and the criminal justice system would be encouraged to ensure appropriate referral. However, prior to implementation of typology-based intervention programs, research exploring which interventions are most effective for eliminating distinct violence patterns is needed.

Because decisions regarding violence intervention are often motivated by legal as well as public policy, theory-driven research on battering can provide useful information for guiding the development of domestic violence related policies. Many states have created domestic violence coalitions comprised of service providers and criminal justice personnel (National Institute of Justice, 1998), and one purpose of these coalitions is to create policies that can guide the responses of the criminal justice system and the treatment community to domestic violence. In some states, these coalitions are responsible for developing state standards that govern batterer intervention programs. Because these standards regulate theoretical perspectives guiding treatment as well as modalities of intervention, it is important that the standards are informed by research. Given that decisions regarding how to intervene with domestic violence are influenced by policy, it is important to continue with lines of inquiry that could be instrumental in shaping such policy.

Limitations

The proposed study has some noteworthy limitations. First, the study's design prohibits statements regarding the causation of battering. Although attachment patterns and/or attitudes toward women may significantly explain variance in battering, it cannot be concluded that attachment and/or attitudes toward women cause battering. Next, the study's design has some inherent threats to external validity. Participants included in this study were self-selected. The self-selection process may bias the sample in a systematic way threatening generalizability of findings. That is, batterers choosing to participate may vary in background characteristics from those choosing not to participate. For example, batterers representative of a lower socio-economic status may have been more

inclined to participate because of the financial incentive. Men included in this sample were also engaged with the criminal justice system, and findings may not generalize to batterers who are not being monitored by the criminal justice system. In addition, studies focusing on batterers generally access samples through court-mandated interventions. Given that these programs do not service batterers who commit felonies, most batterer samples do not generalize to those men who have committed felonies against their female partners.

Another limitation associated with data collection procedures and threatening internal validity is that the self-report nature of the data introduces self-report bias, which is inherent in all survey research. For example, because of their involvement with the criminal justice system, participants may have been cautious about reporting the severity and frequency of enacted violence. In addition, men were asked to report incidents of violence in the 12-month period prior to their arrest or incident motivating their participation in batterer intervention. Participants may not have accurately recalled their history of violence during this 12-month period.

This study also suffers from mono-operation bias in that only one instrument was used to measure each variable. Cook and Campbell (1979) recommend using several measures of each construct to increase the study's validity and reliability. Moreover, self-report data collection as a sampling method is particularly vulnerable to error when used with batterers, given their tendency to underreport violence (Arias & Beach, 1987). Additionally, because all data were collected via self-report and from only one data source, results are subject to mono-method bias. Gathering data through self-report methods alone limit the construct validity of each variable measured (Cook & Campbell).

Additional threats to internal validity introduced through sampling procedures include the following. First, data collection occurred at more than one site. This sampling procedure may have introduced error variance and may have threatened the validity of the findings. Second, the decision to pay men to participate may have been

effective in increasing sample size; however, some men may have chosen to participate due to the financial compensation and may not have been motivated to respond honestly to the questionnaires. Next, the number of participants meeting criteria for antisocial personality disorder was a very small percentage of the sample. Number of participants meeting criteria for borderline personality disorder was also a relatively small percentage of the overall participants. Given the small number of participants in each of these levels of the independent variable, it is possible that Type II error affected this study's findings and that significant differences between the two personality disorder groups went undetected.

The small number of participants meeting criteria for antisocial personality disorder may be reflective of the nature of the sample. That is, intervention programs from which this study's data were collected generally service men that have committed violence categorized as a misdemeanor. Given that antisocial batterers are prone to more severe violence, it may be that these batterers are not serviced by court-mandated intervention programs but by prisons.

Moreover, nineteen percent of the participants met criteria for both antisocial and borderline personality disorders. This phenomenon might be explained by the cross-loading of several items on borderline personality disorder and antisocial personality disorder scales. Another possible explanation for participants meeting criteria for both personality disorders is the PDQ-R's tendency to indicate false positives. The PDQ-R has received support as a dimensional measure of personality disorders. However, given the PDQ-R's tendency to indicate a diagnosis when none exists, use of the instrument as a categorical measure may have been problematic. Future studies categorizing batterers according to personality disorder should use measures that more reliably classify batterers according to specific personality disorders (e.g., MCMI-II; Millon, 1987).

In addition, research has shown that personality disorders other than antisocial and borderline are prevalent among batterers (Flourny & Wilson, 1991; Hamberger &

Hastings, 1988; Murphy et al., 1993). This suggests that batterers in this study who did not meet criteria for antisocial or borderline personality disorder may have met criteria for some other personality disorder. A limitation of this study is that participants were not screened for these additional personality disorders.

Finally, there are some conceptual limitations of this study that are worth noting. First, although conceptualization and operationalization of constructs were guided by theory, patriarchy is a difficult construct to define. In this study, patriarchy was operationalized as sexist attitudes toward women, and data were collected at an individual level. A logical presupposition is that men's endorsement of sexist attitudes in their relationships with women is attributable to patriarchal attitudes inherent in the larger social structure and that men are a product of the patriarchal systems in which they reside. However, it would be presumptuous to infer that this study provides direct support for the significance of sociopolitical explanations. In fact, because feminist understandings of male violence against women are rooted in system-level variables, not individual-level variables, this study is a very limited test of the feminist hypothesis of battering. Future studies should include multiple measures operationalizing patriarchal attitudes at an individual level and/or preferably indices of systemic patriarchy (e.g., women's economic freedom and political freedom). Additionally, if researchers continue to use individual level variables to test the feminist hypothesis because of the difficult nature of operationalizing patriarchy at a systems-level, operationalization of patriarchy should be guided by comprehensive theories of gender role and gender role conflict (O' Neil, Good, & Holmes, 1995). Moreover, research is needed to validate the assumption that individual-level measures of patriarchy and sexism are reflective patriarchal systems.

This study's conceptualizations of battering from an attachment theory perspective are also limited. Specifically, such conceptualizations are often based on the premise that one's attachment style is stable from infancy through adulthood. However, findings regarding stability of attachment style are inconsistent and relatively new (Hazan

& Shaver, 1994). As such, until there is more evidence of the stability of attachment from infancy through adulthood, interpretations that adult insecure attachment predicting male violence toward female partners is linked to early relationships with caregivers should be made with caution. It may be that the insecure attachments of batterers developed as part of relationships in their formative adolescent years, or that insecure attachment, irrespective of its developmental trajectory, is a risk factor for increased anger and violence in relationship to intimate partners.

Directions for Future Research

Additional research exploring the etiology of violence for distinct batterer subtypes is needed. Exploring behavioral, cognitive, and emotional characteristics specific to batterer types is also pertinent. Findings from such studies may ultimately inform clinicians about appropriate interventions. For example, such findings might suggest different types of treatments for batterers who are generally violent versus those whose violence is partner-specific. Moreover, research findings that existing programs for perpetrators have low recruitment and high attrition rates, and may be unsuccessful in reducing recidivism for battering, suggest the need for additional research that can generate insights into advancing intervention with this population (Tolman & Edleson, 1995).

Researchers and practitioners alike (see Murphy & Dienemann, 1999) have advocated for research that randomly assigns different batterers to different treatment approaches (e.g., cognitive-behavioral, psychodynamic), with effectiveness of the different treatment approaches compared across batterer subgroups. Implementation of typology-based intervention programs without such additional research could prove to be less than cost-effective. Additionally, because studies exploring the effectiveness of batterer intervention programs are inconsistent (see National Institute of Justice, 1998), additional outcome studies are needed prior to concluding that current programs are less than effective. Researchers conducting future studies exploring the effectiveness of

batterer intervention programs might also assess whether batterers evidencing pathology desist from violence after completion of batterer intervention programs or whether completion of such programs is insufficient in eliminating violent behaviors. Such studies could provide information regarding the adequacy of current intervention programs for batterers with personality disorders. Moreover, research exploring factors (e.g., reactance, psychological mindedness) that might predict the likelihood that a batterer will successfully complete and/or participate in an intervention program could help conserve resources allocated to batterer intervention.

Debates about whether typology findings suggest distinct batterer subtypes or a homogenous group of batterers progressing through distinct phases of violence indicate the need for research exploring these alternatives. Longitudinal research exploring associations between length of intimate relationship and frequency as well as severity of physical and psychological violence could help answer questions about the validity of batterer subtypes. If such research demonstrated more severe violence and increased injury to the partner with the progression of the relationship, the hypothesis that batterer subtypes reflect a continuum of behaviors would be supported. Also, as suggested by this study's findings, it is possible that there are both subtypes and distinct patterns corresponding to subtypes. Future research attempting to match violence patterns with proposed batterer subtypes could also prove informative in the ongoing debate of batterer subtypes versus progressive stages of violence.

Another potentially important area of future research is longitudinal studies demonstrating the stability of attachment orientations from infancy to adulthood. Explanations of adult intimate relationship violence are borne from expectations that that adults may react to unmet attachment needs as they might have responded to unmet attachment needs in childhood (Hazan & Shaver, 1987). However, given the absence of support for the stability of attachment from infancy through adulthood, interpretations that adult insecure attachment predicting male violence toward female partners is linked

to early relationships with caregivers should be made with caution. In addition, future research that more specifically explores the nature of associations among fears of abandonment or engulfment, violence patterns, batterer subtypes, and attachment orientations should be conducted.

Additional research suggesting links between specific personality disorders and attachment orientations among batterers should be conducted. Such studies could enhance the utility of attachment theory in understanding the developmental trajectories of batter subtypes. Studies that illuminate distinctions between borderline batterers with anxious attachment and anxiously attached batterers who are not borderline are also needed to determine the heterogeneity of these two types of batterers. In addition, given suggested relationships between borderline personality disorder and anxious attachment (Patrick et al., 1994; West et al. 1993) as well as antisocial personality disorder and avoidant attachment (Gacano & Meloy, 1992; Gacano et al., 1992), studies exploring the mediational affects of personality disorders on relationships between attachment and violence as well as studies exploring the mediational affects of attachment on relationships between personality disorders and violence are needed. For example, findings that personality disorders mediate relationships between attachment and violence might emphasize the need for interventions that especially focus on the impact of clinical disturbances on relationship violence.

Finally, some methodological suggestions for future research include the following. First, to date, only one typology study (Holtzworth-Munroe et al., 2000) was located that included a control group to ensure that conclusions about clusters of personality characteristics evidenced by the different types of batterers did not generalize to nonviolent men. Additional typology studies that include control groups comprised of nonviolent men are needed. Second, to obtain richer data, future studies should include multiple measures of constructs included in domestic violence research. For example, including several measures operationalizing patriarchal attitudes at an individual level

and/or preferably indices of systemic patriarchy (e.g., women's economic freedom and political freedom) would enhance the reliability and validity of future studies. Finally, it is essential that future studies have batterer samples that include violent men recruited from the community who have not been arrested, men recruited from batterer intervention programs, and batterers recruited from prison. Given that samples used for most current studies only include recruit men from batterer intervention programs, it is necessary to widen the scope of sources from which batterers are recruited to ensure greater generalizability.

APPENDICES

APPENDIX A

Invitation to Participate in the Study

A graduate student from Michigan State University is conducting a study about men and their relationships with women. This research has nothing to do with court or this treatment program. You must have an 8th grade reading level to participate in this study, and you are only eligible to participate if you do have at least an 8th grade reading level. Total participation for the study itself will take approximately 45 minutes and will be incorporated into next week's session. Total session time for next week may take longer than 45 minutes. Your participation is completely voluntary and involves answering a series of questions. If you chose to participate, you will be given credit for a regularly scheduled class. If you chose not to participate or are not eligible to participate, in no way will you be penalized. If you chose not to participate or are not eligible to participate, you can resume classes in 2 weeks as scheduled. If you are ineligible to participate or chose not to participate and do not want to miss a week's class, you can attend another domestic violence class next week at an alternate time. Once again, to be eligible to participate, you must have an 8th grade reading level. The types of questions you will be asked include how you think, feel, and behave in your relationships with your girlfriend or wife and how you feel about yourself in general. You will not put your name on any of the questionnaires and your answers will remain anonymous. However, if you chose to participate, you may have some face-to-face contact with the graduate student conducting this study.

If you want to participate and have at least an 8th grade reading level, please attend class next week. If you are not interested or don't have the appropriate reading level to participate, you can resume classes in 2 weeks or attend an alternate class next week.

If you have any questions or want additional information, you can contact:

Anne Mauricio
Michigan State University
Department of Counseling, Educational Psychology, and Special Education
Erickson Hall
East Lansing, MI 48864
(517) 355-8508 OR e-mail: maurici1@pilot.msu.edu

APPENDIX B

CONSENT FORM

I am a graduate student at Michigan State University, and I am seeking your participation in a study that will provide information about men and their relationships with women. The project has absolutely nothing to do with court or this treatment program. Your participation is completely voluntary. The project involves answering a series of paper-and-pencil questions, and should take approximately 45 minutes of your time. To be eligible to participate, you must have an 8th grade reading level. The types of questions you will be asked include how you think, feel, and behave in your relationships with your girlfriend(s) or wife and how you feel about yourself in general. For example, you will be asked how much you agree or disagree with statements such as "It bothers me when my partner tells me what to do instead of asking," or "I wish I could have more respect for myself." It is important that you answer all questions as honestly as possible. You will not put your name on any of the questionnaires and your answers will remain anonymous. Your privacy will be protected to the maximum extent allowable by law. If you chose to participate, \$15.00 will be paid either directly to you or toward your balance at this counseling center.

If you want to participate, please stay in the room, and you will be handed a packet of questions to complete. Questionnaires will be completed directly after we review this consent form. Your completed questionnaires will be reviewed to ensure that you have answered all the questions. You will be asked to complete any questions that you may have missed.

Once again, your participation is voluntary. At any time, you may discontinue your participation or chose not to answer specific questions without any penalty to you. A decision not to participate will not negatively affect your current circumstances or limit any future services you might receive. In case you should have any questions about this project, you can contact me at:

Anne Mauricio
Michigan State University
East Lansing, MI 48864
(517) 355-8508 or e-mail: maurici1@pilot.msu.edu

If you have any concerns about how this research was conducted, you can call:
Dr. David Wright at (517) 355-2180.

If you understand the nature of the project and the nature of your participation and consent to participate in this project, please print and sign your name below on both consent forms attached. You will keep one copy for your records and return one copy to me. To protect your anonymity, all consent forms returned to us will be stored separately from any questionnaires that you complete.

Name (Print): _____ Signature: _____

APPENDIX C

Demographic and Background Questionnaire

1. Age _____
2. Ethnic Background: (check one)

Asian	[]
Black	[]
Hispanic	[]
Native American	[]
White	[]
Other (specify) _____	
3. What was the last year of school you **completed**? (Check one)

a.) Less than seventh grade	[]
b.) Junior high school (7th-9th grade)	[]
c.) Some high school (10th-11th grade)	[]
d.) High school graduate or GED	[]
e.) Some college (at least one year)	[]
f.) College graduate	[]
g.) Graduate School	[]
4. Relationship Status:

Married	[]
Divorced	[]
Separated	[]
Single (live with girlfriend)	[]
Single (do not live with girlfriend)	[]
5. Indicate how many significant romantic relationships have you had in the past year and indicate how many months each one lasted?

6. Of the relationships you identified above in #5, indicate the number that you used any minor violence such as hitting, slapping, or pushing?

7. Of the relationships you identified above in #5, indicate the number that you used any severe violence such as burning, choking, or cutting?

8. Have you ever been arrested in your lifetime? (please circle one)
Yes or No
9. If yes, how many times have you been arrested? _____

10. Were you ever arrested for assault in your lifetime? (please circle one)
- Yes or No
11. If yes, how many times have you been arrested for assault? _____
12. How many weeks have you been in group at this treatment center? _____
13. Have you ever been in counseling or group in your lifetime because of being violent toward your girlfriend or wife? (please circle one)
- Yes or No
- 13a. If yes, how many counseling sessions or groups did you attend all together? _____
14. Are you in group now because:
- ☐ The court/probation sent you
- ☐ you chose to come on your own (i.e., you have not been arrested for domestic assault and told by your probation officer, lawyer, prosecutor, or judge to come to group
- ☐ your wife or girlfriend said she'd leave you if you didn't go to counseling
- ☐ other reason (please specify) _____
15. Are you still in a relationship or have contact with and the woman who you were fighting with at the time of your arrest for the assault for which you are now in group? (please circle one)
- Yes or No
- 15a. If no, how many months has it been since you had contact with her? _____
- 15b. If no, why? ☐ She filed a restraining order
- ☐ The judge said I couldn't have contact her
- ☐ Contact with her is against the terms of my probation
- ☐ I wanted to end the relationship
- ☐ She wanted to end the relationship
- ☐ Other (please specify): _____
16. When there has been violence between you and your girlfriend(s) or wife in the past year, how often did you hit, slap, or push first?
- Never ☐
- Once ☐
- A few of the times ☐
- Half of the times ☐
- More than half of the time ☐
- All the time ☐

17. If you have always hit, slap, or push first when there has been violence between you and your girlfriend(s) or wife in the past year, how often does she hit, slap, or push you back?

Never	[]
Once	[]
A few times	[]
Half of the times	[]
More than half of the time	[]
All the time	[]

18. Other than your wife or girlfriend(s), how often have you been violent or been in a physical fight in the past year with: (Check all that apply)

a.) Brother or Sister:	Once	[]
	2 to five times	[]
	6 - 10 times	[]
	More than 10	[]
	Never	[]

b.) Mother or Father:	Once	[]
	2 to five times	[]
	6 - 10 times	[]
	More than 10	[]
	Never	[]

c.) Other relatives	Once	[]
	2 to five times	[]
	6 - 10 times	[]
	More than 10	[]
	Never	[]

d.) Friends	Once	[]
	2 to five times	[]
	6 - 10 times	[]
	More than 10	[]
	Never	[]

e.) Strangers	Once	[]
	2 to five times	[]
	6 - 10 times	[]
	More than 10	[]
	Never	[]

f.) Police Officers	Once	[]
	2 to five times	[]
	6 - 10 times	[]
	More than 10	[]
	Never	[]

g.) Others (please specify) _____

19. When there has been violence between you and your girlfriend(s) or wife in the past year, how often does yelling and/or name calling lead to hitting, slapping, or pushing by you?

Never	[]
Once	[]
A few of the times	[]
Half of the times	[]
More than half of the time	[]
All the time	[]

20. When there has been violence between you and your girlfriend(s) or wife in the past year, how often does yelling and/or name calling lead to more severe violence such as burning, punching, or cutting by you?

Never	[]
Once	[]
A few of the times	[]
Half of the times	[]
More than half of the time	[]
All the time	[]

21. When there has been violence between you and your girlfriend(s) or wife in the past year, how often does hitting, slapping, or pushing lead to more severe violence such as burning, punching, or cutting by you?

Never	[]
Once	[]
A few of the times	[]
Half of the times	[]
More than half of the time	[]
All the time	[]

22. How often have you been physically violent toward your girlfriend or wife NOT because you were fighting with her, but for some other reason?

Never	[]
Once	[]
Twice	[]
3-5 times	[]
6-10 times	[]
11-20 times	[]
more than 20 times	[]

What was that reason(s)?

23. As a result of any of the violence between you and your girlfriend(s) or wife in the past year, how often did she suffer the following injuries?

Mild scratch, small bruise, or swelling:

Never	[]
Once	[]
2 to 5 times	[]
6 to 10 times	[]
More than 10 times	[]

Moderate Injury such as a fracture, minor burn, cut, or large bruise:

Never	[]
Once	[]
2 to 5 times	[]
6 to 10 times	[]
More than 10 times	[]

Severe Injury such as major wounds, severe bleeding or burns, knocked out:

Never	[]
Once	[]
2 to 5 times	[]
6 to 10 times	[]
More than 10 times	[]

24. As a result of any of the violence between you and your girlfriend(s) or wife in the past year, how often did she miss work?

Does not work	[]
Never	[]
Once	[]
2 to 5 times	[]
6 to 10 times	[]
More than 10 times	[]

25. As a result of any of the violence between you and your girlfriend(s) or wife in the past year, how often did she miss her regular activities such as errands, shopping, or family and social activities?

Never	[]
Once	[]
2 to 5 times	[]
6 to 10 times	[]
More than 10 times	[]

26. As a result of any of the violence between you and your girlfriend(s) or wife in the past year, how often did she need go to the hospital?

Never	[]
Once	[]
2 to 5 times	[]
6 to 10 times	[]
More than 10 times	[]

27. As a result of any of the violence between you and your girlfriend(s) or wife in the past year, how often did she need any medical attention?

Never	[]
Once	[]
2 to 5 times	[]
6 to 10 times	[]
More than 10 times	[]

APPENDIX D

Basic Reading Inventory

Directions: Please read the following passage. Then, answer the corresponding questions. It is very important that you do not leave any questions blank.

Our Environment

Besides using plants and animals for food, people use the hides of animals for shoes, the wood from trees to build houses, the fiber from the cotton plant to make skirts and shirts, and the wool from sheep to make suits and coats. Even the synthetic fibers that people use are made from matter found in the environment.

People and the environment are interdependent, but that is not the whole story. Modern people can do much more; they can use science and technology to change their environment. Because of their advanced brains, people can investigate and use their precious environment.

Questions

1. What is this passage about? _____

2. What do modern people use to change the environment? _____

3. Why are people able to investigate their environment? _____

4. What are synthetic fibers made from? _____

5. What are some things in the environment that people use? _____

6. What does the passage say people use to make skirts and shirts? _____

7. What reasons could you give for why our environment is precious? _____

8. What are some of the ways in which people have changed their environment? _____

9. Do you think that it is a good thing for people to change their environment? Why? _____

10. What does synthetic mean? _____

APPENDIX E

Personality Diagnostic Questionnaire – Revised Borderline Personality Disorder Scale

Directions: The purpose of this questionnaire is for you to describe the kind of person that you are. When answering the questions, think about how you have tended to feel, think, and act over the past several years. Please Circle T for true or F for False.

- | | | | |
|------|---|---|---|
| 1a. | My feelings towards another person can often change drastically. | T | F |
| 1b. | People that I have worshipped have often ended up disappointing me. | T | F |
| 3. | I am a moody person. | T | F |
| 4a. | I rarely get so angry that I lose control. | T | F |
| 4b. | I have gotten into more real, physical fights than most people. | T | F |
| 5a. | I have never threatened to kill myself. | T | F |
| 5b. | I often hurt myself accidentally. | T | F |
| 6a. | My friends, my goals, or my beliefs are always changing. | T | F |
| 6b. | I have had more than my share of identity crises. | T | F |
| 7. | I feel empty or bored much of the time. | T | F |
| 8. | If I know a relationship is going to end, I'll let it end peacefully. | T | F |
| 2./2 | I have done things on impulse (such as those below) that can get me into trouble. | T | F |

Check all those that apply to you:

- | | | |
|----|---------------------------------------|-------|
| a. | Spending more money than I have | _____ |
| b. | Having sex with people I hardly know. | _____ |
| c. | Drinking too much. | _____ |
| d. | Taking drugs. | _____ |
| e. | Eating binges. | _____ |
| f. | Shoplifting. | _____ |

APPENDIX F

Personality Diagnostic Questionnaire – Revised Antisocial Personality Disorder Scale

Directions: The purpose of this questionnaire is for you to describe the kind of person that you are. When answering the questions, think about how you have tended to feel, think, and act over the past several years. Please Circle T for true or F for False.

- | | | | |
|------|--|---|---|
| 1. | I have no trouble keeping jobs or staying in school. | T | F |
| 2. | I have been in trouble with the law several times
(or would have been if I had been caught). | T | F |
| 3b. | I have beaten my wife, or kids when I felt that they deserved it. | T | F |
| 4. | I have often just not paid my bills. | T | F |
| 5. | Some people consider me a drifter. | T | F |
| 6. | Lying comes easily to me and I often do it. | T | F |
| 7. | I drive pretty well even if I have been drinking. | T | F |
| 8. | Other people have felt that I have not taken proper care of my children. | T | F |
| 9. | I am the kind of person who stays in a relationship (with a spouse, lover, etc.) for a long time. | T | F |
| 10. | I don't care if other people get hurt so long as I get what I want. | T | F |
| B/3. | When I was a kid (before age 15), I was somewhat of a juvenile delinquent, doing some of the things below:
Check all those that apply to you: | T | F |

- | | | |
|----|--|-------|
| a. | I skipped school alot. | <hr/> |
| b. | I ran away from home overnight more than once. | <hr/> |
| c. | I used to start fights with other kids. | <hr/> |
| d. | I used a weapon in fights more than once. | <hr/> |
| e. | I forced someone to have sex with me. | <hr/> |
| f. | I was physically cruel to people. | <hr/> |
| g. | I was physically cruel to animals. | <hr/> |
| h. | I broke windows or destroyed property. | <hr/> |
| i. | I set fires. | <hr/> |
| j. | I lied alot. | <hr/> |
| k. | I cheated other people. | <hr/> |
| l. | I robbed or mugged people. | <hr/> |

APPENDIX G

Experiences in Close Relationships

Directions: The following statements concern how you feel in romantic relationships. I am interested in how you generally experience relationships, not just in what is happening in a current relationship. Respond to each statement by indicating how much you agree or disagree with it. Write the number in the space provided, using the following rating scale:

Disagree Strongly	Neutral/Mixed	Agree Strongly
1	2 3 4 5	6 7
1.	I prefer not to show a partner how I feel deep down.	_____
2.	I worry about being abandoned.	_____
3.	I am very comfortable being close to romantic partners.	_____
4.	I worry alot about my relationships.	_____
5.	Just when my partner starts to get close to me I find myself pulling away.	_____
6.	I worry that romantic partners won't care about me as much as I care about them.	_____
7.	I get uncomfortable when a romantic partner wants to be very close.	_____
8.	I worry a fair amount about losing my partner.	_____
9.	I don't feel comfortable opening up to romantic partners.	_____
10.	I often wish that my partners feelings for me were as strong as my own feelings for her.	_____
11.	I want to get close to my partner, but I keep pulling back.	_____
12.	I often want to merge completely with romantic partners, and this sometimes scares me.	_____
13.	I am nervous when partners get too close to me.	_____
14.	I worry about being alone.	_____
15.	I feel comfortable sharing my private thoughts and feelings with my partner.	_____
16.	My desire to be very close sometimes scares people away.	_____
17.	I try to avoid getting too close to my partner.	_____
18.	I need a lot of reassurance that I am loved by my partner.	_____
19.	I find it relatively easy to get close to my partner.	_____
20.	Sometimes I feel that I force my partners to show more feeling, more commitment.	_____

Disagree Strongly		Neutral/Mixed			Agree Strongly	
1	2	3	4	5	6	7
21.	I find it difficult to allow myself to depend on romantic partners.				_____	
22.	I do not often worry about being abandoned.				_____	
23.	I prefer not to be too close to romantic partners.				_____	
24.	If I can't get my partner to show interest in me, I get upset or angry.				_____	
25.	I tell my partner just about everything.				_____	
26.	I find that my partner(s) don't want to get as close as I would like.				_____	
27.	I usually discuss my problems and concerns with my partner.				_____	
28.	When I am not involved in a relationship, I feel somewhat anxious and insecure.				_____	
29.	I feel comfortable depending on romantic partners.				_____	
30.	I get frustrated when my partner is not around as much as I would like.				_____	
31.	I don't mind asking romantic partners for comfort, advice, or help.				_____	
32.	I get frustrated if romantic partners are not available when I need them.				_____	
33.	It helps to turn to my romantic partner in times of need.				_____	
34.	When romantic partners disapprove of me, I feel really bad about myself.				_____	
35.	I turn to my partner for many things, including comfort and reassurance.				_____	
36.	I resent it when my partner spends time away from me.				_____	

APPENDIX H

Attitudes Toward Women Scale

Directions: The statements listed below describe attitudes toward the roles of women in society which different people have. There are no right or wrong answers, only opinions. You are asked to express your feelings about each statement by circling a letter to indicate your opinion.

A = Agree Strongly,
B = Mildly Agree
C = Disagree Mildly
D = Disagree Strongly.

- | | | | | | |
|-----|--|---|---|---|---|
| 1. | Swearing and obscenity are more repulsive in the speech of a woman than a man. | A | B | C | D |
| 2. | Under modern economic conditions with women being active outside the home, men should share in household tasks such as washing dishes and doing laundry. | A | B | C | D |
| 3. | It is insulting to women to have the "obey" clause remain in the marriage service. | A | B | C | D |
| 4. | A woman should be as free as a man to propose marriage. | A | B | C | D |
| 5. | Women should worry less about their rights and more about becoming good wives and mothers. | A | B | C | D |
| 6. | Women should assume their rightful place in business and all the professions along with men. | A | B | C | D |
| 7. | A woman should not expect to go to exactly the same places or have quite the same freedom of action as a man. | A | B | C | D |
| 8. | It is ridiculous for a women to run a locomotive and a man to darn socks. | A | B | C | D |
| 9. | The intellectual leadership of a community should be largely in the hands of men. | A | B | C | D |
| 10. | Women should be given equal opportunity with men for apprenticeship in the various trades. | A | B | C | D |
| 11. | Women earning as much as their dates should bear equally the expense when they go out together. | A | B | C | D |
| 12. | Sons in a family should be given more encouragement to go to college than daughters. | A | B | C | D |
| 13. | In general, the father should have greater authority than the mother in the bringing up of children. | A | B | C | D |

- | | | |
|-----|---|---------------|
| 14. | Economic and social freedom is worth far more to women than acceptance of the ideal of femininity which has been set up by men. | A B C D |
| 15. | There are many jobs in which men should be given preference over women in being hired or promoted. | A B C D |

APPENDIX I

FOR THE NEXT FIVE QUESTIONS PLEASE RESPOND USING THE FOLLOWING SCALE:

1 = Agree Strongly,
2 = Mildly Agree
3 = Mildly Disagree
4 = Disagree Strongly.

- | | | | | | |
|----|--|---|---|---|---|
| 1. | The only way to get my needs met in my relationships with my girlfriend(s) or wife is to threaten to hit, slap, or push her. | 1 | 2 | 3 | 4 |
| 2. | Sometimes its necessary to threaten to hit, slap, or push my girlfriend(s) or wife to get the relationship, or household, to run smoothly. | 1 | 2 | 3 | 4 |
| 3. | The worst thing in a relationship is if a woman is afraid of a man. | 1 | 2 | 3 | 4 |
| 4. | Threatening to hit, slap, or push my girlfriend(s) or wife helps the relationship run smoothly. | 1 | 2 | 3 | 4 |
| 5. | I don't get the respect that I deserve from my girlfriend(s) or wife unless I threaten to hit, slap, or push her. | 1 | 2 | 3 | 4 |

APPENDIX J

Conflict Tactics Scale

Directions: It is normal for couples to have conflicts. There are a lot of different things that you can do when you have conflict or disagreement with your partner. We would like you to try and remember what went on during the past year when you had disagreements. Please circle a number for each of the things listed below to show how often you did it IN YEAR BEFORE YOUR ARREST FOR WHICH YOU ARE NOW IN GROUP.

0 = Never
 1 = Once
 2 = Twice
 3 = 3-5 times
 4 = 6 - 10 times
 5 = 11-20 times
 6 = more than 20

- | | | | | | | | | |
|-----|--|---|---|---|---|---|---|---|
| 1. | Discussed an issue calmly: | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 2. | Got information to back up my side of things: | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 3. | Brought in or tried to bring in someone to help settle things: | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 4. | Insulted or swore at her: | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 5. | Sulked or refused to talk about an issue: | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 6. | Stomped out of the room or house or yard: | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 7. | Did or said something to spite her: | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 8. | Cried: | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 9. | Threatened to hit or throw something at her: | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 10. | Threw, smashed, hit, or kicked something: | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 11. | Threw something at her: | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 12. | Pushed, grabbed, or shoved her: | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 13. | Slapped her: | 0 | 1 | 2 | 3 | 4 | 5 | 6 |

- | | | | | | | | | |
|-----|---|---|---|---|---|---|---|---|
| 14. | Kicked, bit, or hit her with a fist: | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 15. | Hit or tried to hit her with something: | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 16. | Beat her up: | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 17. | Choked her: | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 18. | Threatened her with a knife or gun: | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 19. | Used a knife or fired a gun: | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 20. | Forced your partner to have sex with you or someone else: | 0 | 1 | 2 | 3 | 4 | 5 | 6 |
| 21. | Have you been violent toward your wife or girlfriend(s) in the past year in anyway not mentioned above? | | | | | | | |

Yes ☐ No ☐

If yes, please explain: _____

How often have you been violent in this way?

Once	<input type="checkbox"/>
Twice	<input type="checkbox"/>
3-5 times	<input type="checkbox"/>
6-10 times	<input type="checkbox"/>
11-20 times	<input type="checkbox"/>
more than 20 times	<input type="checkbox"/>

APPENDIX K

Psychological Maltreatment against Women Scale

Directions: This questionnaire asks about actions you may have taken in your relationship with your partner. Answer each item as carefully as you can by placing a number beside each one as follows:

- 1 = Never
- 2 = Rarely
- 3 = Occasionally
- 4 = Frequently
- 5 = Very Frequently

IN THE SIX MONTHS BEFORE MY ARREST FOR WHICH I AM NOW IN GROUP:

1. I called my partner names. _____
2. I swore at my partner. _____
3. I yelled and screamed at my partner. _____
4. I treated my partner like an inferior. _____
5. I monitored my partner's time and made her account for her whereabouts. _____
6. I used my partner's money or made important financial decisions without talking to her about it. _____
7. I was jealous or suspicious of her friends. _____
8. I accused my partner of having an affair with another man. _____
9. I interfered in my partner's relationships with other family members. _____
10. My partner tried to keep me from doing things to help myself. _____
11. I restricted my partner's use of the telephone. _____
12. I told my partner her feelings were irrational or crazy. _____
13. I blamed my partner for my problems. _____
14. I tried to make my partner feel crazy. _____

APPENDIX L

Social Desirability Scale

Directions: For each of the following statements, please indicate your feelings by placing a number in the blank before the statement. Use the following list of choices.

- 1 = Strongly Agree
- 2 = Agree
- 3 = Mildly Agree
- 4 = Neither Agree nor Disagree
- 5 = Mildly Disagree
- 6 = Disagree
- 7 = Strongly Disagree

1. No matter who I am talking to, I am always a good listener. _____
2. I have sometimes taken unfair advantage of another person. _____
3. I am always courteous, even to people who are disagreeable. _____
4. I sometimes try to get even, rather than forgive and forget. _____
5. I am quick to admit making a mistake. _____
6. I sometimes feel resentful when I don't get my own way. _____
7. I am always willing to admit making a mistake. _____
8. There have been occasions when I have taken advantage of someone. _____
9. I would never think of letting someone else be punished for my wrongdoing. _____
10. At times, I have wished that something bad would happen to someone I disliked. _____

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