Predictors of premilitary courtship violence in a Navy recruit sample

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Abstract:

Research on intimate partner (IP) aggression was extended to premilitary experiences of IP violence among U.S. Navy recruits. Riggs and O'Leary's (1989) model of courtship aggression was examined separately for men ($N = 1,307$) and women ($N = 1,477$). A test was conducted of the model using participant gender along with the significant variables from the initial analyses and the interaction of gender with each of these variables. Situational components explained more variance that did the background components. For women and men, the amount of variance accounted for was almost tripled after the addition of the situational factors. Partner aggression contributed to a substantial increase in the amount of variance. Partner's verbal aggression was the single best predictor of aggression, and partner's physical aggression was the second-best predictor. The situational component substantially increased the predictive power of the model. The results support the validity of the Riggs and O'Leary model.

Keywords: intimate partner violence | gender | aggression | dating violence

Article:

Courtship violence has been the focus of numerous studies since O'Leary and colleagues (1989) found that premarital aggression is a strong predictor of marital aggression (Clark, Beckett, Wells, & Dungee-Anderson, 1994; Laner, 1990; Miller & Simpson, 1991; O'Leary, Malone, & Tyree, 1994; Riggs & O'Leary, 1996; Rouse, 1991; Ryan, 1995; Stickel & Ellis, 1993; Thompson, 1991; Tontodonato & Crew, 1991). The premise of many of these studies is that dating during the adolescent and young adult years provides a training ground for behavior in subsequent long-term relationships. Other studies have documented the extent of verbal and physical aggression occurring in intimate relationships in samples as varied as high school students (Roscoe & Kelsey, 1986), college students (White & Koss, 1991), marital partners (Straus & Gelles, 1990), and military recruits (Merrill, Hervig, Milner, & Newell, 1998). Despite methodological variations, this body of research con firms the serious nature of interpersonal violence in intimate relationships. The research suggests that both women and men inflict and sustain verbal and physical partner violence and that verbal aggression is more common than physical aggression. Furthermore, although women may be more likely than men to self-report being aggressive, male intimate partners (IPs) inflict more serious injury, both physically and psychologically, on their female IPs (see White, Smith, Koss, & Figueredo, 2000, for a

discussion of this issue). Furthermore, the research has suggested a cyclical and reciprocal pattern of involvement in intimate violence, which indicates that verbal aggression often escalates to physical aggression and, when one partner aggresses, the other partner is more likely to aggress.

A primary goal of the present study was to examine predictors of premilitary IP violence experiences (experiences from age 14 to time of entry into the Navy) of male and female U.S. Navy recruits using the theoretical model of courtship violence developed by Riggs and O'Leary (1989, 1996) and tested with college students. The present article offers an important extension of research on courtship violence. Although recruits are more ethnically, economically, and educationally diverse than college students, they have the same elevated prevalence of violence as college students, and military personnel may be at increased risk of involvement in violent relationships during their military service. Their premilitary histories of IP violence will be helpful in understanding this risk.

In comparison to an overall mean prevalence for IP violence of 28% (Sugarman & Hotaling, 1989), the prevalence of courtship violence among Navy recruits is at the high end of the range typically found in college student samples (Merrill et al., 1998). Merrill et al. found that 50% of the recruits reported involvement with IP physical violence-as victim, perpetrator, or both-as defined by the physical violence subscale of the Conflict Tactics Scales (CTS) (Straus, 1990). Furthermore, more women (47%) than men (32%) reported inflicting physical aggression at least once, whereas more men (43%) than women (40%) reported at least one instance of receiving physical violence. However, more women (25%) than men (9%) reported physical injury as a result of IP violence.

Riggs and O'Leary (1989, 1996) developed a comprehensive model of courtship violence that consists of two components. The first component is composed of background factors that they hypothesized to be causally related to courtship aggression. These factors include the observation of interparental physical aggression and the receipt of childhood physical abuse, which provide the primary source for the early modeling of aggression and contribute to the establishment of a pattern of aggressive behavior. Early childhood experiences also contribute to attitudes accepting of aggression and to the development of impulsive, aggressive personality styles. The second component consists of situational factors and includes relationship characteristics (e.g., relationship satisfaction and communication patterns), expectations about the outcome of aggression, stress, alcohol use, and partner's use of aggression. Situational factors increase the likelihood of conflict in relationships, which in turn increases the likelihood that verbal and/or physical aggression will be used to resolve the conflict. Situational factors can also be considered proximal factors and may include, but are not restricted to, features of the specific situation in which the violence occurs.

Riggs and O'Leary (1996) found that their model accounted for more than 60% of the variance in male courtship aggression but only 32% of the variance in female courtship violence. They did not report the variance accounted for by the background and situational components separately. They found that the paths leading to these components were somewhat different for women and men. For both, aggressive attitudes, conflict with one's partner, and a pattern of aggressive behavior predicted courtship aggression. For men, witnessing parental aggression led to

aggressive attitudes, and experiencing child abuse led to a pattern of aggressive behavior, whereas for women, both witnessing parental aggression and experiencing child abuse led to IP aggression. O'Leary et al. (1994) suggested that personal history might be more important for women than for men, with an impulsive/defensive personality being directly related to IP physical aggression. On the other hand, they suggested that for men, verbal aggression mediates the relationship between an aggressive/defensive personality and physical aggression toward one's partner.

Riggs and O'Leary (1996) suggested that additional factors, including alcohol use and partner's level of aggression, should be specified in future models. The role of partner's aggression was based on the assumption that women's IP aggression may more often be a defensive response to their partner's aggression than is men's aggression. Although they hypothesized partner aggression in their 1989 model, they did not include it in their 1996 study. White and Humphrey (1994b) found support for the use of partner's aggressive behavior as a predictor of IP aggression. They conceptualized partner aggression as an indicator of victimization and found that sexual and nonsexual victimization by a dating partner during adolescence was a significant predictor of college women's verbal and physical aggression toward a romantic partner. The role of partner aggression in male IP violence has not been tested because neither White and Humphrey (1994b) nor any other study has included a sample of men. Similarly, Riggs and O'Leary proposed, but did not include, a measure of alcohol use in their 1996 study. A substantial body of research has established significant links between alcohol use and aggression (see Baron & Richardson, 1994, for a summary). Several studies have suggested this link in courtship violence (Comins, 1984; Makepeace, 1981), acquaintance sexual assault (Hammock & Richardson, 1992; Humphrey & White, 1992; Koss & Gaines, 1993), and domestic violence (Leonard & Senchak, 1996). Alcohol may serve several functions, including being a disinhibitor for aggressive behavior. Alcohol also is related to victimization because it places women in an environment in which they are situationally accessible to men whose aggression has been primed by alcohol (Testa & Collins, 1997).

The purpose of the present study was to extend research on courtship aggression by examining the generalizability of the Riggs and O'Leary (1989) model to premilitary experiences of courtship violence among male and female U.S. Navy recruits. Although the overall levels of endorsing IP violence have been found to be similar for women and men, outcomes appear to be different. This suggests that the behavior may serve different ends and hold different meanings for women and men. This indicates a need to examine the Riggs and O'Leary (1989) model of courtship aggression separately for men and women. Thus, we examined the Riggs and O'Leary model separately for women and men, adding the situational components of partner verbal, physical, and sexual (for women only) aggression and alcohol use as additional predictors of courtship aggression. Second, to examine gender-specific effects, we conducted a test of the model using participant gender along with the significant variables from the initial analyses and the interaction of gender with each of these variables.

METHOD

Participants

About 93% of the male (N = 1,885) and 90% of the female (N = 1,891) U.S. Navy recruits stationed at the Recruit Training Command (RTC), Orlando, Florida (from January to March 1994 for men, and January to April 1994 for women), volunteered to complete an anonymous self-report survey. Some recruits were unavailable to participate because they were engaged in other testing or training. In addition, 461 men and 333 women were removed from the final sample because they had incomplete protocols, and 117 men and 81 women were removed because their protocols were deemed invalid.[1] The final sample consisted of 1,307 men, who averaged 20.2 years old (SD = 2.2), and 1,477 women, who averaged 20.1 years old (SD = 2.4). Most participants were single (85% of the women; 91 % of the men) and high school graduates (54% of the women and men), although a substantial minority had at least some advanced training (39% of the women; 38% of the men). The majority of the sample was Caucasian (63% of the women; 72% of the men), followed by Black (23% of the women; 16% of the men). Other ethnicities represented were Hispanic (7% women, 8% men), Asian American (3% men and women), Native American (1.8% women, 1.2% men), and others (2.3% women, 1.2% men). Family income ranged from less than $15,000 (26% for women, 20% for men) to more than $50,000 (14% for women, 22% for men), with the modal range for women being $25,001 to $35,000 (21 %) and for men, $35,001 to $50,000.

No differences based on age or family income were found between respondents who had complete or incomplete data. Married women were more likely to complete the survey than were other women. As is typically found in survey research, complete data were more likely to be contributed by those of higher education and nonminority ethnicity (the effect size for each was small). See Merrill et al. (1998) for an additional description of the sample.

Test Instruments

Predictors

Demographic questions. This portion of the survey contained items related to age, ethnicity, marital status, number of children, educational level, parents' income during the previous year, and geographic location of primary childhood residence. For data analysis purposes, age, educational level, and parents' income were treated as continuous variables. Participants' sex and marital status (single or not, which included cohabiting, separated, divorced, or widowed) were treated as dichotomous variables. Effects coding was used for ethnicity according to the guidelines recommended by Cohen and Cohen (1983).

Background Component

Child abuse. Three variables assessed the child abuse construct: witnessed interparental aggression, experienced parental aggression, and childhood sexual abuse. To assess witnessing of interparental aggression, respondents were asked how many times while they were growing up they had observed one of their parents or stepparents delivering physical blows (i.e., hitting, kicking, throwing the partner down) to the other. Six response options were available: *never, once or twice, 3 to 5 times, 6 to 10 times, 11 to 20 times,* or *more than 20 times* (from Koss, Gidycz, & Wisniewski, 1987). Because of the highly skewed response distribution (modal

response was zero), participants' responses were dichotomized as *never witnessing* or *ever witnessing* (20% of men and 31 % of women witnessed parental aggression) for our analyses.

The Parent-Child (PC) version of the Conflict Tactics Scales (CTS-PC) (Straus, 1990, p. 33) was administered to assess experiencing parental aggression. The present study included verbal aggression (six items, such as "insulted or swore at you"; in this study, alpha = .83 for men, .84 for women) and physical aggression (nine items, such as "pushed, grabbed, or shoved you"; alpha = .83 for men, .86 for women). Each response was summed across the items within the two subscales to obtain total subscale scores (Straus, 1990, p. 36). The respective means for men and women were, for verbal aggression, 13.3 (*SD*= 9.1) and 14.1 (*SD*= 9.8) and, for physical aggression, 6.8 (*SD*= 8.2) and 7.6 (*SD*= 9.3).

Childhood sexual abuse was considered as occurring if a respondent reported any sexual experience (genital exposure, fondling, attempted or completed intercourse) that occurred before the age of 14 with a person at least 5 years older, or with someone less than 5 years older if the activity involved use of authority, bribes, threats of force, or force. Because of the skewed distributions, participants' responses were dichotomized as *never happening* or *ever happening* (31 % of the women and 13% of the men reported childhood sexual abuse).

Attitudes accepting of aggression. The Hostility Toward Women Scale (HTW) (Check, 1984, alpha = .80) was administered to male participants. Malamuth and colleagues found that a strong relationship existed between hostility toward women, attitudes accepting of aggression, and violence toward women (Malamuth, Heavey, & Linz, 1993; Malamuth, Linz, Heavey, Barnes, & Acker, 1995). Therefore, we concluded that HTW was a reasonable measure to capture the intent of the attitudes accepting of aggression construct. Furthermore, in the present sample, the HTW measure correlated significantly with two individual items that inquired about the frequency of starting fights and arguments when angry (these items were not included in the present analyses because we had no information on their reliability as individual items). The same scale was used for female participants, but the wording was changed to reflect hostility toward men (HTM) (alpha= .79). Newell and Merrill (1996) reported data on the HTW and HTM that support their validity as measures of attitudes accepting of aggression. They also found a significant relationship, for women, between the acceptance of inter personal violence and hostility toward men (see Cowan, Neighbors, DeLaMoreaux, & Behnke, 1998, for additional information on HTW).

Angry/impulsive personality. Riggs and O'Leary (1989, 1996) postulated that one consequence of early experiences with family violence is an angry/impulsive personality. To capture this construct we used the Anger/Irritability (AI) subscale (alpha = .88 for men, .89 for women) of the Trauma Symptom Inventory (TSI) (Briere, 1995). This subscale assesses the extent to which respondents report experiencing angry mood and irritable affect within the previous 6 months.[2]

Prior aggressive behavior. Prior use of aggression was assessed using the Tension Reduction Behavior (TRB) subscale of the TSI (in the present study, alpha = .76 for men and .77 for women). This subscale assesses the extent to which respondents tend to externalize distress by harming themselves or others, especially by acting out negative affect in the previous 6 months (see note 2). In addition, male respondents completed the Sexual Experiences Survey (SES)

(Koss et al., 1987) to assess the extent and type of sexual aggression they had directed toward women after the age of 14. The SES classifies each male respondent into one of five mutually exclusive categories: no sexual aggression (59%), unwanted sexual contact (16%), verbally coerced sexual intercourse (8%), attempted rape (4%), or rape (11 %) according to the most serious form of sexual aggression reported.

Situational Component

Victimization by partner. A form of the CTS that asked how often each of the behaviors by one's IP had been directed toward the respondent was used to assess victimization experiences (Straus, 1990). We used two subscale scores, for verbal aggression (alpha = .83 for men, .82 for women) and physical violence (alpha = .88 for men, .91 for women).[3] About 85% of the men and 86% of the women reported being the target of verbal aggression; the mean number of verbally aggressive acts reported was 6.2 (*SD*= 5.2) for men and 6.4 (*SD*= 5.5) for women. About 43% of the men and 40% of the women experienced at least one instance of IP physical aggression; the mean number of acts of physical aggression was 2.5 (*SD*= 4.6) for men and 2.5 (*SD*= 5.2) for women. In addition, the SES (Koss et al., 1987) was administered to women, asking them whether they had experienced any of several types of unwanted, coerced, or forced sexual contact. Based on the most serious forms of sexual aggression experienced, women were placed into one of five mutually exclusive categories: no sexual assault (28%), unwanted sexual contact (22%), verbally coerced sexual intercourse (10%), attempted rape (12%), or rape (28%).

Alcohol problems and use. The 25-item Michigan Alcoholism Screening Test (MAST) (Selzer, 1971) was used to measure participants' problems with alcohol (alpha = .76 for men, .68 for women). Alcohol use was assessed by computing a dose/frequency index (White & Humphrey, 1994a). This measure is the cross-product of responses to items asking about the frequency of drinking and the quantity of alcohol consumed on a typical drinking occasion. Correlations between frequency and quantity were .58 for men and .57 for women. Correlations between the index score and the frequency and quantity measures ranged from .83 to .89.

Outcome Measures

IP violence. The verbal aggression (alpha = .82 for men, .82 for women) and physical violence (alpha = .88 for men, .88 for women) subscales of the CTS were used as measures of IP violence (Form A; Straus, 1979, p. 87). About 83% of the men and 88% of the women reported using verbal aggression. The mean number of verbal aggressive acts was 5.5 (*SD* = 1.3) for men and 6.5 (*SD* = 5.3) for women. About 32% of the men and 47% of the women reported using physical violence. The mean number of physically violent acts was 1.3 (*SD* = 3.2) for men and 2.6 (*SD* = 4.7) for women. A substantial subset of women (46%) and men (31%) reported being verbally and physically aggressive toward IPs, and of those who were physically aggressive, 97% of the women and 96% of the men also reported being verbally aggressive.[3] Because of the substantial co-occurrence of verbal and physical aggression in women (*r* = .67) and in men (*r* = .50), we created a composite score based on the sum of the verbal and physical aggression subscale scores.[4]

Procedure

The items analyzed in the present study were administered as part of a larger survey offered to Navy recruits during their first week at RTC. Two U.S. Navy hospital corpsmen (one man and one woman) who were experienced psychological technicians administered the survey in a classroom setting. The technicians read a description of the study and gave the recruits who agreed to participate a detailed description of the study, a Privacy Act statement, and an informed consent form. Recruits were told that participation was voluntary, that they could skip questions, that they could stop at any time, and that professional counseling was available, on request, if any part of the survey caused them distress.

RESULTS

Overview of Analyses

First, zero-order correlations between all variables were examined for colinearity; no correlation exceeded .69 for women and .75 for men (see Mason & Perreault, 1991). Then, to test the Riggs and O'Leary (1989) model, a blockwise hierarchical regression analysis was conducted to predict IP violence. This analysis permits the entering of blocks of variables in a specified order, whereas order of variables within blocks is not specified. The background component of the model consisted of five blocks of variables, entered in the following order: demographic factors (age, gender, ethnicity, marital status, educational level, and family income).[5] child abuse (witnessing interparental aggression, experiencing verbal and physical parental aggression), attitudes accepting of aggression (HTW for men, HTM for women), anger/irritability personality (Al), and past aggressive behavior (TRB). The situational component of the model contained two blocks of variables, with partner's verbal and physical aggression entered as the next to the last block and the MAST scores and the alcohol dose frequency/quantity index entered as the last block. Alpha was set at .01 because of the likelihood that the large sample size would render many trivial effects statistically significant in the regression analyses. In addition, any factor accounting for less than 1% of the unique variance, based on a squared partial correlation, was considered trivial in the interpretation of data, even if statistically significant.

Because gender-related patterns of IP violence were of particular theoretical interest, comparable analyses were conducted separately for men and women. Adolescent experiences with sexual assault, assessed via the SES categories, were added to the partner's behavior block for women. For men, self-reports of sexual aggression, assessed via the SES, were added to the past behaviors block. To further examine gender-specific effects, two additional analyses were completed. First, each significant predictor in the regression analyses of the male and female data was identified and its corresponding beta (β) weight and confidence interval (CI,± 1.96) were compared. An overlap indicated no difference between men and women for that variable. Nonoverlapping variables suggested a gender effect. A regression analysis using gender, each significant predictor, and each interaction term (Gender × Predictor) was performed (see Table 1).

Table 1. Summary of Blockwise Hierarchical Regression Analysis

	Multiple *R*	R^2	SR^2	R^2ch	Estimate Coefficient in Equation
Male					
Block 1 to 5: Background	.51	.25		.25	
Block 6: Situational	.82	.67		.42	
Verbal aggression			.26		.63
Physical aggression			.07		.32
MAST			.03		.12
Sexually aggressive			.02		.50
Anger/irritability			.03		.15
Hostility Toward Women			.01		.16
Female					
Block 1 to 5: Background	.44	.18		.18	
Block 6: Situational	.74	.55		.37	
Verbal aggression			.24		.83
Physical aggression			.04		.33
Anger/irritability			.03		.22

Note: MAST = Michigan Alcoholism Screening Test

Analyses by Gender

Men. The background component of the blockwise hierarchical regression analysis resulted in $R = .51$, $p < .001$, 25% of the adjusted variance. *R* increased to .82, 67% of the adjusted variance, after the situational components were added to the model. All steps resulted in significant increments in the value of *R.* Partner's verbal aggression was the best predictor ($sr^2 = .26$, β = .63), followed by partner's physically aggressive behavior ($sr^2 = .07$, β = .32). Also statistically significant were alcohol problems (MAST scores: $sr^2 = .03$, β = .12), past sexually aggressive behavior *(sr* = .02; β = .50), Al ($sr^2 = .03$; β = .15), and HTW *(sr* = .01; β = .16). Thus, the addition of the situational components to the background components increased the amount of variance accounted for by a factor of 2.7, with partner verbal aggression alone contributing 26% of the variance in men's IP violence.

Women. The regression analysis for the background factors yielded an *R* of .44 (18% of adjusted variance). After the addition of the partner violence and alcohol steps *R* =. 74 (55% of adjusted variance), partner's verbal aggression provided 24% of the variance (β = .83), whereas partner's physical aggression accounted for 4.0% of the variance (β = .33) and AI contributed 3.0% of the variance (β = .22).

Gender-related differences. The beta weights and the 95% CIs were examined for each variable significant in the regression analyses for the male and female data. Only partner's verbal aggression showed no overlap for the beta and CI for women (β = .83, 95% CI, .75-.91) and men (β = .63, 95% CI, .55-. 71). To confirm this possible Gender × Partner's verbal aggression interaction, a single model was created with gender, anger/irritability (AI), hostile attitudes toward the opposite gender (HTW, HTM), problems with alcohol (MAST scores), partner's verbal aggression, partner's physical aggression, and the interaction of gender with each of the latter variables. A regression analysis found that *R* = . 78 (60% of the adjusted variance). This model confirmed the significance of each main effect except gender ($p = .06$). Partner's verbal aggression accounted for the most unique variance ($sr^2 = .11$, β = .68), followed by partner's

physical aggression (sr^2 = .03, β = .39). MAST scores and anger/irritability each accounted for only 1 % of the unique variance. The Gender × Partner's Verbal Aggression interaction and the Gender AI interaction were significant, but each accounted for less than 1 % of the variance.

DISCUSSION

The present results provide support for the generalizability of the Riggs and O'Leary (1989) model of courtship violence. The results also extend previous findings by examining the separate contribution of background and situational factors, by testing the model separately for women and men, and by including alcohol as well as sexual coercion experiences in the analyses.

As hypothesized, the situational component explained more variance in the data than the background component. For women and men, the amount of variance accounted for was almost tripled after the addition of the situational factors. Notably, partner aggression contributed to a substantial increase in the amount of variance, which raises important questions about the overall contribution of background factors to IP violence. Other researchers have noted that perhaps too much has been made of the effect of early childhood experiences on IP violence, which Gelles (1980) termed the "woozle" effect. Although researchers routinely find that the relationship between IP violence and witnessing and/or experiencing parental aggression is usually nonsignificant or small, the importance of parental aggression continues to be emphasized (Malone, Tyree, & O'Leary, 1989). Malone et al. and Gwartney-Gibbs, Stockard, and Bohmer (1987) argued that over time, the effects of violence in the family of origin decline and proximal factors become more important. The present study supports this conclusion. Partner's verbal aggression was the single best predictor of aggression, and partner's physical aggression was the second-best predictor. The situational component substantially increased the predictive power of the model. The contribution of other variables was insubstantial in comparison. Our analyses suggested that the background variables hypothesized by Riggs and O'Leary made a small but significant contribution to the percentage of variance accounted for in partner violence. These background factors included demographic factors, child abuse, and personality and attitudinal factors. However, it would be premature to speculate in greater detail about which specific background factors are most important. Each factor contributed less than 1% of the unique variance, and at the present time, there are no widely agreed-on measures of each of the constructs. Had a different set of measures been used, a different pattern of results might have emerged. Nevertheless, given that our measures differed from those used by Riggs and O'Leary, the results support the validity of their model. However, further work is needed to identify more precisely specific measures best suited for reflecting each construct.

Gender-related patterns that would reasonably be predicted to occur in our analyses were not found. Neither the background component in general nor the partner aggression variables in particular accounted for more variance in the female data than they did in the male data. Moreover, the overall model and the background and situational components accounted for more variance in the male (67%) than in the female data (55%), suggesting that there are probably key factors related to women's aggression that have not been identified.

The most interesting finding is perhaps the remarkable similarity in the models for women and men. For both women and men, situational variables accounted for more variance than

background variables; furthermore, partner verbal aggression was by far the most important situational variable, followed by partner's physical aggression, a pattern confirmed in the final regression analysis. Further research is needed to determine what factors lead some individuals to respond to their partner's aggressive behavior with aggression.

Although partner's verbal aggression was equally important for women and men, it apparently has a different meaning and function in the prediction of IP violence, as evidenced by the nonoverlapping beta weights and the small but statistically significant gender by partner's verbal aggression interaction in the final regression analysis. Further exploration of this relationship will provide insight into the development of a better explanatory model of female partner aggression. Various relationship factors, including stress, conflict, and communication patterns, as well as status or power differences between the women and their male partners, undoubtedly alter the meaning of partner verbal aggression. For example, Campbell, Muncer, Guy, and Banim (1996) reported that men use anger expression as a means of reasserting control over a situation, whereas women see anger expression as a loss of control. They found that men perceive women's aggression as expressive and women judge men's aggression to be instrumental; apparently, women and men share the belief that men's verbal aggression is a means of control and that women's is a sign ofloss of control. These patterns are particularly likely in relationships when males dominate and when the couples do not agree on the appropriateness of a power imbalance (Coleman & Straus, 1986). Tang (1999) found that both men and women in husband-dominant relationships reported experiencing more partner verbal aggression (insulting, swearing, and stomping) and threats to use a weapon. Only women in husband-dominant relationships reported more sulking, refusal to talk, spiteful behavior, throwing, kicking, or beating by their husbands. Sagrestano, Heavey, and Christensen (1999) recently found that both husbands and wives use more violence in marriages in which the husband perceives less power, probably to compensate for a perceived lack of power. Wives' use of violence was also associated with a husband demand/wife withdrawal interactional style. To determine the differential meaning of verbal aggression for women and men, it is essential that future research study the interaction of power imbalances, conflict, and the associated dynamics of ongoing partner violence.

Alcohol misuse, as measured by the MAST scores, had a small but significant effect for men but not for women. A comment on the failure of alcohol to have a stronger effect, given the important role of alcohol in relationship violence established in previous research, is in order. The measures of alcohol use employed in the present study assessed typical drinking patterns and alcohol-related problems, rather than situation-specific use of alcohol. The present study also did not assess patterns of male-female drinking during specific aggressive episodes, which may be critical to understanding the dynamics of the aggression. Roberts and Leonard (1998) have documented the relationship between drinking partnerships (patterns of partners' drinking) and relationship functioning. Although the general use of alcohol increases the likelihood of alcohol use in specific situations (Quigley & Leonard, 1999; White & Humphrey, 1994a), it is the actual use of alcohol in a specific situation that increases the likelihood of aggressive behavior. Furthermore, a series of studies by Leonard and colleagues have documented the complex relationship between general patterns of alcohol use, situational alcohol use, expectancies about alcohol-related aggression, and severity of aggression in marital relationships (Leonard & Roberts, 1998; Leonard & Senchak, 1993; Quigley & Leonard, 1999). At least for husbands, it

appears that aggression is mediated through marital conflict styles and alcohol consumption, which are affected by hostility, gender identity, and perceived power inequity (Leonard & Senchak, 1996). Leonard and Senchak (1993) have also shown that premarital aggression is related to alcohol use and subsequent marital aggression.

These findings must be interpreted with respect to a number of study limitations. First, all the data were based on retrospective self-reports; therefore, causal inferences and inferences about the temporal ordering of the data must be viewed in this context. Second, the sample was limited to military recruits and cannot be generalized to other non-college based samples of similar age. Third, little work has been done on specific operational definitions for the constructs specified by the model. Fourth, respondents were asked about aggression in intimate relationships in general, not in a specific relationship, thereby making inferences about the dynamics of aggression in specific relationships more difficult. Fifth, a number of situational variables originally identified by Riggs and O'Leary (1989) are yet to be integrated into the model. These include relationship characteristics, such as marital discord and dysfunctional communication patterns (Malone et al., 1989), and contextual factors, such as the influence of peers (Gwartney-Gibbs et al., 1987). Last, the strongest predictors of IP violence were partner's verbal and physical aggression. Given that these measures were assessed using similar versions of the CTS, there is the possibility that the results are due to the highly similar response format for each. For men, however, past history of self-reported sexual aggression, as measured by the SES, was also a significant predictor of intimate partner violence; the SES does not share method variance with the CTS (beyond being a self-report measure). Similarly, for women, scores on the TRB, which was used as an index of aggressive behavior, was a significant predictor of IP violence. The TRB does not have a response format similar to the CTS. These auxiliary findings lend support to a situational rather than a shared method interpretation of the results.

In summary, the present study has provided support for the generalizability of the Riggs and O'Leary model of courtship violence. However, gender differences in the model's predictive power underscore the importance of developing models that are sensitive to gender-relevant factors for men and women (see White et al., 2000). The results also support the conclusion that the examination of situational factors is probably more important than an examination of background factors. However, this approach does not negate the importance of research that attempts to examine indirect effects of earlier experiences on factors such as attitudes and personality.

At the applied level, the results support the conclusion that IP violence prevention programs should contain material that will allow men and women to learn that violence begets violence. Partners may initiate behaviors that they perceive to be trivial; however, these behaviors can trigger an escalated response from their partners that may result in negative short- and long-term medical and psychological consequences for both partners. More generally, all people should consider the effects of their own aggression not just as potentially injuring others but also as potentially eliciting injury to themselves. In this respect, women are clearly at greater risk. This perspective should not be construed as an argument against self-defense or as victim blaming. Our intention is to increase awareness of the serious consequences of initiating violence as a conflict resolution tactic.

NOTES

1. The data for respondents who answered no to all CTS-PC and IP items were removed from the sample. These cases were considered .invalid because everyone who had a parent or IP should endorse at least some items on the CTS, such as "discussing issues calmly." It is highly unlikely that one would never experience conflict with a parent or IP.

2. Because this measure assessed only the previous 6 months, it is not strictly a measure of a generalized personality trait. However, conceptually, it is a measure of angry mood and irritability as a result of childhood abuse, as is the TRB subscale of the TSI, which measures aggressive behavioral tendencies as a result of childhood abuse.

3. The percentages and alphas we report differ slightly from those found in Merrill et al. (1998) due to differences in sample sizes. We included only those cases for which complete data were available on all variables used in the regression analyses.

4. Preliminary analyses suggested a similar pattern of results when verbal aggression and physical aggression were analyzed separately.

5. Geographic locale was not included because Merrill et al. (1998) reported that it was not significantly related to any indices of IP violence. Demographic factors were treated as covariates and entered as the first block of variables in the blockwise hierarchical regression analyses. Results revealed that, although this step was significant in all the analyses, demographic factors as a group accounted for only 1 % to 2% of the variance in the male and female data.

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