

# Repeating the Errors of Our Parents? Family-of-Origin Spouse Violence and Observed Conflict Management in Engaged Couples\*

W. Kim Halford, Ph.D.<sup>1</sup>, Matthew R. Sanders, Ph.D.<sup>2</sup>, Brett C. Behrens, M.C.P.<sup>2</sup>

<sup>1</sup>W. Kim Halford, Ph.D., Professor and Head of the School of Applied Psychology, Griffith University, Nathan Queensland 4111, Australia; e-mail: [K.Halford@mailbox.gu.edu.au](mailto:K.Halford@mailbox.gu.edu.au),

<sup>2</sup>Professor Matthew R. Sanders, Ph.D., and Brett C. Behrens, M.C.P., Research Officer, are affiliated with the Department of Psychology, University of Queensland, Brisbane, Australia.,

\* The research reported in this article was supported by an Australian Research Council grant (entitled "Prevention of Relationship Problems") awarded to W. Kim Halford, Matthew R. Sanders, and Brent C. Behrens. We thank David Zago, Jill Smythe, Lucy Blowers, and Gaye McGrath for coding of the data; and Rhoda Richardson, Julia Long, and Carmel Dyer for their help in preparing the manuscript.

## Abstract

Based on a developmental social learning analysis, it was hypothesized that observing parental violence predisposes partners to difficulties in managing couple conflict. Seventy-one engaged couples were assessed on their observation of parental violence in their family of origin. All couples were videotaped discussing two areas of current relationship conflict, and their cognitions during the interactions were assessed using a video-mediated recall procedure. Couples in which the male partner reported observing parental violence (male-exposed couples) showed more negative affect and communication during conflict discussions than couples in which neither partner reported observing parental violence (unexposed couples). Couples in which only the female partner reported observing parental violence (female-exposed couples) did not differ from unexposed couples in their affect or behavior. Female-exposed couples reported more negative cognitions than unexposed couples, but male-exposed couples did not differ from unexposed couples in their reported cognitions.

---

There is an alarming and intriguing paradox in couple relationships. Most of us voluntarily enter into committed relationships with partners whom we profess to love, yet sometimes those same partners are the victims of our physical aggression. Why is it that some people are violent toward their spouses? This would be an intriguing question if violence toward the spouse was rare, but in the United States it is estimated that physical aggression between partners occurs in about 30% of married couples (Straus, Gelles, & Steinmetz, 1980). Aggression severe enough to cause significant physical injury occurs in about 10% of couples (Straus & Gelles, 1986; Straus et al., 1980). Relationship violence can be severe; female homicide victims are murdered more often by their partners than by any other class of assailant (Browne & Williams, 1993).

The prevalence of male-to-female versus female-to-male violence is approximately equal (Straus & Gelles, 1986). Furthermore, in the majority of couples in which there is physical aggression, both the man and the woman report being violent toward each other (Langhinrichsen-Rohling & Vivian, 1994; O'Leary, Barling, Arias, et al., 1984; O'Malone, & Tyree, 1994, Straus & Gelles, 1986). However, relative to female-to-male physical

aggression, male-to-female physical aggression typically is more severe, more likely to lead to physical injury, and more often associated with the victim feeling fearful of the partner (Cascardi, Langhinrichsen, & Vivian, 1992). This has led many researchers to focus particularly on the determinants of male violence in relationships (see Holtzworth-Munroe, Smutzler, Bates, & Sandin, 1997), and less is known about what influences female violence.

One of the most established risk factors for violence in couple relationships is violence in the family of origin (Burgess, Hartman, & McCormack, 1987; Mihalic & Elliot, 1997; Stets & Straus, 1990; Stith & Farley, 1993; Straus et al., 1980; Widom, 1989). More specifically, men who report witnessing violence between their parents have a substantially higher risk of being violent themselves (Hotaling & Sugarman, 1986; Mihalic & Elliot, 1997; Riggs, O'Leary & Breslin, 1990; Stets & Straus, 1990; Stith & Farley, 1993; Straus et al., 1980; Widom, 1989). Parent-to-child violence sometimes has been found to increase the risk of men being violent (Stets & Straus, 1990; Straus et al., 1980), though several studies have not found this association (for example, Hotaling & Sugarman, 1986). Separating the effects of parent-to-parent versus parent-to-child physical aggression is difficult because there is substantial overlap in occurrence of interpartner and parent-child violence. Rosenbaum and O'Leary (1981) reported that 82% of men who reported witnessing violence between their parents also reported being victims of violence by their parents. In the study with the largest sample used to date, family-of-origin parental violence was found to elevate risk of adult male relationship violence substantially more than parent-to-child violence (Kalmuss, 1984).

How exposure to family-of-origin parental violence is linked to adult aggression is unclear, but a developmental social learning model has been proposed (Holtzworth-Munroe, 1992; Mihalic & Elliot, 1997; O'Leary, 1988). In this model, the risk of relationship aggression is argued to be substantially higher if men have deficits in their ability to regulate negative affect and to manage conflict in intimate relationships. Markman (1991), Gottman (1994), and O'Leary (1988) suggested that learning to manage conflict is a fundamental developmental task required to sustain satisfying intimate adult relationships. While there are a diverse range of influences on the development of conflict management, exposure of male children to parental aggression, it is argued, leads to acquisition of the modeled poor-conflict management (O'Leary, 1988). If deficits in conflict management are identifiable in many men whose parents were aggressive, this has important implications for the prevention of subsequent relationship aggression: adaptive conflict management can be learned (Halford & Behrens, 1996; Markman & Hahlweg, 1993). If a deficit in conflict management is evident, then skills-based, relationship preparation programs might help to overcome these deficits, and prevent subsequent violence.

There is substantial evidence that men who are violent toward their spouses do lack conflict management skills. Relative to nonviolent men, maritally violent men presented with a hypothetical instance of marital conflict report feeling more anger and other negative emotions (Holtzworth-Munroe & Smutzler, in press). Violent men are also more likely to attribute the cause of conflict to negative intentions by their partners (Holtzworth-Munroe & Hutchinson, 1993), and these negative cognitions are believed to mediate the hostility and violence expressed by violent men. Consistent with the hypothesized deficits in conflict management, violent men are less effective problem solvers, less assertive, and more aggressive in response to hypothetical conflict situations with female partners (Anglin & Holtzworth-Munroe, 1997; Dutton & Browning, 1988; Riggs et al., 1990; Rosenbaum & O'Leary, 1981). When discussing a conflict in their relationship, men who are violent toward their partner show stronger negative emotional reactivity to their partner's behavior, and

greater sustained anger during the discussion, than men who are not violent (Burman, Margolin, & John, 1993; Cordova, Jacobson, Gottman, et al., 1993; Jacobson et al., 1993).

The existing data on the conflict management of violent men is all cross-sectional and, therefore, many of the identified characteristics may be the result of violence. If deficits in conflict management mediate the link between family-of-origin and current physical aggression, these deficits should be evident at the time of entry to the relationships. We know that aggression in couples often occurs early in relationships, with estimates ranging from 20 to 50% of dating and engaged couples reporting violence between the partners (Capaldi & Crosby, 1997; Makepeace, 1989; Matthews, 1984; McLaughlin, Leonard, & Senchak, 1997; Murphy & O'Leary, 1989; O'Leary et al., 1989, 1994; Sigelman, Berry, & Wiles, 1984). This early onset of violence is consistent with the proposition that some characteristic of the partners at the time of entry to the relationship may potentiate violence. Based on this evidence, we hypothesized that men with a history of family-of-origin parental violence would show evidence of those deficits at the time they enter committed relationships (Hypothesis 1). Moreover, based on the cognitive correlates of male physical aggression, we predicted that men with a history of family-of-origin parental violence also would report more negative cognitions than men without such history (Hypothesis 2). The correlates of female violence have not been studied extensively, but when examined, violent women also have deficits in conflict management (Anglin & Holtzworth-Munroe, 1997). Based on this finding we reasoned that modeling effects of parental violence may have similar effects for women as they do for men. Women exposed to parental violence would have deficits in conflict management (Hypothesis 3), and also would report negative cognitions during interaction with their partner (Hypothesis 4).

## Method

### Participants

Participants in this study were 71 couples who were recruited through media outreach to participate in a controlled trial of a Prevention and Relationship Enhancement program (PREP) (Markman, Stanley, & Blumberg, 1994). The outreach sought couples who were in a committed relationship, who intended to get married within 12 months, and who wished to attend the PREP program. Couples were selected who met the following criteria: (a) the couple was not presently married; (b) the couple stated an intention to remain together; (c) both partners had a score of at least 90 on the Dyadic Adjustment Scale (DAS; Spanier, 1976), and did not report significant relationship distress; and (d) neither partner was currently receiving psychological or psychiatric treatment.

The demographic characteristics of the participants were as follows. The average time the couple reported being in a relationship together was 28 months. The average age of women was 29.0 years ( $SD = 7.9$ ), and the average age of men was 32.0 years ( $SD = 9.7$ ). Sixty percent of our unmarried couples were currently living together, and 24% of couples had children living with them, either from the current or a prior relationship. These figures are consistent with recent Australian national data showing many couples live together either before or instead of marriage (McDonald, 1995). In 29 of the couples (41%) at least one partner had been married before, and in 42 couples it was their first marriage. Seventy-three percent of couples had at least one partner with university level education, showing that our sample was biased toward a more highly educated section of the community. The mean relationship satisfaction scores on the Dyadic Adjustment Scale (DAS) was 117.7 for women

(SD = 12.7) and 114.4 for men (SD = 12.5), placing the group in the satisfied range for relationship adjustment on this measure.

## Measures

### Self-report measures

A battery of self-report measures was administered to each partner. This battery included measures of relationship satisfaction, patterns of couple's use of time, relationship status, family-of-origin relationship aggression, communication patterns, and individual psychological functioning. Most of these measures were administered as part of our ongoing evaluation of the PREP. Since the focus of the current article is on an observational analysis of couples's interaction, only the relevant self-report measures are presented.

Assessment of family-of-origin violence was done using the Parental Conflict Tactics Scale (PCTS). The PCTS was developed from the Modified Conflict Tactics Scale, which in turn was developed from the original Conflict Tactics Scale of Straus (1979). The Modified Conflict Tactics Scale expands the original items of the CTS by adding extra specific aggressive behaviors. Our modification involved changing the wording of the scale so that participants reported on the aggressive acts they witnessed their father perpetrating on their mother, and their mother perpetrating on their father. The scale yields three relevant subscales: frequency of verbal aggression, threats of physical aggression, and physical aggression. We classified couples in which the male reported at least one act of physical aggression by either of his parents toward the other parent as "male-exposed" to physical violence, and couples in which the woman reported parental aggression as "female-exposed." Other couples were classified as unexposed to parental violence.

In order to describe the sample in terms of relationship functioning, participants completed the Dyadic Adjustment Scale (DAS; Spanier, 1976), which is a frequently used 32-item self-report inventory yielding a global marital satisfaction score (wording was modified for premarital assessment as described by Markman, 1981). Participants also completed a modified version of the Marital Status Inventory (MSI). The MSI is a 14-item Gutmann rating scale assessing the steps taken toward divorce or separation (Weiss & Cerreto, 1980). In the modification, four items referring specifically to marital dissolution were eliminated, and some items reworded to make it appropriate for premarital assessment of dissolution potential.

### Observational measures

Communication behavior, observed affect, and self-reported cognitions during couple interaction were assessed.<sup>1</sup> On two separate occasions, couples discussed for 10 minutes a topic about which the couple disagreed: one topic was selected by the male, and one was selected by the female partner. Male- and female-nominated topics were used as there is

---

<sup>1</sup> Based on evidence that high physiological arousal during problem solving is correlated with, and predicts relationship distress (Gottman, 1994), we originally intended to assess physiological arousal in this study. During problem-focused interactions, each partner was continuously assessed on two physiological indices: (a) heart rate, measured by the inter-beat interval (IBI), and (b) galvanic skin response (GSR). An eight-channel physiograph (Cyborg/ Autogenics Biolab) linked to an IBMcompatible computer monitored the input from sensors and averaged the results every 10 seconds. Unfortunately, recurrent problems with the equipment led us to abandon this aspect of the study. We could not get reliable data on GSR measures at all, and the sample size of participants with reliable heart-rate data was too small to give the design adequate power to test the experimental hypotheses regarding physiological arousal.

some evidence that partners communicate differently when discussing issues about which they want change, versus topics about which their partner desires change (Heavey, Layne, & Christensen, 1993). The order of discussion of male- and female-nominated topics was counterbalanced to control for order effects. The conflict management task has been widely used in couples research to assess communication (see Weiss & Heyman, 1997).

Immediately after each of the two problem-focused discussions, the video-mediated recall procedure developed by Halford and Sanders (1988) was used to assess couple cognitions. Each discussion was replayed to the individual partners who sat alone watching the tape. Participants were instructed to watch the tape and imagine they were re-experiencing the interaction. The tape was paused every 30 seconds. Individuals had 30 seconds in which they were instructed to write down any thoughts they had at that point in the interaction. The participants each had a thought-listing form consisting of 30 boxes on a printed page, and participants were asked to write one thought per box. The resultant reports of cognitions were classified by the subject of the thought (self-referent or partner-referent), and the valence expressed (negative or neutral/positive) as described by Halford and Sanders (1988). Derived measures were the proportion of all reported cognitions that fell into the resultant four categories. Higher proportions of negative cognitions are associated with marital distress, and predict ongoing negative communication (Halford & Sanders, 1988, 1990). Thought-listing forms were coded by research assistants unaware of the parental violence status of the participants. All coders received approximately 20 hours of training in the coding system. Training consisted of memorizing code definitions, instruction about and reviewing previously coded thought-listing forms, and extensive practice coding with feedback. A random sample of one-third of all thought-listing forms were coded by a second research assistant to check reliability. Overall interrater reliability was high. Agreement levels for the individual codes were partner-referent positive Kappa = 0.86, partner-referent negative Kappa = 0.80, self-referent positive Kappa = 0.88, and self-referent negative Kappa = 0.81.

The videotaped interactions were coded for verbal and nonverbal communication behaviors using our adaptation of the *Kategoriensystem für Partnerschaftliche Interaktion* (KPI; Hahlweg & Conrad, 1985; Hahlweg, Reisner, Kohli, et al., 1984), which we refer to as the Rapid-KPI. In the Rapid-KPI, we code each 30-second time interval for the occurrence of behavior that fits into one of the KPI's original 12 verbal content categories, and the presence of negative nonverbal behavior, as originally defined in the KPI. We also code presence of withdrawal, which has been identified as an important characteristic of maritally distressed interaction since the development of the original KPI. Definitions of each behavioral code are presented in Table 1. Based on research suggesting that behavioral codes can be usefully summarized into a small number of functional classes (Sayers, Baucom, Sher et al., 1991), KPI categories were collapsed to create the following communication summary scales: (a) positive discussion (problem describe, positive solution); (b) validation (accept, agree); (c) invalidation (disagree, justify) and (d) conflict (disagree, criticize, negative solution). The derived measures were the percentage of intervals in which any of the behaviors defined in the summary code occurred, and the percentage of intervals in which withdrawal or negative nonverbal behavior occurred. These summary measures derived from the Rapid-KPI discriminate between distressed and nondistressed couples (Osgarby & Halford, in review), and are sensitive to changes in communication occurring across the course of behavioral couple therapy (Behrens, Sanders, & Halford, 1990; Halford, Sanders, & Behrens, 1993). The major advantage of the Rapid-KPI over the original KPI is economy. The KPI takes approximately 3 to 4 hours to code a 10-minute interaction, whereas the Rapid-KPI takes about 30 minutes.

TABLE 1  
*Definitions of behavioral codes for the Rapid-KPI*

Code	Definition
<b>Verbal</b>	
1. Self-disclosure	Direct expression of feelings, wishes or needs.
2. Positive solutions	Specific constructive proposals, or suggested compromise to resolve a problem.
3. Acceptance	Demonstrations of acceptance of the other person by paraphrase, open-ended question or positive feedback.
4. Agreement	Agreement by direct agreement, or assent, or acceptance of responsibility.
5. Problem description	Neutral descriptions of problems, or neutral questions seeking problem description.
6. Meta communication	Clarification requests, or comments about the manner in which the topic is being discussed.
7. Listening	This code is used for the listener when double-coding of the speaker occurs, in order to insure an alternating sequence.
8. Criticize	Expressions of dislike or disapproval, or statements likely to demean the listener.
9. Negative solution	Description of something the speaker wants the listener not to do in order to solve a problem.
10. Justification	Excuses or denial of responsibility for one's behavior or a problem.
11. Disagreement	Direct disagreement or "Yes, but" type disagreements.
<b>Nonverbals</b>	
Negative	Nonattending, negative facial expression or voice qualities.
<b>Other</b>	
Withdraw	Not tracking, not responding, turning away, statement of not wanting to discuss the issue.

Research assistants unaware of the participants' parental violence history coded the videotapes. Coders received approximately 50 hours of training on the Rapid-KPI. Training consisted of memorizing code definitions, instruction, watching videotapes that were pre-coded, and extensive practice coding with feedback. A random sample of one-third of all tapes were coded independently by a second rater. Observed interrater agreement on behavioral coding generally was satisfactory, with Kappa = 0.65 for positive discussion, 0.58 for validation, 0.69 for invalidation, 0.62 for conflict, and 0.59 for negative nonverbal behavior; but the withdrawal code was low at Kappa = 0.33. The base rate of occurrence of this code was low, and even though the observed agreement on this code was 0.94, the Kappa is low since there was low agreement on when withdrawal occurred. Results on this code must be interpreted with caution since there is a clearly significant measurement error in assessment of this variable.

## Results

### Exposure to parental violence

The following is a summary of the reported violence by each parent in each partner's family of origin. Two-by-two chi-squares of partners' reports of their father's violence (yes or no) by mother's violence (yes or no) showed that there was a significant association between these variables for both female partner reports,  $\chi^2(1, N = 71) = 25.2 p < .00001$ , and for male partner reports,  $\chi^2(1, N = 71) = 51.1 p < .00001$ . In other words, when the father was reported as being violent toward the mother, the mother also was likely to be reported as violent toward the father. Given the strong association between father and mother violence, we defined our independent variable as the report of aggression by either parent in the family of origin. A two-by-two chi-square showed there was no significant association between the

exposure to parental violence of male and female partners, so we examined the effects of male and female partner exposure to parental violence separately. (A table summarizing these statistics is available from the first author.)

The primary dependent measures in this study were the behavior and reported cognitions of partners during couple discussions. The independent variables were the reported parental violence in the family of origin of the male and female partners. There were only a small number of couples in which both partners had been exposed to parental violence ( $n = 4$ ), so this group could not be examined separately from the other groups. We did the analysis trying to minimize the assumptions about the effects of parental violence, and compared male exposed couples with unexposed couples in one set of analyses, ignoring female partner reports of parental aggression. Then we compared female exposed couples with unexposed couples, ignoring male reports of parental aggression.

As for the correlations between the dependent variables (available in tabular format from the first author), for both women and men, a number of the measures of observed behavior were significantly correlated. Most significant correlations were of modest magnitude, but the correlations between negative behaviors were of large magnitude (e.g., conflict and invalidation were correlated at  $r = 0.93$  for women and  $r = .86$  for men). Furthermore, the behaviors of male and female partners were significantly correlated. These correlations were of small to moderate magnitude for positive behaviors, but of moderate to large magnitude for negative behaviors except for withdrawal. Reported cognitions showed some significant correlations with each other, though all correlations were of small to moderate magnitude. There were some significant associations between cognitions and behavior, but these were of small to moderate magnitude. Given the very different modes of assessment, behavior and cognition were conceptualized as independent systems of measurement, but measures within these classes could not be assumed to be independent. Consequently couples were compared on behavior and cognition separately in three-way MANOVAs of parental violence status (yes or no), by gender (male and female partners' behavior), by topic of discussion (woman- or man-nominated), with the latter two factors being within-subject factors. Subsequent three-way ANOVAs of parental violence (yes or no), by gender (male or female partner), by topic (male- or female-nominated) were conducted on the individual measures, again with the latter two factors as repeated measure factors.

## Effects of parental violence

### Observed couple interaction

The three-way MANOVA of the male partner's reported family-of-origin parental violence by gender (male or female's behavior in the interaction), by topic (male- or female-nominated topic), on the behaviors of positive problem discussion, validation, conflict, invalidation, negative nonverbals, and withdrawal showed a significant main effect of male parental violence,  $F(6, 64) = 3.19$   $p < .01$ , and gender,  $F(6, 64) = 7.18$   $p < .001$ , but there was no main effect of topic. There were significant two-way interactions of male parental violence by gender,  $F(6, 64) = 2.37$   $p < .05$ , and topic and gender,  $F(6, 64) = 2.53$   $p < .05$ , but the interaction of parental violence and topic was not significant. There was a significant three-way interaction of topic by gender by male parental violence,  $F(6, 64) = 2.49$   $p < .05$ .

Table 2 presents the means and standard deviations on the behavioral and cognitive measures for couples classified by the male and female partner reports of their family-of-



origin parental violence. There were significant univariate main effects of male parental violence on most negative behavioral measures. Relative to couples with no reported parental violence in the male partner's family of origin (male-unexposed couples), couples with parental violence in the male partner's family of origin (male-exposed couples) showed significantly higher rates of invalidation,  $F(1, 69) = 5.53 p < .05$ , negative nonverbal behavior,  $F(1, 69) = 4.96 p < .05$ , and withdrawal,  $F(1, 69) = 7.45 p < .01$ , and there was a trend to show more conflict,  $F(1, 69) = 3.81 p = .06$ . There was no significant effect of male exposure to parental violence on rates of positive discussion or validation. There also were a number of significant univariate gender effects. Relative to their male partners, women showed higher rates of conflict,  $F(1, 69) = 22.13 p < .001$ , invalidation,  $F(1, 69) = 23.11 p < .001$ , and negative nonverbals,  $F(1, 69) = 17.51 p < .001$ . There were no significant gender main effects on withdrawal, positive discussion or validation.

TABLE 2  
Means and Standard Deviations (in Parentheses) of Behavior and Cognition During Couple Interactions By Partner's Parental Violence Status

Measure	Woman's Parents								Man's Parents							
	Not Violent				Violent				Not Violent				Violent			
	Male Topic		Female Topic		Male Topic		Female Topic		Male Topic		Female Topic		Male Topic		Female Topic	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Positive discussion	89.4 (10.8)	86.6 (13.8)	85.5 (17.5)	86.9 (10.8)	85.9 (13.7)	86.1 (14.5)	87.4 (12.7)	87.1 (9.3)	86.4 (14.2)	86.3 (12.7)	84.2 (18.7)	85.9 (13.2)	89.8 (17.8)	86.0 (15.7)	88.6 (13.8)	90.0 (9.6)
Validation	44.5 (16.4)	42.4 (20.9)	40.8 (20.8)	41.3 (19.9)	43.5 (14.9)	45.5 (24.4)	41.3 (21.8)	41.1 (24.8)	43.4 (16.9)	40.7 (21.6)	40.2 (21.7)	40.3 (23.7)	41.7 (17.8)	50.7 (20.9)	41.4 (20.6)	44.3 (18.2)
Conflict	28.9 (24.1)	35.3 (25.9)	31.3 (25.4)	36.9 (22.4)	23.4 (20.1)	28.5 (24.4)	30.3 (23.4)	31.8 (31.2)	25.1 (22.2)	27.4 (25.6)	30.4 (24.2)	34.6 (25.1)	31.2 (24.9)	48.8 (25.0)	36.2 (26.1)	42.9 (25.4)
Invalidation	33.3 (25.7)	40.4 (27.4)	33.6 (26.2)	43.0 (25.2)	28.5 (24.4)	38.8 (31.5)	30.5 (28.2)	38.7 (35.7)	28.6 (23.1)	34.4 (28.0)	32.1 (26.5)	38.9 (28.4)	39.5 (29.5)	57.1 (28.1)	38.6 (27.8)	54.0 (26.5)
Negative nonverbals	4.2 (14.0)	10.2 (22.4)	4.3 (12.5)	12.1 (23.3)	1.6 (5.8)	13.2 (23.5)	0.5 (1.6)	15.8 (28.1)	2.2 (7.4)	9.0 (20.1)	2.7 (9.0)	10.0 (21.5)	9.0 (20.5)	19.8 (28.6)	6.7 (17.3)	22.1 (30.4)
Withdraw	4.1 (10.7)	7.1 (13.9)	5.6 (11.3)	5.6 (10.4)	6.4 (17.7)	9.6 (16.2)	6.1 (13.0)	6.1 (12.4)	3.3 (10.2)	5.7 (11.0)	3.9 (7.4)	4.6 (9.9)	8.6 (19.0)	16.0 (21.3)	8.8 (15.0)	10.5 (15.7)
Partner—negative	8.0 (10.0)	12.9 (10.5)	10.2 (9.5)	16.3 (14.9)	11.3 (9.1)	18.8 (20.3)	9.3 (14.0)	19.0 (15.3)	9.3 (10.1)	14.9 (15.6)	8.7 (9.4)	16.8 (14.3)	8.3 (9.0)	14.0 (9.9)	13.5 (14.3)	17.9 (17.0)
Partner—positive	39.2 (18.5)	43.4 (15.5)	37.2 (17.5)	38.8 (18.9)	32.4 (16.2)	37.9 (16.8)	32.6 (17.1)	33.4 (18.5)	36.8 (19.2)	42.1 (16.3)	35.8 (17.0)	38.5 (19.1)	38.2 (14.5)	40.7 (15.5)	35.7 (19.0)	33.3 (17.8)
Self—negative	7.2 (8.4)	7.3 (11.1)	6.5 (7.4)	7.8 (9.1)	13.5 (15.6)	9.7 (11.7)	12.1 (15.7)	10.7 (9.9)	8.7 (12.3)	7.5 (11.3)	7.6 (9.3)	7.7 (8.2)	10.5 (8.3)	9.5 (11.3)	9.9 (14.5)	11.5 (11.8)
Self—positive	42.4 (18.8)	34.0 (15.0)	44.4 (18.8)	35.8 (21.5)	41.6 (21.2)	25.2 (18.2)	44.3 (20.7)	30.8 (19.4)	42.4 (18.6)	30.3 (17.2)	46.2 (19.1)	33.4 (21.1)	41.3 (22.1)	34.2 (14.0)	39.4 (19.5)	36.7 (20.5)

The univariate two-way interaction of gender by male parental violence status was significant for conflict,  $F(1, 69) = 7.28 p < .01$ , and for invalidation,  $F(1, 69) = 4.61 p < .05$ , but not for negative nonverbals, withdrawal, positive discussion, or validation. In Table 2, it is evident that, relative to male-unexposed couples, male-exposed couples showed modest elevations in the men's rates of conflict and invalidation, and much more marked elevations in the women's rates of conflict and invalidation. The two-way interaction of gender by topic was significant for withdrawal,  $F(1, 69) = 5.03 p < .05$ , and there was a trend for a significant effect on conflict,  $F(1, 69) = 3.26 p = .08$ , but there was no significant interaction for any of the other variables. From Table 2, it is evident that women showed higher rates of withdrawal than men, and that this gender difference was most marked when discussing male-nominated topics. The three-way interaction of male parental violence by gender by topic was significant for conflict,  $F(1, 69) = 6.38 p < .05$ , but not for any other of the variables. In Table 2, it is evident that women, interacting with exposed-men, engaged in particularly high levels of conflict when discussing the male-nominated topic.



The three way MANOVA of female partner-reported family-of-origin parental violence by gender (male or female behavior in the interaction), by topic (male- or female-nominated topic) on the behaviors of positive problem discussion, validation, conflict, invalidation, negative nonverbals, and withdrawal showed no significant main effect of female parental violence, nor were any of the two- or three way interactions with female parental violence significant. The gender main effect was significant, but since this is essentially the same gender effect evident in the analyses of the effects of male parental aggression, this effect was not explored further.

### Reported cognitions

A three-way MANOVA of male-reported parental violence by gender by topic was conducted on the cognitive variables of partner- and self-referent positive and negative cognitions. There was a significant main effect of gender,  $F(4, 64) = 3.72$   $p < .01$ , but no significant main effect of parental violence or topic. None of the two- or three-way interactions was significant. In contrast, a three-way MANOVA of female-reported parental violence by gender by topic had significant main effects of parental violence,  $F(4, 64) = 4.62$   $p < .01$ , and gender,  $F(4, 64) = 7.44$   $p < .001$ , but there was no main effect of topic. There was a significant two-way interaction of exposure to parental violence and gender,  $F(4, 64) = 3.82$   $p < .05$ , but none of the remaining two- or three-way interactions were significant.

Relative to couples with no reported parental violence in the female partner's family of origin (female-unexposed couples), couples with parental violence in the female partner's family of origin (female-exposed couples) reported significantly lower rates of partner-referent positive cognitions,  $F(1, 67) = 5.44$   $p < .05$ , and significantly higher rates of self-referent negative cognitions,  $F(1, 67) = 8.36$   $p < .01$ . There were no significant univariate main effects of parental violence on partner-referent negative or self-referent positive cognitions. There were two significant univariate gender main effects such that women reported significantly higher rates of partner-referent negative cognitions,  $F(1, 67) = 15.82$   $p < .001$ , and significantly lower rates of self-referent positive cognitions,  $F(1, 67) = 19.58$   $p < .001$ , than did men. None of the univariate two-way interactions of gender by exposure to parental violence was significant, nor were any trends evident, even though the overall MANOVA showed a significant interaction.

### Alternative mediators of results

A potential confound existed between family-of-origin parental violence and current relationship satisfaction or commitment. If we assume men whose parents were violent may enter relationships with negative feelings about relationships, this may make men dissatisfied or uncommitted in their relationships. In this case the behavioral and cognitive correlates of parental violence status may be an epiphenomenon of lower relationship satisfaction or commitment. A second possible confound of exposure with parental violence was parental separation and divorce. In previous research, engaged couples in which the woman's parents had divorced showed more negative communication than couples in which the women's parents were not divorced, though there was no effect of male parental divorce status on couple communication (Sanders, Halford, & Behrens, 1999).

In order to establish if male exposure to parental violence accounted for variance in couple communication beyond that attributable to satisfaction and commitment in the current relationship, and parental divorce status, we conducted a series of hierarchical regression

analyses. In each analysis we entered each partner's current relationship satisfaction on the DAS first, followed by each partner's steps taken toward separation on the MSI, then we entered the woman's and man's parental divorce status, and finally we entered the male's exposure to parental violence. As criterion variables we used the mean behavior scores across the two topic discussions on conflict, invalidation, negative nonverbals, and withdrawal, for the female and male partners. These were the behaviors that differed across the couples in which the male did or did not report parental violence in the family of origin.

High women's conflict was predicted significantly by lower male and female relationship satisfaction on the DAS,  $F(2, 61) = 7.11$   $p < .001$ , and entering steps toward relationship dissolution on the MSI accounted for significantly more variance,  $F$  change  $(2, 59) = 3.71$   $p < .05$ . Adding male and female partner parental divorce status accounted for significantly more variance,  $F$  change  $(2, 57) = 5.19$   $p < .05$ , and then entering male exposure to parental violence accounted for significantly more variance again,  $F$  change  $(1, 56) = 6.97$   $p < .05$ . Overall, the regression equation accounted for 46% of the variance,  $F(7, 56) = 6.76$   $p < .0001$ . High women's invalidation was predicted significantly by low male and female relationship satisfaction on the DAS,  $F(2, 61) = 7.40$   $p < .001$ ; entering steps toward relationship dissolution on the MSI did not account for significantly more variance, but then entering male and female partners' parental divorce status did account for more variance,  $F$  change  $(2, 57) = 4.85$   $p < .05$ . Finally, entering male exposure to parental violence accounted for significantly more variance again,  $F$  change  $(1, 56) = 9.40$   $p < .01$ .

Overall, the regression equation accounted for 45% of the variance,  $F(7, 56) = 6.62$   $p < .0001$ . High negative nonverbal behavior of women was predicted significantly by low male and female relationship satisfaction on the DAS,  $F(2, 61) = 6.90$   $p < .01$ ; entering steps toward relationship dissolution on the MSI accounted for significantly more variance,  $F$  change  $(2, 59) = 3.15$   $p < .05$ , and entering parental divorce status accounted for further variance again,  $F$  change  $(2, 57) = 3.41$   $p < .05$ . Finally, entering male exposure to parental violence accounted for significantly more variance,  $F$  change  $(1, 56) = 8.31$   $p < .01$ . Overall, the regression equation accounted for 42% of the variance,  $F(7, 55) = 5.96$   $p < .0001$ . High female withdrawal was not predicted significantly by current relationship satisfaction on the DAS, steps toward relationship dissolution on the MSI, or parental divorce status, but entering male parental violence did account for significant variance,  $F$  change  $(1, 56) = 5.15$   $p < .05$ . By itself, male exposure to parental violence accounted for 7% of the variance in female withdrawal.

High level of conflict in men was predicted significantly by male and female relationship satisfaction on the DAS,  $F(2, 61) = 6.97$   $p < .01$ , but not by steps toward relationship dissolution on the MSI. Adding male and female partner parental divorce status accounted for significantly more variance,  $F$  change  $(2, 57) = 3.08$   $p < .05$ , and then entering male exposure to parental violence showed a trend to account for significantly more variance again,  $F$  change  $(1, 56) = 2.60$   $p = .10$ . Overall, the regression equation accounted for 32% of the variance in men's conflict,  $F(7, 56) = 3.82$   $p < .001$ . High invalidation in men was predicted significantly by male and female relationship satisfaction on the DAS,  $F(2, 61) = 5.92$   $p < .01$ ; entering steps toward relationship dissolution on the MSI did not account for significantly more variance, but then entering male and female partners' parental divorce status did account for more variance,  $F$  change  $(2, 57) = 4.11$   $p < .05$ .

Finally, entering male exposure to parental violence accounted for significantly more variance again,  $F$  change  $(1, 56) = 4.30$   $p < .05$ . Overall, the regression equation accounted

for 34% of the variance,  $F(7, 56) = 4.12$   $p < .01$ . Men's negative nonverbal behavior was not predicted significantly by male and female relationship satisfaction on the DAS. Entering steps toward relationship dissolution on the MSI accounted for significant variance,  $F$  change (2, 59) = 5.00  $p < .01$ , but entering parental divorce status did not account for significant further variance. Finally, entering male exposure to parental violence accounted for significantly more variance,  $F$  change (1, 56) = 10.15  $p < .01$ . Overall, the regression equation accounted for 42% of the variance,  $F(7, 55) = 5.96$   $p < .0001$ . Male withdrawal was not predicted significantly by current relationship satisfaction on the DAS, by steps toward relationship dissolution on the MSI, or parental divorce status, but entering male parental violence did account for significant variance,  $F$  change (1, 56) = 6.84  $p < .05$ . By itself, male exposure to parental violence accounted for 10% of the variance in male withdrawal.

The pattern of results in the regressions was consistent: male exposure to parental violence accounted for significant variance in seven of the eight measures of negative communication and affect demonstrated by the couples. These predictions were beyond the variance accounted for by relationship satisfaction, steps taken toward relationship dissolution, or parental divorce status.

We also attempted to predict levels of positive partner-referent and negative self-referent cognitions, which were the two measures of cognitions that differed across female-exposed and unexposed couples. We entered male and female current relationship satisfaction on the DAS, then steps toward relationship dissolution on the MSI, then both partners' parental divorce status, and finally women's exposure to parental violence into hierarchical regression analyses. The mean scores on these cognitive variables across the male- and female-nominated topic discussion were the criterion variables. In none of the regression equations did any of the predictor variables account for significant variance in any of the criterion variables.

## Discussion

The results showed differential effects of male and female partner exposure to parental aggression in the family of origin. Consistent with hypothesis 1, there was an association between male exposure to parental violence and greater nonverbal negative affect and behavioral negativity in couples' conflict management. Hypothesis 2 was not supported: there was no association between male exposure to family-of-origin violence and more negative reported cognitions during conflict discussions. Hypothesis 3 was not supported; there was no association between female exposure to parental violence and greater nonverbal negative affect and behavioral negativity in couples' conflict management. Consistent with hypothesis 4, couples in which the women were exposed to parental aggression showed more negative cognitions during problem solving.

The current study is only the second of which we are aware to assess the observed interaction of couples exposed to family-of-origin violence. The earlier study reported null findings (Follette & Alexander, 1992). However, that study combined exposure of male and female partners' family-of-origin violence into a single index of couple exposure to parental violence, which may have obscured the effects. Future research needs to establish if the current study findings of differential effects of male and female partner exposure to parental violence in the family of origin can be replicated. Grych and Fincham (1990), in reviewing the evidence on the impact of parental conflict on children, concluded that there are gender differences. Boys exposed to high parental conflict are likely to develop externalizing

disorders, such as aggression and conduct disorder, while girls are likely to develop internalizing disorders, such as anxiety and depression. The expressed negativity of male-exposed couples is similar to the negative behaviors observed in boys exposed to high parental conflict. The frequent negative self-referent cognitions and infrequent positive partner-referent cognitions observed in the female-exposed couples can be seen as homologous to the depression and anxiety observed in girls exposed to parental conflict. Future research needs to evaluate the effects of exposure to parental violence in the family of origin separately for men and women.

While the MANOVAs and ANOVAs showed main effects of female exposure to parental violence on reported negative self-referent cognitions or positive partner-referent cognitions, we were not able to predict these cognitions from family-of-origin violence, or from the other variables we examined in regression analyses. Possible explanations for the lack of prediction in the regression equations include the measures used, the statistical power of the design, and the effect size of female exposure. We assessed cognitions for the male and female partner every 30 seconds using a video-mediated recall procedure on each of two conflict topic discussions. In the regression analyses, the mean across the two interactions was used as the dependent variable, and we looked at male and female reported cognitions separately. The loss of measurements in this collapsing of data, combined with modest number of female-exposed couples ( $n = 21$ ), may have given insufficient statistical power to detect associations. In any case, it was not possible to explore further the patterns of association of female exposure to parental violence and reported cognitions during couple conflict discussions.

A key dependent variable in the current study was the observed communication of couples. Relative to male-unexposed couples, in male-exposed couples, both the male and female partners were much more negative in their affect and behavior, even though the women had not been exposed to parental violence. A parsimonious explanation for this finding is that the women are reciprocating the negativity of their male partners, which is consistent with the more general finding that there is a high degree of correlation between the levels of negativity of partners within a couple (Weiss & Heyman, 1997). However, it is also possible that men exposed to parental aggression select partners who are more negative in their affect and behaviors than do unexposed men. What is clear is that there is a strong degree of interdependence of the negative behavior of the two partners.

The independent variable in the current study was the retrospective report of whether or not the partners' parents were physically violent toward each other in the family of origin. Traditionally, in developmental psychology, there is scepticism about the reliability and validity of retrospective reports of childhood experiences, but the available evidence shows that adult reports are highly reliable on clearly defined, impactful behaviors that occurred after middle childhood (Brewin, Andrews, & Gotlib, 1993). Thus, there is reason to believe the retrospective reports of family-of-origin violence are reliable.

One limitation of the current study is the sample we used. We assessed the interaction of engaged couples presenting for premarital relationship education in an attempt to assess entry skills to a committed relationship. Couples presenting for relationship education tend to be slightly less at risk for relationship problems than other couples (Sullivan & Bradbury, 1997), and this might lead to an under-representation of couples with exposure to severe family-of-origin violence. Moreover, the mean age of our participants was approximately 30 years of age, the mean duration of their current relationships was over 2 years, and in over 40% of the couples at least one partner had been married before. Experiences in the current and past

relationships may have modified the partners' affect and conflict management and reduced the impact of family-of-origin experiences. Thus, the findings in the current study may understate the magnitude of the effects of family-of-origin parental violence on couple communication. It probably is not possible to eliminate the effects of adult relationships because almost everyone entering a committed relationship is likely to have had other relationships. However, replication of the current work with a younger sample of couples not selected for involvement in relationship education, who had less experience of committed relationships, and who had less time in their current committed relationships, might show even stronger effects of family-of-origin experiences.

The observed association between negativity in couple interactions and male exposure to parental violence in the family of origin cannot establish that exposure to parental violence caused the couple's negativity. We examined the correlation of reported parental violence in the men's family of origin with reports of threats of physical violence, and verbal aggression in those families, and found significant moderate correlations (ranging from  $r = .4$  to  $0.6$ ). We did a series of regression analyses predicting couples' affective and behavioral negativity by entering reported parental verbal aggression, threats of physical violence, and violence in the male partners' family of origin. Space prohibits detailing all these analyses, but verbal aggression and threats of violence were just as effective as violence in predicting negativity. Thus, there seems to be a constellation of negativity in conflict management within the families of exposed men, which correlate with the negativity in their adult relationships. It is unclear if it is the violence itself or these negative conflict patterns that are predicting negativity in the adult relationships. However, the occurrence of violence in the family of origin is a good marker of negative conflict both in the family of origin and the adult relationship.

The association of male family-of-origin parental violence with negativity during conflict in adult relationships is consistent with the proposition that poor conflict management may be acquired via parental modeling. However, there are numerous other possible explanations for this association. The regression analyses undertaken showed the effects of parental violence on communication were not just artifacts of current relationship satisfaction, steps toward relationship dissolution, or parental divorce. However, many variables other than a straight modeling effect might mediate the association between parental violence and conflict negativity. For example, childhood exposure to parental aggression is associated with development of an insecure attachment style in the child, and insecure attachment style in adults is predictive of relationship aggression (Kesner, Julian, & McKenry, 1997). Poor conflict management may result from the effects of a variable such as insecure attachment style, rather than from modeling of poor conflict management.

In the social learning model, it is proposed that deficits in affect regulation and conflict management mediate risk for subsequent violence (O'Leary 1988). In the current study, the negativity observed in the communication of exposed couples was negative affect and verbal communication, not physical aggression. While verbal aggression in dating couples has been shown to predict subsequent physical aggression (Murphy & O'Leary 1989), the hypothesized role of the negativity observed in participants in the current study in mediating risk for subsequent violence needs to be assessed. If observed negative affect, behavior, and cognitions mediate the association of family-of-origin violence with current relationship violence, this would provide more convincing evidence for the developmental social learning model of the intergenerational transmission of relationship violence. In the longer term,

programs teaching conflict management to high-risk couples may prevent relationship violence.

## References

- Anglin, K., & Holtzworth-Munroe, A. ( 1997). Comparing the responses of maritally violent and nonviolent spouses to problematic marital and nonmarital situations: Are the skill deficits of physically aggressive husbands and wives global? *Journal of Family Psychology* 11: 301– 311.
- Behrens, B.C., & Sanders, M.R., & Halford, W.K. ( 1990). Behavioral marital therapy: An evaluation of treatment effects across high and low risk settings. *Behavior Therapy* 21: 423– 433.
- Brewin, C.R., & Andrews, B., & Gotlib, I.H. ( 1993). Psychopathology and early experience: A reappraisal of retrospective reports. *Psychological Bulletin* 113: 82– 98.
- Browne, A., & Williams, K.R. ( 1993). Gender intimacy and lethal violence: Trends from 1976 through 1987. *Gender and Society* 7: 78– 98.
- Burgess, A.W., & Hartman, C.R., & McCormack, A. ( 1987). Abused to abuser: Antecedents of socially deviant behaviors. *American Journal of Psychiatry* 144: 1431– 1436.
- Burman, B., & Margolin, G., & John, R.S. ( 1993). American's angriest home videos: Behavioral contingencies observed in home reenactments of marital conflict. *Journal of Consulting and Clinical Psychology* 61: 28– 39.
- Capaldi, D.M., & Crosby, L. ( 1997). Observed and reported physical aggression in young, at-risk couples. *Social Development* 6: 184– 206.
- Cascardi, M., & Langhinrichsen, J., & Vivian, D. ( 1992). Marital aggression: Impact, injury, and health correlates for husbands and wives. *Archives of Internal Medicine* 152: 1178– 1184.
- Cordova, J.V., & Jacobson, N.S., & Gottman, J.M., & Rushe, R., & Cox, C.L. ( 1993). Negative reciprocity and communication in couples with a violent husband. *Journal of Abnormal Psychology* 102: 559– 564.
- Dutton, D.G., & Browning, J.J. ( 1988). Concern for power, fear of intimacy, and aversive stimuli for wife assault ( pp. 163– 175). In G.T. Hotaling & D. Finkelhor ( eds ), *Family abuse and its consequences: New directions in research*. Newbury Park CA: Sage Publications.
- Follette, V.M., & Alexander, P.C. ( 1992). Dating violence: Current and historical correlates. *Behavioral Assessment* 14: 39– 52.
- Gottman, J.M. ( 1994). *What predicts divorce? The relationship between marital processes and marital outcomes*. Hillsdale NJ: Lawrence Erlbaum Associates.
- Grych, J.H., & Fincham, F.D. ( 1990). Marital conflict and children's adjustment: A cognitive-contextual framework. *Psychological Bulletin* 108: 267– 290.
- Hahlweg, K., & Conrad, P. ( 1985). *The Interaction Coding System*. Unpublished manual, Department of Psychology, University of California at Los Angeles.
- Hahlweg, K., & Reisner, L., & Kohli, G., & Vollmer, M., & Schindler, L., & Revenstorf, D. ( 1984). Development and validity of a new system to analyze interpersonal communication: Kategoriensystem für partnerschaftliche Interaktion ( pp. 182– 198). In K. Hahlweg & N.J. Jacobson ( eds ), *Marital interaction: Analysis and modification*. New York: Guilford Press.
- Halford, W.K., & Behrens, B.C. ( 1996). Prevention of marital difficulties ( pp. 21– 58). In P. Cotton & H.J. Jackson ( eds ), *Early intervention and prevention in mental health*. Melbourne: Australian Psychological Society.
- Halford, W.K., & Sanders, M.R. ( 1988). Assessment of cognitive self-statements during marital problem solving: A comparison of two methods. *Cognitive Therapy and Research* 12: 515– 530.
- Halford, W.K., & Sanders, M.R. ( 1990). The relationship of cognition and behavior during marital interaction. *Journal of Social and Clinical Psychology* 9: 489– 510.
- Halford, W.K., & Sanders, M.R., & Behrens, B.C. ( 1993). A comparison of the generalization of behavioral marital therapy and enhanced behavioral marital therapy. *Journal of Consulting and Clinical Psychology* 61: 51– 60.
- Heavey, C.L., & Layne, C., & Christensen, A. ( 1993). Gender and conflict structure in marital interaction: A replication and extension. *Journal of Consulting and Clinical Psychology* 61: 16– 27.
- Holtzworth-Munroe, A. ( 1992). Social skills deficits in maritally violent men: Interpreting the data using a social information processing model. *Clinical Psychology Review* 12: 605– 617.
- Holtzworth-Munroe, A., & Hutchinson, G. ( 1993). Attributing negative intent to wife behavior: the attributions of maritally violent versus nonviolent men. *Journal of Abnormal Psychology* 102: 206– 211.
- Holtzworth-Munroe, A., & Smutzler, N. ( in press). Comparing the emotional reactions and behavioral intentions of violent and nonviolent husbands to aggressive, distressed and other wife behaviors. *Violence and Victims*.
- Holtzworth-Munroe, A., & Smutzler, N., & Bates, L., & Sandin, E. ( 1997). Husband violence: Basic facts and clinical implications ( pp. 129– 156). In W.K. Halford, & H.J. Markman ( eds ), *Clinical handbook of marriage and couples interventions*. Chichester: John Wiley & Sons.
- Hotaling, G.T., & Sugarman, D.B. ( 1986). An analysis of risk markers in husband to wife violence: The current state of knowledge. *Violence and Victims* 1: 101– 124.
- Jacobson, N.S., & Gottman, J.M., & Waltz, J., & Rushe, R., & Babcock, J., & Holtzworth-Munroe, A. ( 1994). Affect, verbal content, and psychophysiology in couples with a violent husband. *Journal of Consulting and Clinical Psychology* 62: 982– 988.
- Kalmuss, D. ( 1984). The intergenerational transmission of marital aggression. *Journal of Marriage and the Family* 46: 11– 19.

- Kesner, J.E., & Julian, T., & McKenry, P.C. ( 1997). Application of attachment theory to male violence toward female intimates. *Journal of Family Violence* 12: 211– 228.
- Langhinrichsen-Rohling, J., & Vivian, D. ( 1994). The correlates of spouses' incongruent reports of marital aggression. *Journal of Family Violence* 9: 265– 283.
- Makepeace, J. ( 1989). Dating, living together, and courtship violence ( pp. 94– 107). In M.A. Pirog-Good & J.E. Stets ( eds. ), *Violence in dating relationships: Emerging social issues*. New York: Praeger Publishers.
- Markman, H.J. ( 1981). The prediction of marital distress: A five-year follow-up. *Journal of Consulting and Clinical Psychology* 49: 760– 762.
- Markman, H.J. ( 1991). Backwards into the future of couples therapy and couples therapy research: A comment on Jacobson. *Journal of Family Psychology* 5: 416– 425.
- Markman, H.J., & Hahlweg, K. ( 1993). The prediction and prevention of marital distress: An international perspective. *Clinical Psychology Review* 13: 29– 43.
- Markman, H.J., & Stanley, S., & Blumberg, S.L. ( 1994). *Fighting for your marriage: Positive steps for preventing divorce and preserving a lasting love*. San Francisco: Jossey-Bass.
- Matthews, W.J. ( 1984). Violence in college couples. *College Student Journal* 18: 150– 158.
- McDonald, P. ( 1995). *Families in Australia: A socio-demographic perspective*. Melbourne, Australia: Australian Institute of Family Studies.
- McLaughlin, I.G., & Leonard, K.E., & Senchak, M. ( 1997). Prevalence and distribution of premarital aggression among couples applying for a marriage license. *Journal of Family Violence* 7: 309– 319.
- Mihalic, S.W., & Elliot, D. ( 1997). A social learning theory model of marital violence. *Journal of Family Violence* 12: 21– 47.
- Murphy, C.M., & O'Leary, K.D. ( 1989). Psychological aggression predicts physical aggression in early marriage. *Journal of Consulting and Clinical Psychology* 57: 579– 582.
- O'Leary, K.D. ( 1988). Physical aggression between spouses: A social learning theory perspective ( pp. 31– 55). In V.B. Van Hasselt & R.L. Morrison ( eds. ), *Handbook of family violence*. New York: Plenum Press.
- O'Leary, K.D., & Barling, J., & Arias, I., & Rosenbaum, A., & Malone, J., & Tyree, A. ( 1989). Prevalence and stability of physical aggression between spouses: A longitudinal analysis. *Journal of Consulting and Clinical Psychology* 57: 263– 268.
- O'Leary, K.D., & Malone, J., & Tyree, A. ( 1994). Physical aggression in early marriage: Prerelationship and relationship effects. *Journal of Consulting and Clinical Psychology* 62: 594– 602.
- Osgarby, S.M., & Halford, W.K. ( in review). Positive intimacy skills and couple relationship satisfaction.
- Riggs, D.S., & O'Leary, K.D., & Breslin, F.C. ( 1990). Multiple correlates of physical aggression in dating couples. *Journal of Interpersonal Violence* 5: 61– 73.
- Rosenbaum, A., & O'Leary, K.D. ( 1981). Marital violence: Characteristics of abusive couples. *Journal of Consulting and Clinical Psychology* 49: 63– 71.
- Sanders, M.R., & Halford, W.K., & Behrens, B.C. ( 1999). Parental divorce and premarital couple communication. *Journal of Family Psychology* 13: 60– 74.
- Sayers, S.L., & Baucom, D.H., & Sher, T.G., & Weiss, R.L., & Heyman, R.E. ( 1991). Constructive engagement, behavioral marital therapy, and changes in marital satisfaction. *Behavioral Assessment* 13: 25– 49.
- Sigelman, C.K., & Berry, C.J., & Wiles, K.A. ( 1984) Violence in college students' dating relationships. *Journal of Applied Social Psychology* 14: 530– 548.
- Spanier, G.B. ( 1976). Measuring dyadic adjustment: New scales for assessing the quality of marriage and similar dyads. *Journal of Marriage and the Family* 38: 15– 28.
- Stets, J.E., & Straus, M.A. ( 1990). The marriage license as a hitting license: A comparison of dating, cohabiting and married couples ( pp. 131– 164). In M.A. Straus, R.J. Gelles, & S.K. Steinmetz ( eds. ), *Behind closed doors: Violence in the American family*. New York: Doubleday.
- Stith, S.M., & Farley, S.C. ( 1993). A predictive model of male spousal violence. *Journal of Family Violence* 8: 183– 201.
- Straus, M.A. ( 1979). Measuring intrafamily conflict and violence: The Conflicts Tactics (CT) Scales. *Journal of Marriage and the Family* 41: 75– 88.
- Straus, M.A., & Gelles, R.J. ( 1986). Societal change and change in family violence from 1975 to 1985 as revealed by two national surveys. *Journal of Marriage and the Family* 48: 465– 479.
- Straus, M.A., & Gelles, R.J., & Steinmetz, S.K. ( 1980). *Behind closed doors: Violence in the American family*. New York: Doubleday.
- Sullivan, K.T., & Bradbury, T.N. ( 1997). Are premarital prevention programs reaching couples at risk for marital dysfunction? *Journal of Consulting and Clinical Psychology* 65: 24– 30.
- Weiss, R.L., & Cerreto, M.C. ( 1980). The Marital Status Inventory: Development of a measure of dissolution potential. *American Journal of Family Therapy* 8: 80– 85.
- Weiss, R.L., & Heyman, R.E. ( 1997). A clinical-research overview of couples interactions ( pp. 13– 41). In W.K. Halford & H.J. Markman ( eds. ), *Clinical handbook of marriage and couple interventions*. New York: John Wiley & Sons.
- Widom, C.S. ( 1989). Does violence beget violence? A critical examination of the literature. *Psychological Bulletin* 106: 3– 28.