

# Is Skills Training Necessary for the Primary Prevention of Marital Distress and Dissolution? A 3-Year Experimental Study of Three Interventions

Ronald D. Rogge  
University of Rochester

Rebecca J. Cobb  
Simon Fraser University

Erika Lawrence  
University of Iowa

Matthew D. Johnson  
Binghamton University

Thomas N. Bradbury  
University of California, Los Angeles

**Objective:** Evidence in support of skill-based programs for preventing marital discord and dissolution, while promising, comes mainly from studies using single treatment conditions, passive assessment-only control conditions, and short-term follow-up assessments of relationship outcomes. This study overcomes these limitations and further evaluates the efficacy of skill-based programs. **Method:** Engaged and newlywed couples ( $N = 174$ ) were randomly assigned to a 4-session, 15-hr small-group intervention designed to teach them skills in managing conflict and problem resolution (PREP) or skills in acceptance, support, and empathy (CARE). These couples were compared to each other, to couples receiving a 1-session relationship awareness (RA) intervention with no skill training, and to couples receiving no treatment on 3-year rates of dissolution and 3-year trajectories of self-reported relationship functioning. **Results:** Couples in the no-treatment condition dissolved their relationships at a higher rate (24%) than couples completing PREP, CARE, and RA, who did not differ on rates of dissolution (11%). PREP and CARE yielded unintended effects on 3-year changes in reported relationship behaviors. For example, wives receiving PREP showed *slower* declines in hostile conflict than wives receiving CARE, and husbands and wives receiving CARE showed *faster* declines in positive behaviors than husbands and wives receiving PREP. **Conclusions:** These findings highlight the potential value of cost-effective interventions such as RA, cast doubt on the unique benefits of skill-based interventions for primary prevention of relationship dysfunction, and raise the possibility that skill-based interventions may inadvertently sensitize couples to skill deficits in their relationships.

**Keywords:** couples, marriage, intervention, prevention

Efforts to prevent relationship distress assume that teaching couples how to communicate effectively enables them to have more fulfilling and durable unions. Controlled studies with 3- to 6-month follow-ups support these efforts (Hawkins, Blanchard, Baldwin, & Fawcett, 2008), prompting scholars to recommend new studies that follow couples for longer periods, that compare interventions derived from competing theoretical perspectives, and

that replace passive assessment-only control groups with active minimal interventions (e.g., see Halford, 2011). We address these recommendations by comparing the 3-year relationship outcomes of couples randomized to one of three active treatment conditions.

## Review of Theory and Research

The most widely studied preventive interventions for couples begin with the premise, adapted from social learning theory, that judgments of relationship satisfaction are determined by the frequency and patterning of the rewarding and punishing behaviors that partners exchange (e.g., Jacobson & Margolin, 1979). Most tests of this premise focus specifically on how partners manage disagreements, and studies of newlywed couples support the contention that displays of critical and hostile behaviors during problem-solving conversations hasten the rate of relationship deterioration while constructive communication offsets these effects (e.g., Johnson et al., 2005). The Prevention and Relationship Enhancement Program (PREP; Markman, Stanley, & Blumberg, 1994) capitalizes on this model, providing couples with training in communication and problem-solving skills, as well as relationship expectations, friendship, and commitment. Studies of PREP with

---

This article was published Online First September 23, 2013.

Ronald D. Rogge, Department of Clinical and Social Sciences in Psychology, University of Rochester; Rebecca J. Cobb, Department of Psychology, Simon Fraser University, Burnaby, British Columbia, Canada; Erika Lawrence, Department of Psychology, University of Iowa; Matthew D. Johnson, Department of Psychology, Binghamton University; Thomas N. Bradbury, Department of Psychology, University of California, Los Angeles.

This research was supported by a grant from the John Templeton Foundation awarded to Thomas N. Bradbury.

Correspondence concerning this article should be addressed to Thomas N. Bradbury, Department of Psychology, University of California, Los Angeles, CA 90095-1563. E-mail: [bradbury@psych.ucla.edu](mailto:bradbury@psych.ucla.edu)

3-year (Hahlweg, Markman, Thurmaier, Engl, & Eckert, 1998) and 5-year (Markman, Renick, Floyd, Stanley, & Clements, 1993) follow-up assessments suggest that couples participating in this program are more satisfied than couples who receive no intervention, although couples' self-selection into and out of the intervention may exaggerate these differences (Halford, Markman, & Stanley, 2008).

Though informative, comparisons between PREP and untreated couples leave open the possibility that stronger effects can be achieved with interventions derived from alternate theories. Responding to limitations of social learning models for treating relationship distress, Jacobson and Christensen (1996) developed an acceptance-oriented framework in which partners are encouraged to join around their differences and develop a shared but detached perspective on the issues that divide them. Whereas programs guided by social learning theory (e.g., PREP) address the interpersonal skills couples need to negotiate competing demands for change, acceptance-oriented programs target ways that partners can empathize with one another's perspectives. Other models that prioritize prosocial exchanges to help couples maintain healthy relationships have emerged in recent years, highlighting the importance of interpersonal skills and capacities that extend beyond conflict management (e.g., dyadic coping, Bodenmann, 2005; forgiveness, McCullough, Worthington, & Rachal, 1997). The present study compares PREP with a prosocial intervention—Compassionate and Accepting Relationships Through Empathy, or CARE (Rogge, Johnson, Lawrence, Cobb, & Bradbury, 2002)—in an effort to clarify which theory-derived set of skills best promotes satisfying relationships.

Like many preventive interventions, PREP and CARE assume that improving skills is essential for healthy relationships. However, an alternative perspective holds that most couples already possess the basic skills they need to keep their relationship healthy and strong, requiring instead interventions that promote greater *relationship awareness* (RA) and that prompt routine monitoring of the relationship. Partners who are more aware of their relationships and who identify strongly with the relationship are hypothesized to make more efforts, and more effective efforts, at relationship maintenance (e.g., Acitelli, 2001). Greater relationship identity and awareness reduce divorce rates over 5 years (Carrère, Buehlman, Gottman, Coan, & Ruckstuhl, 2000), even after adjusting for concurrent negativity. Interpersonal skills are not unimportant from the RA perspective but are seen as essentially intact and secondary to partners' motivations to identify with the relationship and to deploy the skills they already possess (see Snyder & Schneider, 2002). Distinguishing between communication skills and the motivation or desire to implement these skills suggests that encouraging partners to attend to and maintain their relationship may supplant their natural inclination to take the relationship for granted as time passes.

Based on a study demonstrating that low-risk couples benefit as much from discussing a book about relationships as from learning specific communication skills (Halford, Sanders, & Behrens, 2001), we propose that partners' motivation to maintain their relationships can be enhanced and that relationship deterioration can be prevented by heightening couples' awareness of the importance of relationship maintenance. We propose further that, because no skill training is required, RA can be enhanced with low-dose, low-cost interventions, particularly interventions that

couples can incorporate easily into their daily lives. In the present study we implement an RA intervention that outlines this basic principle in a single in-person session, followed by four self-guided in-home practice sessions. Implementing the RA intervention can clarify any incremental value of skill-based interventions while addressing whether low-dose interventions can benefit couples who are unable or unwilling to participate in intensive skill-based programs.

## Study Aims and Hypotheses

The present study compares the 3-year outcomes of engaged or newlywed couples randomly assigned to receive either the leading prevention program derived from the social learning model (PREP), a structurally similar program derived from an acceptance-based model of relationships (CARE), or a brief, low-cost intervention designed to increase RA. These three groups of couples are compared to one another and to a group of comparable couples receiving no intervention, to determine which of the three active conditions, if any, prevent dissolution and slow rates of decline in relationship satisfaction. Extending follow-up assessments to 3 years allows us to sample dissolutions directly, thereby expanding upon the more commonly studied changes in satisfaction (see Hawkins et al., 2008).

Comparing three potentially active treatments allows us to examine another unanswered question in long-term intervention studies with couples: Do interventions produce specific changes in their main intervention targets, or do the effects expand beyond these targets? By focusing primarily on behavioral outcomes that are congruent with the intervention (e.g., PREP studies typically focus on changes in problem-solving behaviors) and by relying on treated-versus-untreated control comparisons, prior studies overlooked the possibility that the interventions produce beneficial effects in other interpersonal domains. An intervention that strengthens problem-solving skills, for example, might yield benefits in areas that it does not emphasize (e.g., improved support), and conversely, an intervention designed to improve empathy and acceptance might also improve conflict management. We explore these possibilities by examining three active intervention conditions and by assessing trajectories of self-reported 3-year change in conflict, support, and affection.

We test three main hypotheses. First, we predicted that couples receiving PREP and CARE would not differ in their outcomes but would experience better relationship outcomes compared to couples receiving no treatment, where better relationship outcomes are defined as lower divorce rates and more favorable 3-year relationship satisfaction trajectories.

Second, in view of evidence that RA may promote relationship functioning, we predicted that couples receiving the RA intervention would experience better outcomes than couples receiving no intervention. As RA is an untested approach, we made no predictions comparing RA to PREP or CARE. On one hand, the focus on skills training in PREP and CARE might yield stronger effects than RA, while, on the other hand, the routine maintenance function of the RA intervention may yield comparable effects to PREP and CARE.

Third, we predicted that PREP couples would experience steeper declines in their reported use of negative behavior compared to CARE couples and, conversely, that CARE couples

would experience smaller declines in their reported displays of emotional support and affection than PREP couples would. We expected the two skill-based interventions to outperform the RA group in terms of negative behavior, emotional support, and affection.

## Method

### Participants

Participants were 174 engaged or newlywed couples. Men averaged 29.3 years of age ( $SD = 4.8$ ) and 15.0 years of education ( $SD = 2.5$ ); 6% were unemployed. Women averaged 27.9 years of age ( $SD = 4.9$ ) and 15.0 years of education ( $SD = 2.3$ ); 16% were unemployed. Modal incomes for men and for women were between \$30,000 and \$50,000. Just over half of the participants were Caucasian (55%), with 21% Latino, 11% Asian, 5% African American, and 8% other. Most couples (80%) were engaged to be married; they participated in the intervention for an average of 6.8 months ( $SD = 4.0$ ) prior to their weddings. The remaining couples were married at the screening and participated for an average of 3.2 months ( $SD = 2.7$ ) after their weddings. Most (72%) couples were cohabiting at the time of screening ( $M = 2.6$  years,  $SD = 2.0$ ). Forty-two couples (24%) had children, 18 of whom were from a previous relationship.

### Procedure

**Recruitment and screening.** Recruitment has been described previously (Rogge et al., 2006) and is detailed in Figure 1. Fol-

lowing institutional review board–approved procedures, one spouse from each couple was screened via a 20-min telephone interview to obtain informed consent and to assess interest, eligibility, demographics, and relationship satisfaction (using the Kansas Marital Satisfaction Scale; Schumm, Nichols, Schectman, & Grinsby, 1983). Eligibility requirements were (a) both partners consented to participate, (b) partners were fluent in English, (c) the couple was engaged to be married within the next year or married fewer than 6 months, (d) the partners were starting first marriages, and (e) the couple was not distressed (by the interviewee's report). Distressed couples received appropriate referrals. Eligible partners received questionnaires (pretreatment, T0) with consent forms in separate envelopes and written instructions not to discuss their responses. Couples completing T0 ( $n = 183$ ) were no different from couples who did not ( $n = 155$ ) on satisfaction, couples counseling, presence of children at marriage, and proportion of Asian spouses. There were fewer couples with an African American partner among couples who completed T0 (6%) compared to those who did not complete T0 (15%),  $\chi^2(1) = 7.6, p < .01$ .

After completing T0, couples were randomly assigned to CARE, PREP, or the single-session RA condition and were scheduled by telephone for the workshops. Six couples assigned to CARE or PREP with work or commute schedules that prohibited attendance at the weeknight sessions accepted our invitation to participate in the RA condition. Although 130 of 145 couples (90%) attended at least the first treatment session, 15 couples could never be successfully scheduled and were combined with the 29 couples who declined treatment to create the no-treatment (NoTx) group. As Figure 1 shows, 52 couples received CARE, 45 couples

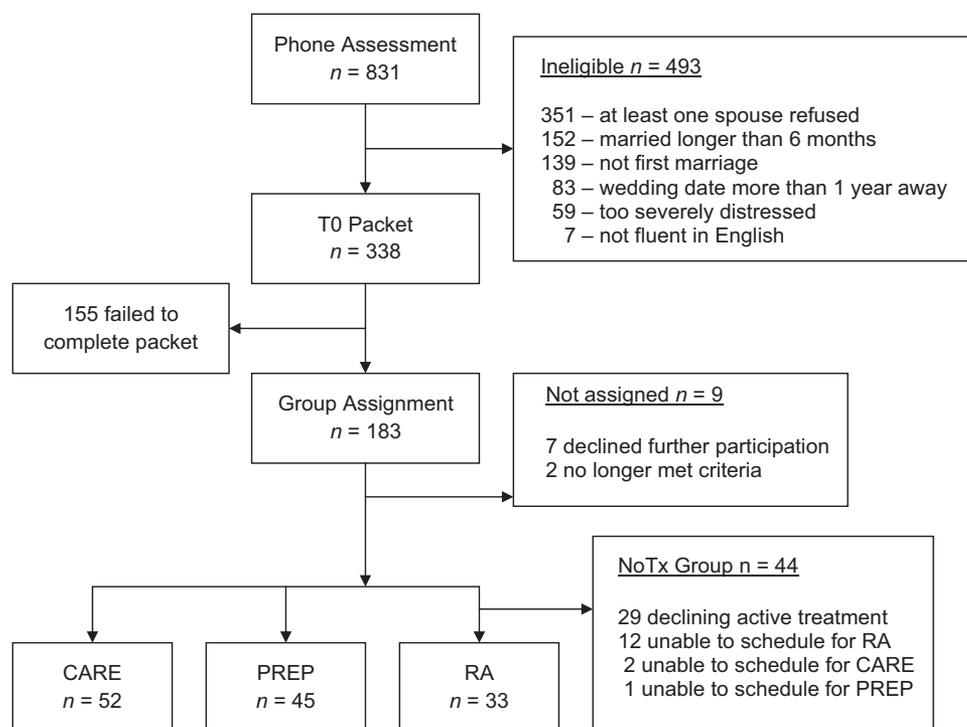


Figure 1. Flowchart of couple selection and participation. CARE = Compassionate and Accepting Relationships Through Empathy; NoTx = no treatment; PREP = Prevention and Relationship Enhancement Program; RA = relationship awareness; T0 = pretreatment.

received PREP, 33 couples received RA, and 44 couples were in the NoTx group.

**Treatment format.** Groups of three to six couples completed CARE and PREP workshops in an initial 6-hr weekend session followed by three weekly 3-hr evening sessions (i.e., 15 hr over 1 month). Groups of 10–15 couples completed RA workshops in a single on-campus 4-hr session and four weekly home sessions. RA participation was assessed by weekly telephone calls, and couples provided brief notes on the movies and their semistructured discussions that were returned weekly to the project in self-addressed, stamped envelopes. Doctoral students in clinical psychology with at least 2 years of clinical training led the workshops. Advanced undergraduate research assistants served as coaches for the CARE and PREP exercises. Coach training and supervision are detailed elsewhere (Rogge et al., 2002).

**Treatment dropout.** Of the 130 couples who participated in active treatment conditions, 27 couples attended fewer than three sessions, primarily because of time constraints and distance to campus. Dropouts were evenly distributed across treatments; eight couples withdrew from CARE, 10 from PREP, and nine from RA,  $\chi^2(2) = 1.8, ns$ . Repeated measures analyses of variance (ANOVAs) with partners treated as a within-subject factor (and chi-square analyses) indicated that withdrawing couples were very similar to completers. However, withdrawers had slightly lower levels of education ( $M = 15.2$  years,  $SD = 3.0$ ) compared to completers ( $M = 16.4$  years,  $SD = 3.1$ ),  $F(1, 128) = 5.7, p < .02, \eta^2 = .043$ , and withdrawers had more children ( $M = 2.6, SD = 1.4$ , among couples with children) than completers ( $M = 1.7,$

$SD = 0.6$ ),  $F(1, 27) = 5.5, p < .03, \eta^2 = .170$ . Although it was likely to underestimate treatment effects, we nevertheless retained these couples in the outcome analyses.

**Follow-up assessments.** Couples in CARE, PREP, and RA completed measures of relationship quality and relationship processes a maximum of six times: at pretreatment (T0), at the start of the workshop (T1, 1–2 months later), and at 6, 12, 24, and 36 months following the end of treatment (Times 2–5, respectively). NoTx couples completed the T0 packet and provided Marital Adjustment Test (MAT) and relationship stability data at T0, T3, and T5. Couples received \$25 for each assessment.

**Attrition.** Of the 174 couples, seven in CARE, eight in PREP, and three in RA provided no follow-up data; they were evenly distributed across conditions,  $\chi^2(2) = 1.2, p < .55, \phi = .10$ . Repeated measures ANOVAs with partners treated as a within-subject factor, and chi-square analyses indicated that the couples who failed to provide follow-up data were not significantly different from couples who provided follow-up data on any measure.

**Treatment Conditions**

Table 1 summarizes the format and content of the three active treatment conditions.

**Prevention and Relationship Enhancement Program (PREP).** PREP is a psychoeducational program designed to strengthen relationships by teaching couples communication skills. PREP includes 14 lectures on a range of topics (e.g., problem solving, time-outs, commitment, and sensuality); a forgiveness

Table 1  
Description of Active Treatment Conditions

Program component	CARE	PREP	RA
Program format			
In-person sessions	5: 4 + SAVE	5: 4 + SAVE	1
Didactic lectures	16 (15–45 min)	16 (15–45 min)	1 (10 min)
Skill exercises	9 (20–45 min)	10 (15–50 min)	0
Homework	12 skill-based exercises	10 skill-based exercises	4 discussions
Contact time	15 hr + 3 hr for SAVE	15 hr + 3 hr for SAVE	4 hr
Conflict and problem-solving modules	Hard vs. soft feelings and acceptance; changing perspectives and problem reformulation; detaching via empathic joining; effective use of time-outs; preventing conflict	Structured communication and speaker–listener technique; how filters distort communication; altering negative communication with XYZ statements; danger signs, time-outs, and negative conflict behaviors; effective problem-solving; communicating expectations; setting ground rules; respecting core beliefs; issues vs. events	3 discussion prompts about conflict; 2 discussion prompts about expectations
Support and positivity modules	Listening as a friend and empathic amplification; managing moods; committing random acts of kindness and affection	Maintaining positives via fun, friendship, and sensuality; fostering commitment and a long-term view	2 discussion prompts about social support
Forgiveness modules	Discussing hurt feelings with the language of acceptance; effective apologies; giving partners the benefit of the doubt	Discussing hurt feelings with the language of acceptance; effective apologies; giving partners the benefit of the doubt	2 discussion prompts about forgiveness

Note. CARE = Compassionate and Accepting Relationships Through Empathy; PREP = Prevention and Relationship Enhancement Program; RA = relationship awareness; SAVE = Stop Anger and Violence Escalation.

This document is copyrighted by the American Psychological Association or one of its allied publishers. This article is intended solely for the personal use of the individual user and is not to be disseminated broadly.

module was excluded to minimize overlap with CARE. Couples completed numerous exercises designed to practice the PREP skills (see Table 1). Central to PREP is the speaker-listener technique, which slows the pace of communication by ensuring that one spouse's point of view is accurately reflected before moving on to discuss the partner's point of view; in many of the exercises, couples discussed various topics while using the speaker-listener technique. Three of the graduate students delivering PREP were trained personally by the developers of the PREP program.

**Compassionate and Accepting Relationships Through Empathy (CARE).** Designed for this study, CARE aims to strengthen relationships by teaching couples supportive and empathic skills. Based on integrative behavioral couple therapy (IBCT; Jacobson & Christensen, 1996), CARE includes 16 lectures covering a core set of acceptance-based skills. As with PREP, the lectures were interspersed with exercises designed to help couples practice new skills or to explore topics in their relationship (see Table 1). CARE emphasizes skills designed to enhance empathy, compassion, and acceptance. Building on strategies in IBCT, couples were encouraged to use the language of acceptance (e.g., focusing on understanding one's partner, making soft rather than hard disclosures) when discussing relationship problems, individual problems, and relationship transgressions. Couples also learned basic reframing skills and skills to help them empathically join to tackle problematic patterns of dyadic behavior.

**Relationship awareness (RA).** Developed for this study, the one-session RA condition was designed to heighten partners' awareness of their relationship and the importance of regular relationship maintenance. Rather than teach couples new skills, RA drew partners' attention to current behavior in their relationship and encouraged them to decide for themselves if their behavior was constructive or destructive. During an on-campus presentation, couples were informed about the importance of RA and maintenance, and they were introduced to the idea that regular everyday events—particularly those captured in commercial films—could be used as prompts to accomplish these goals. Couples then watched a movie, *Two for the Road* (Donen, 1967), in which a couple revisits earlier scenes from their marriage and recounts the joys and difficulties they experienced. In separate rooms, couples then followed instructions for 50- to 60-min semi-structured discussions in which they addressed the themes of this film (including conflict, support, stress, and forgiveness) and how they could reflect on these themes in their own relationship. Coaches intervened minimally in the discussions and primarily focused couples on the task, encouraged partners to engage the questions thoughtfully, and answered any questions. After the discussions, couples received a list of 47 movies with an intimate relationship as a major plot focus with instructions to watch one movie per week at home for the next month and to discuss the same set of open-ended questions following each movie (see Table 1). Couples completed and returned a brief questionnaire for each movie they watched; rental costs for all movies were reimbursed.

**Additional elements in CARE and PREP.** In our original design, about half of the CARE and PREP couples were randomly assigned to receive a specialized 3-hr forgiveness module. To keep contact time similar for all CARE and PREP couples, remaining couples received 3 extra hours of practice in the skills targeted by their interventions. Couples who did and did not receive the forgiveness module did not differ on any outcome measures, and

thus, all analyses focus on contrasts among CARE, PREP, RA, and NoTx. CARE and PREP couples also attended a 3-hr session at the end of treatment devoted to the Stop Anger and Violence Escalation program (SAVE; Neidig, 1989). Couples in the RA condition did not receive SAVE to avoid introducing any skill training into that intervention.

**Treatment adherence for CARE and PREP.** Audiotapes of 16 CARE lectures and 15 PREP lectures, randomly sampled across all workshop leaders, were coded by two independent judges for the presence or absence of specific intervention elements (e.g., "Leader described three key ways expectations may cause problems"; range = 6–16 elements per lecture, *Mdn* = 12 elements). Interrater reliability was adequate (intra-class correlation coefficient = .81), and computed means indicated that leaders adhered to 93% of the PREP elements and 95% of the CARE elements.

**Satisfaction with treatment.** Satisfaction with the workshop, assessed on a 7-point scale at the end of treatment, differed across couples, as indicated by a significant repeated measures ANOVA using partner as a within-subject factor,  $F(2, 79) = 4.1, p < .02$ , partial  $\eta^2 = .094$ . Post hoc Tukey analyses showed that CARE couples were more satisfied ( $M = 5.6, SD = 0.8$ ) than RA couples ( $M = 5.0, SD = .8$ ); PREP couples did not differ from the other groups ( $M = 5.4, SD = 1.0$ ). CARE and PREP couples were similar in their satisfaction with workshop leaders ( $M = 6.5, SD = 0.7$ , and  $M = 6.4, SD = 0.8$ , respectively) and coaches ( $M = 5.7, SD = 0.5$ , and  $M = 5.6, SD = 0.5$ , respectively; *ns*).

## Measures

Table 2 provides psychometric data and descriptive statistics for all key T0 measures.

**Demographics.** At T0, participants provided information about their age, relationship, education, race, children, living arrangements, and previous couples counseling.

**Relationship satisfaction.** As detailed above, participants completed the Marital Adjustment Test (MAT; Locke & Wallace, 1959) and the Positive and Negative Quality in Marriage Scale (PANQIMS; Fincham & Linfield, 1997), which asks respondents to rate the positive aspects of their relationship while ignoring the negative aspects and then rate the negative aspects of their relationship while ignoring the positives. Relevant items are averaged to yield Positive and Negative subscale scores.

**Hostile conflict behavior.** The Conflict subscale of the Marital Coping Inventory (Bowman, 1990) assesses frequency of antagonistic behaviors (e.g., "I yell or shout at my partner"). Higher scores indicate higher levels of negative behavior.

**Validation and affection.** The Support in Intimate Relationships Rating Scale (Dehle, Larsen, & Landers, 2001) assesses frequency of social support provided by one's partner in the prior 2 weeks. Based on a factor analysis (Barry, Bunde, Brock, & Lawrence, 2009), we created subscales for emotional validation (e.g., "Said he/she would feel the same way in my situation") and physical affection ("Hugged or cuddled with me").

**Forgiveness.** The Wade Forgiveness Measure (McCullough et al., 1997) assesses individuals' tendencies to forgive their partner after being unfairly hurt by them. Items focus on specific behavioral reactions to being hurt (e.g., "I harbor a grudge," "I accept my partner").

Table 2  
Psychometrics and Correlations Among Variables at Pretreatment

Variable	No. of items	Range	Men			Women			Correlations between measures								
			M	SD	α	M	SD	α	1	2	3	4	5	6	7	8	9
1. Relationship satisfaction	15	2–158	119	21	.71	119	19	.70	<b>.53</b>	.60	-.69	-.36	.25	.23	.46	-.22	-.31
2. Positive relationship qualities	3	1–10	9.3	1.0	.82	9.5	0.7	.76	<b>.35</b>	<b>.24</b>	-.46	-.11	.18	.20	.30	-.20	-.28
3. Negative relationship qualities	3	1–10	3.7	2.0	.86	3.8	2.1	.87	-.59	-.26	<b>.22</b>	.46	-.13	-.11	-.49	.27	.20
4. Hostile conflict behavior	15	0–60	14.0	8.8	.89	18.1	10.8	.91	-.46	-.22	.44	<b>.41</b>	-.23	-.06	-.55	.51	.30
5. Emotional support	7	0–49	18.9	13.1	.94	19.1	13.5	.91	.12	.09	-.10	-.12	<b>.20</b>	.37	.29	-.13	-.03
6. Affectionate behavior	4	0–28	20.1	9.0	.94	20.2	8.7	.94	.19	.12	-.03	-.03	.40	<b>.24</b>	.13	-.06	-.05
7. Forgiveness toward partner	20	0–100	79.6	13.4	.87	73.7	16.8	.92	.41	.17	-.35	-.63	.10	.13	<b>.19</b>	-.51	-.22
8. Trait anger	13	0–52	16.8	8.9	.82	19.3	10.5	.78	-.34	-.12	.34	.47	-.09	-.02	-.45	<b>-.02</b>	.26
9. Physical aggression	4	0–8	0.43	1.01	.74	0.74	1.43	.63	-.33	-.21	.28	.29	.01	.02	-.22	.26	<b>.44</b>

Note. Correlations in men’s data are presented above the diagonal, correlations in women’s data are presented below the diagonal, and between-spouse correlations are shown in bold text on the diagonal. All correlations above .14 or less than -.14 are significant at the  $p < .05$  level. Relationship satisfaction = self-reported Marital Adjustment Test scores; positive relationship qualities = self-reported Positive and Negative Quality in Marriage Scale (PANQIMS) scores; negative relationship qualities = self-reported PANQIMS scores; hostile conflict behavior = self-reported Marital Coping Inventory scores; emotional support = partner-reported Support in Intimate Relationships Rating Scale (SIRRS) scores; affectionate behavior = partner-reported SIRRS scores; forgiveness toward partner = self-reported Wade Forgiveness Measure scores; trait anger = self-reported Multidimensional Anger Inventory scores; physical aggression = partner-reported four-item scale scores from the Conflict Tactics Scales–Revised.

**Trait anger.** The Multidimensional Anger Inventory (Siegel, 1986) assesses individuals’ cross-situational propensities to experience and react with anger (e.g., “I tend to get angry more frequently than most people”).

**Aggression.** Respondents reported their own and their partner’s aggression using the Conflict Tactics Scale–Revised (Straus, Hamby, Boney-McCoy, & Sugarman, 1996) with four items at T0 and 16 items from T1 to T5. Aggression was treated as dichotomous outcome, and an individual was considered aggressive if either partner reported at least one aggressive act for the individual.

### Results

As shown in Table 2, MAT and PANQIMS scores correlated in expected directions, and higher levels of negative behavior covaried strongly with lower levels of forgiveness and higher levels of trait anger. Remaining correlations were moderate to weak in magnitude and in the expected directions, suggesting low levels of collinearity for the remaining analyses.

### Equivalence of Treatment Conditions

As shown in Table 3, there were few differences between groups at T0, with two exceptions: PREP participants were slightly older than CARE and NoTx participants, and RA (26%) and NoTx (31%) groups had higher proportions of Latino/a spouses than CARE (15%) and PREP (13%) groups. Groups did not differ on 20 of 22 demographic and relationship dimensions examined (see Table 3), indicating that they can be compared in a meaningful way.

### Do Dissolution Rates Vary by Treatment Group?

Of the 153 couples who provided follow-up data, 25 (16.3%) ended their relationships (e.g., separation, divorce) by the 3-year follow-up assessment: six CARE couples (13.3%), five PREP couples (13.5%), four RA couples (13.3%), and 10 NoTx couples

(24.4%). A chi-square test showed that the CARE, PREP, and RA couples had marginally lower rates of dissolution than NoTx couples,  $\chi^2(1) = 2.7, p < .10, \phi = -.132$ . This effect became stronger when the analysis was restricted to the couples who completed one of the three active treatments in comparison to the NoTx couples—11% dissolution in treatment completers versus 24% in NoTx couples,  $\chi^2(1) = 4.4, p < .03, \phi = -.175$ —where completion was defined as participation in the first session as well as two additional sessions (for PREP and CARE couples) or two additional movies (for RA couples). Given the equivalence of groups at T0 (see Table 3), these results suggest that all treatments reduced risk of separation or divorce over the first 3 years of marriage.

### Do Changes in Relationship Outcomes Vary by Treatment Group?

Using data summarized in Table 4, we examined whether trajectories of relationship outcomes varied by treatment group using multilevel modeling and the Hierarchical Linear Modeling Program (HLM 6.0; Raudenbush, Bryk, & Congdon, 2004). We used a three-level model in which repeated measurements over time were modeled at Level 1 (using a slope-intercept format and centering time at the start of treatment), individual partners were modeled at Level 2, and dyads were modeled at Level 3. Trajectories were allowed to vary across treatment conditions and gender (using dichotomous variables identifying group membership), intercepts were treated as random effects at Level 2, and slopes were treated as random effects at Level 3.

$$\text{Level 1} \quad \text{Relationship Quality} = \pi_0 + \pi_1(\text{time}) + E$$

$$\text{Level 2} \quad \pi_0 = \beta_{01}^*(\text{MEN}) + \beta_{02}^*(\text{WOMEN}) + r_0$$

$$\pi_1 = \beta_{11}^*(\text{MEN}) + \beta_{12}^*(\text{WOMEN})$$

$$\text{Level 3} \quad \beta_{01} = \gamma_{010} + \gamma_{011}^*(\text{CARE}) + \gamma_{012}^*(\text{PREP}) + \gamma_{013}^*(\text{RA})$$

$$\beta_{02} = \gamma_{020} + \gamma_{021}^*(\text{CARE}) + \gamma_{022}^*(\text{PREP}) + \gamma_{023}^*(\text{RA})$$

Table 3  
Equivalence of Groups at Pretreatment

Variable	CARE	PREP	RA	NoTx	Treatment contrast	Effect size
<b>Demographics</b>						
Number of couples	52	45	33	44		
Age	28 (4.5)	30 (5.0)	29 (4.8)	27 (5.0)	$F(3, 344) = 6.2^{***}$	.051
Years of education	15.2 (2.5)	15.1 (2.2)	15.2 (2.3)	14.6 (2.6)	$F(3, 344) = 1.5$	.013
Caucasian	63%	56%	47%	50%	$\chi^2(3) = 5.0$	.119
Latino/a	15%	13%	26%	31%	$\chi^2(3) = 11.1^{***}$	.179
Asian/Pacific Islander	11%	16%	12%	5%	$\chi^2(3) = 5.9$	.130
African American	3.8%	7.8%	6.1%	3.4%	$\chi^2(3) = 2.3$	.081
Cohabiting	75%	78%	66%	70%	$\chi^2(3) = 1.7$	.103
Years cohabiting	2.5 (1.8)	2.3 (1.3)	2.3 (1.6)	2.9 (2.9)	$F(3, 123) = 0.6$	.014
Children at pretreatment	23%	24%	18%	30%	$\chi^2(3) = 1.4$	.089
Number of children	1.8 (0.6)	2.1 (1.4)	1.8 (0.4)	1.8 (1.0)	$F(3, 38) = 0.3$	.022
Divorced parents	47%	39%	36%	42%	$\chi^2(3) = 2.3$	.082
<b>Pretreatment relationship quality</b>						
Relationship satisfaction	121 (17)	116 (23)	123 (20)	116 (22)	$F(3, 344) = 2.3$	.020
Negative relationship qualities	3.7 (2.0)	3.9 (2.2)	3.3 (2.0)	4.0 (2.1)	$F(3, 344) = 1.4$	.012
Positive relationship qualities	9.6 (0.6)	9.3 (1.0)	9.5 (0.7)	9.4 (1.0)	$F(3, 344) = 1.7$	.015
Previous couples counseling	5.8%	15.6%	9.1%	11.4%	$\chi^2(3) = 2.6$	.122
Hostile relationship conflict	17 (10)	15 (9)	15 (10)	17 (11)	$F(3, 310) = 1.3$	.012
Emotional support	19 (13)	16 (12)	20 (15)	21 (13)	$F(3, 341) = 1.9$	.017
Affectionate behavior	21 (8.4)	19 (9.6)	21 (9.2)	20 (8.8)	$F(3, 343) = 1.5$	.013
Forgiveness	76 (17)	76 (15)	77 (15)	78 (15)	$F(3, 344) = 0.3$	.002
Trait anger	19 (8.7)	18 (9.1)	17 (12.4)	18 (9.6)	$F(3, 344) = 0.4$	.003
Physical aggression	25%	26%	20%	30%	$\chi^2(3) = 1.9$	.075
Amount of physical aggression	2.3 (1.4)	2.1 (1.4)	1.9 (1.4)	2.6 (1.7)	$F(3, 84) = 0.7$	.024

Note. Values in parentheses are standard deviations. CARE = Compassionate and Accepting Relationships Through Empathy; PREP = Prevention and Relationship Enhancement Program; RA = relationship awareness; NoTx = no treatment; effect size = partial eta squared coefficients for all analyses of variance presented and phi coefficients for the chi-square analyses presented; relationship satisfaction = self-reported Marital Adjustment Test scores; negative and positive relationship qualities = self-reported Positive and Negative Quality in Marriage Scale scores; hostile relationship conflict = self-reported Marital Coping Inventory Conflict subscale scores; emotional support = partner-reported Support in Intimate Relationships Rating Scale (SIRRS) emotional support subscale scores; affectionate behavior = partner-reported SIRRS affection subscale scores; trait anger = self-reported Multidimensional Anger Inventory scores; physical aggression = partner-report on presence of any of the four screening items from the Conflict Tactics Scales-Revised (CTS-R); amount of physical aggression = number of aggressive acts reported on the four CTS-R screening items among respondents reporting any aggression.

\*\*\*  $p < .01$ .

$$\beta_{11} = \gamma_{110} + \gamma_{111}^*(\text{CARE}) + \gamma_{112}^*(\text{PREP}) + \gamma_{113}^*(\text{RA}) + \mu_{11}$$

$$\beta_{12} = \gamma_{120} + \gamma_{121}^*(\text{CARE}) + \gamma_{122}^*(\text{PREP}) + \gamma_{123}^*(\text{RA}) + \mu_{12}$$

Although the models allowed treatment groups to vary on the outcome measures at the start of treatment ( $\pi_0$ , corresponding to  $\gamma_{010}$  through  $\gamma_{023}$ ), these contrasts yielded trivial differences and in the interest of space are not discussed further.

**Marital satisfaction.** Across all conditions, MAT scores dropped an average of 3.6 points per year for men and 2.3 points per year for women (*ns*) following the workshops. Coefficients testing for differences from this general trend within the CARE, PREP, and RA groups failed to identify any significant differences in slopes of MAT-rated satisfaction for men or women (see Table 5 and Figures 2A and 2B). Analyses modeling linear change in perceived negative relationship qualities separately within the CARE, PREP, and RA groups failed to yield any consistent patterns of linear change, while analyses modeling linear change in positive relationship qualities suggested that men and women in the CARE condition and women in the PREP condition (marginally) declined more rapidly on this dimension (see Table 5). These results are surprising in light of the focus on acceptance, support, and empathy in CARE intervention, yet, as we outline below, this may be part of a broader pattern of results in which interventions

produce effects that are incongruent with their intended targets of change.

**Negative and positive behavior.** We tested three-level models to examine linear change in self-reported hostile conflict behavior, emotional support, affection, and aggression, allowing results to freely vary across the CARE, PREP, and RA groups. As shown at the top of Table 6, women in the CARE and RA groups declined in hostile conflict following the workshops. Contrary to hypotheses, PREP women did not decline in hostile conflict despite the central role that regulation of negative behavior plays in this intervention (see Figure 2C). Hostile conflict slopes for men were also relatively flat for men in the PREP group, but this did not distinguish them reliably from men in the CARE and RA groups (see Table 6).

Turning to positive behaviors, women receiving CARE experienced reliable linear declines in emotional support, while women in the PREP and RA groups did not change reliably. Again, this runs directly counter to the prediction that CARE would stabilize or even improve participants' perceptions of support. Results were similar but weaker for men (see Table 6). Results for women's changes in emotional support are graphed in Figure 2D.

Table 4  
Means (and Standard Deviations in Parentheses) of Outcome Measures Across Waves of Assessment

Variable	CARE		PREP		RA		NoTx	
	Males	Females	Males	Females	Males	Females	Males	Females
<b>Sample size</b>								
T0	52	52	45	45	33	33	44	44
T1	52	52	44	44	33	33	—	—
T2	40	40	31	30	21	21	—	—
T3	36	36	31	30	26	26	34	34
T4	43	43	33	33	26	26	—	—
T5	45	45	37	37	30	30	41	41
<b>Global relationship satisfaction</b>								
T0	121 (15)	121 (18)	113 (25)	119 (20)	126 (19)	120 (21)	116 (24)	116 (19)
T1	120 (15)	122 (18)	116 (23)	118 (22)	127 (19)	118 (26)	—	—
T2	121 (16)	120 (22)	111 (23)	117 (23)	122 (20)	126 (19)	—	—
T3	119 (14)	119 (21)	115 (22)	123 (15)	118 (22)	123 (21)	116 (24)	117 (19)
T4	103 (20)	107 (22)	104 (21)	111 (14)	112 (16)	111 (22)	—	—
T5	104 (18)	104 (22)	103 (22)	109 (21)	110 (17)	109 (23)	100 (18)	98 (20)
<b>Negative relationship qualities</b>								
T0	3.6 (1.9)	3.7 (2.1)	3.9 (2.1)	3.8 (2.2)	3.0 (1.8)	3.6 (2.2)	3.9 (2.1)	4.0 (2.1)
T2	4.2 (2.4)	3.9 (2.4)	3.8 (1.9)	4.3 (2.5)	3.2 (2.2)	3.2 (2.2)	—	—
T3	4.3 (2.4)	4.1 (2.5)	3.5 (2.0)	3.5 (1.9)	5.8 (2.5)	4.1 (3.1)	—	—
T4	4.5 (2.5)	4.4 (2.6)	4.0 (2.3)	3.4 (1.8)	2.6 (1.3)	3.4 (1.8)	—	—
T5	3.8 (2.0)	3.9 (2.3)	4.0 (2.3)	3.8 (1.9)	4.0 (2.3)	4.0 (2.5)	—	—
<b>Positive relationship qualities</b>								
T0	9.5 (0.7)	9.6 (0.6)	9.3 (1.1)	9.4 (0.9)	9.4 (0.8)	9.6 (0.6)	9.2 (1.2)	9.6 (0.6)
T2	9.5 (1.1)	9.6 (0.6)	9.1 (0.7)	9.2 (0.9)	9.0 (1.4)	9.2 (1.4)	—	—
T3	9.3 (1.0)	9.3 (1.0)	9.3 (0.8)	9.6 (0.6)	9.3 (0.7)	9.5 (0.7)	—	—
T4	9.0 (1.3)	9.1 (1.1)	9.0 (1.1)	9.6 (0.7)	9.2 (0.8)	9.3 (0.7)	—	—
T5	9.2 (0.9)	9.3 (0.8)	9.0 (1.5)	9.0 (1.3)	9.2 (0.9)	9.3 (0.8)	—	—
<b>Hostile conflict behavior</b>								
T0	15.9 (9.1)	19.0 (11.0)	13.3 (8.6)	16.9 (9.1)	12.9 (8.7)	16.8 (11.3)	13.6 (8.6)	19.8 (11.8)
T2	11.0 (6.4)	16.6 (10.2)	12.6 (7.0)	15.4 (7.3)	12.1 (9.4)	13.9 (9.8)	—	—
T3	16.5 (12.7)	17.7 (11.7)	10.8 (6.1)	13.7 (7.9)	13.2 (8.8)	14.6 (11.9)	—	—
T4	12.7 (8.4)	15.2 (8.5)	11.7 (7.7)	14.7 (6.5)	10.4 (8.4)	13.5 (10.3)	—	—
T5	12.2 (9.5)	14.5 (8.3)	13.6 (7.9)	14.5 (7.9)	11.6 (8.5)	13.7 (9.9)	—	—
<b>Emotional support</b>								
T0	17.9 (11.1)	19.8 (14.8)	17.9 (14.7)	15 (8.2)	19.3 (15.7)	21.6 (15.3)	21.6 (13)	20 (12.7)
T2	21.5 (14.9)	11.5 (10.2)	14.1 (11.4)	15.6 (12.8)	17.5 (14.3)	16.8 (13.9)	—	—
T3	14.6 (12.9)	13.1 (11.3)	14.2 (12.3)	19.5 (13.9)	17.5 (15.8)	19.4 (14.8)	—	—
T4	16.8 (12.4)	11.6 (10.8)	14.4 (10.1)	18.6 (13.5)	16 (16.8)	16.5 (14.3)	—	—
T5	17 (10.6)	11.2 (10.5)	12.4 (11.1)	14.8 (13.1)	16.7 (17.3)	19.3 (15.6)	—	—
<b>Affection</b>								
T0	20.9 (8.6)	20.4 (8.3)	17.8 (10.0)	19.2 (9.2)	21.5 (8)	20 (10.4)	21 (7.5)	20.8 (8.7)
T2	20.7 (9.0)	17.5 (10.2)	19.5 (8.8)	19.7 (9.0)	20.5 (9.8)	19.3 (9.8)	—	—
T3	16.5 (10.6)	18.0 (10.1)	17.5 (8.0)	18.1 (10.0)	18.2 (11.1)	22.6 (7.6)	—	—
T4	15.8 (9.8)	16.7 (9.7)	18.3 (9.5)	19.9 (9.9)	14.5 (10.7)	16.6 (10.7)	—	—
T5	16.1 (10.2)	18.1 (9.9)	16.4 (10.0)	14.4 (10.7)	14.4 (11.0)	17.1 (9.6)	—	—

Note. Dashes indicate instances when data were not collected from participants in the NoTx group. CARE = Compassionate and Accepting Relationships Through Empathy; PREP = Prevention and Relationship Enhancement Program; RA = relationship awareness; NoTx = no treatment; T0 = completion of initial packet; T1 = first day of workshop; T2 = 6 months after workshop completion; T3 = 1 year after workshop; T4 = 2 years after workshop; T5 = 3 years after workshop.

Table 6 also shows results for changes in affection. Perceived affection tended to decline among women in all three groups, to comparable degrees. Men in the CARE group declined reliably, while their counterparts in PREP did not change, again directly contradicting our prediction that an intervention focusing on positive interaction would stabilize affectionate behaviors. Changes in affection for men in the RA group were similar to those for men in the CARE group. These results are graphed in Figures 2E (for men) and 2F (for women).

Follow-up analyses directly comparing groups showed that females participating in CARE had steeper declines in partner-

reported emotional support ( $\gamma_{121} = -2.18, p < .015$ ) than females in PREP ( $\gamma_{120}$  [intercept] =  $-0.05, p < .945$ ). Declines in partner-reported affection were comparable among females in CARE, PREP, and RA and among males in CARE and RA.

Finally, groups were compared on self- and partner-reported aggression. Across the 3-year follow-up, 54% of CARE men, 59% of PREP men, and 63% of RA men were aggressive toward their partners at least once; these groups did not differ,  $\chi^2(2) = 0.55, p < .76$ . However, RA women were more aggressive over the follow-up (88%) than CARE (49%) and PREP women (61%),

Table 5  
*Predicting Slopes of Relationship Quality Over 3 Years*

Model	<i>B</i>	<i>SE</i>	<i>p</i>	<i>SD</i> units
Predicting global relationship satisfaction over time				
In men				
Intercept (NoTx group)	-3.59**	1.79	.046	.15
CARE participants	-2.85	2.53	.148	.11
PREP participants	-1.83	2.03	.386	.07
RA participants	-1.64	1.93	.395	.07
In women				
Intercept (NoTx group)	-2.34	2.66	.382	.07
CARE participants	-3.86	2.82	.174	.10
PREP participants	-2.57	2.78	.357	.07
RA participants	-1.98	22.76	.475	.05
Predicting negative relationship qualities over time				
In men				
CARE participants	.06	.10	.536	.03
PREP participants	.01	.12	.932	.01
RA participants	.14	.13	.298	.06
In women				
CARE participants	.15	.10	.677	.06
PREP participants	-.05	.12	.540	-.03
RA participants	.08	.14	.536	.04
Predicting positive relationship qualities over time				
In men				
CARE participants	-.14**	.05	.004	-.14
PREP participants	-.03	.06	.632	-.06
RA participants	-.05	.07	.385	-.05
In women				
CARE participants	-.14**	.05	.004	-.13
PREP participants	-.10*	.06	.088	-.08
RA participants	-.09	.06	.136	-.08

*Note.* *SD* units were calculated by standardizing the outcome measures within the Level 1 file (across men and women and across all waves of assessment) and then using those as outcome variables in secondary hierarchical linear modeling analyses to put the effects presented into *SD* units. CARE = Compassionate and Accepting Relationships Through Empathy; PREP = Prevention and Relationship Enhancement Program; RA = relationship awareness; NoTx = no treatment.

\*  $p < .10$ . \*\*  $p < .05$ .

$\chi^2(2) = 9.819, p < .007$ . Aggression was much more likely to be psychological than physical and tended to involve yelling at or insulting the partner or stomping out of the room during an argument. As only the CARE and PREP couples received the SAVE intervention, this suggests that SAVE may have been successful at reducing women's relational aggression.

## Discussion

Educational interventions for couples hold great potential, but enthusiasm for this approach is lessened by the absence of supportive evidence from experiments with longer term follow-up assessments and theoretically informative treatment conditions. This study aimed to clarify the effects of preventive interventions on couples' self-reported relationship processes and outcomes, through three types of comparisons: between couples trained in communication skills and conflict management (PREP) versus skills in acceptance, support, and empathy (CARE); between these two groups and couples instructed in the importance of RA and maintenance but not in relationship skills; and between all three of

these groups and couples who received no treatment (NoTx). Key strengths of the study include a relatively large sample of couples ( $N = 174$ ) in which 45% of the participants were ethnic minorities, a 3-year follow-up, multiwave assessments of satisfaction, and direct assessment of relationship dissolution. Satisfaction declined over 3 years, and 16.3% of relationships ended, a figure comparable to the 2-year dissolution rate of 18% reported by Christensen, Atkins, Yi, Baucom, and George (2006) in their comparison of therapies for distressed couples.

Three main results were obtained. First, there were no differences among couples in the PREP, CARE, and RA groups on rates of dissolution and on a global index of relationship satisfaction. Couples trained to improve basic communication and conflict management skills experienced 3-year outcomes similar to couples trained in prosocial aspects of intimate communication. More surprisingly, RA couples—who received information about attending to and maintaining their relationships but no direct skills training—had similar outcomes to couples who received skills training.

Second, couples in the three active interventions had lower rates of dissolution than NoTx couples. (This dissolution effect was significant for those who completed the interventions but only marginally significant for those assigned to the active groups.) Specifically, couples completing any of the three active interventions dissolved their relationship at about half the rate of couples who did not receive an intervention (11% vs. 24%). However, on the MAT, couples in the three active interventions did not differ from untreated couples (see Figures 2A and 2B). Interpretation of these findings pivots on the comparability of the NoTx couples to those in the other three groups, a point that we address later in our limitations section.

Third, although the two skill-based interventions were expected to produce effects congruent with their principal focus (i.e., PREP would generate better outcomes than CARE on negative behavior, CARE would generate better outcomes than PREP on emotional support and affection), no such pattern emerged. CARE participants declined in their perceptions of globally positive features of their relationship (see Table 5), and as shown in Figure 2, observed changes in behavioral reports were incongruent with the goal of the interventions. On reports of negative behavior, women receiving CARE performed better (i.e., they declined significantly in negative behavior) than women receiving PREP. On reports of emotional support, women in PREP performed better (i.e., they did not decline in perceived emotional support) than their counterparts in CARE. Results for affection followed this same counterintuitive pattern for men—PREP men did not decline on affection, whereas CARE men did—but this pattern did not hold for women: Women's perceptions of affection tended to decline regardless of which intervention they received. Thus, the skill-based interventions did not produce the expected differences in reports of relationship behaviors.

Several factors limit interpretation of these results. First, although the sample was ethnically diverse, partners were in their first marriage, and most reported good incomes. These factors limit generalizability to other segments of the population, and they are likely to lower overall risk for relationship distress (cf. Johnson, 2012). Second, all data were collected via self-report measures. This may underestimate the effects of the interventions on the communication variables (e.g., Fawcett, Hawkins, Blanchard,

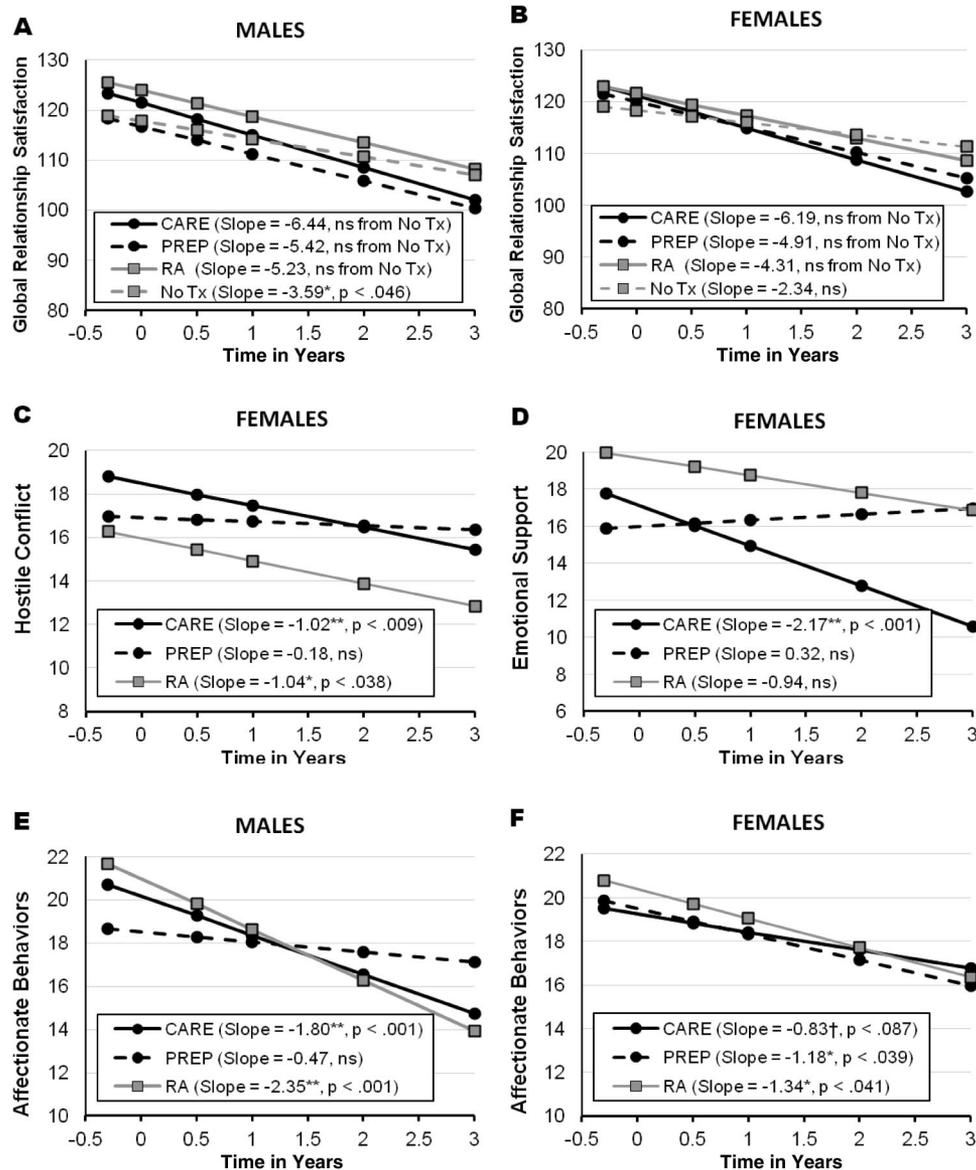


Figure 2. Model-predicted trajectories of relationship quality and behaviors. CARE = Compassionate and Accepting Relationships Through Empathy; NoTx = no treatment; PREP = Prevention and Relationship Enhancement Program; RA = relationship awareness. † $p < .10$ . \* $p < .05$ . \*\* $p < .01$ .

& Carroll, 2010). and with the exception of the dissolution data, conclusions are limited to subjective perceptions of relationship functioning.

Finally, comparisons between the three active interventions and the NoTx control condition are limited because the NoTx group consisted of 44 couples who either declined their assignment to an active treatment or who could not be scheduled for an active treatment. These couples may have possessed some risk factor that led them to resist an intervention (e.g., difficulty communicating, uncertainty about the relationship, low commitment) that, in turn, brought about distress and dissolution. We therefore cannot rule out the possibility that differences involving this group are artifacts. Three points, however, argue against this possibility. First,

like all couples, NoTx couples volunteered to participate in a study of couple workshops, completed an extensive set of questionnaires prior to group assignment, and completed the follow-up assessments. Second, at T0, across 11 demographic dimensions and 11 aspects of relationship functioning, the NoTx couples were not distinct from couples in the other groups (see Table 3). Third, although the difference in dissolution between the NoTx couples (24%) and the other three groups (11%) over 3 years is noteworthy, there were no differences in rates of change on the MAT. If the NoTx couples were at elevated risk for adverse outcomes, it seems likely that more and stronger differences in relationship satisfaction would have emerged. In short, although counterarguments make it less plausible, unmeasured factors may be generat-

Table 6  
*Predicting Slopes of Self- and Partner-Reported Relationship Behaviors Over 3 Years*

Model	<i>B</i>	<i>SE</i>	<i>p</i>	<i>SD</i> units
Predicting hostile conflict over time				
In men				
CARE participants	-.60	.37	.111	.12
PREP participants	-.11	.44	.801	.02
RA participants	-.50	.49	.306	.10
In women				
CARE participants	-1.02***	.39	.009	.20
PREP participants	-.18	.43	.674	.05
RA participants	-1.04**	.50	.038	.12
Predicting emotional support over time				
In men				
CARE participants	-1.02*	.61	.098	.13
PREP participants	-.74	.72	.305	.09
RA participants	-.88	.82	.284	.07
In women				
CARE participants	-2.17***	.60	.001	.30
PREP participants	.32	.70	.654	.04
RA participants	-.94	.80	.243	.09
Predicting affection over time				
In men				
CARE participants	-1.80***	.49	.001	.32
PREP participants	-.47	.58	.422	.06
RA participants	-2.35***	.66	.001	.22
In women				
CARE participants	-.83*	.48	.087	.14
PREP participants	-1.18**	.57	.039	.16
RA participants	-1.34**	.65	.041	.14

Note. CARE = Compassionate and Accepting Relationships Through Empathy; PREP = Prevention and Relationship Enhancement Program; RA = relationship awareness.

\*  $p < .10$ . \*\*  $p < .05$ . \*\*\*  $p < .01$ .

ing differences between the NoTx group and the remaining groups. If true, this would not alter comparisons among the three active treatments.

The results of this study lend qualified support to the view that engaged and newlywed couples can experience lasting benefits from educational interventions, yet they also pose significant challenges for the theoretical basis of these programs. Although PREP and CARE arise from different conceptual perspectives, both begin with the assumption that changing interpersonal processes is necessary for preventing distress and dissolution. The fact that the less intensive RA intervention, which merely instructs couples in the importance of relationship maintenance, produced outcomes that were similar to those obtained with the more intensive PREP and CARE programs indicates that skill training may be unnecessary for the prevention of adverse outcomes. This finding is consistent with the distinction that Snyder and Schneider (2002) drew between the acquisition or possession of skills and partners' motivation to implement them, and it suggests that interventions could be improved by (a) helping couples to appreciate the skills they already have, (b) encouraging them to see the value in using these skills routinely to keep their relationship strong, and (c) instructing them to attend to the cues that signal the need to employ these skills. If we are correct in speculating that couples benefit from attending to everyday signals that encourage relationship maintenance,

then it may prove useful to distribute minimally invasive interventions that support this goal over longer spans of time.

In considering this recommendation, however, it is important to acknowledge that we have little direct evidence that the RA intervention worked as intended. The possibility remains that the RA couples performed as well as the PREP and CARE groups simply because all three groups were exposed to professional contact and a credible intervention and all devoted effort to relationship improvement. Regardless of whether the RA treatment is an active versus placebo intervention, the theoretical contributions of future outcome studies are likely to be enhanced if they include some form of minimal intervention instead of or in addition to a true no-treatment condition. Neglecting to include the RA group in this study would have resulted in the erroneous conclusion that skills training was uniquely responsible for the observed group differences.

A second set of implications follows from results showing that CARE, PREP, and RA couples were not reliably different from the NoTx group on satisfaction (MAT) trajectories whereas they were reliably different in relationship dissolution. Declines in satisfaction are likely to foreshadow dissolution in newlyweds (Karney & Bradbury, 1997), but these findings suggest that educational interventions can produce different kinds of effects on these two outcomes. Even when satisfaction is relatively high and stable, recently married couples may end a relationship in the face of certain events (e.g., the first episode of physical aggression) or disclosures (e.g., one partner revealing a prior debt) that lead one or both partners to question the marriage. Couples participating in an active intervention may be less likely to experience these events or more capable of managing these disclosures, thereby providing them an advantage in 3-year dissolution rates.

Although CARE, PREP, and RA couples diverged over time in reports of hostile conflict, emotional support, and affection, the reported behavioral changes were generally incongruent with the intent of the interventions. This is troubling because it indicates, for example, that women trained in communication and conflict resolution skills (PREP) do not decline in negative behavior (whereas women trained in CARE and RA do) and that women trained in empathic and accepting communication (CARE) decline in emotional support (whereas PREP and RA couples do not). Disjunctures between the intent and impact of skills-based interventions are not new. Couples can experience better relationship outcomes in the absence of any behavioral change (e.g., low-risk couples in Halford et al., 2001), and changes in relationship satisfaction can be inconsistently related to within-group changes in problem-solving behavior following participation in PREP (Stanley, Rhoades, Olmos-Gallo, & Markman, 2007). However, by comparing two skill-based interventions and by assessing a range of skills, we discovered that PREP and CARE can fail to produce intended effects and can alter behaviors that are not the primary targets of change.

These results suggest that presenting couples with intensive training in skills believed to be necessary for successful relationships may inadvertently sensitize them to specific inadequacies in their relationship. Intensive interventions like CARE and PREP not only aim to teach couples particular sets of skills believed to be essential for healthy marriage but also emphasize the importance and value of these skills as criteria for evaluations of relationship health. Doing so may have unintended consequences. For example,

skill-based interventions might make couples' skill deficits more salient to them and give them reason to doubt their ability to maintain the relationship. Being informed by experts that conflict resolution is fundamental to a good relationship, for example, may generate concern for one or both partners if actual conflict resolution fails to reach this high standard. These possibilities are speculative, of course, but we believe that the incongruity between the intent and impact of the skills-based interventions is notable and may undermine any benefits that these interventions can provide.

In conclusion, regardless of whether they were trained intensively in conflict management skills (PREP) or in the provision of empathy and support (CARE), the engaged and newlywed couples in this 3-year study experienced lower dissolution rates when compared to couples who received no intervention. Surprisingly, these findings fail to support skill-based interventions for preventing adverse marital outcomes because (a) couples instructed in a single session to simply attend to and maintain their relationship achieved nearly identical relationship outcomes and (b) PREP and CARE couples performed more poorly in their targeted communication domains than in other domains that the programs did not target. Revisiting the conceptual rationale for skill-based interventions may be timely, and learning more about low-dose, low-cost interventions may open new avenues for enabling more couples to have fulfilling and enduring relationships.

## References

- Acitelli, L. K. (2001). Maintaining and enhancing a relationship by attending to it. In J. Harvey & A. Wenzel (Eds.), *Close romantic relationships: Maintenance and enhancement* (pp. 153–167). Mahwah, NJ: Erlbaum.
- Barry, R. A., Bunde, M., Brock, R. L., & Lawrence, E. (2009). Validity and utility of a multidimensional model of received support in intimate relationships. *Journal of Family Psychology, 23*, 48–57. doi:10.1037/a0014174
- Bodenmann, G. (2005). Dyadic coping and its significance for marital functioning. In T. Revenson, K. Kayser, & G. Bodenmann (Eds.), *Couples coping with stress: Emerging perspectives on dyadic coping* (pp. 33–49). Washington, DC: American Psychological Association. doi:10.1037/11031-002
- Bowman, M. L. (1990). Coping efforts and marital satisfaction: Measuring marital coping and its correlates. *Journal of Marriage and the Family, 52*, 463–474. doi:10.2307/353040
- Carrère, S., Buehlman, K. T., Gottman, J. M., Coan, J. A., & Ruckstuhl, L. (2000). Predicting marital stability and divorce in newlywed couples. *Journal of Family Psychology, 14*, 42–58. doi:10.1037/0893-3200.14.1.42
- Christensen, A., Atkins, D. C., Yi, J., Baucom, D. H., & George, W. H. (2006). Couple and individual adjustment for 2 years following a randomized clinical trial comparing traditional versus integrative behavioral couple therapy. *Journal of Consulting and Clinical Psychology, 74*, 1180–1191. doi:10.1037/0022-006X.74.6.1180
- Dehle, C., Larsen, D., & Landers, J. E. (2001). Social support in marriage. *American Journal of Family Therapy, 29*, 307–324. doi:10.1080/01926180152588725
- Donen, S. (Producer & Director). (1967). *Two for the road* [Motion picture]. United Kingdom: 20th Century Fox.
- Fawcett, E. B., Hawkins, A. J., Blanchard, V. L., & Carroll, J. S. (2010). Do premarital education programs really work? A meta-analytic study. *Family Relations, 59*, 232–239. doi:10.1111/j.1741-3729.2010.00598.x
- Fincham, F. D., & Linfield, K. J. (1997). A new look at marital quality: Can spouses feel positive and negative about their marriage? *Journal of Family Psychology, 11*, 489–502. doi:10.1037/0893-3200.11.4.489-502
- Hahlweg, K., Markman, H. J., Thurmaier, F., Engl, J., & Eckert, V. (1998). Prevention of marital distress: Results of a German prospective longitudinal study. *Journal of Family Psychology, 12*, 543–556. doi:10.1037/0893-3200.12.4.543
- Halford, W. K. (2011). *Marriage and relationship education*. New York, NY: Guilford Press.
- Halford, W. K., Markman, H. J., & Stanley, S. (2008). Strengthening couples' relationships with education: Social policy and public health perspectives. *Journal of Family Psychology, 22*, 497–505. doi:10.1037/a0012789
- Halford, W. K., Sanders, M. R., & Behrens, B. C. (2001). Can skills training prevent relationship problems in at-risk couples? Four-year effects of a behavioral relationship education program. *Journal of Family Psychology, 15*, 750–768. doi:10.1037/0893-3200.15.4.750
- Hawkins, A. J., Blanchard, V. L., Baldwin, S., & Fawcett, E. B. (2008). Does marriage and relationship education work? A meta-analytic study. *Journal of Consulting and Clinical Psychology, 76*, 723–734. doi:10.1037/a0012584
- Jacobson, N. S., & Christensen, A. (1996). *Integrative couple therapy: Promoting acceptance and change*. New York, NY: Norton.
- Jacobson, N. S., & Margolin, G. (1979). *Marital therapy: Strategies based on social learning and behavior exchange principles*. New York, NY: Brunner/Mazel.
- Johnson, M. D. (2012). Healthy marriage initiatives: On the need for empiricism in policy implementation. *American Psychologist, 67*, 296–308. doi:10.1037/a0027743
- Johnson, M. D., Cohan, C. L., Davila, J., Lawrence, E. L., Rogge, R. D., Karney, B. R., . . . Bradbury, T. N. (2005). Problem-solving skills and affective expressions as predictors of change in marital satisfaction. *Journal of Consulting and Clinical Psychology, 73*, 15–27. doi:10.1037/0022-006X.73.1.15
- Karney, B. R., & Bradbury, T. N. (1997). Neuroticism, marital interaction, and the trajectory of marital satisfaction. *Journal of Personality and Social Psychology, 72*, 1075–1092. doi:10.1037/0022-3514.72.5.1075
- Locke, H. J., & Wallace, K. M. (1959). Short marital adjustment prediction tests: Their reliability and validity. *Marriage and Family Living, 21*, 251–255. doi:10.2307/348022
- Markman, H. J., Renick, M. J., Floyd, F. J., Stanley, S. M., & Clements, M. (1993). Preventing marital distress through communication and conflict management training: A 4- and 5-year follow-up. *Journal of Consulting and Clinical Psychology, 61*, 70–77. doi:10.1037/0022-006X.61.1.70
- Markman, H. J., Stanley, S., & Blumberg, S. L. (1994). *Fighting for your marriage*. San Francisco, CA: Jossey-Bass.
- McCullough, M. E., Worthington, E. L., Jr., & Rachal, K. C. (1997). Interpersonal forgiving in close relationships. *Journal of Personality and Social Psychology, 73*, 321–336. doi:10.1037/0022-3514.73.2.321
- Neidig, P. H. (1989). *Stop Anger and Violence Escalation (SAVE) instructor's guide*. Beaufort, SC: Behavioral Science Associates.
- Raudenbush, S. W., Bryk, A. S., & Congdon, R. (2004). HLM6 for Windows [Computer software]. Lincolnwood, IL: SSI.
- Rogge, R. D., Cobb, R. J., Story, L. B., Johnson, M. D., Lawrence, E., Rothman, A. D., & Bradbury, T. N. (2006). Recruitment and selection of couples for intervention research: Achieving developmental homogeneity at the cost of demographic diversity. *Journal of Consulting and Clinical Psychology, 74*, 777–784. doi:10.1037/0022-006X.74.4.777
- Rogge, R. D., Johnson, M. D., Lawrence, E., Cobb, R., & Bradbury, T. N. (2002). The CARE program: A preventive approach to marital intervention. In A. S. Gurman & N. S. Jacobson (Eds.), *Clinical handbook of couple therapy* (3rd ed., pp. 420–435). New York, NY: Guilford Press.
- Schumm, W. A., Nichols, C. W., Schectman, K. L., & Grinsby, C. C. (1983). Characteristics of responses to the Kansas Marital Satisfaction

- Scale by a sample of 84 married mothers. *Psychological Reports*, 53, 567–572. doi:10.2466/pr0.1983.53.2.567
- Siegel, J. M. (1986). The Multidimensional Anger Inventory. *Journal of Personality and Social Psychology*, 51, 191–200. doi:10.1037/0022-3514.51.1.191
- Snyder, D. K., & Schneider, W. J. (2002). Affective reconstruction: A pluralistic, developmental approach. In A. S. Gurman & N. S. Jacobson (Eds.), *Clinical handbook of couple therapy* (3rd ed., pp. 151–179). New York, NY: Guilford Press.
- Stanley, S. M., Rhoades, G. K., Olmos-Gallo, P. A., & Markman, H. J. (2007). Mechanisms of change in a cognitive behavioral couples prevention program: Does being naughty or nice matter? *Prevention Science*, 8, 227–239. doi:10.1007/s11121-007-0071-8
- Straus, M. A., Hamby, S. L., Boney-McCoy, S., & Sugarman, D. B. (1996). The revised Conflict Tactics Scales (CTS2): Development and preliminary psychometric data. *Journal of Family Issues*, 17, 283–316. doi:10.1177/019251396017003001

Received August 13, 2011

Revision received May 14, 2013

Accepted July 22, 2013 ■

## Additional Journal Information

**Copyright and Permission:** Those who wish to reuse APA-copyrighted material in a non-APA publication must secure from APA written permission to reproduce a journal article in full or journal text of more than 800 cumulative words or more than 3 tables and/or figures. APA normally grants permission contingent on permission of the author, inclusion of the APA copyright notice on the first page of reproduced material, and payment of a fee of \$25 per page. Libraries are permitted to photocopy beyond the limits of U.S. copyright law: (1) post-1977 articles, provided the per-copy fee in the code for this journal (0022-006X/13/\$12.00) is paid through the Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923; (2) pre-1978 articles, provided that the per-copy fee stated in the Publishers' Fee List is paid through the Copyright Clearance Center. Formore information along with a permission request form go to: [www.apa.org/about/contact/copyright/index.aspx](http://www.apa.org/about/contact/copyright/index.aspx)

**Electronic access:** Individuals subscribers to this journal have automatic access to all issues of the journal in the PsycARTICLES® full-text database. See <http://www.apa.org/pubs/journals.ccp> and click on View Table of Contents.

**Reprints:** Authors may order reprints of their articles from the printer when they receive proofs.

**Single Issues, Back Issues, and Back Volumes:** For information regarding single issues, back issues, or back volumes, visit [www.apa.org/pubs/journals/subscription-s.aspx](http://www.apa.org/pubs/journals/subscription-s.aspx) or write to Order Department, American Psychological Association, 750 First Street, NE, Washington, DC 20002-4242; call 202-336-5600 or 800-374-2721.

**Subscription Claims Information:** A claim form to assist members, institutions, and nonmember individuals who have a problem with their subscription is available at <http://forms.apa.org/journals/subclaim/>; or call 1-800-374-2721.

**Microform Editions:** For information regarding microform editions, write to University Microfilms, Ann Arbor, MI 48106.

**Change of Address:** Send change of address notice and a recent mailing label to the attention of Subscriptions Department, APA, 30 days prior to the actual change of address. APA will not replace undelivered copies resulting from address changes; journals will be forwarded only if subscribers notify the local post office in writing that they will guarantee periodicals forwarding postage.

**APA Journal Staff:** Susan J. A. Harris, *Senior Director, Journals Program*; John Breithaupt, *Director, Journal Services*; Paige W. Jackson, *Director, Editorial Services*; Tyler Krupa, *Lead Editor*; Richard Pepple, *Account Manager*; Jodi Ashcraft, *Director, Advertising Sales and Exhibits*.