

THE EFFICACY OF THE COUPLES COPING ENHANCEMENT TRAINING (CCET) IN IMPROVING RELATIONSHIP QUALITY

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This study is a replication reporting on the effects of the Couples Coping Enhancement Training (CCET). While previous studies have examined the efficacy of this program mainly in distressed couples thus far and without controlling for the presence of children, the current study tries to evaluate the efficacy of the CCET in couples who have preadolescent children and who are experiencing some degree of stress in their daily life associated with the upbringing of their children. Although the CCET does not target specific child-rearing issues, but rather focuses on stress and coping, communication and problem solving in general, it is hypothesized that the program should be able to not only improve partners' communication and dyadic coping skills but also reduce tensions and disagreements that might arise between partners regarding matters related to their children. This study addresses this question based on an evaluation of 100 couples who were randomly assigned either to the CCET or to a control group that received no skills training. The results support previous findings on the efficacy of the CCET in general. Positive effects of the program were noted among both women and men immediately after the training, with stronger effects noted among the women. However, after 6 months and after 1 year following participation in the program, the effects faded out. Effects on parental disagreement related to children were weaker than expected.

The prevention of marital distress has received increasing attention in recent years, and this is reflected by an impressive number of publications on the effectiveness and efficacy of marital distress prevention programs (e.g., Hahlweg & Markman, 1988; Jakubowski, Milne, Brunner, &

This study was supported by a research grant from the Gebert Ruef Foundation (Switzerland). Correspondence concerning this article may be addressed to Thomas Ledermann, Ph.D., or Guy Bodenmann, Ph.D., University of Fribourg, Institute for Family Research and Counseling, Rue de Faucigny 2, CH-1700 Fribourg, Switzerland; e-mail: thomas.ledermann@unifr.ch; joseguy.bodenmann@unifr.ch

Miller, 2004). The overview by Jakubowski et al. (2004) presents information on the most frequently used marital distress prevention programs that have been conducted within the last 20 years and provides empirical evidence of their efficacy. In sum, these studies tell us that marital distress prevention programs such as the *Prevention and Relationship Enhancement Program (PREP)* (e.g., Markman, Floyd, Stanley, & Jamieson, 1984; Markman, Renick, Floyd, Stanley, & Clements, 1993), the *Relationship Enhancement (RE)* by Guerney (1977), and the *Minnesota Couples Communication Program (MCCCP)* by Miller, Nunnally, and Wackman (1975) can be considered among the programs that have been most widely evaluated. More recently developed marital distress prevention programs such as the *Couple CARE* (e.g., Halford, Moore, Keithia, Farrugia, & Dyer, 2004; Sullivan, Pasch, Eldrige, & Bradbury, 1998), the *Couples Coping Enhancement Training (CCET)* (Bodenmann, 1997; Bodenmann & Shantinath, 2004), and the *Association for Couples in Marriage Enrichment (ACMEM)* (Dyer & Dyer, 1999) appear to be effective marital distress prevention programs as well, although fewer studies of their efficacy have been published so far. In sum, the current research demonstrates that evidence-based marital distress prevention programs are primarily effective for helping couples to improve their close relationship.

Among the studies on the efficacy of marital distress prevention in distressed couples, the *Couples Coping Enhancement Training (CCET)* (Bodenmann, 1997; Bodenmann & Shantinath, 2004) has yielded encouraging results. Findings about the efficacy of the program, both in terms of a significant improvement of marital satisfaction in general, and in terms of specific target variables such as individual and dyadic coping, support the assumption that a focus on stress and coping may be beneficial for distressed couples who usually experience a considerable amount of stress in everyday life (e.g., Bodenmann, Perrez, Cina, & Widmer, 2002; Bodenmann, Pihet, Widmer, Cina, & Shantinath, 2006; Bodenmann & Shantinath, 2004; Widmer, Cina, Charvoz, Shantinath, & Bodenmann, 2005). For the first time, findings of the CCET also revealed that the well-being of both partners could be improved by means of a marital distress prevention training program (Pihet, Bodenmann, Cina, Widmer, & Shantinath, 2007). Although the efficacy of the CCET generally has been documented by this previous 2-year follow-up study and another 6-month follow-up study where two versions of the CCET (a short and a long version) were compared with each other (Cina, Widmer, & Bodenmann, 2002), there were several limitations of these previous findings. First, the 2-year follow-up study with 73 couples in the intervention group and 70 couples in the control group did not represent a classical randomized control trial study, but rather had a matched

group design. Second, in the 6-month follow-up study ($N = 60$ couples), couples were randomly assigned to one of the two treatment conditions but without a control group. Third, these previous studies did not control for the presence of children. While some couples who participated in the CCET had children, others did not. However, we believe that when evaluating the results of the CCET, it may be worthwhile to control for the presence of children and their age for several reasons. First, children often are perceived by their parents as one of the major domains of stress in their life. In a study by Bodenmann (2000) on stress experiences in everyday life ($N = 600$ couples), 52% of the couples reported moderate to high levels of stress related to their children. Likewise, Laux and Schütz (1995) found that couples who participated in their study ($N = 206$ couples) experienced the highest amount of stress in everyday life in the context of differences regarding the education of their children. Blood and Wolfe (1965) highlighted that the education of children was among the most often cited sources for couple conflict and showed that problems related to children were reported by 29% of the couples ($N = 731$ couples). In another study with 128 couples who sought marital therapy, 64% reported that children were a major area of conflict (Bodenmann, 2000), and in a treatment study with 92 couples (Schindler, Hahlweg, & Revenstorf, 1999), 46% of participants stated that their children were a major source of conflict. Furthermore, conflicts with regard to parenting are significantly associated with higher levels of marital distress (e.g., Papp, Cummings, & Schermerhorn, 2004). On the basis of these findings, some scholars have argued that parents should more often be the focus of interventions in order to significantly improve the well-being of all family members, (e.g., Sanders, Markie-Dadds, & Nicholson, 1997).

In light of these findings and recommendations, the current study seeks to investigate the effects of the CCET, using a randomized control group design, on marital variables (such as communication, dyadic coping, and marital quality) in parents of preadolescent children. This study is based upon three key assumptions. First, it is hypothesized that couples who participate in the CCET will report higher relationship quality and improved marital communication and dyadic coping after the training. However, it is assumed that the positive effects of the training will decline in the long term. Second, it is hypothesized that partners' conflicts related to their children's education will decrease after participation in the CCET, even though issues related to the upbringing of the children are not directly addressed within this program. Third, we assume that women benefit more from the training than men do, at least in the short term, because this result had been found in previous studies testing the efficacy of the CCET (Widmer et al., 2005).

TABLE 1. Sociodemographic Characteristics of the CCET and the Control Group

	CCET		Control Group	
	Women	Men	Women	Men
Age (years)	36.5 (3.9)	39.6 (4.4)	38.0 (4.7)	39.7 (5.7)
Married	93.9%		98.0%	
Duration of relationship (years)	12.7 (5.2)		14.2 (4.8)	
Marital Quality (DAS)	99.4 (12.9)	101.0 (13.3)	99.4 (13.4)	102.0 (11.6)
Number of children	2.2 (0.8)		2.4 (1.0)	
Education				
Elementary school	0.0%	0.0%	2.0%	2.0%
Associate degree	42.0%	40.0%	51.0%	36.7%
High school	38.0%	12.0%	16.4%	10.3%
College/university	20.0%	48.0%	30.6%	51.0%
Income (family income)				
\$0 – 39,999	12.0%		14.0%	
\$40,000 – 79,999	80.0%		68.0%	
\$80,000 and more	8.0%		18.0%	

Note. Standard deviations are presented in parentheses.

The first and second hypotheses can be supported by looking for significant interaction effects for time and group. The third hypothesis is verified if the within-subject effects over time are higher for women in the treatment group than for men.

METHOD

PARTICIPANTS

In this study, 100 couples were randomly assigned either to the intervention group that received the CCET or to a control group that received no training. The demographics of the two samples are presented in Table 1. The overall dropout rate was 9% among women and 10% among men. Forty-six women in the CCET couples group (dropout rate 8%), and 45 women in the control group (dropout rate 10%) completed all questionnaires at all four times of measurement. Among the male participants, 46 men in the CCET group (dropout rate 8%) and 44 men in the control group (dropout rate 12%) provided data for all four times of measurement. The dropout rates were overall slightly higher among men than women, and in the control group than in the treatment groups. Reasons for dropouts were varied (e.g., moving away, accidents, marital separa-

tion, no longer interested in participation). Comparing responders with nonresponders, however, yielded no significant differences on any demographic variables, except for family income reported by men ($R^2[5] = 11.3, p > .05$), which was higher among responders.

MEASURES

Dyadic Adjustment Scale (DAS; Spanier, 1976). This questionnaire is designed to assess the quality of the relationship as perceived by both partners. It yields a general measure of satisfaction in the intimate relationship by using total scores, and permits the evaluation of four independent aspects of the close relationship: dyadic satisfaction (Cronbach's $\alpha = .86$), dyadic cohesion ($\alpha = .73$), dyadic consensus ($\alpha = .77$), and expression of affects ($\alpha = .57$). Three different types of rating scales are used with the DAS. The total score represents the sum of all items, which can range from 0 to 151 ($\alpha = .90$). Higher scores reflect greater levels of relationship satisfaction.

Marital Communication Questionnaire (MCQ; Bodenmann, 2000). This questionnaire uses 19 items to assess different positive and negative communication behaviors (such as criticism, defensiveness, contempt, belligerence, domineering, positive affect, care), and is based on the communication categories in the SPAFF coding system proposed by Gottman (1994). Items are administered on a 6-point scale ranging from 1 (*never*) to 6 (*very often*). Through factor analysis, two main factors (positive and negative communication) were found: positive communication (6 items, e.g., I am actively interested and curious about what my partner is telling me; I validate my partner's opinion and feelings; I show affection towards my partner and care about him/her; $\alpha = .82$) and negative communication (13 items, e.g., I insult my partner; I criticize my partner; I start fights with my partner; I stubbornly refuse to give my partner any ground while discussing an issue; I meet a complaint of my partner by a counterattack; $\alpha = .78$). Cronbach's alpha was .82 for the total score. The validity of the questionnaire has been demonstrated in previous studies (Bodenmann, 2000).

Dyadic Coping Inventory (DCI; Bodenmann, 2007). This is a 37-item questionnaire with seven subscales (stress communication, supportive dyadic coping and negative dyadic coping by oneself as well as by the partner, and common dyadic coping). These seven subscales can be combined to create three scales that measure negative dyadic coping ($\alpha = .74$), positive dyadic coping ($\alpha = .87$), and a total dyadic coping score ($\alpha = .92$). These three scales were used in this study. Respondents answered questions regarding their own perception and their partner's perception

on a scale from 1 (*never*) to 5 (*always*) indicating the frequency of dyadic coping. The validity of the dyadic coping inventory has been demonstrated by Bodenmann (2007).

Parent Problem Checklist (PPC; Dadds & Powell, 1991). The PPC is a 16-item questionnaire that measures interparental conflict with regard to child rearing. It rates the parents' ability to cooperate and to work together when facing educational concerns. Mothers and fathers are asked to indicate whether each item is a matter of concern to them and, if so, to indicate the extent of the problem on a 7-point scale. In this study, the reliabilities of the pretest measures of the intensity level were $\alpha = .89$. The correlation between DAS total and PPC intensity was $-.44$ for women ($p < .001$) and $-.45$ for men ($p < .001$), supporting the assumption that relationship quality covaries with the intensity of parental conflicts related to their children.

PROCEDURE

The efficacy of the CCET was tested using a 1-year follow-up design, based on self-report data. One hundred couples were recruited by means of newspaper advertisements. Criteria for recruitment were: (1) being married or living together in a common household, (2) having children aged 2-12 years old (preadolescents), (3) experiencing the children's upbringing as demanding, and (4) being motivated to do something for one's own close relationship.

The couples were randomly assigned to either the CCET group or the control group (with each second couple registering for the study being assigned to the control condition). The couples in the control group did not receive any intervention but were contacted only for the assessments. To avoid confounding of findings, couples were screened to determine whether they had received any kind of counseling or therapy during the course of this study. None of the couples who participated in this study reported receiving any kind of mental health support or counseling during the period of their participation in the study.

Both partners were asked to complete questionnaires at four times: at pretest (Time 1, two weeks prior to the intervention); posttest (Time 2, two weeks after the intervention), 6-month follow-up (Time 3), and 1-year follow-up (Time 4). Questionnaires were mailed to the couples at home with a prepaid return envelope. Participants were asked to complete them independently from one another. An item at the end of the questionnaire assessed whether partners had completed the questionnaire independently from each other, which seemed to be the case for all couples.

INTERVENTION

The CCET is an evidence-based marital distress prevention program that is described in detail elsewhere (Bodenmann & Shantinath, 2004). It is anchored in social learning theories and stress and coping theories in couples, as well as in social exchange theories, and it uses methods of cognitive-behavioral therapy and new elements (such as the 3-phase-method) developed in the area of the enhancement of dyadic coping (Bodenmann, in press). The program consists of six modules that span a total of 18 hours. The first module introduces the topic of stress, different forms of stress, and origins of stress, as well as the link between cognitive appraisal and stress-related emotions. The second module teaches how to effectively cope with stress on an individual level by means of cognitive techniques and relaxation. The third module addresses how couples can cope together (dyadic coping) and enhance mutual stress communication and supportive dyadic coping by means of the 3-phase-method (Bodenmann, in press). The fourth module illustrates the importance of mutual fairness, clear boundaries, and equity in giving and receiving supportive dyadic coping. Module 5 and 6 teach communication and problem-solving skills in a vein similar to that of other couples distress prevention programs such as PREP. The CCET is usually offered in the form of a weekend course. The training is conducted in group format, with the groups consisting of four to eight couples. A ratio of one trainer per two couples is maintained during the exercises (in which couples train and practice skills related to stress communication and dyadic coping, fairness and boundaries, communication, and problemsolving). Standardization of trainings is ensured through the use of a detailed and highly structured manual for trainers, and intensive training that requires a demonstration of competency in order to become licensed to deliver the CCET.

The CCET differs from other marital distress prevention programs (such as PREP, Couple CARE) with regard to its main focus on stress and coping. Three of the six modules address the topic of stress and how stress can be more efficiently handled on the individual and dyadic levels. Within stress management, dyadic coping plays a crucial role in the CCET. Couples learn how to recognize and understand their partner's stress more accurately (i.e., improve stress perception) and how to explicitly communicate their own stress to their partner in order to permit him or her to respond to their stress (i.e., offer supportive dyadic coping). Couples learn by means of didactic instruction, personal diagnostics, video examples of other couples, and in large part by exercising their own skills during several supervised exercises.

While couples in the intervention group participated in the CCET, the

couples in the comparison group did not receive any intervention at all, but were contacted only for the assessments. Help from other sources of mental health assistance (such as marital counselors or psychotherapists) was controlled for in both groups. Couples in both groups were excluded from the study if they had such contact.

RESULTS

PRELIMINARY ANALYSES

Preliminary analyses were conducted to determine whether there were any pretest differences between the two groups on the various demographic variables and the above-described scales measuring different aspects of the relationship. No significant differences were found either for the demographic variables shown in Table 1 or for the parental measures between the CCET and the control group, except for marital cohesion as measured with the DAS. Women in the CCET group reported significantly higher marital cohesion scores than women in the control group, $F(1, 75) = 4.49, p < .05$.

EFFECTS OF THE CCET INTERVENTION ON THE RELATIONSHIP

In order to evaluate the overall efficacy of the CCET over a period of 1 year, a multivariate analysis of variance (MANOVA) repeated-measure design was used with the marital subscales as dependent variables, time and sex as within factors, and group as between factor. Three such separate multivariate analyses were conducted; the first included the four subscales of the DAS, the second included the two subscales of the MCQ, and the third analysis included two subscales of the DCI. Univariate differences between and within groups as well as their interactions were tested by means of 12 separate analyses of variance for repeated measurements (RANOVA) including, again, time and sex as within factors and group as between factor.

Means and standard deviations (*SD*) of the relationship scales for women and men are presented in Table 2. As illustrative examples, Figure 1 shows changes over time for relationship quality (DAS total), communication (MCQ), dyadic coping (DCI total), and intensity level of parental problems (PPC intensity). The changes of the four scales depicted in Figure 1 and an inspection of the mean scores (Table 2) revealed that the improvement in nearly all relationship measures was stronger in the CCET group than in the control group, where only minor changes were observed over time. The results of the multivariate and univariate ANOVA are listed in Table 3. The three multivariate tests, including the

TABLE 2. Means and Standard Deviations of the Relationship Scales for Pre-, Post-, FU1 and FU2—Intervention Measures

	CCET						Control Group										
	pre		post		FU1		FU2		pre		post		FU1		FU2		
	w	m	w	m	w	m	w	m	w	m	w	m	w	m	w	m	
DAS subscales																	
DAS consensus	46.3 (5.1)	46.4 (5.4)	48.0 (5.3)	47.6 (4.0)	47.7 (5.0)	47.4 (5.4)	48.2 (5.3)	48.2 (4.4)	45.4 (5.5)	45.8 (4.2)	45.5 (6.3)	46.5 (4.9)	46.1 (4.9)	46.3 (5.9)	46.7 (6.6)	47.5 (4.4)	
DAS satisfaction	35.2 (6.0)	35.3 (7.5)	37.6 (5.0)	37.4 (5.7)	36.3 (6.0)	36.8 (6.0)	36.8 (5.2)	36.8 (5.8)	35.8 (6.4)	37.3 (4.9)	36.1 (6.9)	37.2 (5.2)	35.6 (6.1)	37.1 (5.0)	35.2 (7.6)	36.6 (4.9)	
DAS cohesion	11.9 (3.1)	13.2 (2.3)	12.8 (3.1)	13.6 (2.4)	11.8 (3.7)	13.0 (2.9)	12.0 (2.9)	13.2 (2.8)	11.4 (3.8)	11.8 (3.4)	11.5 (4.1)	12.5 (3.7)	12.0 (3.4)	13.2 (3.7)	11.2 (2.9)	12.4 (3.5)	
DAS affection	5.9 (2.0)	6.2 (2.2)	7.6 (1.6)	6.8 (1.8)	6.8 (2.0)	6.7 (1.9)	6.9 (1.9)	7.0 (2.0)	6.6 (2.3)	7.0 (2.0)	6.8 (2.5)	7.3 (2.2)	6.6 (2.2)	7.6 (2.0)	7.0 (2.4)	7.0 (2.3)	
Communication subscales																	
Communication negative	2.2 (0.4)	2.1 (0.4)	1.9 (0.3)	1.9 (0.4)	2.0 (0.4)	2.0 (0.4)	2.1 (0.4)	2.1 (0.4)	2.2 (0.5)	2.1 (0.5)	2.1 (0.5)	2.0 (0.5)	2.1 (0.5)	1.9 (0.4)	2.1 (0.5)	2.0 (0.4)	
Communication positive	4.0 (0.7)	3.6 (0.6)	4.2 (0.7)	3.9 (0.6)	4.1 (0.6)	3.7 (0.6)	3.9 (0.6)	3.8 (0.6)	4.0 (0.7)	3.6 (0.8)	4.0 (0.8)	3.7 (0.6)	4.0 (0.7)	3.8 (0.6)	3.8 (0.8)	3.7 (0.7)	
DCI Subscales																	
Dyadic coping negative	16.0 (4.0)	15.1 (4.1)	13.5 (3.2)	13.8 (3.7)	14.8 (3.9)	14.0 (4.1)	14.5 (3.6)	13.5 (3.8)	15.6 (4.6)	14.9 (3.5)	15.9 (5.3)	14.0 (3.1)	15.6 (4.9)	14.0 (2.7)	16.3 (4.8)	15.0 (3.1)	
Dyadic coping positive	57.1 (8.5)	57.8 (9.2)	63.5 (8.0)	62.7 (7.1)	59.6 (9.4)	59.1 (8.4)	57.7 (8.9)	59.4 (10.0)	57.0 (8.1)	58.4 (8.4)	55.6 (10.0)	58.0 (6.7)	57.0 (9.6)	58.1 (8.0)	55.2 (8.3)	57.6 (8.1)	

Note. Standard deviations are presented in parenthesis. w = women; m = men.

subscales of the three measured concepts (relationship quality, communication, and dyadic coping) that were conducted separately, yielded significant interaction effects for time and group for all three constructs, thereby supporting the hypothesis that there are group-specific changes over time (Table 3). In addition, all three multivariate time effects and sex effects, the time \times sex effect of the marital communication, and the group effect of the dyadic coping were significant. The univariate results of the 12 RANOVAs are presented in Table 3. The significant interaction effects between time and group obtained for all relationship scales except for dyadic consensus (DAS consensus) and positive communication support the first hypothesis that changes over time are related to the treatment. As expected, the strongest effects were found for dyadic coping, followed by the total score of the communication scale and negative communication. The fact that there was no significant interaction effect for positive communication while there was a substantial effect for negative communication is in contrast to the pattern found for dyadic coping, where strong effects were revealed for both positive and negative dyadic coping. The second hypothesis, that the CCET reduces partners' conflicts related to child education (PPC intensity), was supported at a marginal level only ($p_{\text{time} \times \text{group}} < .10$).

The significant main effects for time, which were found for all scales except for dyadic satisfaction (DAS satisfaction), indicate considerable changes over time across both groups. Substantial gender differences were found for dyadic cohesion (with men scoring higher than women), negative and positive communication (women scoring higher than men), and negative dyadic coping (women scoring higher than men). These effects demonstrated that there were some considerable differences between women and men. In particular, women had higher scores in negative and positive communication and negative dyadic coping across all time measurements and across both groups, while men had higher scores in marital cohesion. In addition, group differences emerged for the total score for dyadic coping, and marginally significant differences were noted for positive dyadic coping, with higher scores among those who participated in the CCET group. Interaction effects between sex and time were found for communication (total score) and negative communication, indicating that changes over time were linked to gender. No significant interaction effects between sex and group were found, while for DAS affection, a substantial interaction effect between sex, time, and group was observed, indicating that changes over time were related to gender and group (see Table 3).

Effect sizes (Cohen's *d*) indicating changes over time (intragroup) and differences between groups (treatment vs. control group) independent of the sample size are presented in Tables 4 and 5. Changes over time

TABLE 3. Inference Statistical Results of the Relationship Scales

	Sex		Time		Group		Sex × Time		Sex × Group		Time × Group		Sex × Time × Group															
	df	η^2	F	η^2	F	η^2	F	η^2	F	η^2	F	η^2	F	η^2														
DAS total	1	.75	2.14	.028	3	.73	6.31***	.206	1	.75	.75	.010	3	.73	.27	.011	1	.75	.50	.007	3	.73	2.87*	.105	3	.73	.88	.035
DAS consensus	1	.74	.12	.002	3	.72	5.21**	.178	1	.74	2.25	.030	3	.72	.17	.007	1	.74	.35	.005	3	.72	1.11	.044	3	.72	.32	.013
DAS satisfaction	1	.75	2.12	.027	3	.73	2.52	.094	1	.75	.07	.001	3	.73	.52	.021	1	.75	.72	.009	3	.73	3.69*	.132	3	.73	.30	.012
DAS cohesion	1	.75	7.86**	.095	3	.73	4.01*	.142	1	.75	1.80	.023	3	.73	.44	.018	1	.75	.07	.001	3	.73	2.79*	.103	3	.73	.55	.022
DAS affection	1	.75	.78	.010	3	.73	6.06***	.199	1	.75	.60	.008	3	.73	2.14	.081	1	.75	2.69	.035	3	.73	3.30*	.119	3	.73	4.10**	.144
Communication total score	1	.76	.04	.001	3	.74	8***	.343	1	.76	.90	.012	3	.74	3.42*	.122	1	.76	.33	.004	3	.74	4.87**	.165	3	.74	.80	.032
Communication negative	1	.76	4.43*	.055	3	.74	6***	.343	1	.76	.43	.006	3	.74	2.93*	.106	1	.76	.11	.001	3	.74	4.04*	.141	3	.74	.60	.024
Communication positive	1	.76	9.97**	.116	3	.74	3.98*	.139	1	.76	.83	.011	3	.74	1.97	.074	1	.76	.27	.004	3	.74	2.01	.075	3	.74	.55	.022
Dyadic coping total	1	.78	2.64	.033	3	.76	1.73***	.298	1	.78	5.23*	.063	3	.76	.79	.030	1	.78	1.70	.021	3	.76	12.64***	.333	3	.76	1.17	.044
Dyadic coping negative	1	.77	6.50*	.078	3	.75	4.94**	.165	1	.77	1.46	.019	3	.75	.34	.013	1	.77	1.03	.013	3	.75	6.52***	.207	3	.75	1.43	.054
Dyadic coping positive	1	.78	1.10	.014	3	.76	8.01***	.240	1	.78	3.70*	.045	3	.76	.85	.033	1	.78	.57	.007	3	.76	1.47**	.292	3	.76	.54	.021
PPC intensity	1	.74	.00	.000	3	.72	5.01**	.173	1	.74	1.66	.022	3	.72	1.24	.049	1	.74	.01	.000	3	.72	2.72*	.102	3	.72	1.04	.042

Note. +p<.10; * p<.05; **p<.01; ***p<.001. Multivariate test results DAS: sex $F(4, 71) = 3.071^*$, $\eta^2 = .147$, time $F(12, 63) = 2.512^{**}$, $\eta^2 = .324$, group $F(4, 71) = 1.440$, $\eta^2 = .075$, sex × time $F(12, 63) = .808$, $\eta^2 = .133$, sex × group $F(4, 71) = 1.199$, $\eta^2 = .063$, time × group $F(12, 63) = 2.644^{**}$, $\eta^2 = .335$, sex × time × group $F(12, 63) = 1.098$, $\eta^2 = .173$; multivariate test results Communication: sex $F(7, 70) = 9.562^{***}$, $\eta^2 = .489$, time $F(21, 56) = 2.624^{**}$, $\eta^2 = .496$, group $F(7, 70) = 2.186^*$, $\eta^2 = .179$, sex × time $F(21, 56) = .711$, $\eta^2 = .210$, sex × group $F(7, 70) = 1.449$, $\eta^2 = .127$, time × group $F(21, 56) = 2.836^{***}$, $\eta^2 = .515$, sex × time × group $F(21, 56) = .914$, $\eta^2 = .255$; multivariate test results dyadic coping sex $F(2, 76) = 3.462^*$, $\eta^2 = .083$, time $F(6, 72) = 4.930^{***}$, $\eta^2 = .291$, group $F(2, 76) = .484$, $\eta^2 = .058$, sex × time $F(6, 72) = .503$, $\eta^2 = .040$, sex × group $F(2, 76) = .738$, $\eta^2 = .019$, time × group $F(6, 72) = 6.537^{***}$, $\eta^2 = .353$, sex × time × group $F(6, 72) = .762$, $\eta^2 = .060$.

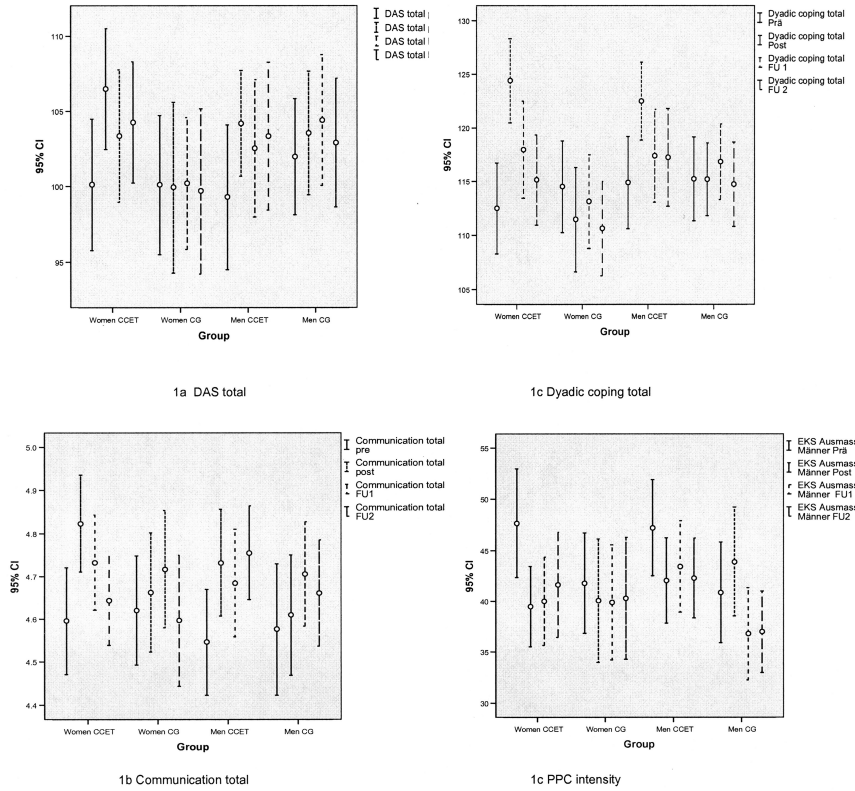


FIGURE1. Changes in growth of DAS total, Communication total, DCI total and PPC intensity over the four time points in women and men in the CCET and the control group (CG).

Note. DAS total CCET: Pre $M_w = 99.4$ ($SD = 12.9$), $M_m = 101.0$ ($SD = 13.3$), Post $M_w = 105.9$ ($SD = 12.3$), $M_m = 105.4$ ($SD = 10.8$), FU1 $M_w = 102.7$ ($SD = 13.7$), $M_m = 103.9$ ($SD = 12.9$), FU2 $M_w = 103.8$ ($SD = 12.6$), $M_m = 106.0$ ($SD = 11.6$); **DAS total CG:** Pre $M_w = 99.4$ ($SD = 13.4$), $M_m = 102.0$ ($SD = 11.6$), Post $M_w = 100.0$ ($SD = 16.4$), $M_m = 103.5$ ($SD = 12.3$), FU1 $M_w = 100.5$ ($SD = 12.2$), $M_m = 104.4$ ($SD = 13.1$), FU2 $M_w = 100.2$ ($SD = 15.5$), $M_m = 102.9$ ($SD = 12.8$); **Communication total CCET:** Pre $M_w = 4.6$ ($SD = 0.4$), $M_m = 4.6$ ($SD = 0.4$), Post $M_w = 4.8$ ($SD = 0.4$), $M_m = 4.7$ ($SD = 0.4$), FU1 $M_w = 4.7$ ($SD = 0.4$), $M_m = 4.7$ ($SD = 0.4$), FU2 $M_w = 4.6$ ($SD = 0.4$), $M_m = 4.6$ ($SD = 0.4$); **Communication total CG:** Pre $M_w = 4.6$ ($SD = 0.4$), $M_m = 4.6$ ($SD = 0.5$), Post $M_w = 4.6$ ($SD = 0.4$), $M_m = 4.6$ ($SD = 0.4$), FU1 $M_w = 4.7$ ($SD = 0.4$), $M_m = 4.7$ ($SD = 0.4$), FU2 $M_w = 4.6$ ($SD = 0.5$), $M_m = 4.7$ ($SD = 0.4$); **Dyadic Coping total CCET:** Pre $M_w = 3.2$ ($SD = 0.4$), $M_m = 3.3$ ($SD = 0.4$), Post $M_w = 3.6$ ($SD = 0.4$), $M_m = 3.5$ ($SD = 0.4$), FU1 $M_w = 3.4$ ($SD = 0.4$), $M_m = 3.4$ ($SD = 0.4$), FU2 $M_w = 3.3$ ($SD = 0.4$), $M_m = 3.4$ ($SD = 0.4$); **Dyadic Coping total CG:** Pre $M_w = 3.2$ ($SD = 0.4$), $M_m = 3.3$ ($SD = 0.3$), Post $M_w = 3.2$ ($SD = 0.4$), $M_m = 3.3$ ($SD = 0.3$), FU1 $M_w = 3.2$ ($SD = 0.4$), $M_m = 3.4$ ($SD = 0.3$), FU2 $M_w = 3.2$ ($SD = 0.4$), $M_m = 3.3$ ($SD = 0.3$); **PPC intensity CCET:** Pre $M_w = 48.1$ ($SD = 17.1$), $M_m = 46.1$ ($SD = 13.3$), Post $M_w = 40.1$ ($SD = 12.5$), $M_m = 41.6$ ($SD = 13.4$), FU1 $M_w = 40.7$ ($SD = 13.8$), $M_m = 42.2$ ($SD = 13.3$), FU2 $M_w = 42.3$ ($SD = 16.6$), $M_m = 42.5$ ($SD = 12.2$); **PPC intensity CG:** Pre $M_w = 41.3$ ($SD = 15.3$), $M_m = 41.3$ ($SD = 14.9$), Post $M_w = 39.9$ ($SD = 19.4$), $M_m = 43.9$ ($SD = 16.3$), FU1 $M_w = 39.5$ ($SD = 18.2$), $M_m = 37.0$ ($SD = 13.7$), FU2 $M_w = 39.0$ ($SD = 18.7$), $M_m = 37.2$ ($SD = 12.1$).

(within-subject effects) were computed by comparing the premeasures with the postmeasures, the premeasures with the measures 6 months after the training, and the premeasures with the measures 12 months after the training within groups. Between-group effects represent the magnitude of differences between the treatment and the control groups at the different times of measurement.

The within-subject effects for pre- versus postmeasures (Table 4) range from | 0.32 | to | 0.99 | for women and from | 0.18 | to | 0.73 | for men in the treatment group. With respect to common conventions, these improvements in the CCET group are small to large (almost up to one standard deviation). All effects were at least medium in magnitude for women, with the exception of positive communication and DAS cohesion and consensus. In men participating in the CCET, 6 of the 12 effects were small in size while medium effects resulted for positive dyadic coping, the total score of dyadic coping, total score of communication, negative communication, and the total score of the DAS. The average within-subject effects were 0.56 for women and 0.42 for men, supporting the third hypothesis that women benefit more at least in the short term from the CCET than men do. With regard to the control group, the within-subject pre-post effects range from | 0.01 | to | 0.22 | for women and from | 0.00 | to | 0.29 | for men, indicating, at best, small effects in the control group. The average effects for the control group were 0.00 for women and 0.12 for men.

The within-subject effects for the difference between premeasures and 6 months after the training range between | 0.03 | and | 0.65 | for women and between | 0.04 | and | 0.41 | for men in the CCET group. There was no effect with respect to DAS cohesion and positive communication in both women and men. All other within-subject effects between premeasures and measures at 6 months after the training were small. The average effects were 0.26 and 0.22 for women and men. The within-subject effects in the control group ranged from | 0.00 | to | 0.44 | for women and from | 0.04 | to | 0.52 | for men. The average effects for control couples were 0.09 and 0.19 for women and men, respectively.

With regard to the effects resulting for premeasures and measures at 12 months after the training, the within-subject effects ranged from | 0.03 | to | 0.50 | for women and from | 0.02 | to | 0.63 | for men in the treatment group, with averages of 0.20 for women and 0.35 for men in the CCET group. The effects were mostly small, except for DAS cohesion in both women and men, positive communication, positive dyadic coping, and the total score of communication in women, which were not substantial at all. In contrast to the pre-post differences, the average effects for premeasures and measures at 12 months after training were

TABLE 4. Effect sizes (Cohen's *d*) for differences within the groups.

		Women			Men		
		Pre-Post	Pre-FU1	Pre-FU2	Pre-Post	Pre-FU1	Pre-FU2
		DAS total	CCET	0.69	0.31	0.36	0.52
	CG	0.07	0.10	0.07	0.19	0.27	0.10
DAS consensus	CCET	0.38	0.33	0.31	0.31	0.24	0.45
	CG	0.01	0.15	0.22	0.18	0.11	0.43
DAS satisfaction	CCET	0.57	0.20	0.35	0.43	0.31	0.52
	CG	0.05	-0.03	-0.13	-0.03	-0.04	-0.15
DAS cohesion	CCET	0.35	-0.03	0.03	0.18	-0.04	0.02
	CG	0.03	0.19	-0.07	0.29	0.52	0.20
DAS affectional expression	CCET	0.97	0.51	0.44	0.33	0.24	0.38
	CG	0.08	-0.01	0.17	0.13	0.28	-0.03
Communication total	CCET	0.69	0.51	0.17	0.68	0.33	0.62
	CG	0.15	0.36	0.02	0.13	0.40	0.26
Communication negative	CCET	-0.77	-0.65	-0.50	-0.57	-0.41	-0.63
	CG	-0.22	-0.44	-0.23	-0.09	-0.38	-0.28
Communication positive	CCET	0.32	0.15	-0.12	0.46	0.16	0.31
	CG	-0.03	0.02	-0.20	0.11	0.28	0.10
Dyadic coping total	CCET	0.99	0.40	0.21	0.72	0.38	0.38
	CG	-0.18	0.00	-0.21	0.00	0.21	-0.05
Dyadic coping negative	CCET	-0.69	-0.31	-0.42	-0.31	-0.35	-0.47
	CG	0.09	0.01	0.20	-0.21	-0.28	0.05
Dyadic coping positive	CCET	0.82	0.28	0.06	0.73	0.24	0.23
	CG	-0.18	0.00	-0.22	-0.06	-0.06	-0.11
PPC intensity	CCET	-0.54	-0.45	-0.36	-0.28	-0.27	-0.31
	CG	-0.10	-0.12	-0.15	0.17	-0.30	-0.36

Note. Cohen's *d*s are based on the mean differences computed using the formula $(M_{\text{post}} - M_{\text{pre}})/S_D$. *M* = Mean; *S_D* = standard deviation of difference scores; CCET = treatment group; CG = control group.

stronger for men than for women. The effect sizes for the control group ranged from | 0.02 | to | 0.23 | for women and from | 0.03 | to | 0.43 | for men, with an average of -0.04 and 0.05, respectively.

Given the averaged within-subject effects, the results support the hypothesis that women benefit more from the training in the short term (immediately after the program) than men do. While the effects decreased over time in women, there seems to be a u-curve trend in men, with the lowest effect sizes at 6 months after the training.

Effect sizes of pairwise comparisons between the CCET and the control group are presented in Table 5. The between-group effects at post treatment ranged from | 0.01 | to | 1.04 | for women, which were small

to large, and from $|0.05|$ to $|0.68|$ for men, which were up to medium in size. No between-group effects were found for PPC intensity in women and men, DAS satisfaction, negative dyadic coping, and DAS total in men.

The between-group effects for the measurements 6 months after the training ranged between $|0.08|$ and $|0.40|$ in women and between $|0.00|$ and $|0.49|$ in men, which represent small to medium effect sizes in women and small effect sizes in men.

Only 3 of the 12 effects were small in both women and men, while the other effects were not substantial.

The between-group effects for the measurements 12 months after the training ranged from $|0.07|$ to $|0.45|$ and from $|0.01|$ to $|0.44|$ for women and men, respectively, representing small effect sizes for both women and men. Of the 12 effects, 7 effect sizes in women and nine effects in men were small.

The averaged posteffect sizes were 0.47 and 0.22 for women and men, 0.17 and -0.02 6 months after the training, and 0.23 and 0.24 after 12 months. The fact that these effects were considerably lower than the within-subject effect sizes presented in Table 4 may result from the positive changes that also could be observed in the control group over time. There were, on average, no relevant between-group effects 6 months after the training for men. As for the within-subject effects, these findings support the hypothesis that the treatment effects are stronger in women than in men, especially in the short term. However, it is noteworthy that one third of the couples in the control group reported an improvement in their relationship without any intervention (see spontaneous remission, Eysenck, 1952).

DISCUSSION

This study, using a randomized control trial design involving 100 couples, sought to assess the efficacy of the CCET over a time span of 1 year. The purpose of this study was to replicate previous findings that indicated that the CCET is able to improve marital quality and partner competencies in distressed couples (Bodenmann & Shantinath, 2004). In contrast to previous studies, where the presence and age of children had not been controlled for, this study focused exclusively on parents of preadolescent children (aged 2-12 years) who were interested in investing in their close relationship by participating in the CCET. Although our intention was to recruit couples who were generally happy with their relationship and not distressed (as was the case in previous studies evaluating the CCET), nearly half of the participants in this study reported DAS scores below the cutoff point for unhappy couples. Thus, an

association between child-related stress experiences and marital distress could be observed. This also was reflected by the significant correlation between conflicts related to children and marital quality ($r = -.44$). Given these facts, the current study served in a way as a replication of previous findings, but in this instance controlled for the presence and age of children. A further advantage of this study (in contrast to previous studies evaluating the efficacy of the CCET) was the randomized assignment of couples to the CCET or control condition.

The findings of this treatment study with four points of measurement (pre, post, follow-up after 6 months, and follow-up after 1 year) support the hypotheses that the CCET is an effective method for strengthening relationship functioning by improving dyadic skills such as dyadic communication and dyadic coping that are relevant for relationship health. Overall, 9 out of the 12 group \times time interaction effects were significant. As in previous studies (Kaiser, Hahlweg, Fehm-Wolfsdorf, & Groth, 1998), the effects of the CCET were strongest directly after the training (yielding up to strong effect sizes), with the positive effects decreasing over time (see Bodenmann et al., 2002; Bodenmann & Shantinath, 2004). This finding is in line with previous studies, showing that positive effects of marital distress prevention trainings dissipate over time in distressed couples (e.g., Halford, Sanders, & Behrens, 2001; Kaiser et al., 1998). Because half of the couples participating in our trial reported DAS scores below the cutoff for happy couples, the sample investigated in this study did not really represent severely distressed couples but couples who were less satisfied with their relationship than a typical sample of happy couples.

While positive effects of the CCET could be observed with regard to communication and dyadic coping, the assumption that child-related parental conflicts would decrease after participation in the CCET was not supported. Effect sizes for this scale were rather small for both men and women, indicating that improvements in dyadic communication and dyadic coping did not necessarily go along with a lower level of problems related to children. Our findings reveal that while the CCET is able to strengthen general dyadic competencies related to adequate marital functioning, it does not automatically also improve child-related behavior or decrease parental conflicts related to child-rearing issues. Our assumption that an improvement in dyadic competencies (i.e., communication and dyadic coping) would not only reduce tensions related to a couple's relationship but would also reduce disagreements related to their children was not supported. It appears that the CCET's focus on stress both in a general context and specifically in connection with marital issues does not automatically also affect other domains (such as parenting issues). The assumption by Sanders et al. (1997) that an im-

TABLE 5. Effect sizes (Cohen's *d*) for differences between the groups (CCET–CG)

	Women			Men		
	Post	FU1	FU2	Post	FU1	FU2
DAS total	0.41	0.17	0.25	0.16	–0.04	0.26
DAS consensus	0.43	0.33	0.24	0.25	0.20	0.15
DAS satisfaction	0.26	0.11	0.23	0.05	–0.05	0.21
DAS cohesion	0.35	–0.05	0.28	0.36	–0.06	0.27
DAS affectional expression	0.39	0.11	–0.07	–0.25	–0.49	0.01
Communication total	0.50	0.16	0.16	0.30	–0.12	0.26
Communication negative	–0.46	–0.09	–0.12	–0.24	0.07	–0.24
Communication positive	0.33	0.19	0.15	0.29	–0.14	0.16
Dyadic coping total	1.04	0.40	0.43	0.67	0.06	0.27
Dyadic coping negative	–0.58	–0.18	–0.45	–0.06	0.00	–0.44
Dyadic coping positive	0.88	0.28	0.28	0.68	0.13	0.20
PPC intensity	0.01	0.08	0.19	–0.15	0.38	0.43

Note. Cohen's *d*s are based on the mean differences computed using the formula $(M_{CCET} - M_{CG})/s_p$. *M* = Mean; *s_p* = pooled standard deviation; CCET = treatment group; CG = control group.

provement in marital quality should lead to better parenting was, however, not directly tested in this study. It is also noteworthy that no issues of parenting or children were explicitly addressed during the training. Additional studies are needed to highlight the potential contribution of the CCET in improving parenting behavior.

Furthermore, we found, as hypothesized, that effects were stronger in women than in men, with women reporting higher positive changes than men in nearly all variables at least in the short term. In the long term, however, the differences seemed to converge and almost disappear, as the positive effects faded out in both genders.

In general, the results of this study support previous findings about the efficacy of the CCET. It is noteworthy that effects of this stress- and coping-oriented couple's skills training program were weaker in this sample (which consisted of parents with preadolescent children experiencing moderate levels of stress related to upbringing matters) compared to effects found in maritally distressed couples. This finding may be influenced by the recruitment strategy, where we sought couples who were nondistressed but yet experienced some level of stress in connection with being parents. In general, however, effect sizes found in this study were comparable to findings of other evaluation studies of the efficacy of marital distress prevention programs, reporting mean effect

sizes of $d = .48$ (at post-measurement) and $d = .32$ (at follow-up measurement) (Shadish & Baldwin, 2003).

Interpretations of the present results are limited by the following factors. First, the findings were exclusively based on self-report data. No external evaluations (relying upon direct observation) of marital quality, communication skills, or dyadic coping were made by therapists, clinicians, or other experts. Thus, the results reflect the subjective perceptions of the participants and, as such, may reflect this bias in perspective. Second, self-selected samples may be biased by the fact that only those couples who are sensitive to marital issues and who demonstrate an interest in marital research are the ones who participate in such studies. How this fact may bias our findings is difficult to know exactly. Third, no long-term effects could be reported because this study ended after 1 year. Because several previous studies on the efficacy of marital distress prevention programs had found increasing effects of the intervention program only after several years (e.g., Markman et al., 1993), it is possible that long-term effects of the CCET might be found after two or more years.

These limitations notwithstanding, the present study supports previous findings about the efficacy of the CCET and extends those findings by testing the efficacy of the CCET among parents of preadolescent children. It appears that even when distress that is unrelated to marital issues is targeted (such as what arises in connection with child rearing), participation in the CCET may be beneficial for parents, though not to the extent that might be expected. Our findings suggest keeping these expectations at a modest level and expanding the scope of future versions of the CCET to include specific topics such as child rearing. To work only on stress and coping in general may not be sufficient for this purpose, and it is necessary to test whether an additional focus on education and the parent-child relationship should be included in programs that serve parents. Although efforts have been made to develop such programs for couples becoming parents (Cowan & Cowan, 2000; Shapiro & Gottman, 2005), we have observed a lack of training programs for couples dealing with educational issues related to children at different ages (preadolescent, adolescents, etc.). Although the CCET is beneficial in improving marital quality in general, a more tailored approach seems necessary when specific stressors such as child rearing are addressed (see also Scott, Halford, & Ward, 2004).

Furthermore, the fact that the effects faded after 6 months and 1 year highlights the need for booster sessions and interventions that also address the maintenance of positive treatment effects over time.

REFERENCES

- Blood, R. O., & Wolfe, D. M. (1965). *Husbands and wives: The dynamics of married living*. Glencoe: Free Press.
- Bodenmann, G. (1997). Can divorce be prevented by enhancing coping skills in couples? *Journal of Divorce and Remarriage*, 27, 177–194.
- Bodenmann, G. (2000). *Stress und Coping bei Paaren* [Stress and coping in couples]. Göttingen: Hogrefe.
- 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. 33–50). Washington, DC: American Psychological Association.
- Bodenmann, G. (2007). *Dyadisches Coping Inventar (DCI). Testmanual* [Dyadic Coping Inventory (DCI). Test manual]. Bern, Göttingen: Huber & Hogrefe.
- Bodenmann, G. (in press). Dyadic coping and the 3-phase-method in working with couples. In L. VandeCreek (Ed.), *Innovations in clinical practice: Focus on group, couples, and family therapy*. Sarasota: Professional Resources Press.
- Bodenmann, G., Perrez, M., Cina, A., & Widmer, K. (2002). The effectiveness of a coping-focused prevention approach: A two-year longitudinal study. *Swiss Journal of Psychology*, 61, 195–202.
- Bodenmann, G., Pihet, S., Cina, A., Widmer, K., & Shantinath, S. (2006). Improving dyadic coping in couples with a stress-oriented approach: A 2-year longitudinal study. *Behavior Modification*, 30, 571–597.
- Bodenmann, G., & Shantinath, S. D. (2004). The Couples Coping Enhancement Training (CCET): A new approach to prevention of marital distress based upon stress and coping. *Family Relations*, 53, 477–484.
- Cina, A., Widmer, K., & Bodenmann, G. (2002). Die Wirksamkeit des Freiburger Stresspräventionstrainings (FSPT): Ein Vergleich von zwei Trainingsvarianten [The Effectiveness of the Couples' Coping Enhancement Training (CCET): A Comparison of Two Versions of the CCET]. *Verhaltenstherapie*, 12, 36–45.
- Cowan, C. P., & Cowan, P. A. (2000). *When partners become parents: The big life change for couples*. Mahwah, NJ: Erlbaum.
- Dadds, M. R., & Powell, M. B. (1991). The relationship of interparental conflict and global marital adjustment to aggression, anxiety, and immaturity in aggressive and nonclinic children. *Journal of Abnormal Child Psychology*, 19, 553–567.
- DeMaria, R. M. (2005). Distressed couples and marriage education. *Family Relations*, 54, 242–253.
- Dyer, P. M., & Dyer, G. H. (1999). Marriage enrichment. A.C.M.E. style. In R. Berger & M. T. Hannah (Eds.), *Preventive approaches in couples's therapy* (pp. 28–54). Philadelphia: Brunner/Mazel.
- Eysenck, H. J. (1952). The effects of psychotherapy. *Quarterly Bulletin of the British Psychological Society*, 3, 41.
- Gottman, J. M. (1994). *What predicts divorce?* Hillsdale, NJ: Erlbaum.
- Gottman, J. M., Notarius, C., Markman, H. A., Bank, S., Yoppi, B., & Rubin, M. E. (1976). Behavior exchange theory and marital decision making. *Journal of Personality and Social Psychology*, 34, 14–23.
- Guernsey, B. G. (1977). *Relationship enhancement*. San Francisco: Jossey-Bass.
- Hahlweg, K., & Markman, H. J. (1988). Effectiveness of behavioral marital therapy: Empirical status of behavioral techniques in preventing and alleviating marital distress. *Journal of Consulting and Clinical Psychology*, 56, 440–447.
- Halford, W. K., Moore, E., Keithia, L. W., Farrugia C., & Dyer, C. (2004). Benefits of flexible

- delivery relationship education: An evaluation of the couple CARE program. *Family Relations*, 53, 469–476.
- 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.
- Jakubowski, S., Milne, E. P., Brunner, H., & Miller, R. B. (2004). A review of empirically supported marital enrichment programs. *Family Relations*, 53, 528–536.
- Kaiser, A., Hahlweg, K., Fehm-Wolfsdorf, G., & Groth, T. (1998). The efficacy of a compact psychoeducational group training program for married couples. *Journal of Consulting and Clinical Psychology*, 66, 753–760.
- Laux, L., & Schütz, A. (1995). *Stressbewältigung und Wohlbefinden in der Familie. Studie im Auftrag des Bundesministeriums für Familie und Senioren* [Coping with stress and well-being in families]. Bamberg, Germany: Fakultät für Pädagogik, Philosophie und Psychologie der Universität.
- Markman, H. J., Floyd, F., Stanley, S., & Jamieson, K. (1984). A cognitive-behavioural program for the prevention of marital and family distress: Issues in program development and delivery. In K. Hahlweg & N. S. Jacobson (Eds.), *Marital interaction: Analysis and modification* (pp. 396–428). New York: Guilford Press.
- Markman, H. J., Renick, M. J., Floyd, F. J., Stanley, S. M., & Clements, M. (1993). Preventing marital distress through communication and conflict management trainings: A 4-and 5-year follow-up. *Journal of Consulting and Clinical Psychology*, 61, 70–77.
- Miller, S. M., Nunnally, E., & Wackman, D. (1975). Minnesota couples communication program (MCCP): Premarital and marital groups. In D. H. Olson (Ed.), *Treating relationships* (pp. 21–40). Lake Mills, MN: Graphic.
- Papp, L. M., Cummings, E. M., & Schermerhorn, A. C. (2004). Pathways among marital distress, parental symptomatology, and child adjustment. *Journal of Marriage and Family*, 66, 368–384.
- Pihet, S., Bodenmann, G., Cina, A., Widmer, K., & Shantinath, S. D. (2007). Can prevention of marital distress improve well-being? Results of a 1-year longitudinal study. *Clinical Psychology and Psychotherapy*, 14, 79–88.
- Sanders, M. R., Markie-Dadds, C., & Nicholson, J. M. (Eds.). (1997). *Concurrent interventions for marital and children's problems*. Hoboken, NJ: Wiley.
- Schindler, L., Hahlweg, K., & Revenstorf, D. (1999). *Partnerschaftsprobleme: Möglichkeiten der Bewältigung. Ein Handbuch für Paare* [Relationship problems: Possibilities of Finding a way out. A handbook for Couples]. Berlin, Germany: Springer.
- Scott, J. L., Halford, W. K., & Ward, B. G. (2004). United we stand? The effects of a couple-coping intervention on adjustment to early stage breast or gynaecological cancer. *Journal of Consulting and Clinical Psychology*, 72, 1122–1135.
- Shadish, W. R., & Baldwin, S. A. (2003). Meta-analysis of MFT interventions. *Journal of Marriage and Family Therapy*, 29, 547–579.
- Shapiro, A. F., & Gottman, J. M. (2005). Effects on marriage of a psycho-education intervention with couples undergoing the transition to parenthood: Evaluation at 1-year post-intervention. *Journal of Family Communication*, 5(1), 1–24.
- Spanier, G. B. (1976). The measurement of marital quality. *Journal of Sex and Marital Therapy*, 5, 288–300.
- Sullivan, K. T., Pasch, L. A., Eldridge, K. A., & Bradbury, T. N. (1998). Social support in marriage: Translating research into practical applications for clinicians. *The Family Journal: Counseling and Therapy for Couples and Families*, 6, 263–271.
- Widmer, K., Cina, A., Charvoz, L., Shantinath, S., & Bodenmann, G. (2005). A model dyadic coping intervention. In T. Revenson, K. Kayser, & G. Bodenmann (Eds.), *Couples coping with stress: Emerging perspectives on dyadic coping* (pp. 159–174). Washington, DC: American Psychological Association.