2015-02-07

Immediate Effect of Couple Relationship Education on Low-Satisfaction Couples: A Randomized Clinical Trial Plus an Uncontrolled Trial Replication

W. Kim Halford
University of Queensland

Christopher A. Pepping
University of Queensland

Peter Hilpert
University of Zurich

Guy Bodenmann
University of Zurich

Keithia L. Wilson
Griffith University

See next page for additional authors

Original Publication Citation

Halford, W. K., Pepping, C. A., Hilpert, P., Bodenmann, G., Wilson, K. L., Busby, D. M., Larson, J., & Holman, T. (2015). Immediate Effect of Couple Relationship Education on Low Satisfaction Couples: A Randomized Clinical Trial Plus an Uncontrolled Trial Replication. Behavior Therapy, 46, 409-421.

Available online at www.sciencedirect.com

ScienceDirect

Behavior Therapy 46 (2015) 409–421

Behavior Therapy

www.elsevier.com/locate/bt

Immediate Effect of Couple Relationship Education on Low-Satisfaction Couples: A Randomized Clinical Trial Plus an Uncontrolled Trial Replication

W. Kim Halford
Christopher A. Pepping
University of Queensland

Peter Hilpert
Guy Bodenmann
University of Zurich

Keithia L. Wilson
Griffith University

Dean Busby
Jeffry Larson
Thomas Holman
Brigham Young University

Couple relationship education (RE) usually is conceived of as relationship enhancement for currently satisfied couples, with a goal of helping couples sustain satisfaction. However, RE also might be useful as a brief, accessible intervention for couples with low satisfaction. Two studies were conducted that tested whether couples with low relationship satisfaction show meaningful gains after RE. Study 1 was a three-condition randomized controlled trial in which 182 couples were randomly assigned to RELATE with Couple CARE (RCC), a flexible delivery education program for couples, or one of two control conditions. Couples with initially low satisfaction receiving RCC showed a moderate increase in relationship satisfaction (d = 0.50) relative to the control. In contrast, couples initially high in satisfaction showed little change and there was no difference between RCC and the control conditions. Study 2 was an uncontrolled trial of the Couple Coping Enhancement Training (CCET) administered to 119 couples. Couples receiving CCET that had initially low satisfaction showed a moderate increase in satisfaction (g = .44), whereas initially highly satisfied couples showed no change. Brief relationship education can assist somewhat distressed couples to enhance satisfaction, and has potential as a cost-effective way of enhancing the reach of couple interventions.

Keywords: relationship education; relationship distress; couple relationship

The conduct of research reported in this paper was supported by an Australian Research Council Discovery Project Grant No. 1095507 to W. Kim Halford and Keithia L. Wilson. The first trial reported in this paper was not registered before being conducted. The second trial was registered with the Swiss National Science Foundation, No. 11–46820.96.

Address correspondence to W. Kim Halford, Ph.D., School of Psychology, University of Queensland, Queensland 4072, Australia; e-mail: K.Halford@psy.uq.edu.au.

Relationship Adjustment and Immediate Effects of Couple Relationship Education

Couple relationship education (RE) usually is conceived of as relationship enhancement for currently

satisfied couples, with a goal of helping couples sustain satisfaction. However, RE also might be useful as a brief, accessible intervention for couples with low satisfaction. The current paper is a report of two studies that tested whether couples with low relationship satisfaction show meaningful gains after RE.

COUPLE RELATIONSHIP EDUCATION

Couple relationship education (RE) was developed to enrich couples' relationships and help couples to sustain a healthy, mutually satisfying and stable relationship (Halford, Markman, Kline, & Stanley, 2003). Evidence-based RE usually is brief, typically consisting of a 12- to 15-hour curriculum that introduces key relationship knowledge (e.g., the importance of commitment, developing shared and realistic relationship expectations) and skills (e.g., couple communication, problem solving, coping; Halford, Markman, & Stanley, 2008). RE typically has a relatively fixed curriculum, and provides only limited tailoring of content to particular couple needs. RE usually works with couples that are currently satisfied in their relationship, and are committed to that relationship. Here RE builds upon the high level of positive emotion typical of currently satisfied couples, and has a strong emphasis on building the positive foundations for a mutually satisfying life together.

RE is somewhat distinct from couple therapy, which is usually addressed to couples that are distressed in their relationship. In contrast to the typically fixed curriculum of RE, evidence-based couple therapy typically involves developing a couple-specific conceptualization of distress and an individually tailored treatment program (Snyder & Halford, 2012). Couple therapists usually are trained mental health professionals who have the skills to deliver this specialized treatment, and to manage the high levels of negative affect many distressed couples feel (Halford & Snyder, 2012). In contrast, RE has been successfully delivered by people without specialized mental health training, such as ministers of religion and midwives (Halford, 2011). Finally, couple therapy is often extensive in duration, with evidence-based approaches often involving 20 or more sessions of therapy (Halford & Snyder, 2012).

Although RE is conceptually somewhat distinct from couple therapy, there is considerable overlap in the content typical of RE and couple therapy. For example, cognitive-behavioral approaches to couple therapy include a focus on enhancing shared enjoyable activities, expression of intimacy and caring, teaching couple communication and conflict management, promoting understanding of unhelpful couple interaction cycles, and identifying and challenging unhelpful relationship standards and attributions (Benson, McGinn, & Christensen, 2012; Halford & Snyder, 2012). The content of evidence-based RE programs like the Positive Relationship Education Program (PREP), Couple CARE, and Couple Coping Enhancement Training (CCET) include many of these same content areas (Halford & Bodenmann, 2013).

Given the overlap in content between couple therapy and RE, RE might produce at least some of the benefits of therapy for couples that have low relationship satisfaction. In many developed countries, such as the United States, Japan, Australia, and Norway, government and community agencies are promoting dissemination of RE in an attempt to reduce the negative personal, social, and economic effects associated with high rates of divorce and relationship distress (Halford & van Acker, 2012; Huang, 2005; Ooms, 2005). The rates of attendance of RE have grown markedly across the last 30 years (Stanley, Amato, Johnson, & Markman, 2006). Of couples presenting for RE, a substantial minority have at least mild relationship distress (De Maria, 2005).

One caveat on the potential impact of RE on assisting couples with low relationship satisfaction is that there is some evidence that relationship distress is taxonomic (Beach, Fincham, Amir, & Leonard, 2005; Whisman, Beach, & Snyder, 2008). That is, there seems to be an underlying categorical difference between distressed and satisfied couples, which might mean that RE developed for assisting currently satisfied couples might not be effective in assisting distressed couples. Hence, testing the potential impact of RE in improving satisfaction in distressed couples is important.

EFFECTS OF COUPLE RE

There are well-replicated short-term benefits of RE, particularly if the programs are of sufficient duration. A meta-analysis of 117 studies of curriculum-based RE reported medium effect size improvements in couple communication, d = .44, and small increases in relationship satisfaction, d = .36, immediately after RE (Hawkins, Blanchard, Baldwin, & Fawcett, 2008). Programs with moderate dosage (9–20 hours) had substantially larger effect sizes than low-dose programs (1–8 hours). In all these studies RE was offered universally, and the mean couple relationship satisfaction before RE typically was high (Hawkins et al., 2008). The moderate overall effect sizes might well reflect a ceiling effect in universal RE, with couples that are initially high in satisfaction having limited room for further improvement. Consistent with this interpretation, an

early meta-analysis of RE reported that the lower a particular sample of couples' mean relationship satisfaction was before RE, the greater the effect size increase in relationship satisfaction immediately after RE (Giblin, Sprenkle, & Sheehan, 1985). However, Hawkins and colleagues (2008) in a more recent meta-analysis failed to replicate this association between low mean satisfaction before RE and the effect size of gains in satisfaction. Hawkins and colleagues did note that, across their large sample of RE trials, samples had predominantly high mean levels of pre-RE satisfaction, with limited variability in pre-RE means across studies. In order to test if couples with low relationship satisfaction show substantial gain in satisfaction after RE, it is necessary to directly test that proposition.

The modest magnitude of short-term effects of RE have been a source of debate in the literature. Bradbury and Lavner (2012) argued that the effect of existing forms of RE on relationship satisfaction was variable across studies, with a mixture of null and small (possibly trivial) effects. The overall null findings of the recent large, multisite Building Strong Families (BSF) study (Wood, McConnell, Moore, Clarkwest, & Hsueh, 2012), and the very small effects observed in the large multisite Supporting Healthy Marriage (SHM) study (Hsueh et al., 2012) might seem to support the view of Bradbury and Lavner (2012). However, both BSF and SHM involved extensive contact hours for couples, and there was a lot of attrition from the programs.

Halford and Bodenmann (2013) comprehensively reviewed all 17 randomized controlled trials of RE with follow-up of 12 months or more, including the BSF and SHM trials. They found all but 3 of the 17 studies reported positive effects of RE on relationship satisfaction. However, the benefits of RE seemed to be predominantly with particular groups of couples. One group of couples that showed particularly strong benefits from RE were couples that were initially somewhat low in satisfaction. For example, two long-term evaluations of RE in Germany found couples with somewhat low mean satisfaction initially showed both immediate gains in satisfaction, and long-term maintenance of those gains (Braukhaus, Hahlweg, Kroeger, Groth, & Fehm-Wolfsdorf, 2003; Kaiser, Hahlweg, Fehm-Wolfsdorf, & Groth, 1998). However, there was still considerable variability in initial satisfaction within the samples, and it is not clear if the couples in the samples with the lower satisfaction were those making the most gain. They concluded that the possibility that particular groups of couples benefit from RE warrants further research.

IMPORTANCE OF EFFECTS OF COUPLE RE ON LOW SATISFACTION

There is a small but growing literature on couple relationship help seeking that suggests RE has a potentially important role in assisting distressed couples. While evidence-based couple therapy has a well-replicated efficacy in reducing relationship distress (Snyder & Halford, 2012), the reach of couple therapy is modest. Only about one in five divorced couples attend couple therapy before separating (Johnson et al., 2002; Wolcott, 1986). Across the first 5 years of marriage many more couples seek relationship help by attending RE workshops, or reading self-help books, than present for couple therapy (Doss, Rhoades, Stanley, & Markman, 2009). People in committed relationships report a greater willingness to attend RE workshops, or access self-directed learning materials like Web sites or books, than attend couple therapy (Duncan, Childs, & Larson, 2010; Eubanks, Fleming, & Cordova, 2012; Georgia & Doss, 2013).

About 25 to 30% of couples that present for couple therapy are ambivalent about the future of the relationships, and identify clarifying the future of the relationship as a key goal for therapy (Mondor et al., 2013; Owen, Duncan, Anker, & Sparks, 2012). These couples often have experienced long-standing relationship distress, which predicts drop-out early from couple therapy (Mondor et al., 2013), and poor outcome even in couples that complete therapy (Owen et al., 2012). In other words, couple therapy often comes too late. What is needed is to provide forms of intervention that couples are likely to access when they have somewhat low relationship satisfaction, and before chronic severe distress has developed (Eubanks et al., 2012). RE might well be an accessible form of early intervention for couples with low relationship satisfaction.

RE is delivered predominantly as face-to-face programs, often involving regular attendance at weekly sessions, which often require a substantial ongoing time commitment from couples (Wilson & Halford, 2008). A variety of professionals, religious leaders, and political opinion leaders advocate RE attendance, but despite increasing rates of attendance, still only a minority of marrying couples attend such programs (Halford, O'Donnell, Lizzio, & Wilson, 2006). One possibility to enhance access is to run RE as an intensive workshop (e.g., across a weekend), which does seem to be attractive to at least some couples (Doss et al., 2009). Alternatively, many adults prefer to access psychological education through self-directed programs, which can be undertaken at times and places that suit participants, rather than through face-to-face programs (Taylor, Jobson, Winzelberg, & Abascal, 2002).

Across diverse applications of adult education, programs structured to allow ease of access and to promote self-directed learning are termed "flexible delivery" programs. In essence, flexible delivery means programs that can be accessed at times and places convenient to participants, such as allowing couples to complete programs at home, or online. Flexible delivery has the potential to enhance the reach of RE as couples are more likely to read books (Doss et al., 2009) or access an Internet site (Casey & Halford, 2010) on relationships than attend face-to-face education.

AIMS OF THE STUDY

In summary, RE has content that seems appropriate to assist low-satisfaction couples, RE seems to be more acceptable to many couples than seeking couple therapy, and flexible delivery or intensive workshops have the potential to enhance reach even further. In the current paper we tested the hypothesis that couples with low relationship satisfaction before RE would show immediate increases in relationship satisfaction after RE. Based on prior suggestions of a ceiling effect on the immediate effects of RE on relationship satisfaction, we also predicted couples with high satisfaction before RE would show minimal or no increase in satisfaction immediately after RE. In order to test these hypotheses, we examined initial relationship satisfaction as a moderator of immediate response to RE in two separate trials of RE. Support for these hypotheses would have important implications for practice with couples. First, it would establish if accessible RE was helpful in enhancing relationship satisfaction for somewhat distressed couples, at least in the short term. Second, it would confirm that in currently highly satisfied couples RE is unlikely to produce immediate improvements in relationship satisfaction, and research on the effects of satisfaction of RE for couples who are highly satisfied need to focus on long-term benefits.

Study 1

METHOD

Participants

Participant couples were 182 heterosexual couples recruited between March 2010 and July 2011 for a study evaluating couple RE delivered in the couple's home. Recruitment was through Internet-based social media (Google and Facebook) and newspaper advertisements. Inclusion criteria for the study were (a) couples were in a committed relationship (married or cohabiting for a minimum of 6 months); (b) both partners provided written consent to participate in the study; and (c) neither partner was attending couple therapy, or reported significant relationship distress or severe interpartner violence.

Figure 1 presents the flow of participants through the study. As shown, 182 couples were randomly allocated to one of three conditions: a self-directed reading control group; RELATE assessment and feedback; or RELATE assessment with feedback plus the six-unit Couple CARE program. Of the couples allocated to the RELATE with Couple CARE (RCC) condition, 7 couples withdrew prior to participating in the RELATE assessment feedback session. Two couples did not complete a RELATE assessment due to technical difficulties in accessing the online assessment, and these couples received Couple CARE without completing the online assessment.

Measures

RELATE is a 271-item self-report assessment of couple relationship strengths and challenges that is accessed on the Internet (Busby, Holman, & Taniguchi, 2001). RELATE scales show a cross-sectional correlation with relationship satisfaction, and predict the trajectory of relationship satisfaction in the early years of marriage (Larson, Vatter, Galbraith, Holman, & Stahmann, 2007). RELATE is completed by each partner independently and assesses demographic factors, relationship values, family-of-origin experiences, and the current relationship. Completion of RELATE generates a report of self-reported functioning in their current relationship. It can be used, as it was in the current study, to encourage reflection on couple-specific relationship strengths and challenges, help couples develop relationship-enhancement goals, and inform the delivery of couple RE (Halford, 2011).

The RELATE relationship satisfaction scale was the key dependent variable in the current study. It is a six-item measure of global relationship satisfaction. Each item is rated from 1 (*very dissatisfied*) to 5 (*very satisfied*), with a range of possible scores from 6 to 30 with higher scores reflecting higher satisfaction. The scale is sensitive to change resulting from RE, the population mean in married couples is approximately 26 (SD = 6.3), and based on a normative data cut of below 20, which is 1 SD below the population mean, is used to define relationship distress (Halford et al., 2010). Test–retest reliability of the scale is high, r = .78, across a 2 to 3 week period, and shows high convergent validity with other relationship satisfaction scales (Busby et al., 2001).

COUPLE RE PROGRAMS

Control

After completing the preassessment interview and online RELATE, couples were sent a hard copy of

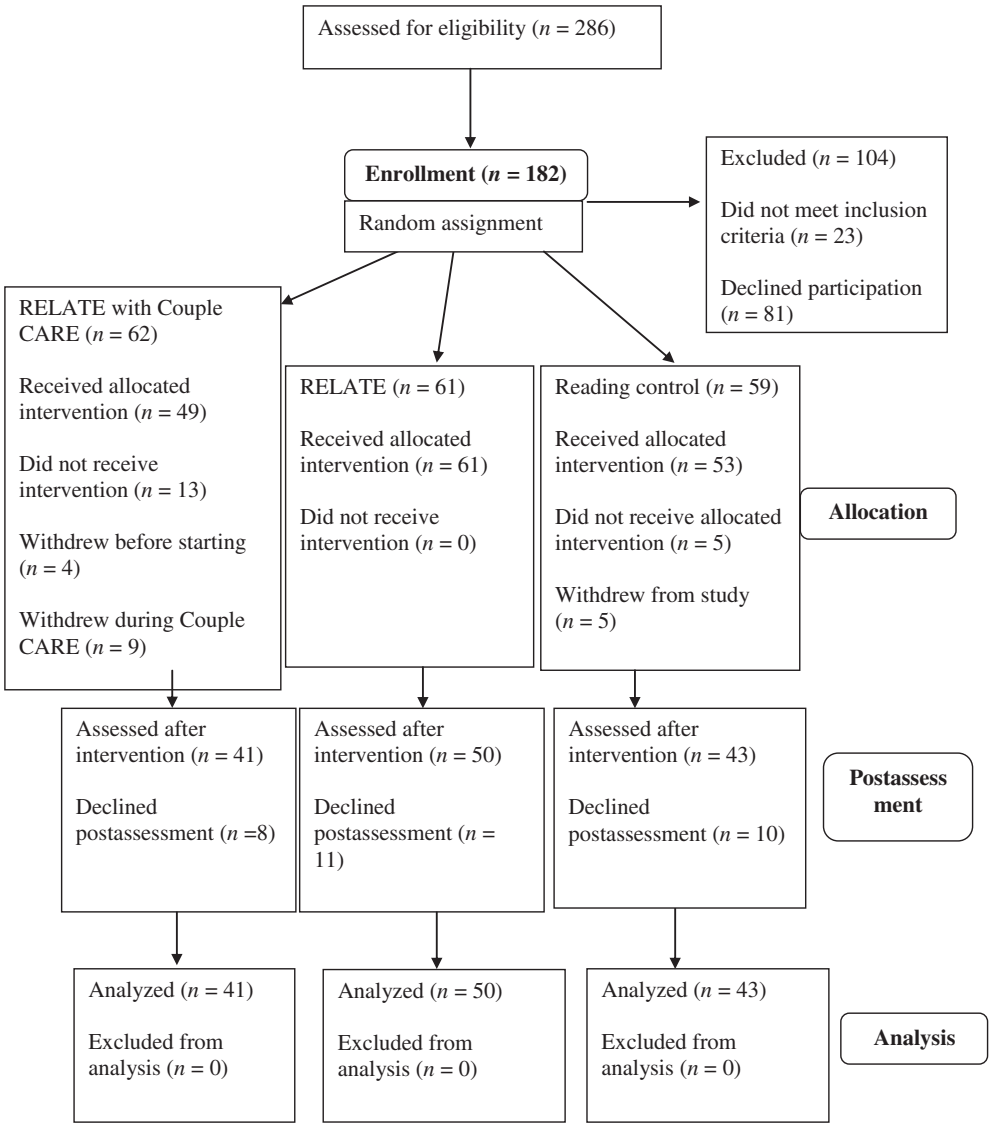

FIGURE 1 CONSORT flowchart of participants.

The Great Marriage Tune-Up Book by Larson (2003) that they were instructed to read over a period of 6–8 weeks. After approximately 3 weeks couples received one telephone call to review whether they had started reading the book, and encourage them to complete the reading. At 8 weeks, couples were contacted for participation in a postassessment interview. Couples in this control condition did not receive RELATE results or facilitated feedback. This condition was intended to provide couples with information without the individualized feedback and goal setting provided in RELATE, or the additional skill training provided in Couple CARE.

RELATE Assessment and Feedback

Couples were sent a 13-page RELATE report as a PDF e-mail attachment. The report describes the meaning of each scale, provides a graph showing each partner's scores, and defines these scores as strengths, as neutral, or as challenges for the relationship. The final page of the report shows the scale scores on a summary graph providing an overall profile of a couple's relationship strengths and challenges. The procedure used was similar to that in prior use of RELATE (e.g., Larson et al., 2007), and was developed with the authors of RELATE. It was suggested that each partner read through the report and then discuss it together. A relationship educator then phoned the couple and spoke to them in a semistructured conjoint interview about the report. Interviews were of 45- to 60-minutes duration. Partners were each asked about their overall reactions to the report, what they identified as relationship strengths and challenges, and

whether they agreed with the overall relationship profile presented in the report. The couple was then asked to define relationship-enhancement goals, which could be either maintenance of existing strengths or changes to address relationship challenges. Specifically, each partner identified two specific behavior changes they wished to implement to enhance their relationship (e.g., "to arrange a date together every 2 weeks" and "to ask more questions and not to interrupt when discussing difficult issues").

RELATE With Couple CARE (RCC)

The details of Couple CARE and its delivery are described in Halford (2011), and professionals can access the program at www.couplecare.info. In brief, it is a six-unit program in which couples complete each unit in about a week. The six units of Couple CARE cover the topics of relationship self-change, communication, intimacy and caring, managing differences, sexuality, and managing life changes. In the RCC program the telephone call at the end of the RELATE assessment explored the association between the couple's identified goals and the content of Couple CARE. For example, the educator pointed out to couples who reported difficulties with managing stress that Unit 6 of Couple CARE addresses this issue. Similarly, the educator pointed out to couples who reported problems with conflict that this issue was covered in Unit 4. While couples completed all six units from Couple CARE, the emphasis placed on each unit was tailored to address the specific needs of the couple.

The six units of Couple CARE each involve the couple watching a 12- to 15-minute segment of a DVD that introduces key ideas and models skills. Then the couple does a series of exercises that are described in a guidebook, which help the couple apply the ideas and practice the skills. These tasks take approximately 45 to 60 minutes per unit to complete. Finally, the couple participates in a telephone call with a relationship educator who reviews their completion of the key tasks, and provides coaching and support as required. The total time commitment for couples is about 2 hours per unit, or 12 hours across the whole program.

Educators

The relationship educators were 3 qualified psychologists with extensive experience in RE delivery, and 25 postgraduate clinical psychology students at either the University of Queensland or Griffith University in Brisbane, Australia. The postgraduate clinical students acting as educators providing the RE received credit toward their course requirements of completing hours of supervised clinical psychology practice. The educators were 7 men (22%) and 25 women (78%). Educators completed a full-day training workshop on delivery of RELATE-based feedback and delivering couple CARE, and had group supervision every 2 weeks reviewing their delivery of RE.

PROCEDURE

Each educator was allocated blocks of three couples and these couples were, after assessment, randomly assigned two of the three conditions. Random assignment was done by a research assistant based on a random number table. The number of blocks of couples facilitated by a single educator ranged from one to four. Conduct of the study was reviewed and approved by the Human Research Ethics Committee of the University of Queensland.

DATA ANALYSIS

Taking the mean of the male and female partner as an index of relationship satisfaction, couples before RE had a mean RELATE satisfaction of 22.3 (*SD* = 4.36), a little over 0.5 *SD* below the normative population mean of 25.9 (*SD* = 6.4) reported by Halford and colleagues (2010). Given the previously mentioned possibility that relationship distress is taxonomic (Whisman et al., 2008), we classified couples as low or high in initial satisfaction. Low initial satisfaction was operationalized as couple satisfaction before RE 0.5 *SD* below the population mean, which was < 23[1]. Across the whole sample 43% of couples were in that low satisfaction range, with 26% of couples being more than 1 *SD* below the population mean (satisfaction < 20), which is often used to define clinical relationship distress.

The sample size was based on power calculations that a sample of 60 couples per condition provided high power (>0.9) to detect a small-to-moderate effect size difference in effects by condition. MLwin (Rasbash, Charlton, Browne, Healy, & Cameron, 2005) was used to conduct a multilevel modeling (MLM) analysis of intervention effects on relationship satisfaction in which repeated measures across the occasions of measurement formed Level 1, partners formed Level 2, and couples formed Level 3 (Atkins, 2005). The MLM was centered so the intercept reflects the pre-RE assessment, and there is a time effect that reflects change from pre- to post-RE. Consistent with MLM conventions (Singer & Willett, 2003), the MLM was developed

[1] The cutoff to define low satisfaction of 0.5 *SD* below the population mean was somewhat arbitrary. We repeated the analyses dividing couples into distressed, defined by the usual convention of scoring 1 *SD* below the mean or satisfaction, or nondistressed. The pattern of findings was similar as for the analysis with low satisfaction, only the distressed couples showed a reliable increase in satisfaction.

sequentially, beginning with an unconditional growth model. Previous research showed that Couple CARE produced more increase in relationship satisfaction than RELATE (Halford et al., 2010), but as there was no control condition in the prior study it was unclear if RELATE was increasing satisfaction. Therefore, in the current analyses we first compared the two less-intensive conditions (0 = control, 1 = RELATE), but found there was no differential effect, $\chi^2(2) = 0.43$, $p = 0.808$, nor was there an interaction of Condition × Low Initial Satisfaction, $\chi^2(2) = 0.85$, $p = 0.655$. As there was no overall effect of RELATE relative to the control, we report just on the comparison of RCC with the other two conditions combined (RELATE and control). The equation used to test the effects of RCC was as follows:

$$\begin{aligned}\text{Relationship satisfaction}_{ij} &= (\beta_{0i} + \text{time}_{ij}) \\ &+ (\text{condition}_i + \text{condition.time}_{ij}) \\ &+ (\text{low satisfaction}_i + \text{low satisfaction.time}_{ij}) \\ &+ (\text{condition.low satisfaction}_i \\ &+ \text{condition.lowsatisfaction.time}_{ij})\end{aligned}$$

The variables in the first set of parentheses are the unconditional growth model, the second set of parentheses are the effects of condition, the third set are the effects of low initial satisfaction, and the final set are the effects of the interaction of Condition × Low Initial Satisfaction. The variable condition.low satisfaction.time in the third set of parentheses tests the key hypothesis that RE produces a selective effect in increasing satisfaction of couples initially low in satisfaction. β_{0i} is the intercept and time_{ij} is the change between pre- and post-RE. In doing the preliminary analyses comparing the RELATE with control condition was specified as 0 = control, 1 = RELATE. In assessing the effects of the Couple CARE condition relative to the other two conditions, condition was specified as 0 = control or RELATE; 1 = RCC; and 1 = low satisfaction, 0 = not low satisfaction for pre-RE satisfaction.

RESULTS

The demographics of the sample are presented in Table 1 separately by condition. Overall, the sample can be characterized as having a mean age in the early to mid-40s and having been together for 11 to 12 years. About one third of the couples (33%) were cohabitating, and the remainder were married, with 19% of the men and 11% of the women reporting this to be their second marriage. Consistent with the Australian population, a substantial minority of participants (30% of the men and 30% of the women) were born outside Australia. The sample was more highly educated than the Australian population, with 76% of the men and 82% of the women having completed a university degree. The sample's mean pretax annual income of AUD $150,000, which was approximately U.S. $141,000 at the time of the study, is about 0.5 *SD* higher than the national mean income of Australian couple households with children of AUD $127,000 (Australian Bureau of Statistics, 2011). Internal consistency of the CSI relationship satisfaction scale in the current sample was high, $\alpha = 0.90$.

Partitioning of the variance on the RELATE relationship satisfaction scale showed there was significant variance at the level of the couple, $z =$

Table 1
Demographics and Preintervention Relationship Satisfaction for Study 1 Participants

Variable	Control *N* = 59	RELATE *N* = 61	RELATE with Couple CARE *N* = 62	Total sample *N* = 182
Continuous variables mean and standard deviation (in parentheses)				
Relationship satisfaction M	22.4 (4.8)	22.7 (5.1)	22.3 (5.4)	22.5 (5.1)
Relationship satisfaction F	21.8 (5.2)	22.8 (4.9)	21.9 (4.9)	22.2 (5.0)
Age M	45.2 (11.7)	43.9 (11.3)	44.5 (11.0)	44.6 (11.3)
Age F	41.1 (10.8)	40.1 (9.6)	42.4 (11.0)	41.2 (10.5)
Years of relationship	10.6 (8.9)	11.6 (8.6)	12.1 (9.4)	11.5 (9.0)
Household income $	150.3 (71.1)	139.3 (60.1)	149.2 (56.4)	147.3 (60.5)
Categorical variables number and percentage (in parentheses)				
Cohabiting	24 (41%)	14(23%)	19 (31%)	57 (31%)
Married	35 (59%)	47 (77%)	43 (69%)	125 (69%)
Second marriage M	13 (22%)	11 (18%)	10 (16%)	34 (19%)
Second marriage F	11 (19%)	7 (12%)	2 (3%)	20 (11%)
Australian-born M	44 (74%)	43 (71%)	40 (66%)	127 (70%)
Australian-born F	41 (69%)	45 (74%)	41 (66%)	127 (70%)
University degree M	43 (73%)	47(77%)	48 (77%)	138 (76%)
University degree F	51 (84%)	45 (76%)	53 (84%)	149 (82%)

Note. M = male partner; F = female partner.

Table 2
Multilevel Modeling of Low Initial Satisfaction on Change After Relationship Education

Variable entered	Block χ^2 (df = 2)	Predictor variable	Pre-RE	Change
Unconditional model	–	Nil	22.32 (0.37)	1.29 (0.27)*
Condition	45.14*	——	22.24 (0.40)	0.81 (0.30)*
(RELATE with Couple CARE V others)		Condition	0.07 (0.59)	1.63 (0.50)*
Low satisfaction (LS)	284.60*	——	25.70 (0.28)	−0.018 (0.34)
		Condition	0.15 (0.38)	1.64 (0.47)*
		LS	−7.84 (0.37)*	2.21 (0.46)*
Condition (C) × LS	12.77*	——	25.74 (0.30)	0.21 (0.35)
		Condition	0.06 (0.51)	0.32 (0.62)
		LS	−7.94 (0.45)*	1.19 (0.55)*
		C × LS	0.22 (0.76)	3.12 (0.94)*

* $p < .05$.

4.75, $p < .001$; partner, $z = 6.58$, $p < .001$; and time, $z = 11.45$, $p < .001$. At the level of the couple intraclass correlation coefficient (ICC) = 0.33, partner ICC = 0.36, and time ICC = 0.31, showing similar variance accounted for at each of the three levels. Importantly, the significant couple effect shows that partners' satisfaction across time was related. The unconditional growth model showed there was an overall increase in mean satisfaction between pre- and post-RE across conditions, $\chi^2(1) = 30.05$, $p < .001$, and also a random effect of time, $\chi^2(1) = 14.52$, $p < .001$, reflecting that there was variability in the extent of change across time among couples.

The analyses comparing RCC with the other two conditions are presented in Table 2. As is evident there was an overall effect of RCC, with relationship satisfaction increasing more for couples that received RCC than the other two conditions. There was also a main effect of low initial satisfaction. By definition satisfaction was lower in the low-satisfaction group before RE. In addition, low-satisfaction couples increased their relationship satisfaction across time more than high-satisfaction couples. There was also significant interaction of Condition × Low Satisfaction. These effects are shown in Figure 2. It is noteworthy that there was no effect for initially satisfied couples but for couples with low initial satisfaction there was a moderate effect size increase in satisfaction, $d = 0.50$.

We added a dummy variable (0 = female, 1 = male) to test for gender effects, but found no differential effect of Gender × Condition, $\chi^2(2) = 0.41$, $p = .814$. Nor was there any gender difference in the moderation of Condition × Low Initial Satisfaction, $\chi^2(2) = 0.27$, $p = .874$.

DISCUSSION

Consistent with the hypotheses, couples with initially low satisfaction increased their satisfaction after RE, whereas couples with initially high satisfaction showed no immediate gains. These effects were similar for women and men.

Study 2

METHOD

Participants

One hundred and nineteen White heterosexual couples were recruited for a relationship education program for couples in Switzerland by means of advertisements in newspapers. Inclusion criteria for participation were (a) couples were in a committed

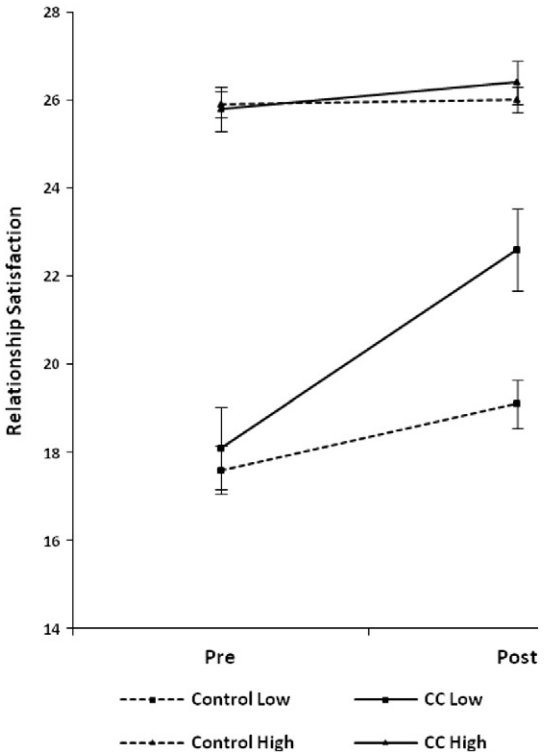

FIGURE 2 Mean couple relationship satisfaction (and 95% confidence intervals) after RELATE with Couple CARE and control in couples with low and high initial relationship satisfaction. *Note*. CC = Couple CARE.

relationship (married or cohabiting for a minimum of 1 year), (b) both partners provided written consent to participate in the study, and (c) neither partner was attending couple therapy. All 119 couples filled out the questionnaires 2 weeks before the RE program and 115 couples filled out the questionnaires 2 weeks after the program (dropout rate = 3.4%).

Measures

The 31-item Fragebogen zur Partnerschaftsdiagnostik (Partnership Questionnaire [PQ]; Hahlweg, 1996) was used to assess relationship satisfaction. The PQ has participants rate agreement on a 4-point scale assessing four aspects of relationship functioning (arguments, tenderness, communication, and global relationship satisfaction) from 0 (*never/very rarely*) to 3 (*very often*), possible scores range from 0 to 93, and higher scores reflect greater relationship satisfaction. In community samples of couples the mean of the PQ is approximately 64 (*SD* = 12). The PQ has been widely used, has good discriminant validity between clinically distressed and nondistressed couples, and has high test–retest reliability ($r > .78$) in different samples (Hahlweg, 1996).

Couple Coping Enhancement Training (CCET)

Details about the CCET and its delivery are described in Bodenmann and Shantinath (2004). Briefly, the CCET is a six-unit program. The six units of CCET cover the topics (a) introduction to stress and coping, (b) individual coping, (c) dyadic coping, (d) fairness in relationships, (e) communication skills, and (f) conflict and problem-solving skills. The whole intervention took place over a weekend (Friday evening until Sunday evening and each unit is delivered in a 3-hour session). Workshops consisted of four to eight couples with one educator for every two couples.

Educators

Educators were graduate students in psychology or clinical psychologists with a master's degree. All educators completed a 4-day training (theoretical background and practical skills for delivering the workshops) including 20 hours of supervision.

PROCEDURE

Each of the 10 educators was allocated blocks of 8 to 12 couples. Couples were randomly assigned to educators. The conduct of the study was reviewed and approved by the Research Ethics Committee of the Swiss National Science Foundation.

DATA ANALYSIS

As in Study 1, the cutoff for low-satisfaction couples was set at 0.5 *SD* below the normative population mean, which is 58 on the PQ. Across the sample 67% of couples were in the low initial satisfaction group, indicating that the sample was quite unsatisfied with their relationship. MLM was used to test whether the change in relationship satisfaction from pre- to post-RE was moderated by group membership (i.e., high- or low-satisfied couples). Repeated measures across occasions formed Level 1, individuals formed Level 2, and couples formed Level 3 (Atkins, 2005). Preassessment was coded as zero so the intercept reflects the preassessment. The equation to test the effects was as follows:

$$\text{Relationship satisfaction}_{ij} = (\beta_{0i} + \beta_1 \text{time}_{ij}) + (\beta_2 \text{low satisfaction}_i + \beta_3 \text{low satisfaction.time}_{ij})$$

The variables in the first set of parentheses are the unconditional growth model, the second set of parentheses are the effects of low initial satisfaction and the interaction of Low Initial Satisfaction × Time. β_{0i} is the intercept and time_{ij} is the change between pre- and post-RE. Time was coded as 0 = preassessment, 1 = postassessment, and low satisfaction was coded 1 = low satisfaction, 0 = not low satisfaction for pre-RE satisfaction.

We used the NLME package in R version 3.0.2 (Pinheiro, Bates, DebRoy, & Sarkar, 2013) to compute descriptive statistics and the MLM. As suggested, we compared the inclusion of different random and fixed effects (e.g., including gender as a fixed effect) by deviance tests (Zuur, Ieno, Walker, Saveliev, & Smith, 2009). For the final model, we used the best-fitting model (including couple random effects and individual random intercepts).

RESULTS

The demographics of the sample are presented in Table 3. The mean age of the men was 41.6 years

Table 3
Relationship Satisfaction and Demographics Preintervention for Study 2 Participants

	Male (*N* = 119)	Female (*N* = 119)
Continuous variables mean and standard deviation (in parentheses)		
Relationship satisfaction (PQ)	55.8 (12.4)	58.0 (13.6)
Age	41.6 (7.7)	39.4 (7.6)
Relationship duration	13.7 (8.7)	
Marriage duration	11.9 (8.3)	
Household income $	106,000	
Categorical variables number and percentage (in parentheses)		
University degree	36 (33)	13 (12)
Cohabiting	18 (16)	
Married	92 (75)	
Second marriage Male	9 (7)	

Note. PQ = Partnership Questionnaire.

(*SD* = 7.7) and of the women was 39.4 years (*SD* = 7.6). Eighteen couples (16%) were cohabitating, and 92 couples (75%) were married, with nine men and nine women (7%) reporting this to be their second marriage. Mean duration of the relationship was 13.7 years (*SD* = 8.7) and mean duration of the marriages was 11.9 years (*SD* = 8.3). Thirty-three percent of the men and 12% of the women had completed a university degree. The sample's mean pretax annual income was CHF 95,000 (approximately U.S. $106,000), which is slightly higher than the national mean income of Switzerland couple households (CHF 81,000; Swiss Federal Statistical Office, 2011). Internal consistency for the PQ relationship satisfaction measure in the current study ranged from $\alpha = .85$ to $\alpha = .93$ for gender and all assessments.

Segmenting the variance of the three-level model showed that for each level, a substantial proportion of variance in the outcome variable was explained: couple ICC = 0.51, partner ICC = 0.27, and time ICC = 0.22. For the final model, we used the best-fitting model (including couple random effects and individual random intercepts). According to the fixed-effect comparison (model with and without gender/interaction with gender), gender had to be excluded ($L = 3.64, df = 4, p = 0.457$), which shows there were no gender effects.

By definition satisfaction was lower in the low-satisfaction group before RE ($\beta_2 = -17.6, p < .001$). In addition, we found a significant interaction of Low-Satisfaction Group × Time ($\beta_3 = -3.8$, $p = .001$), indicating that couples with low satisfaction increased their satisfaction more when they received CCET than high-satisfaction couples. It is noteworthy that there was no effect of CCET for initially satisfied couples but couples with low initial satisfaction showed a moderate effect size increase in satisfaction, $g = 0.44$. In summary, only couples with low satisfaction before RE increased in relationship satisfaction over time.

DISCUSSION

Study 2 tested the hypothesis that couples with low initial satisfaction would increase in relationship satisfaction after RE. Consistent with predictions, couples with initially low satisfaction displayed moderate increases in satisfaction following RE. In contrast, couples with high initial satisfaction showed no immediate gains.

General Discussion

In two studies we supported the hypothesis that couples with low relationship satisfaction before RE show substantial immediate increases in satisfaction after RE. In addition, we found couples with high satisfaction showed no reliable immediate increase in relationship satisfaction. The current findings are consistent with prior speculation (e.g., Halford & Bodenmann, 2013) that the small average effects of RE likely reflects a ceiling effect of RE of satisfied couples to further increase their satisfaction. It is striking that the effect of RE on satisfaction in less-satisfied couples was robust across two different programs (Couple CARE vs. CCET), delivered in two different formats (flexible delivery vs. intensive weekend), and delivered within two different cultures (Australia vs. Switzerland). While further replication is needed, it does suggest that the observed moderation effect might be evident across many RE programs.

The lack of improvement in satisfaction in initially satisfied couples might reflect that there is a true ceiling to couple satisfaction. Alternatively, the observed ceiling effect might reflect that the relationship satisfaction scales used lack measurement sensitivity at the upper end of the relationship satisfaction range. Consistent with this latter possibility, Funk and Rogge (2007) found low measurement sensitivity at the upper end of the satisfaction range in a number of widely used couple relationship satisfaction scales. As suggested by Fincham and Beach (2010), future research should seek to test whether particularly high-functioning relationships can be reliably characterized and assessed. If measures more sensitive to variations in high levels of relationship functioning are developed, these could be used to test whether there are short-term benefits of RE for highly satisfied couples that are not evident with existing measures of relationship satisfaction.

LIMITATIONS OF THE RESEARCH

There are some limitations of the present research that need to be acknowledged. First, the lack of a control condition in Study 2 is a limitation. However, results from Study 2 replicated findings from the controlled trial in Study 1, indicating that the increases in satisfaction are not simply due to regression to the mean. Second, the control conditions in Study 1 involved minimal educator contact (none in the reading condition and a single telephone call in the RELATE assessment with feedback condition). Hence, it is not possible to identify what particular components of the RE might be producing effects. RCC and CCET produced quite similar effects on satisfaction despite their somewhat distinctive content. It is possible that some components they share (e.g., the regular couple conversations that are included as part of both programs, the commitment to focus on the relationship), produce gains in relationship satisfaction rather than the acquisition

of any particular knowledge or skills distinctive to the programs. Future research needs to clarify the mediators of change. Third, we only examined the immediate effects of RE. Whether the increases in relationship satisfaction are maintained needs to be tested, although previous research has found effects of RE often are maintained for a number of years (Halford & Bodenmann, 2013). In ongoing work we are collecting long-term follow-up of couples in the current study that could clarify whether the immediate benefits for low-satisfaction couples are maintained.

The participants in both studies were more highly educated than the general populations of the countries from which they were drawn (Australia and Switzerland). Both samples were also predominantly White. The generalizability of the findings to less educated and more culturally diverse couples needs to be assessed in future research. Also, while we had a substantial proportion of couples with somewhat low relationship satisfaction before RE, we had relatively few severely distressed couples. Ultimately, whether RE benefits more severely distressed couples is an empirical question. However, as RE usually does not address issues like individual vulnerabilities or interpartner violence that often exist in such couples, it seems unlikely brief RE would be particularly effective for highly distressed couples.

There were no gender differences in effects of the programs. While a few studies have found women showed clearer gains in relationship satisfaction from Couple CARE than men (e.g., Halford, Moore, Wilson, Farrugia, & Dyer, 2004), most evaluations of RE are similar to the current findings that men and women show similar increases in satisfaction after RE (Halford & Bodenmann, 2013).

PRACTICE IMPLICATIONS

Findings from the present research have important practice implications. RE has traditionally been designed for use by relatively satisfied couples to enhance their relationships (Halford et al., 2003). However, the current research showed that immediate benefits of RE are particularly pronounced for less-satisfied couples. Given that RE typically is briefer than couple therapy, and the standardized curriculum means it is easier to deliver than couple therapy, RE holds considerable promise as an intervention for mild-to-moderately distressed couples. Given that only approximately 20% of divorced couples attend couple therapy prior to separation (Johnson et al., 2002; Wolcott, 1986), and that couples are instead more likely to access workshops or self-directed modes of couple intervention (Doss et al., 2009; Duncan et al., 2010; Eubanks et al., 2012), RE might well enhance the reach of interventions to distressed couples.

While the present research found that only couples with low initial satisfaction displayed immediate benefits following RE, it is possible that benefits for initially satisfied couples might be evident at longer-term follow-up. A specific aim of RE is to help currently satisfied couples sustain high relationship satisfaction in the long term. However, studies need to include extended follow-up assessment to detect such effects because the erosion of average relationship satisfaction in initially satisfied couples tends to be gradual (e.g., Halford, Lizzio, Wilson, & Occhipinti, 2007). Halford and Bodenmann (2013) suggested RE effects, even with long-term follow-up, might be most evident in couples at high risk for future relationship problems. High-risk couples show more rapid erosion of average relationship satisfaction than do low-risk couples, which makes detection of a prevention effect easier. Consistent with these speculations, Halford, Sanders, and Behrens (2001) and Petch, Halford, Creedy, and Gamble (2012) both found a selective benefit of RE for high-risk couples across periods of 3 to 4 years. Our ongoing follow-up assessments of the current cohorts might clarify if there are any long-term benefits for couples initially high in satisfaction from RE, particularly among those couples classified as high risk for future problems.

The similar findings on RE effects across the two countries in which the studies were conducted (Australia and Switzerland) were striking. In ongoing work Couple CARE has been run successfully in the United States, whereas the PREP evidence-based RE program also has been run successfully across a range of Western countries (see Halford et al., 2008, for a review). Examination of the content of PREP, Couple CARE, and CCET does not reveal content that at face value is distinctive to a particular country. However, the generalizability of findings to non-Western countries might not be so straightforward, as some assumptions about what constitute a mutually satisfying couples relationship do vary between Western cultures and other cultures (Hiew, Halford, & Shuang, 2014). In summary, results from the two studies presented here clearly demonstrate that RE has immediate beneficial effects for couples with low initial satisfaction. Moreover, together the studies show that flexible delivery RE, or intensive weekends, can serve as an easily accessible early intervention for mild-to-moderately distressed couples.

Conflict of Interest Statement

Dr. Kim Halford and Dr. Keithia Wilson are authors of the Couple CARE program evaluated in this paper. They each receive royalties from the sale of that program. Dr. Guy

Bodenmann is the author of the CCET program evaluated in this paper. He receives royalties from the sale of that program.

References

Atkins, D. C. (2005). Using multilevel models to analyze couple and family treatment data: Basic and advanced issues. *Journal of Family Psychology*, *19*(1), 98–110. http://dx.doi.org/10.1037/0893-3200.19.1.98

Australian Bureau of Statistics. (2011). *Social indicators*. Canberra, Australia: Author.

Beach, S. R. H., Fincham, F. D., Amir, N., & Leonard, K. E. (2005). The taxometrics of marriage: Is marital discord categorical? *Journal of Family Psychology*, *19*(2), 276–285. http://dx.doi.org/10.1037/0893-3200.19.2.276

Benson, L. A., McGinn, M. M., & Christensen, A. (2012). Common principles of couple therapy. *Behavior Therapy*, *43*(1), 25–35. http://dx.doi.org/10.1016/j.beth.2010.12.009

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*(5), 477–484. http://dx.doi.org/10.1111/j.0197-6664.2004.00056.x

Bradbury, T. N., & Lavner, J. A. (2012). How can we improve preventive and educational interventions for intimate relationships? *Behavior Therapy*, *43*(1), 113–122. http://dx.doi.org/10.1016/j.beth.2011.02.008

Braukhaus, C., Hahlweg, K., Kroeger, C., Groth, T., & Fehm-Wolfsdorf, G. (2003). The effects of adding booster sessions to a prevention training program for committed couples. *Behavioural and Cognitive Psychotherapy*, *31*(3), 325–336. http://dx.doi.org/10.1017/S1352465803003072

Busby, D. M., Holman, T. B., & Taniguchi, N. (2001). RELATE: Relationship evaluation of the individual, family, cultural, and couple contexts. *Family Relations*, *50*(4), 308–316. http://dx.doi.org/10.1111/j.1741-3729.2001.00308.x

Casey, L., & Halford, W. K. (2010). Couples and the silicon chip: Applying technology to couple services. In K. Hahlweg, M. Grawe, & D. Baucom (Eds.), *Enhancing couples: The shape of couple therapy to come*. Göttingen, Germany: Hogrefe.

De Maria, R. M. (2005). Distressed couples and marriage education. *Family Relations*, *54*, 242–253.

Doss, B. D., Rhoades, G. K., Stanley, S. M., & Markman, H. J. (2009). The effect of the transition to parenthood on relationship quality: An 8-year prospective study. *Journal of Personality and Social Psychology*, *96*(3), 601.

Duncan, S. F., Childs, G. R., & Larson, J. H. (2010). Perceived helpfulness of four different types of marriage preparation interventions. *Family Relations*, *59*(5), 623–636. http://dx.doi.org/10.1111/j.1741-3729.2010.00628.x

Eubanks, C. J., Fleming, C. J., & Cordova, J. V. (2012). Predicting relationship help seeking prior to a marriage check-up. *Family Relations*, *61*(1), 90–100. http://dx.doi.org/10.1111/j.1741-3729.2011.00686

Fincham, F. D., & Beach, S. R. H. (2010). Of memes and marriage: Toward a positive relationship science. *Journal of Family Theory and Review*, *2*, 4–24. http://dx.doi.org/10.1111/j.1756-2589.2010.00033.x

Funk, J., & Rogge, R. (2007). Testing the ruler with item response theory: Increasing precision of measurement for relationship satisfaction with the Couples Satisfaction Index. *Journal of Family Psychology*, *21*(4), 572–583. http://dx.doi.org/10.1037/0893-3200.21.4.572

Georgia, E. J., & Doss, B. D. (2013). Web-based couple interventions: Do they have a future? *Journal of Couple and Relationship Therapy*, *12*(2), 168–185. http://dx.doi.org/10.1080/15332691.2013.779101

Giblin, P., Sprenkle, D. H., & Sheehan, R. (1985). Enrichment outcome research: A meta-analysis of premarital, marital and family interventions. *Journal of Marital and Family Therapy*, *11*(3), 257–271. http://dx.doi.org/10.1111/j.1752-0606.1985.tb00619.x

Hahlweg, K. (1996). *Fragebogen zur Partnerschaftsdiagnostik (FPD)* [Partnership Questionnaire (PQ)]. Göttingen, Germany: Hogrefe.

Halford, W. K. (2011). *Marriage and relationship education: What works and how to provide it*. New York, NY: Guilford Press.

Halford, W. K., & Bodenmann, G. (2013). Effects of relationship education on maintenance of couple relationship satisfaction. *Clinical Psychology Review*, *33*(4), 512–525. http://dx.doi.org/10.1016/j.cpr.2013.02.001

Halford, W. K., Lizzio, A., Wilson, K. L., & Occhipinti, S. (2007). Does working at your relationship help? Couple relationship self-regulation and satisfaction in the first 4 years of marriage. *Journal of Family Psychology*, *21*, 185–194. http://dx.doi.org/10.1037/0893-3200.21.2.185

Halford, W. K., Markman, H. J., Kline, G. H., & Stanley, S. M. (2003). Best practice in couple relationship education. *Journal of Marital and Family Therapy*, *29*(3), 385–406. http://dx.doi.org/10.1111/j.1752-0606.2003.tb01214.x

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*(4), 497–505. http://dx.doi.org/10.1037/a0012789

Halford, W. K., Moore, E., Wilson, K. L., Farrugia, C., & Dyer, C. (2004). Benefits of flexible delivery relationship education: An evaluation of the couple CARE program. *Family Relations*, *53*(5), 469–476. http://dx.doi.org/10.1111/j.0197-6664.2004.00055.x

Halford, W. K., O'Donnell, C., Lizzio, A., & Wilson, K. L. (2006). Do couples at high risk of relationship problems attend premarriage education? *Journal of Family Psychology*, *20*(1), 160–163. http://dx.doi.org/10.1037/0893-3200.20.1.160

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. http://dx.doi.org/10.1037/0893-3200.15.4.750

Halford, W. K., & Snyder, D. K. (2012). Universal processes and common factors in couple therapy and relationship education. *Behavior Therapy*, *43*(1), 1–12. http://dx.doi.org/10.1016/j.beth.2011.01.007

Halford, W. K., & Van Acker, E. (2012). Are governments and marriage strange bedfellows?: Social policy and couple relationship education. In P. Noller, & G. Karantzas (Eds.), *Positive pathways for couples and families: Meeting the challenges of relationships* (pp. 453–466). New York, NY: Wiley-Blackwell.

Halford, W. K., Wilson, K. L., Watson, B., Verner, T., Larson, J., Busby, D., & Holman, T. (2010). Couple relationship education at home: Does skill training enhance relationship assessment and feedback? *Journal of Family Psychology*, *24*, 188–196. http://dx.doi.org/10.1037/a0018786

Hawkins, A. J., Blanchard, V. L., Baldwin, S. A., & Fawcett, E. B. (2008). Does marriage and relationship education work? A meta-analytic study. *Journal of Consulting and Clinical Psychology*, *76*(5), 723–734. http://dx.doi.org/10.1037/a0012584

Hiew, D., Halford, W. K., & Shuang, L. (2014). Loving diversity: Living in intercultural relationships. In A. Abela & J. Walker (Eds.), *Contemporary issues in family*

studies: Global perspectives on partnerships, parenting and support in a changing world (87–99). Oxford, UK: Wiley-Blackwell.

Hsueh, J., Alderson, D. P., Lundquist, E., Michalopoulos, C., Gubits, D., Fein, D., & Knox, V. (2012). *The supporting healthy marriage evaluation: Early impacts on low-income families* (Report No. 2012–11). Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, United States Department of Health and Human Services.

Huang, W. J. (2005). An Asian perspective on relationship and marriage education. *Family Process*, *44*(2), 161–173. http://dx.doi.org/10.1111/j.1545-5300.2005.00051.x

Johnson, C. A., Stanley, S. M., Glenn, N. D., Amato, P. A., Nock, S. L., Markman, H. J., & Dion, M. R. (2002). *Marriage in Oklahoma: 2001 baseline statewide survey on marriage and divorce*. Stillwater, OK: Bureau for Social Research, Oklahoma State University.

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*(5), 753–760. http://dx.doi.org/10.1037/0022-006x.66.5.753

Larson, J. H. (2003). *The great marriage tune-up book*. San Francisco, CA: Jossey Bass.

Larson, J. H., Vatter, R. S., Galbraith, R. C., Holman, T. B., & Stahmann, R. F. (2007). The RELATionship Evaluation (RELATE) with therapist-assisted interpretation: Short-term effects on premarital relationships. *Journal of Marital and Family Therapy*, *33*(3), 364–374. http://dx.doi.org/10.1111/j.1752-0606.2007.00036.x

Mondor, J., Sabourin, S., Wright, J., Poitras-Wright, H., McDuff, P., & Lussier, Y. (2013). Early termination from couple therapy in a naturalistic setting: The role of therapeutic mandates and romantic attachment. *Contemporary Family Therapy*, *35*(1), 59–73. http://dx.doi.org/10.1007/s10591-012-9229-z

Ooms, T. (2005). *The new kid on the block: What is marriage education and does it work?* Washington, DC: Center for Law and Social Policy.

Owen, J., Duncan, B., Anker, M., & Sparks, J. (2012). Initial relationship goal and couple therapy outcomes at post and six-month follow-up. *Journal of Family Psychology*, *26*(2), 179–186. http://dx.doi.org/10.1037/a0026998

Petch, J., Halford, W. K., Creedy, D. K., & Gamble, J. (2012). A randomized controlled trial of a couple relationship and co-parenting program (Couple CARE for Parents) for high- and low-risk new parents. *Journal of Consulting and Clinical Psychology*, *80*(4), 662–673. http://dx.doi.org/10.1037/a0028781

Pinheiro, J., Bates, D., DebRoy, S., & Sarkar, D. (2013). Nlme: Linear and nonlinear mixed effects model: R package (Version 3.1-111) [Computer software]. Retrieved from http://CRAN.R-project.org/package=nlme

Rasbash, J., Charlton, C., Browne, W. J., Healy, M., & Cameron, B. (2005). MLwiN (Version 2.02). Bristol, UK: Centre for Multilevel Modelling, University of Bristol.

Singer, J. D., & Willett, J. B. (2003). *Applied longitudinal data analysis: Modeling change and event occurrence*. New York, NY: Oxford University Press.

Snyder, D. K., & Halford, W. K. (2012). Evidence-based couple therapy: Current status and future directions. *Journal of Family Therapy*, *34*(3), 229–249. http://dx.doi.org/10.1111/j.1467-6427.2012.00599.x

Stanley, S. M., Amato, P. R., Johnson, C. A., & Markman, H. J. (2006). Premarital education, marital quality, and marital stability: Findings from a large, random household survey. *Journal of Family Psychology*, *20*(1), 117–126. http://dx.doi.org/10.1037/0893-3200.20.1.117

Swiss Federal Statistical Office. (2011). *Income, consumption and wealth*. Retrieved from http://www.bfs.admin.ch/bfs/portal/de/index/themen/20/02/blank/key/einkommen0/niveau.html

Taylor, C. B., Jobson, K. O., Winzelberg, A., & Abascal, L. (2002). The use of the Internet to provide evidence-based integrated treatment programs for mental health. *Psychiatric Annals*, *32*(11), 671–677.

Whisman, M. A., Beach, S. R. H., & Snyder, D. K. (2008). Is marital discord taxonic and can taxonic status be assessed reliably?: Results from a national representative sample of married couples. *Journal of Consulting and Clinical Psychology*, *76*(5), 745–755. http://dx.doi.org/10.1037/0022-006X.76.5.745

Wilson, K. L., & Halford, W. K. (2008). Processes of change in self-directed couple relationship education. *Family Relations*, *57*(5), 625–635. http://dx.doi.org/10.1111/j.1741-3729.2008.00529.x

Wolcott, I. (1986). Seeking help for marital problems before separation. *Australian Journal of Sex, Marriage and Family*, *7*(3), 154–164.

Wood, R. G., McConnell, S. D., Moore, Q., Clarkwest, A., & Hsueh, J. (2012). The effects of building strong families: A healthy marriage and relationship skills education program for unmarried parents. *Journal of Policy Analysis and Management*, *31*(2), 228–252. http://dx.doi.org/10.1002/pam.21608

Zuur, A., Ieno, E. N., Walker, N., Saveliev, A. A., & Smith, G. M. (2009). *Mixed effects models and extensions in ecology with R*. New York, NY: Springer.

Received: June 8, 2014
Accepted: February 1, 2015
Available online 7 February 2015