



Articles

What's Love Got to Do With It? Improving the Effect of Marriage Education

Jennifer Harley Chalmers*^a

[a] Independent Researcher, Pasig City, Philippines.

Abstract

Meta-analytic research on the effect of marriage and relationship education (MRE) over the past forty years has identified only a small overall effect size on relationship quality measures within experimental-design studies. In an effort to increase the effect size of marriage education, this study introduced a new educational objective and measure within an eight-session, group-format course. The curriculum focused on developing habits to increase feelings of romantic love as a way to improve marital adjustment (Four Gifts of Love Class, FGL). Eleven couples (N = 22) residing in the Philippines were randomly assigned to FGL (G1) or delayed FGL-control (G2). The results demonstrated a large effect size on measures of marital adjustment ($d = 1.11$, $p < .01$) and romantic love ($d = 0.68$, $p < .05$). In addition, after G2 completed FGL, their gains matched the gains of G1, and the gains were sustained at the three follow-up periods.

Keywords: marriage and relationship education (MRE), romantic love, marital adjustment, curriculum development, cognitive-behavioral framework

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*Corresponding author at: 1906 Orient Square Building, Pasig City, Philippines, 1605. E-mail: jenniferc@fourgiftsoflove.org



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Marriage and relationship education (MRE) availability has been growing for several decades. Public funding has facilitated this growth through the encouragement of low cost or free MRE opportunities (Hawkins & Erickson, 2015). In 2015, the Healthy Marriage and Responsible Fatherhood grants through the US Department of Human Services allocated \$150 million to 91 organizations with the goal of increasing MRE availability to communities across 27 states (Office of Family Assistance, 2016). With the rise of MRE availability and resulting participation, empirical evaluation of MRE curricula has been crucial for the advancement of this field.

Meta-analytic research that helps organize the evaluation of MRE programs has offered valuable insight into the state of MRE (Fawcett, 2007; Fawcett, Hawkins, Blanchard, & Carroll, 2010; Hawkins, Blanchard, Baldwin, & Fawcett, 2008; Hawkins & Erickson, 2015; Hawkins & Fackrell, 2010; Hawkins, Stanley, Blanchard, & Albright, 2012; Lucier-Greer & Adler-Baeder, 2012; McAllister, Duncan, & Hawkins, 2012; Pinquart & Teubert, 2010a; Pinquart & Teubert, 2010b). These comprehensive studies have helped answer important questions about the effects of MRE on marital quality and factors that lead to increased effect size. Specifically, salient information has been offered about the effectiveness of various delivery requirements, program dosages, and curriculum topics within MRE programs.

The meta-analytic study by [McAllister et al. \(2012\)](#) addressed the issue of delivery requirements. They found that MRE programs primarily using self-direction (e.g., workbooks, online courses) had a nonsignificant effect size on relationship quality ($d = 0.032$, ns , $k = 13$), while more traditional deliveries (e.g., classroom, office, weekend retreats) had a slightly higher improvement ($d = 0.252$; $p < .001$, $k = 77$). However, blended-delivery programs, defined as using face-to-face or traditional learning formats in addition to self-direction or homework, resulted in a higher effect size ($d = 0.429$, $p < .01$, $k = 13$). [McAllister et al. \(2012\)](#) summarized that blended-delivery MRE programs with a higher effect size had the following components in common: “empirically supported curricula, set schedules for completion, homework assignments, and limited instructor participation” (p. 749).

[Hawkins et al. \(2012\)](#) offered insight about program dosage and curriculum topics as related to improved relationship quality. Within control-group MRE studies, they found that moderate-dose programs (10+ session, 9-20 contact hours; $d = 0.583$, $p < .01$, $k = 15$) were more effective than programs with lower doses (1-2 session, 1-8 contact hours; $d = 0.342$, $p < .05$, $k = 25$), with no added effect for higher-dose levels (21+ contact hours). But they found such a paucity of MRE research that specifically studied varying curriculum topics leading to positive change that topics could not be compared: Most programs focused on communication and problem-solving skills.

Meta-analytic research has helped the field of MRE development, yet there is much room for improvement in terms of effect on relationship quality. The comprehensive investigation of 117 MRE studies by [Hawkins et al. \(2008\)](#) reported a small effect size from experimental studies (i.e., control group with randomization) ranging from 0.30 to 0.36 (d), with quasi-experimental studies generating a lower effect size. With 69 MRE reports analyzed, [Fawcett \(2007\)](#) identified an overall effect size of 0.34 (d) for marriage quality/satisfaction measures within experimental-design research ($p < .001$, $k = 37$). The meta-analytic study by [Fawcett et al. \(2010\)](#) that focused on premarital education studies similarly identified a small effect on relationship quality measures within experimental studies ($d = 0.218$, ns , $k = 17$).

When meta-analytic studies explored MRE research within subpopulations (i.e., low-income, step-family, or new-parent couples), even lower effects were found. Regarding MRE studies with low-income couples, [Hawkins and Fackrell \(2010\)](#) found a small effect on aggregate relationship-quality measures ($d = 0.250$, $p < .05$, $k = 3$), while [Hawkins and Erickson \(2015\)](#) found an even lower effect for relationship satisfaction/quality across experimental studies ($d = 0.067$, $p < .01$, $k = 21$). [Lucier-Greer and Adler-Baeder \(2012\)](#) provided a meta-analysis of experimental reports focusing on MRE with step-families and found a nonsignificant effect size for couple-relationship enhancement ($d = 0.07$, ns , $k = 4$). New-parent education studies that reported couple-adjustment measures were analyzed by [Pinquart and Teubert \(2010a\)](#), which identified a small effect size within control-group reports ($d = 0.19$, $p < .01$, $k = 13$), with a slightly higher but small effect size for new parent programs specifically focusing on relationship improvement ($d = 0.26$, $p < .01$, $k = 7$). In a meta-analysis that specifically focused on MRE with couples experiencing parenthood transition rather than focusing on parent education per se, [Pinquart and Teubert \(2010b\)](#) revealed a lower effect size on couple adjustment within experimental-design reports ($d = 0.10$, $p < .01$, $k = 17$).

The fact that there was only modest evidence of MRE helping couples across decades of research as demonstrated by comprehensive meta-analytic research raises an important question: What is marriage education

lacking? To help answer this question, [Hawkins et al. \(2012\)](#) observed that there has been a “group think” issue within MRE, or similarity of program components, as stated in their conclusion:

There is a programmatic homogeneity in the body of MRE work... They teach much the same thing (communication skills dominate), deliver it much the same way (i.e., didactic classrooms) ... and measure the same generic outcomes (i.e., communication skills and relationship quality/satisfaction) (p. 11).

In other words, MRE has been using the same basic components resulting in the same small overall effect size. Therefore, it was suggested that MRE-program developers creatively experiment with new approaches (e.g., use different teaching components, intensity, settings, delivery, and relational outcomes) that could potentially generate increased MRE effectiveness.

A Missing Component: Romantic Love

A factor that may improve the effect size of MRE is the interpersonal construct, romantic love. Although generally defined in a meta-analysis of 81 studies, [Graham \(2011\)](#) identified a couples' self-report of feeling love for each other as a predictor of relational stability and satisfaction, compared to those who identified themselves as friends or liking the other. Teaching communication skills and conflict resolution may bring a couple to a friend or liking state, however, according to Graham, that state was not a predictor of relational satisfaction and long-term stability.

Romantic or passionate love has been studied and measured for over four decades across cultures ([Acevedo & Aron, 2009](#); [Fletcher, Simpson, Campbell, & Overall, 2015](#); [Rubin, 1970](#); [Simpson, Campbell, & Berscheid, 1986](#)). Although the definition may vary, the measures of this construct seemed to ask particular questions related to how people affectively, behaviorally, and socially interpreted this psychological state. [Rubin \(1970\)](#) was one of the first to use a measurement of romantic love in published research. He identified three main qualitative differences between loving and liking that involved the orientation or drive to: (a) converge schedules or lifestyles, or have an “affiliative and dependent need,” (b) care for the other, or “a predisposition to help,” and (c) create an exclusive and united relationship, or “exclusiveness and absorption” ([Rubin, 1970](#), p. 266). Overall, Rubin found that high scores on a 13-item love scale (1-9 Likert-type rating) had high internal consistency with higher scores and respondents' self-report of being “in love” with their dating partner ($N = 158$ couples, $\alpha = .84$ for women, $\alpha = .86$ for men). In comparison, the liking scale was only moderately correlated with being “in love” ($r = .39$ for women, $r = .60$ for men), suggesting an overall perceived difference in the interpersonal constructs of like and love. He also found that higher scores on the love scale were associated with a greater length of relationship and higher probability to commit to a permanent relationship, marriage. In other words, the feeling of love was associated more highly with the probability of someone wanting marriage than the feeling of like.

An article by [Fletcher et al. \(2015\)](#) identified several relational correlates of romantic love beyond the agreement with other researchers that romantic love tended to be an important motivating factor for marriage ([Rubin, 1970](#); [Simpson et al., 1986](#)). The presence of this interpersonal construct was associated with improved health of the couples and welfare of their children. Partners in love also tended to have a blind eye to those identified as attractive; in other words, this feeling seemed to lessen the vulnerability to outside relational threats (i.e., infidelity). [Acevedo and Aron \(2009\)](#) also concluded from a meta-analysis of 25 studies that romantic love “ap-

pears to be a real phenomenon that may be enhancing to individuals' lives—positively associated with marital satisfaction, mental health, and overall well-being” (p. 64).

In spite of research that demonstrates the correlation between romantic love in the relationship and life-enhancing and marriage-protecting factors, MRE programs designed to enhance romantic love have been discouraged due to the common belief that this feeling cannot be recreated or sustained in marriage. Hatfield, Pillemer, O'Brien, and Le (2008) concluded that “time did have a corrosive effect on love...on both passionate and compassionate love” (p. 35). In a longitudinal study by Sprecher (1999), it was also concluded that ratings of love declined with time. Based upon research such as these, the message that passion inevitably declines has been strongly suggested.

In fact, this message has reached mainstream media and MRE by identifying inevitable stages in marriage that assume the romantic love stage will be lost; and if couples can get through the subsequent stages, this type of love will be replaced with an improved type of love. Recently, an award-winning book on marriage, *True Love* (Nour, 2017), identified the four inevitable phases of marriage: mate selection, romance, falling out of love, and true love. In an interview, Nour responded, “If you know that the third phase is limited, is going to go away, it is much easier to put up with it and accept it” (WSJLive, 2017, 1:54). A popular mainstream ME program, Retrouvaille, offers a similar four-stage theory: romance, disillusionment, misery, and awakening (Retrouvaille, n.d.). Basically, the mainstream media message that dominates is that the feeling of romantic love, or the feeling typically present before marriage, has an inevitable expiration date. However, they usually end their message with hope: “The result is a happier, stronger and longer lasting relationship. This is the ultimate love” (Pawlowski, 2017, para. 16).

Contrary to that message, neuroscience has revealed evidence that romantic love can last in long-term relationships. In a study by Acevedo, Aron, Fisher, and Brown (2012), neural imaging (fMRI) was used to examine long-term intense romantic love. Seventeen participants with an average of 21 years of marriage were shown images of people in their lives. The effect of the participants looking at a picture of an “intensely loved, long-term partner” (Acevedo et al., 2012, p. 145) showed significant changes in neural activity that were similar to that found in early-stage romances.

There is a conflict between what both neurological and psychological research identified about the importance and existence of romantic love within long-term relationships and what mainstream media and MRE have been teaching couples. Research suggests that romantic love is what inspires many couples to marry (Rubin, 1970; Simpson et al., 1986); neural imaging indicates that long-term relationships are capable of having the same neurological changes as an early-state romance (Acevedo et al., 2012); and this feeling of romantic love, even if simply based on a person's self-report of this generally perceived interpersonal construct, is associated with marital satisfaction and duration (Acevedo & Aron, 2009; Fletcher et al., 2015, Graham, 2011). Yet, the majority of ME programs seem to convey a message to couples that this feeling is bound to decay over time, and communication skills are needed to navigate the stages.

If the so-called “stages of marriage” are not inevitable, and if the romantic love stage can persist throughout marriage as neurological and psychological research indicate, what could be added to ME programs to recreate and sustain feelings of romantic love in marriage?

A study by O’Leary, Acevedo, Aron, Huddy, and Mashek (2012) helped answer this question through a survey of a randomly selected sample of heterosexual married individuals in the USA. For those married over 30 years, 40% of women and 35% of men reported being “very intensely in love.” The study identified the following correlates of being intensely in love with one’s spouse: thinking positively about a spouse, and engaging in pleasant and novel activities, affectionate behavior, and sexual intercourse (less correlated for the sub-sample within the age of 48-84). Although O’Leary et al. (2012) would identify these factors as being associated with intense feelings of love in marriage, Harley (2010) identified them as causal factors for sustaining romantic love.

In the mid-1970s, Harley (2010) originated a marriage philosophy emphasizing the importance of creating and sustaining romantic love in marriage. He observed that no couple that he would counsel chose divorce if they were in love, yet some couples still chose divorce after they became masters of conversation, conflict resolution, and even sex. He found that even seriously troubled couples could restore their marriage after they formed habits that recreated their feelings of romantic love. He also found that it was easier to maintain those habits once they were in love. Therefore, his approach for over 45 years has been directed toward the goal of helping couples develop habits that create and sustain the feelings of romantic love.

In an attempt to expand on what we already know about effective MRE components and take the advice of Hawkins et al. (2012) to experiment with components not typically seen in the MRE programs currently researched, this study evaluated the effects of a marriage curriculum designed to sustain romantic love. In particular, the studied curriculum (Four Gifts of Love Class, FGL) was based on the cognitive-behavioral framework originated by Harley (2010) and included empirically-based MRE components (blended delivery, moderate dosage, and conflict resolution/communication skills).

In addition to new components to MRE programming, researchers have also been encouraging the study of MRE effectiveness on demographics outside of the typical European-American, middle-class participant (Adler-Baeder & Hawkins, 2010; McAllister et al., 2012). Therefore, this study also represents an effort to consider non-European-American cultures in the development of MRE programs.

The primary research question of this study was: Does participating in a marriage-education curriculum designed to increase romantic love (FGL) improve both marital adjustment and romantic love in marriage? It was predicted that participants in the marriage-class experimental group would experience significantly greater marital adjustment and romantic love than the control group, and that the control group would match the gains of the experimental group after FGL completion with enduring gains across a six-month follow-up period.

Method

Design

A repeated-measures, control-group experimental design was used. Eleven married couples ($N = 22$) were randomly assigned to Group 1 (G1) or Group 2 (G2). G1 attended the eight-session Four Gifts of Love Class (FGL) with one session per week (two-month duration) and three follow-up sessions (F/U) at one, two, and three-month intervals post FGL. G2 had a two-month FGL delay that started one week after G1’s FGL completion; these couples also completed the three F/Us within three-months after FGL.

Table 1

Summary of Participant Demographic Variables by Group

Demographic Variables	Group 1 [G1] (<i>n</i> = 12)	Group 2 [G2] (<i>n</i> = 10)
<i>M</i> Years Married	27 (16-39) ^a	11 (0.25-30)
<i>M</i> Age (years)	51 (44-62)	35 (23-53)
<i>M</i> # Children	3 (2-4)	1.6 (0-3)
<i>M</i> Age of Children	23 (6-39)	9 (0-30)
<i>M</i> # Life Stressors out of 4 ^b	1 (0-2)	2 (0-3)
Education Level		
% BA/BS	66.7	80
% Some Undergraduate/Technical	8.3	0
% HS	25	10
% Below HS	0	10

^aParentheses represent range. ^bStressor categories: financial, health, job, expecting a child.

Participants and Class Facilitators

Group participants were recruited through two sources from a Protestant church in Bulacan, Philippines: (a) invited by facilitators, and (b) self-generated after informal church announcement. At baseline, 13 heterosexual couples (Philippine citizens) volunteered to participate in the study and were randomly placed into groups (G1 or G2). Two couples in G2 discontinued due to extended travel and family issues. All 11 remaining couples completed the study requirements (FGL + F/U sessions, and assessments).

Each participant voluntarily signed a Research Participant Agreement that provided informed consent, which included the purpose of the study, amount of time necessary and expectations, the right of withdrawal, and protection of anonymity/confidentiality (American Psychological Association, 2017). The participants received no tangible or monetary incentive besides the free class materials.

Participants were also asked to provide demographic information (see Table 1 for a summary of demographic data). They identified their marital duration, age, age of children, level of education, language spoken in the home, and life stressors (categories offered: financial, health, job, expecting a child). All considered Tagalog as their primary language, yet fluent in English as confirmed by the facilitator.

With respect to the Filipino culture in general, there are many “external influences which have impinged upon and blended with the original Malay culture: Arabian, Chinese, Indo-Chinese, Hindu-Indonesian, Spanish-Catholic, and American-Protestant” (Andres, 1981, p. 2). There are 11 major languages and 87 dialects making the people largely multi-lingual, with the Philippines considered “the third largest English-speaking population in the world.” (Nolan, 1996, p. 153). Across the heterogeneity of languages and external influences, there seems to be a shared identity that adheres to strong relational values, for example, family loyalty and belief/traditions associated with a higher spiritual power (Gripaldo, 2005; Nolan, 1996).

Each group was facilitated by the same heterosexual, Filipino, married couple (18 years). The husband was employed as an associate pastor at the Protestant church with pastoral care and preaching duties. He was also working toward a Master of Pastoral Counseling degree. The wife worked full-time in the home. The facilitators

Table 2

Marriage Topics by Session

Session	Four Gifts of Love Class Topics
1. Introduction	Marriage, a life-impacting human relationship; introduction to the Four Gifts of Love
2. FGL Review	Effects of giving and receiving the gifts of care, protection, honesty and time in marriage; the Love Bank; the Ten Most Important Emotional Needs in Marriage
3. Care-1	Giving and receiving the gift of care; identifying the most important emotional needs; importance of listening and thoughtfully responding
4. Care-2	Sharing emotional needs and starting a plan to meet them for each other
5. Protection-1	Giving and receiving the gift of protection; identifying and eliminating Love Busters
6. Protection-2	The Policy of Joint Agreement; the Four Guidelines for Successful Negotiation
7. Honesty	The Five Parts of Honesty; giving and receiving the gift of honesty
8. Time	The Policy of Undivided Attention; giving and receiving the gift of time

Note. For more details about the skills covered in the Four Gifts of Love Class ME intervention, visit <https://www.FourGiftsofLove.org>.

had previously completed the FGL class and had taught FGL three times at their church before participating in this study. There were no monetary or tangible incentives for facilitation.

Procedure

At the first FGL session, each student was given *The Four Gifts of Love Participant's Guide: Revised and Expanded Edition* (Chalmers & Harley, 2016) that guided each lesson's homework; and the class facilitators followed *The Four Gifts of Love Class Facilitator's Guide* (Chalmers, 2016), using the *Four Gifts of Love Class Companion Video* (Chalmers, 2018) to guide each group session. The lessons and video sessions were in English and estimated to be at a fourth-grade reading level. In the class sessions, discussions were occasionally in the Tagalog language or "Taglish" (Tagalog-English combination).

The main educational purpose of the lessons was to encourage specific behavior change and habit formation to protect the feeling of romantic love with topics based on the marriage concepts of Harley (Harley, 2010). Participants were taught the concepts and encouraged to apply them through lesson assignments that specifically focused on creating a lifestyle of meeting each other's most important emotional needs in marriage (care), protecting each other from being a source of unhappiness (protection), being transparent with each other (honesty), and scheduling time for undivided attention (time) (see Table 2 for a summary of topic details).

Each lesson began with an assignment planner that summarized the assignments in that lesson. There were three to five assignments in each lesson that included articles, fill-in-the-blank questions, quizzes, and couple-discussion questions. In addition to the marriage relationship assignments (non-faith based), a faith-based assignment was included in each lesson about using the four main concepts (care, protection, honesty, time) in their relationship with God. At lessons 4 and 5, spouses were given specific instructions on giving and receiving information about specific, desired behavior change with emphasis on listening and thoughtfully responding through individual practice and review of the new behavioral adjustments. In the last lesson, feedback instructions were given to help couples fine-tune their plans of care and protection. The students received a weekly reminder through text or email to complete the assignments before coming to the next session.

There were eight, weekly group sessions, about 1-1/2 hrs in duration that included watching a companion video with the facilitator following the facilitator's guide to direct group interaction activities/discussion and video pauses. If a couple missed a session, a private make-up session was scheduled with the facilitators. The spouses were to attend the corresponding session before completing the lesson from the participant's guide. At each session, the previous lesson's homework and quiz answers were reviewed aloud as a group. The session's homework review required no disclosure of intimate personal and couple information.

Follow-up sessions (F/U) were scheduled within one, two, and three months after FGL completion. The first session reviewed the topic of negotiation by practicing the negotiation strategy previously taught in FGL. The second and third sessions reviewed the skill of fine-tuning their care and protection habits by receiving positive and specific feedback about desired behavior change as previously taught in FGL. The F/Us were taught by the same FGL facilitators and completed in about 2 hours each. If a couple from the group could not attend, a make-up session was scheduled within the week. The sessions were guided and scripted by a facilitator's guide (no companion video). Homework was also given that included reading online articles on a previously taught topic (time) and opportunities to download FGL related mobile apps from the Four Gifts of Love website (www.FourGiftsofLove.org).

At the third F/U, a questionnaire was given that asked if any other marriage book was read and/or marriage-related seminar or weekend retreat attended since the start of the study. All participants indicated that there were no other marriage education influences during the study.

Assessment Measures

All participants completed two assessments every week from baseline to six months, with final assessment collection at nine months from baseline. These self-report assessment measures were used to measure marital adjustment and romantic love: the Locke-Wallace Marital-Adjustment Test, LWSMAT (MAT): Locke & Wallace, 1959, and the Love Bank Inventory (LBI: [Harley, 2010](#)).

The MAT is a 15-question, self-report survey with variable scoring for each question (potential total score range: 2 to 158) and has been validated as a reliable marital adjustment measure and comparable to more recent adjustment measures despite its development over 30 years ago ([Bagarozzi, 1985](#); [Crane, Allgood, Larson, & Griffin, 1990](#); [Freeston & Pléchaty, 1997](#)). It is also one of the most cited self-report instruments for marriage research with over 3700 citations across varying cultures (e.g., [Ghoroghi, Hassan, & Baba, 2015](#)). The MAT's Spearman-Brown split-half reliability was .90 ([Locke & Wallace, 1959](#)).

[Locke and Wallace \(1959\)](#) defined "adjustment" as "accommodation of a husband and wife to each other at a given time" (p. 251). [Crane et al. \(1990\)](#), and more recently [Whiting and Crane \(2003\)](#), identified that a score of 100 or more considered the person adjusted in marriage.

The LBI is a 21-question, self-report survey with a variable rating (-3: Disagree Completely to +3: Agree Completely) for each question about the spouse. An LBI score is calculated by the sum of ratings for questions 1 through 20, divided by 20 (potential LBI score range: -3 to +3). The Cronbach's alpha was .92 for LBI score and question 21 rating, "I feel romantic love toward _____ (spouse)." This measure has been used for over 35 years across cultures ([Harley, 2010](#)).

Table 3

Data Analysis Time Periods (T) and Program Completion Status by Group

Data Analysis Time Periods	Status at Time Period
T1: 10 days before G1's FGL start	Baseline
T2: one week before and after G1's last FGL session (2 months from baseline)	G1: Completed FGL G2: Delayed FGL-Control
T3: one week before and after G2's last FGL session (4 months from baseline)	G1: 2-month post FGL + 1 F/U G2: Completed FGL
T4: one week before and after 3-month post FGL (G1) (5 months from baseline)	G1: 3-month post FGL & 2 F/U G2: ~1.5-month post FGL & 2 F/U
T5: one week before and after 4-month post FGL (G1) (6 months from baseline)	G1: 4-month post FGL & 2 F/U G2: ~2.5-month post FGL & 2 F/U
T6: 7-month post FGL (G1) (9 months from baseline)	G1: 7-month post FGL & 3 F/U G2: ~5.5-month post FGL & 3 F/U

Note. F/U = Follow-up session; G1 = Group 1 (FGL); G2 = Group 2 (Delayed FGL-Control).

Ten days prior to G1's FGL start, the facilitators gave five requests via text, email, or Facebook for all participants to privately and individually complete the two assessments using an electronic format via an Internet link. For the remaining weeks of the study, the class facilitators gave mid-week requests and reminders to repeat the assessments. All assessment data went directly to the researcher only, and participants were aware that the assessments were kept confidential.

To minimize time effects between groups, predetermined time periods (T) for data analysis were chosen for both FGL treatment (G1) and delayed FGL-control (G2) groups (see Table 3 for program completion status details for each data analysis time period). When a participant submitted more than one LBI or MAT assessment during the time periods, a mean score was calculated.

This study attempted to lessen the potential of a socially desirable response-set bias within the self-report measures by requesting regular measure submission throughout the study's duration, as compared to a single pretest and posttest. Although research has identified less bias with measures of marital satisfaction constructs (Murstein & Beck, 1972), the construct of love could have more bias as spouses may believe that one should be in love with a spouse (O'Leary et al., 2012). In addition, as mentioned previously, the participants were informed that the assessment data was confidential to encourage response accuracy.

Results

A *t*-test for two independent samples was used to compare the groups' mean MAT and LBI scores at T1 (based on an average of 2.7 submissions per participant for G1 and 2.4 for G2). No pretreatment differences on criterion measures were identified, MAT: $t(20) = 1.76$, *ns*; LBI: $t(20) = 0.61$, *ns*.

Treatment effects were evaluated by the following calculations: 1) *d* effect size (d_{ppc2} formula for mean differences of groups with unequal samples with pre-post-control designs; Morris, 2008); and 2) *t*-test for independent samples to compare pre-posttest change scores at T2 (G1—FGL, G2—control) and T3 (G1/G2—FGL).

Table 4

Data Analysis Summary

Time Period	G1: FGL (n = 12)		G2: Delayed FGL (n = 10)		t(21) Value	
	LBI	MAT	LBI	MAT	LBI	MAT
T1: Baseline	2.16 (0.82) ^a	122.82 (19.10)	1.95 (0.78)	109.38 (16.18)		
T2: G1 FGL; G2 Control	2.54 (0.64)	137.17 (12.67)	1.78 (1.21)	103.50 (26.74)		
T3: G1 & G2 FGL	2.59 (0.61)	136.92 (13.92)	2.14 (0.84)	114.70 (15.68)		
T4: 3-month post FGL (G1)	2.59 (0.65)	136.46 (14.93)	2.25 (0.73)	117.95 (16.39)		
T5: 4-month post FGL (G1)	2.63 (0.63)	136.54 (15.99)	2.37 (0.68)	117.45 (13.46)		
T6: 7-month post FGL (G1)	2.53 (0.72)	136.33 (11.19)	2.47 (0.61)	120.60 (16.19)		
t-test pre-posttest at T2	0.38 (0.41)	14.31 (14.28)	-0.17 (0.68)	-5.88 (18.23)	2.35*	2.91**
t-test pre-posttest at T3	0.44 (0.44)	13.97 (16.18)	0.37 (1.08)	11.20 (23.72)	ns	ns

^aThe standard deviation follows the raw mean score for each measure (Love Bank Inventory, LBI, and Marital Adjustment Test, MAT) by group across the six-time periods. ^bData analysis based on pre-posttest change scores.

* $p = .014$, one-tailed. ** $p = .004$, one-tailed.

Although there were no statistically significant differences at T1 between G1 and G2 for both MAT and LBI mean scores, differences were present at T2. A statistically significant increase was suggested for LBI change scores in G1 ($M = 0.38$, $SD = 0.41$) compared to G2 ($M = -0.17$, $SD = 0.68$), $t(21) = 2.35$, $p = .014$, with a large effect size ($d = 0.68$) suggesting practical significance. Similar results were identified for MAT change scores between G1 ($M = 14.3$, $SD = 12.67$) and G2 ($M = -5.88$, $SD = 26.74$), $t(21) = 2.91$, $p = .004$, with a large effect size ($d = 1.11$), again suggesting a practical significance (interpretation of effect size magnitude: Cohen, 1988; Lipsey & Wilson, 1993). Thus, on the self-report measure of marital satisfaction and romantic love, couples completing FGL improved significantly more than the FGL delayed/control group (G2).

Data analysis conducted on change scores at T3 indicated no significant differences, which suggests that G2 and G1 had similar gains after treatment (see Table 4 for data analysis summary).

Means for the MAT are presented graphically in Figure 1 across the time periods. The data indicate that the mean MAT scores increased for each group after FGL. Also, both G1 and G2 sustained their post FGL gains.

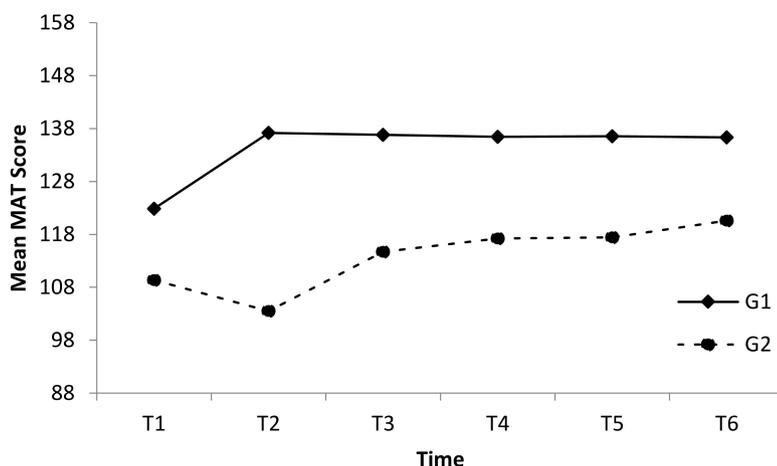


Figure 1. The mean Marital Adjustment Test (MAT) raw score by group (G) across the six-time periods (T). Refer to Table 1 for program completion status for each time period.

Figure 2 graphically presents the mean LBI score at the six time periods. The data indicate that the mean LBI scores increased for each group after FGL. Again, G1 and G2 sustained their post FGL gains.

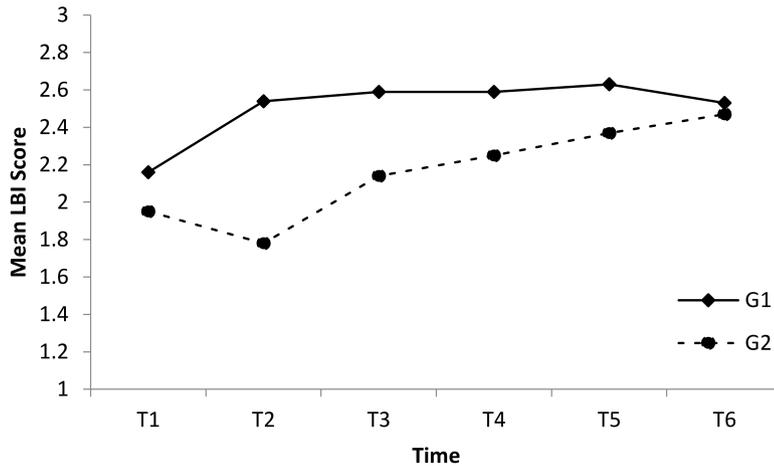


Figure 2. The mean Love Bank Inventory (LBI) raw score by group (G) across the six-time periods (T). Refer to Table 1 for program completion status at each time period.

All 22 participants completed a class evaluation after FGL and impact evaluation at the third F/U. From the anonymous class evaluations, all indicated that it helped their marriage and they would recommend the class to friends and family. In addition, the impact evaluations suggested that the FGL skills led to positive outcomes outside of marriage when generalized to work and child relationships.

In relation to the hypothesis of this study, the results suggested that that participants in the FGL group experienced significantly greater gains on measures of marital adjustment and romantic love compared to the delayed FGL/control group, and the control group matched the gains of the FGL group on these measures after FGL. Follow-up data suggested that the gains remained stable (T4, T5, T6). Furthermore, the effect size was large for both marital adjustment and romantic love.

Discussion

This study investigated the effects of an MRE curriculum that focused on teaching couples how to create and sustain romantic love in marriage in an attempt to increase marital adjustment. FGL was shown to be an effective tool for improving marital adjustment and romantic love in marriage. The findings are particularly impressive when compared to the meta-analyses evaluating MRE programs over the last 40 years. As mentioned previously, the meta-analysis of 117 studies evaluating MRE programs by Hawkins et al. (2008) found a small overall effect size ranging from 0.30 to 0.36 (d) for various measures of relationship quality in experimental studies; whereas, this study observed a large effect size for marriage quality (MAT: $d = 1.11$; LBI: $d = 0.68$).

The ability to generalize these results may be questioned due to the small and relatively homogeneous sample used in this study. However, the fact that the results reached statistical significance with a large effect size is a strong testament in favor of the curriculum and should inspire replication with larger sample sizes and diverse populations.

While the results of this study are encouraging, there are several improvements that should be made in future studies. First, future work should collect data on assignment completion. There was evidence that some participants did not complete every assignment, which could have affected the outcome adversely. Since this study was measuring the effect of the curriculum, a greater effort should be made to ensure that all participants complete the entire curriculum.

Another improvement would be to obtain measures of facilitator-guide adherence. This study assumes that the facilitators are following the guide as stated, and any variations should be avoided.

A third improvement would be to enlarge participant variation to study ethnicity, education level, spiritual beliefs, and initial level of marriage adjustment as related to program effectiveness. The expansion of study within different cultures and socio-economic backgrounds would be consistent with the recommendations of [Adler-Baeder and Hawkins \(2010\)](#) and [McAllister et al. \(2012\)](#) as MRE studies have primarily involved European-American, middle income, and educated married couples. Additionally, including participants that reflect more distressed marriages than were used in this study would identify a broader application.

Finally, as MRE research expands its study into cultural variations, future research should collect participant feedback concerning any culturally-conflicting content. This information was not collected in this study, however, one potentially conflicting cultural belief for a Filipino is: "Love is a daily decision to be unselfish" ([Andres, 1998](#), p. 25). Although the curriculum did not overtly conflict with this value, it did teach that spouses should create mutually beneficial behavior and decisions, and to avoid those that benefit one spouse at the expense of the other. Future study would benefit from a survey about any curriculum content that conflicted with established cultural values, as it could influence its effectiveness.

The goal of the curriculum was to increase the feeling of romantic love within marriage. Spouses were taught to create a lifestyle where they develop habits associating themselves with pleasure and avoid habits associating themselves with pain. This philosophy of marriage, originated by [Harley \(2010\)](#), teaches that romantic love and marital adjustment go hand-in-hand; to the extent in which romantic love improves, marital quality improves, and when romantic love declines, marital adjustment declines. That relationship was demonstrated in this study.

Helping couples learn specific lifestyle habits to create and sustain romantic love appears to be a crucial factor to improving the effect of marriage education. However, MRE curriculum ignores content related to romantic love, with the focus on communication skills, knowledge/expectations, and virtues/motivation ([Fawcett, 2007](#)). The practical implications of this study suggest that it would be prudent for MRE developers to consider content to create romantic love.

This moderate-dosage, blended-delivery marriage class with a cognitive-behavioral format that focused on teaching couples how to create and sustain romantic love is unique in the realm of marriage education. The prevalent message that time leads to a decline in romantic love and that there are inevitable stages in a marriage where romantic love is lost are challenged within this curriculum and the results of this study. The added focus on creating and sustaining the feeling of romantic love in marriage seems to result in a large effect size on marital adjustment, as compared to currently available and researched MRE programs reviewed in meta-analytic reports.

Romantic love has been ignored in marriage education. Yet, if the goal of marriage education is to increase marital quality, helping couples sustain the feeling of romantic love may be a critical component. The large effect sizes generated from this curriculum suggests that this added MRE component leads to greater marital adjustment. As such, it is recommended that future MRE research focus attention on incorporating components that teach a lifestyle that leads to creating and sustaining romantic love.

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Competing Interests

The author is the co-developer of the Four Gifts of Love Class materials.

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