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# Is Marriage Education Effective? A Meta-Analytic Review of Marriage Education Programs

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IS MARRIAGE EDUCATION EFFECTIVE?  
A META-ANALYTIC REVIEW OF  
MARRIAGE EDUCATION PROGRAMS

by

Elizabeth Brinton Fawcett

A dissertation submitted to the faculty of  
Brigham Young University  
in partial fulfillment of the requirements for the degree of  
Doctor of Philosophy

Department of Marriage, Family, and Human Development  
Brigham Young University

August, 2006

BRIGHAM YOUNG UNIVERSITY

GRADUATE COMMITTEE APPROVAL

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This dissertation has been read by each member of the following graduate committee and by majority vote has been found to be satisfactory.

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As chair of the candidate's graduate committee, I have read the dissertation of Elizabeth Brinton Fawcett in its final form and have found that (1) its format, citations, and bibliographical style are consistent and acceptable and fulfill university and department style requirements; (2) its illustrative materials including figures, tables, and charts are in place; and (3) the final manuscript is satisfactory to the graduate committee and is ready for submission to the university library.

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## ABSTRACT

### IS MARRIAGE EDUCATION EFFECTIVE? A META-ANALYTIC REVIEW OF MARRIAGE EDUCATION PROGRAMS

Elizabeth Brinton Fawcett

Department of Marriage, Family, and Human Development

Doctor of Philosophy

In the past few decades, several meta-analytic studies have attempted to answer the question: Is marriage education effective (Carroll & Doherty, 2003; Halford, Markman, Kline & Stanley, 2003; Reardon-Anderson, Stagner, Macomber, & Murray, 2004)? However, previous meta-analytic studies have been somewhat limited in their conclusions because they have reviewed a narrow portion of the marriage education spectrum (e.g. premarital education only, Carroll & Doherty, 2003), because they focused only on one particular program (e.g, Couples Communication, Butler & Wampler, 1999), because they failed to differentiate marital therapy from marital education programs (Reardon-Anderson et al., 2005), or because they excluded much of the mainstream of

marriage education due to methodological restrictions (e.g, random assignment studies only, Reardon-Anderson et al., 2005).

The current meta-analysis is uniquely qualified to better answer whether marriage education is effective. It examines the full range of marital education from marriage preparation to early marriage and across the marital life span. It excludes studies that evaluate therapy programs and interventions, thus providing a more focused test of marriage education rather than a broader test of marriage intervention. It also allows for analysis of programs more representative of the mainstream of marriage education as it is currently practiced. Finally, this work employed more rigorous statistical techniques than had been done with previous meta-analyses.

Sixty-nine marriage education evaluation reports were included in this meta analysis; fifteen additional articles were not code-able, but were analyzed conceptually. Articles were coded by design and results are reported according to study design. Quantitative results showed that across methodology, sample and program type, marriage education has moderate positive effects on marital satisfaction/quality and communication. These effects remain at follow-up evaluations. Effects were strongest for couples married longer than five years and for communication-training programs.

Subgroups of studies generally were too small to examine many moderator variables. In addition, study samples were predominately White, well-educated, middle-class couples. Although this meta analysis provides the strongest answer to date on the effectiveness of marriage education, increased exploration and evaluation of moderator variables are needed before we will know which types of interventions are most effective for which couples.

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I wish to thank Matthew Stagner and Jennifer Macomber for sharing their ideas and article references with me. I also wish to thank Vickie Blanchard for her hours of coding. Finally, I thank the great number of marriage educators who earnestly seek to strengthen the institution of marriage.

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# Is Marriage Education Effective?

## A Meta-Analytic Review of Marriage Education Programs

Healthy marriages are associated with positive impacts on the physical and emotional health of adults and children (Sayers, Kohn, & Heavey, 1998; Waite & Gallagher, 2000). Marriage also has economic and protective advantages for children and adults. Because of these and other numerous benefits, promoting healthy marriage has become a significant focus of legislators, clergy, mental health professionals, and even the general public. The goal of the following review is to inform marriage educators and policy makers about the effectiveness of marriage education programs.

In the past few decades, several meta-analytic studies have approached this same goal (Carroll & Doherty, 2003; Reardon-Anderson, Stagner, Macomber, & Murray, 2005). However, previous meta-analytic studies have been somewhat limited in their conclusions because they have reviewed a narrow portion of the marriage education spectrum (e.g. premarital education only, Carroll & Doherty, 2003), because they focused only on one particular program (e.g. Couples Communication, Butler & Wampler, 1999), because they failed to differentiate marital therapy from marital education programs (Giblin, Sprinkle, & Sheehan, 1985; Reardon-Anderson et al., 2005), or because they excluded much of the mainstream of marriage education due to methodological restrictions (e.g, random assignment studies only, Reardon-Anderson et al., 2005). An early meta-analysis of marriage education program effectiveness is now 20 years old (Giblin, Sprinkle, & Sheehan, 1985).

In 1990, Guerney and Maxson reported, “there is no doubt that, on the whole, enrichment programs work and the field is an entirely legitimate one. No more research or interpretive energy needs to be devoted to that basic concern” (p. 1133). Considering that the Guerney and Maxon evaluation of the field included clinical programs with non-clinical ones, and that the marriage movement took hold years after this statement, I argue that questions of overall and specific program effectiveness still need to be answered. In a 2005 Center for Law and Social Policy (CLASP) brief (Ooms & Bouchet, 2005), the authors stated: “in any new field it can take years, even decades, before there are enough rigorous evaluations to definitively answer the question—does it work” (p. 5). I believe that the overall effectiveness of marriage education has yet to be proven, although there is emerging evidence of its effectiveness.

Consequently, the current meta-analysis will make a contribution to the field in several ways. First, I will examine the full range of marriage education from marriage preparation to early marriage and across the marital life span. Also, I have excluded studies that evaluate therapy programs and interventions, thus providing a more focused test of marriage education rather than a broader test of marriage intervention. In addition, I have included studies with a wider range of methodological designs that will allow for analysis of programs more representative of the mainstream of marriage education as it is currently practiced. In so doing I hope to provide an accurate view of marriage education as it is commonly practiced. I will examine the most recent work, which is generally more sophisticated than earlier work. Finally, I will employ more rigorous statistical techniques in this meta-analysis than has been done with previous studies. As a result,

this analysis of the effectiveness of marriage education will be a significant contribution to program evaluation research.

### Background

Meta-analysis is a methodological and statistical technique used to judge the effectiveness of a phenomenon across multiple studies. The value of a meta-analytic review is the ability to look across a number of studies and draw more general conclusions than can be made from a single study. Differences in sample characteristics and methodologies between studies become moderating factors within a single meta-analytic study. Thus, a meta-analytic review can also provide an omnibus estimate of efficacy across samples and populations. As marriage education program evaluation research has become more extensive, the field has become ripe for meta-analysis and this type of research methodology has become increasingly more acceptable.

At the heart of a meta-analysis is an effect size statistic. In the following sections, the effect size statistics are a simple standardized mean gain score describing the difference between program scores for one group before and after the intervention divided by the pooled standard deviation, or a standardized mean gain score difference describing the difference between program gain scores for control and treatment groups divided by the pooled standard deviation of the two groups. A large effect is considered to be greater than .8, a moderate effect is .3 to .7 and .2 or smaller is a small effect (Lipsey & Wilson, 2001). This effect reflects the relative improvement of the treatment group compared to the control group. For example, an effect size of 0.00 could be interpreted as a percentile (the mean of the treatment group falling at the 50<sup>th</sup> percentile of the control group's mean), or a percentage of non-overlap (that the distribution of treatment

group's scores overlap completely with the control group scores, thus 0% of non-overlap) indicating non-significant differences between group means (Cohen, 1988). An effect size of .50, then, could be interpreted that the mean of the treatment group is at the 69<sup>th</sup> percentile of the control group mean (Lipsey & Wilson, 2001).

### *Marriage Education Evaluation Research*

Numerous evaluation studies over the years have demonstrated that specific programmatic efforts have been successful. Although professional marriage educators and policy makers place a high priority on program evaluation, marriage movement activists and volunteers don't typically focus resources on assessment. (For a complete discussion of the efforts of professional educators, the marriage movement and public policy, see Appendix A.) Ultimately, evidence that a range of marriage education efforts make a difference to marital quality, interaction, and stability is needed to sustain the burgeoning efforts of the marriage movement.

Due to the extensive body of program evaluation research, several meta-analytic studies in the 1980s and 1990s examined the general effectiveness of programs designed to help married and premarital couples. Since that time, marriage education and program evaluation research has continued to grow, and several recent studies have attempted to examine this literature (Carroll & Doherty, 2003; Reardon-Anderson, Stagner, Macomber, & Murray, 2004). Though these reviews suggest that marital and premarital education are helpful in general, none of these studies has chosen a sample of studies that is fully representative of the current marriage movement. The current study includes a variety of both marital and premarital programs, and published and unpublished work.

Further, it updates previous analyses with important, recent studies, and it does not mix therapeutic interventions with non-clinical education efforts.

#### *Previous Research Syntheses*

The first large scale meta-analysis of marriage enrichment programs, by Giblin, Sprenkle, and Sheehan (1985), included 85 marriage and family intervention studies, both clinical and non-clinical, based on the criteria that they were involved in premarital, marital, or family enrichment processes. These researchers went to great lengths to find unpublished studies. They found a small positive effect for programs that were longer ( $ES=.16$ ). They found greatest gains for the Relationship Enhancement program ( $ES=.96$ ), followed by Couple Communication ( $ES=.44$ ), and Marriage Encounter programs ( $ES=.42$ ). Overall, there was a moderate effect ( $ES=.44$ ) for participation in marriage enrichment programs.

In a conceptual review of marriage and family research in the 1980s, Guerney and Maxson (1990) proposed, “One great contribution to enrichment research in the 1990s would be an update of the meta-analytic study by Giblin et al. (1985)” (p. 1129). While this may yet be a contribution to the field of enrichment research, the inclusion of therapy studies in the Giblin meta-analysis creates legitimate questions about the ecological validity of the study. That work included studies that examined couples in therapy as long as “the thrust was greater than symptom removal and processes of enrichment were employed” (Giblin, Sprenkle, & Sheehan, 1985, p. 259). Whether therapy and education are inherently different and which is more effective are questions that cannot be examined when all “enrichment processes” are lumped together in a meta-analytic study.

The Giblin meta-analysis also included family enrichment processes, which may not create the same effects as marriage education processes.

Several other meta-analytic studies have been limited by decisions of study inclusion and exclusion, a crucial feature of meta-analytic studies (Lipsey & Wilson, 2001). For example, after reviewing 13 marriage enrichment programs, Zimpfer (1988) concluded that communication and behavioral exchange-based programs were generally effective for enriching relationships. Although the body of studies was too limited for specific conclusions, Zimpfer theorized that different formats and contents would produce different outcomes for couples. Nearly two decades have passed from the time when this study was completed. The marriage education movement has grown and changed during that time. Yet, we still do not know specifically how couple outcomes could be strengthened by different program formats and content. The current study seeks to examine the most recent research, and explores how specific program features influence effectiveness.

In a more recent review, Butler and Wampler (1999) examined 16 Couple Communication program studies. These researchers found a larger effect for observed behavioral measures than attitudinal measures of communication in CC couples; they also found large effects for relationship satisfaction (.74) and observed communication (1.06) at post-test. When compared to control or comparison group couples, most effects were much smaller. All effects deteriorated from post-test to follow-up. Each of these findings echoed the results of Wampler's earlier review of 19 CC programs (Wampler, 1982).

Two research synthesis studies examined premarital education programs. In a conceptual review, Bagarozzi and Rauen (1981) examined 13 premarital preparation program studies concluding “no data exist which indicate that the couples who participate in premarital counseling programs are more satisfied or successful in their marriages than those who do not” (p. 27). Two decades later, however, Carroll and Doherty (2003) evaluated 13 premarital prevention program studies and found that individuals who participated in prevention programs were “better off” than 79% of those who did not receive premarital education (p. 113). As a result of their meta-analytic study, they concluded, “premarital prevention programs are generally effective in producing significant immediate gains in communication processes, conflict management skills, and overall relationship quality, and that these gains appear to hold for at least 6 months to 3 years” (Carroll & Doherty, 2003, p. 114). However, due to homogenous sample characteristics across studies, these researchers were unable to determine for which types of couples premarital prevention is most helpful. Further, lack of variation in program methodology has left unanswered the questions of which educational formats, content and types of educators may be most effective.

Halford, Markman, Kline, and Stanley (2003) reviewed 12 skills-based relationship education programs with follow-up assessments of at least 6 months. Based upon their conceptual review of these studies, the authors concluded that marriage education has a positive effect on communication and satisfaction. However, this study did not use meta-analytic techniques to examine the magnitude of program effectiveness over time, nor was this study able to isolate specific programmatic features that contribute to greater couple satisfaction. In fact, the authors state, “Progress in providing

effective relationship education is likely to be assisted by future research elucidating the mediators of the effects of relationship education” (p. 393).

Reardon-Anderson, Stagner, Macomber, and Murray (2005) recently conducted a meta-analytic review of 39 relationship enhancement program studies. This study was funded by the Administration for Children and Families (ACF) and conducted by researchers at the Urban Institute. The goal of this research was to inform policy makers about the effectiveness of marriage education, thereby influencing policy decisions, future legislation, and funding for marriage education programs. Because these researchers were funded by ACF and were also part of a Campbell Collaboration group, criteria for study inclusion were broad in target and narrow in methodological acceptability. The Campbell Collaboration is an international organization created to produce quality research reviews, overcoming the limitations of individual studies, and to inform policy makers about what is and isn't effective in social science. The Collaboration was named after Donald Campbell, who called for a rigorous evaluation of social research. Campbell Collaboration groups are formed by researchers to provide advice, support and training to one another as they conduct meta-analytic research (Cooper, 2000).

According to Campbell Collaboration guidelines, studies are excluded from a meta-analysis if they do not have high quality experimental design, including random assignment to groups, and a no-treatment control group. Based on methodological weaknesses, the Reardon-Anderson group narrowed 514 potential articles to 58 reviews of evaluations, and then to 39 evaluation studies. The Reardon-Anderson group included any program (therapy or education-based) with the self-stated goal of “relationship

improvement.” One outcome of this inclusion decision was that 19 of the 39 included studies evaluated one-on-one therapy interventions. These researchers found that treatment-group couples increased significantly in relationship satisfaction ( $ES=.68$ ) and moderately in communication skills ( $ES=.26$ ) compared to control-group couples. Counseling ( $ES=.94$ ) and therapy ( $ES=.86$ ) programs had a greater effect than education ( $ES=.58$ ) and enrichment ( $ES=.23$ ) programs on satisfaction. Although one sub-group analysis examined the relative effects of therapy and education, all other analyses combined these types of intervention. For example, the Reardon-Anderson et al. study found that programs offering 12 sessions or more had the largest effects on couple satisfaction ( $ES=.98$ ) and communication ( $ES=.45$ ). The programs contributing to these effect sizes are both therapy and education programs.

The findings of the Reardon-Anderson study make a valuable contribution to a growing body of literature that supports the efficacy and importance of marriage education. However, one clear problem with this study is that most of the effects are computed from a set of studies, half of which were therapy interventions, and therefore do not represent mainstream marriage education efforts. In addition to this decision, the Reardon-Anderson study combined reports from husbands and wives which created a non-gendered effect, telling us nothing about the difference between men’s and women’s responses to marriage education. Further, evaluations of well-known marriage education programs, such as PREP, PAIRS, and RE were excluded because they did not fit the strict methodological standards of the Campbell Collaboration (specifically true randomized assignment to groups). The benefit of the study inclusion choices made by the Reardon-Anderson group is that they were able to look at intervention efficacy (Jakubowski,

Milne, Brunner, & Miller, 2004). However, the limitation of that choice is that the results are sterile and not applicable to the field of marriage education specifically. The final result of the Reardon-Anderson et al. study is that their meta-analysis does not represent the work of the marriage movement; it does not include mainstream programs that are recognized as central to marriage education in the United States.

The current meta-analysis examines program effectiveness (rather than efficacy); it surveys the field of marriage education evaluation and provides results applicable to marriage educators. (For a more complete discussion of efficacy and effectiveness, see Appendix B.) The limitation of including studies with quasi-experimental and pre-post methodologies is that interpretation of results must be conservative due to possible confounded variables. However, because the current meta-analytic work examines all of the evaluated efforts of marriage educators, and does not confound this work with therapy interventions, it will provide community leaders and policy makers with the most updated information about effective marriage education practices. In addition, variables are commonly confounded in the in-the-trenches education work; participants are not randomly assigned to no-treatment control groups. Perhaps a meta-analysis that includes this kind of real-life messiness is the best representation of the real-life work being done without federal funding and university support. Furthermore, this work is the only one that goes beyond immediate post-test reported results and examines follow-up data for multiple marriage education programs. (Butler and Wampler, 1999, examined follow-up results only for Couple Communication studies.) Lastly, this report will examine possible gender differences in outcomes. This meta-analysis, then, is the only current study able to answer fully the question: Is marriage education effective?

## Methods

At the heart of a meta-analysis is a set of important decisions about inclusion and exclusion that define the population of studies to be analyzed. For this study, two key decisions revolve around attending to quasi-experimental evaluation studies and differentiating educational programs from clinical interventions. Because quasi-experimental and pre-post, one-group designs are common in evaluations of mainstream marriage education efforts, and also because scientific rigor does not always require random assignment to groups, these types of studies have been included. However, design and methodological precision have been coded as moderating variables in this study. Furthermore, because therapy programs represent a distinct method for healthy marriage promotion that is different from marriage education and clouds the question of effectiveness, studies of therapy interventions have been excluded from this study. Including therapy programs would inappropriately blur the distinction between family life education and marital therapy when they need a clear distinction and involve different skill sets (Doherty, 1995). (For a more thorough discussion of the rationale for these inclusion and exclusion decisions, see Appendix B.)

A meta-analytic study attempts to examine an entire population of specific research; that objective, though perhaps unattainable, guides the search for acceptable studies. I have done a thorough search of published and unpublished work. Notwithstanding, the meta-analytic results will still apply only to empirically tested programs with published or written findings. I acknowledge that published research represents a very small and limited view of marriage education efforts; yet, this is what is available. While I have searched for non-published written evaluations, they are very

difficult to find and may be under-represented here. As a result, I include Rosenthal's "fail-safe N" statistic (Rosenthal, 1979) that estimates the number of undiscovered studies with null or no-effect findings it would take to reduce the overall effect size to non-significance.

#### *Specific Inclusion/Exclusion Criteria Decisions*

1. *Year of Publication* – Only studies published between 1975 and the present are included. I believe that the second demographic transition (McLanahan, 2004) changed the nature of family and relationship dynamics. Thus, I have only included studies that apply to marital relationships as we view them today. This search yielded four articles from the 1970s, 28 articles from the 1980s, 16 articles from the 1990s, and 21 articles from 2000 to 2006. Only a couple pre-1975 articles were excluded based on this criterion.
2. *Language* – Language is not a criterion for study inclusion. Researchers in the United States and Australia have dominated this field. However, a small number of relevant studies in non-English languages were available. When at all possible, I included these studies; this yielded 3 German, 1 Dutch, and 1 Africaans article. Pertinent information for coding the studies was extracted by research assistants with the requisite foreign language skills. Several studies of marriage education programs conducted in non-English speaking countries have been published in English-language journals (Hahlweg, Markman, Thurmaier, Engl, & Eckert, 1998; Bodenmann, Charvoz, Cina, & Widmer, 2001).
3. *Goal of the Intervention* – Included programs had relationship improvement as an overarching goal of the intervention. Some included programs were designed to help

individuals prepare for healthy relationships in the future, such as relationship training for single students (Nielsen, Pinsof, Rampage, Solomon, & Goldstein, 2004). A small number of studies were directed at couples but did not promote or measure relationship improvement directly, such as a program to help caregivers of cancer patients (Toseland, Blanchard, & McCallion, 1995); these types of programs were not included.

4. Program Type – Studies conducted by therapists with a therapeutic population were excluded. Self-designated therapy or counseling programs were excluded.

5. Program Timing – The intervention targeted individuals or couples at any stage of the marital life cycle including singles preparing for future marriage. Studies with other family dyads such as mother-child or sibling-sibling were excluded.

6. Outcome Measures – Program results were measured by changes in marital satisfaction, marital quality, and/or communication. Satisfaction was measured by individual self-reports. Communication was examined either by self-report or observed measures of positive or negative communication or conflict resolution. A few studies reported other outcomes of interest, such as satisfaction with the division of domestic labor (Hawkins, Roberts, Christiansen, & Marshall, 1994) or marital virtues (Hawkins, Fawcett, Carroll, & Gilliland, in press). But these measures were so sporadic in the reported literature that they did not yield themselves, at present, to meaningful meta-analysis. Unfortunately, few studies reported marital stability (e.g., separation, divorce), so I could not investigate this outcome.

7. Reported Results – Included studies presented results such that an effect size could be calculated (e.g., pre-post intervention means, standard deviations, and sample size; or F and p values from F-tests). Studies with incompletely reported results, which meant that

they could not be included in the meta-analysis, are discussed conceptually in the results section. These articles (n=15) are identified with a single asterisk in the list of references (Appendix C).

8. *Attrition* – I planned to exclude studies with more than 40% attrition from this meta-analysis. Attrition is one measure of study quality. Although I was willing to include studies with less-than-clinically perfect methodology, significant attrition may have indicated that subjects were responding to a problem with the intervention. Significant levels of attrition may indicate problems with study design or systematic withdrawal of certain types of subjects, which makes the study results less applicable. Ten of the articles used in this meta-analysis had attrition rates higher than 40%. These rates reflected loss of data from subjects at follow-up, not systematic withdrawal from a program – except for couples that were deployed in military service. Therefore, as a coding team we decided to include these studies; no studies were excluded on the basis of attrition rate alone.

### *Collection of Studies*

Reardon-Anderson et al. (2005) identified what they believed was a population of marriage education literature (Matthew Stagner, personal communication, July 2005). They searched 15 databases, and numerous websites and journals. They narrowed 12,828 abstracts to 514 full-text articles, and provided us with a list of 502 articles. The exclusion criteria for the current study eliminated 228 studies and 18 dissertations deemed by their authors to be primarily therapeutic in nature. Twenty-six studies and two dissertations were not relevant to marriage education (such as a family intervention for alcohol addiction or stress relief training with law enforcement personnel). I also

excluded non-evaluative work, books (unless the evaluation data were not published elsewhere), and descriptive articles without evaluation data (54 references). Moreover, 12 studies presented results in a way such that they could not be used to create effect sizes and 13 studies evaluated programs with very specific populations (e.g., couples with bipolar disorder or HIV). These studies were excluded from analyses. Twenty-four additional studies were dropped because it was not possible to find full-text versions of these reports (papers from conferences, unpublished manuscripts, dissertations, etc.). Sixty-three dissertations were excluded because they were not codable; a few of the highest quality dissertations were included. This review process narrowed the original list of 502 articles to 62 program evaluation studies; 48 of these articles were codable and used in the current meta-analysis.

In an effort to be thorough, the search criteria entered by the Reardon-Anderson group were reentered and the original list was created. Since the Reardon-Anderson et al. (2005) study results were compiled, a significant number of new evaluation studies have been published. I searched extensively for these studies and included them in this analysis. I examined the database search results for new evaluation studies. I also examined the bibliographies of the most recent research reviews (Adler-Baeder & Higginbotham, 2004; Brotherson & Duncan, 2004; Doherty & Anderson, 2004; Ooms & Wilson, 2004) for studies that the Reardon-Anderson group may not have been aware. As a coding team, we also made extensive and important, yet somewhat less systematic, efforts to locate additional evaluation work. We contacted program practitioners at Smart Marriages conferences, and contacted active marriage education researchers for their most recent work. We currently have a list of researchers who are planning to publish

their results within the next year and we plan to include these studies in future analyses. We monitored electronic listservs and networks for information that would lead us to undiscovered work; we also checked web sites for unpublished studies. These efforts yielded 15 articles and manuscripts and 6 dissertations to the population of evaluative work, which produced the final collection of 69 coded articles. These articles are marked with a double asterisk in the article list (Appendix C). Studies marked with a plus sign indicate that their data was the same as another article (different report, same study).

In addition to our efforts to find evaluation work, we have also made extensive efforts to rehabilitate studies that are currently not code-able due to incomplete reporting of results. We have contacted authors, but this usually did not result in success. A few authors have promised to send the necessary information, and if they do, we plan to include these studies in future analyses. For other studies, rehabilitation has been impossible due to a primary author's death or loss of original data. Consequently, we have employed the efforts of a statistician who is currently attempting to reconstruct needed statistical information based on the information provided by the studies. None of this work was available for the current meta-analysis; we hope it will be code-able and included in future analyses.

### *Meta-analytic Terminology*

A point of clarification is needed for the following sections and result tables to be clearly understood. In a meta-analysis it is important to make a distinction between a report and a study. A study involves a group of people who engaged in some kind of treatment. This single study can be discussed in more than one article, or report. An example of this is Markman, Renick, Floyd, Stanley, and Clements' (1993) 4-5 year

longitudinal PREP study. More often, a single report will describe several studies. For example, Ridley, Jorgensen, Morgan, and Avery (1982) compared a Relationship Enhancement group to a relationship discussion comparison group. Because we included this placebo-type discussion group as a low-dose marriage education treatment group, the original Ridley experimental single study was coded as two pre- post, one-group studies.

Perhaps this point warrants further explanation. In a meta-analysis, an investigator is not primarily interested in the effectiveness of one program compared to another (such as RE compared to a discussion group, or compared to another formal program such as Couple Communication). The goal of a meta-analytic work is to look across studies for the larger effects of a population of work. Consequently, our coding team decided that placebo-type, comparison groups were legitimate marriage education interventions, even if they were minor or not intended to do much. Couples were brought together to do “something” that had the potential to help their relationship. In fact, even when the primary authors hypothesized that the treatment group would make gains beyond those of the comparison group, we still coded that comparison group as its own intervention group. The only comparison groups that were not coded as intervention groups were classic no-treatment or wait-list control groups. All comparison groups were coded as a separate study conducted within the authors’ report. Therefore in our coding, an author may have intended his or her study to be an experimental design (random assignment to a treatment group and a comparison group, or to two treatment groups such as RE and CC), yet in our meta-analytic data base the design for this report/article was coded as two pre-post, one-group studies. Some may criticize this decision, wondering if including a number of interventions that were not necessarily designed to make a

difference would underestimate the true effect size. I acknowledge that adding these comparison interventions may in fact yield an effect size smaller than has been reported in previous studies. However, I feel that these comparison groups are a fair representation of much of the non-evaluated marriage education work being done, and that including them as unique studies may provide a more accurate view of marriage education in the field. On the other hand, treating comparison groups that experienced some kind of intervention as classic, no-treatment control groups could also underestimate effect sizes because comparison groups could be expected to manifest some positive change whereas control groups would not.

Furthermore, because one study can have multiple outcomes, a single article can provide many effects. An extreme example of this is Halford, Sanders, and Behren's (2001) article that included four treatment groups with five different outcomes for each group, yielding 79 effect sizes. In this meta-analysis, 69 reports were coded. In these 69 reports, we coded 102 studies that yielded 457 effect sizes. (See Figure 1 for a diagram depicting the collection and coding process.) One strength of this meta-analysis is the number of effect sizes computed. Not only does this meta-analysis include the largest number of purely marriage education articles and studies, it also has computed the largest number of effect sizes for this type of intervention.

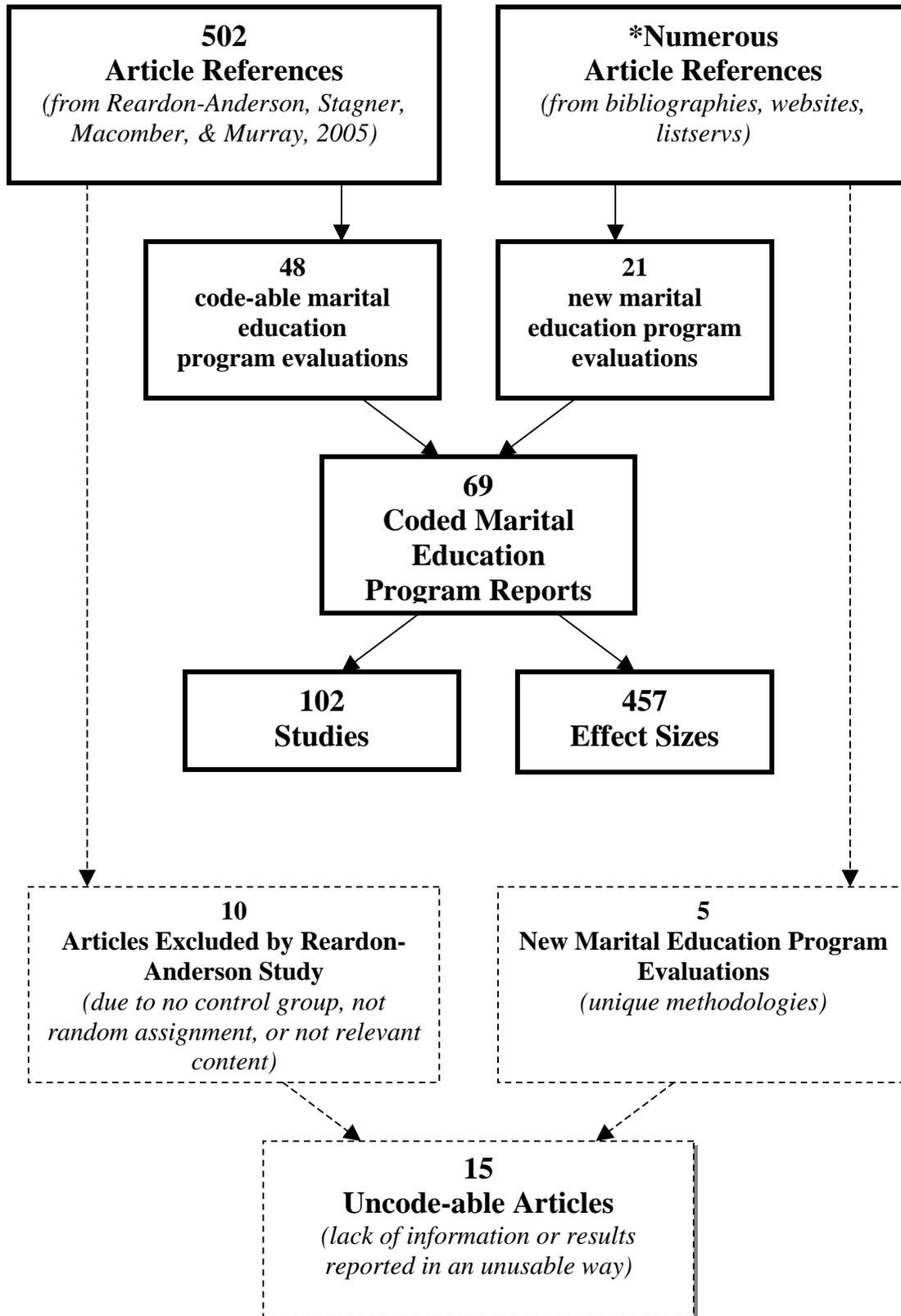
### *Coding*

Two trained graduate student coders independently reviewed each of the 69 articles for data to compute effects sizes, and for a variety of potential moderating variables, including demographic characteristics, methodology, and program characteristics. (See Appendix D for a complete copy of the codebook.) When coder

discrepancies were found, differences were discussed and a conjoint decision was reached. When needed, a third Ph. D.-trained rater was used as a tie-breaker. When we began this process, we anticipated that discrepancies might come as a result of overlooked information. Interestingly, discrepancies were usually the result of differences in interpretation. For example, when SES is not reported, can it be inferred from education level? If a percent of the sample is attending therapy, is that an indication of a distressed sample? If sample diversity is not reported, can we assume that there is no significant diversity? Surprisingly, coding articles was a much less straightforward process than anticipated. Discussions between coders were a process of decision making more than they were a process of double-checking information or establishing inter-rater reliability. A thorough list of coding decisions for each of the 69 reports was kept and can be obtained from the author.

Sample demographics such as age, SES, and education were of particular interest because the majority of published studies still lack participant diversity, which is an issue in the field. Unfortunately, there was not enough diversity in the current population of studies to report effects for these demographic variables. Effects for marital status and number of years married were calculated. Methodological issues such as attrition, random assignment to groups, and the timing of intervention were also coded. Program characteristics, including content, dosage, and setting, were examined in this meta-analysis. Hawkins, Carroll, Doherty, and Willoughby (2004) listed these dimensions as important for marriage educators to consider in their Comprehensive Framework for Marriage Education (CoFraME). (The full rationale for coding these CoFraME dimensions is presented in Appendix E.)

Figure 1 – Collected Articles, Coded and Uncode-able



The most commonly reported outcome measures in marriage education research are marital quality and satisfaction, and some kind of marital communication score. Each of the studies included in this meta-analysis reported results for at least one of these outcomes. Most of these measures are commonly used, and standardized; they reported high levels of internal consistency reliability.

To assess marital satisfaction, most studies used standardized self-report measures such as the Marital Adjustment Test (MAT; Locke-Wallace, 1959), DAS (Spanier, 1976) or RDAS (Busby, Crane, & Larson, 1995), and Marital Satisfaction Inventory (MSI; Snyder, Wills, & Keiser, 1981). The Marital Status Inventory (MSI; Weiss & Cerreto, 1980), Interpersonal Relationship Scale and Relationship Change Scales (IRS and RCS; Guerney, 1977; Henton & Russell, 1974), and Quality Marriage Index (Norton, 1983) were used to measure relationship quality. Multiple dimensions of relationship quality were also assessed by the ENRICH (Fournier, Olson, & Druckman, 1983). Two studies created satisfaction surveys specific to their research. German and Dutch studies used standardized satisfaction measures that were appropriate for their samples. The Braiker and Kelly (1979) marital quality scale and the Relationship Inventory (Barrett-Lennard, 1962) were each used in only one study. One master's thesis used the FIRO-B (Goodman, 1979), and one dissertation used the Marital Satisfaction Scale (Roach, Frazier, & Bowden, 1981).

Marital communication and conflict resolution were measured in two general ways: by self-report, and by objective, third-party coding of an interaction task. Self-report measures were reported for husbands and wives separately. The most common measure was the Marital Communication Inventory (MCI; Bienvenu, 1970). Subscales

of the RELATE (Busby, Holman, & Taniguchi, 2001) and ENRICH (Prepare-Enrich by Life Innovations website) inventories were also used to measure communication and conflict resolution. The Beier-Sternberg Marital Questionnaire (Beier & Sternberg, 1977), Conflict Tactics Scale (CTS; Straus, 1979), Primary Communication Inventory (PCI; Locke, Sabagh, & Thomas, 1956), and Relationship Dynamics Scale (RDS; Stanley & Markman, 1997) were also used to assess positive and negative marital communication and conflict resolution. Similar to the marital quality measures, German and Dutch studies used standardized communication outcomes appropriate to their samples.

Observed Communication measures included the Specific Affect Coding System (SPAFF; Gottman, McCoy, Coan, & Collier, 1996), Interaction Dynamics Coding System (IDCS; Julien, Markman, & Lindahl, 1989), Marital Interaction Coding System (MICS; Weiss, 1976), and Communication Rapid Assessment Scale (CRAS; Joanning, Koval, & Brewster, 1981). Each of these methods has been used reliably in numerous studies. The Communication Skills Test (Floyd & Markman, 1984), Global Rapid Couples Interaction Scoring System (GRCISS; Krokoff, Gottman, & Hass, 1989), Hill Interaction Matrix (HIM; Hill, 1965), and Self-Feeling Awareness Scale (Guerney, 1977) were also used by multiple studies to observe couple communication.

Some research suggests that observed measures of communication are more valid than self-report measures (Butler & Wampler, 1999). I had hoped to examine these outcomes separately; however, due to small subgroups this analysis did not yield reliable effects. Consequently, results are reported for a combined, “mongrel” communication measure of positive and negative self-report and observed communication and conflict resolution outcomes. These results should be interpreted as a general effect of efforts to

improve communication and problem-solving skills across types and methods of measuring communication. In future analyses, we may find that certain types of measurement are associated with greater effects than others. As researchers continue to investigate the impact of marriage education on marital communication, I hope separate analyses of self-report and observed outcome measures will become possible. Similarly, in the future it may be possible to analyze positive communication effects separately from negative communication effects which may help practitioners stress one more than another for better program outcomes (see Gottman, Ryan, Swanson & Swanson, 2005).

### *Analytical Issues*

The first step in this meta-analysis is to look for an omnibus effect of marriage education on marital quality/satisfaction and communication. The data for effect sizes, as well as study and moderating variables, were entered into the Comprehensive Meta-analysis II (CMA) (Borenstein, 2000) statistical program so that effect sizes could be computed and the distribution of effect sizes analyzed for systematic variation.

Most of the previous meta-analytic studies have reported pre- and post-program evaluation results only. They have not examined the longitudinal effect of marriage education because many older experimental studies did not use follow-up measures. When they were available, I included follow-up data in the current analysis. Most programs with longitudinal evaluations report follow-up data at only one time point. Just a handful of studies reported multiple follow-up data. According to the Cochrane Handbook for Systematic Reviews of Interventions (Cochrane Collaboration, 2005), a subgroup of ten studies is needed to create a reliable moderator effect size. The population of studies in this meta-analysis does not include ten program evaluation

studies that report multiple follow-up data. Because of this, and in an effort to create more equal measurement intervals, when multiple after-program evaluations have been conducted, I included the single follow-up measure that was collected closest to one year after post-assessment. Follow-up data between 9-months and one-year were the most common data available, so I gave preference to this timing (as opposed to six-month or eighteen-month data). When only follow-up data earlier than this (e.g., six months) were available, I included this information.

Because the process of publishing a study frequently censors small effects and published studies are a large portion of this population of studies, true overall effects may be inflated. I examined the possibility of publication bias by estimating a fail-safe N for every effect size. Rosenthal's fail-safe N (1979) is an estimate of the number of unpublished studies with non-significant results it would take to create an averaged non-significant effect across all studies (Lipsey & Wilson, 2001, p. 166).

Rosenthal (1979) surmised that journals publish only 5% of the non-significant evaluation work being done. He calls this the "file drawer problem," meaning that file drawers are full of the other 95% of non-significant and/or non-published work done in a field. I made numerous and varied attempts to find unpublished evaluations of marriage education programs, but the possibility of publication bias still exists. Rosenthal's fail-safe N is an estimate of publication bias. It is in some ways a subjective number; there is no consensus regarding how large that number has to be to indicate a reliable effect (Cooper & Hedges, 1994). However, if it would only take two unpublished articles with non-significant effects to nullify the effect size, the result is more suspect than if the publication bias N is 2000. Even though I believe we have a representative sample of

marriage education evaluation work, there is sure to be some publication bias toward significant results. So, I have included a fail-safe N with each effect. Because the average report produced six effects (some studies produced one effect, one study, Halford, Sanders & Behrens, 2001, produced 79 effects), each fail-safe N should be divided by 6 to represent the number of reports or articles that would be needed to nullify the results in the tables.

The Cochrane Handbook for Systematic Reviews of Interventions (2005) recommend that an N of 10 in a subgroup is the smallest N that will yield reliable effects. Therefore, knowing that each study generates an average of six effects, I do not think that a fail-safe N less than 60 (10 studies x 6 effect sizes) provides a confident estimate of the effect. If the fail-safe N is less than 60, the effect should be interpreted with the same caution that one might interpret an effect created with less than ten studies. It may point to a legitimate effect and should be investigated when future studies can be added to the database, but for now it should be considered unreliable. It is interesting to note that in meta-analytic work, individual studies with non-significant results can contribute to a significant overall meta-analytic effect size. In this meta-analysis, two published articles, one doctoral dissertation and a masters thesis reported generally non-significant findings.

Statistical homogeneity of the distribution of effect sizes across studies indicates that the differences in effects are due to sampling variation; a population of work has been represented by the research. Statistical heterogeneity across studies indicates that the standardized mean differences between studies are greater than would be expected to occur by chance and may be the result of moderating factors (Glass, 2000). In the presence of substantial heterogeneity, I reported a random effects model effect size. This

random effects model suggests that the effect size represents a sample of studies, not a true population effect. Shadish and Baldwin (2003) recommend reporting random effects model effect size estimates as a standard practice in meta-analyses because the random effects model pertains to the kind of general notions usually made by meta-analysts. In the presence of substantial heterogeneity in the distribution of the effect sizes, I explored the source of the heterogeneity with various moderator variables. I examined these moderators individually; to compare their relative effects requires meta-regression techniques. Meta-regression was not done in these analyses; however, this is an important future step for this review.

I coded each article for study quality based on random assignment to groups and use of a control group. I compared true experiments to quasi-experimental designs and to simple pre-post, one-group evaluations. Because the effect sizes generated by experimental designs and pre-post, one-group designs employ different formulae, they should not be mixed in one analysis (Lipsey & Wilson, 2001). Accordingly, I present results separated in three groups: true experimental designs, quasi-experimental designs, and pre-post, one-group designs. (There were 3 reports that employed a randomized groups, post-only design, but this was too small a group to analyze in any meaningful way.) Based upon a meta-analytic review of psychotherapy programs in which Shadish and Ragsdale (1996) determined that random assignment to groups yielded consistently larger effects, I expected that true experiments would be associated with larger standardized mean differences than quasi-experimental and pre-post, one-group study designs.

Presenting results in three separate groups further reduced my ability to explore moderator variables. However, within each methodological group, I explored, where feasible, the influence of moderator variables on marital quality and communication outcomes. Some of these moderators included: program content, setting, and intensity. I expected that programs teaching specific communication skills would have larger communication outcome effect sizes. Based upon research that indicated ten to twenty hours was most helpful for couples that attended premarital programs (Stanley, Amato, Johnson, & Markman, 2006), I expected that moderate-intensity programs would have larger effects on marital satisfaction and communication than low-intensity programs. I also examined the effects of marriage education on subgroups of the sample population such as individuals, engaged couples and married couples.

Lastly, using CMA II software (Borenstein, 2000), I looked for trends in the data that might indicate whether effects have gotten stronger or weaker over time. Because marriage education has become more fine-tuned, widespread, and evaluated in recent years, I expected that recent work would be associated with stronger effects.

### *Research Questions*

From the general analyses previewed above, I could generate a lengthy list of potential research questions about the effectiveness of marriage education programs. However, I have identified below the most important research questions I hope to address with this study:

1. How large of an effect does marriage education have on relationship satisfaction and marital quality? Is this effect size different for husbands compared to wives?

2. How large of an effect does marriage education have on communication? Is this effect size different for husbands compared to wives?
3. Do the immediate effects of marriage education programs diminish over time?
4. Does marriage education have greater effects (on satisfaction/quality and communication) with married individuals or single people preparing for marriage?
5. How does average relationship length influence the effects of marriage education on satisfaction/quality and on communication?
6. How does the intensity (program length) of the intervention influence the effects of marriage education on satisfaction/quality and communication?
7. Are certain program settings (e.g., religious, university) associated with greater effects of marriage education on satisfaction/quality and communication?
8. Which types of program content (e.g., communication skills, marital expectations) are associated with greater effects on marital satisfaction/quality and marital communication?
9. Have more recent marriage education program evaluation studies shown larger effect sizes?
10. Do evaluation studies with more rigorous designs produce larger effect sizes?

## Results

In the following results section, I have reported results by type of study design. I have reported results only for subgroups of studies with a cell size of ten studies or more, and I have indicated where an unreliably small fail-safe N accompanies an effect size. The complete tables of every computed effect size can be found in Appendix F.

### *Marital Quality and Satisfaction*

In general, the results of this meta-analysis indicate that marriage education has positive short- and long-term effects on participant self-reports of relationship satisfaction/quality. According to the Binomial Effect Size Display (BESD), approximately 58% of the treatment group participants were above the median of the relationship quality distribution compared to 41% of a control group participants (Rosenthal & Rubin, 1983). These effects were large for pre-post, one-group studies ( $es=.85$ ,  $p<.001$ ) and moderate for experimental ( $es=.34$ ,  $p<.001$ ) and quasi-experimental studies ( $es=.31$ ,  $p<.001$ ). Immediate post-program effects were moderate for women ( $es=.30$ ,  $p<.01$ ) in experimental studies and for men ( $es=.43$ ,  $p<.001$ ) and women ( $es=.36$ ,  $p<.01$ ) in pre-post, one-group designs. Subgroups were too small to provide reliable estimates for men and women in quasi-experimental studies at post-test. At follow-up, subgroups of men and women in all groups were too small to yield reliable effect sizes. When results were not broken into gender subgroups, a moderate effect was found for all participants in experimental ( $es=.32$ ,  $p<.001$ ) and pre-post, one group studies ( $es=.29$ ,  $p<.001$ ) at follow-up. (Follow-up results were coded for studies that collected data three months to one year after the post-test; when more than one follow-up test was conducted, we coded the follow-up closest to one year.)

### *Marital Communication*

Marriage education also had positive effects on communication outcomes. Looking at all participants (men, women, couples, individuals), I found a moderate effect for marriage education on communication outcomes at post-test (experimental  $es=.53$ ,  $p<.001$ ; quasi-experimental  $es=.20$ ,  $p<.01$ ; pre-post  $es=.73$ ,  $p<.001$ ) and follow-up

(experimental  $es = .50$ ,  $p < .05$ ; quasi-experimental  $es = .24$ ,  $p < .01$ ; pre-post, one-group  $es = .33$ ,  $p < .001$ ). The BESD “success rate” indicates that 57-67% of the overall treatment group participants were above the median in marital communication compared to 32-42% of the control group participants from the same population. This effect was similar for both men and women in pre-post studies at post-test (men  $es = .51$ ,  $p < .001$ ; women  $es = .52$ ,  $p < .001$ ) and follow-up (men  $es = .38$ ,  $p < .051$ ; women  $es = .34$ ,  $p < .05$ ). Gender subgroups were too small to report effects in experimental and quasi-experimental groups.

#### *Experimental Studies by Moderator Variables*

Thirty-two studies used a reasonable method of random assignment to assign participants to either a marriage education or no-treatment control group. (See Appendix G for descriptive information on all studies.)

*Marital Quality/Satisfaction.* Experimental studies had moderate effects on post-program reports of marital quality for couples married, on average, one-to-five years ( $es = .28$ ,  $p < .01$ ), six-to-ten years ( $es = .36$ ,  $p < .001$ ), and eleven-to-twenty years ( $es = .43$ ,  $p < .001$ ). Groups at follow-up were too small to be reliably reported. Experimental studies conducted in therapy clinics had moderate effects on marital satisfaction at post ( $es = .48$ ,  $p < .001$ ) and follow-up ( $es = .37$ ,  $p < .01$ ). This post-test effect ( $es = .22$ ,  $p < .01$ ) was larger than studies conducted in other settings (home/internet, community, military, health care, high school or university class). A primary content of communication skills training had a moderate effect on marital quality at post-test ( $es = .46$ ,  $p < .001$ ) and follow-up ( $es = .37$ ,  $p < .01$ ). A curriculum focused on marital virtues or attitudes had a moderate effect on self-reports of marital quality at post-program evaluation ( $es = .24$ ,  $p < .01$ ). The subgroup of studies with a primary content of marital expectations and information

(financial, sexual, in-laws, etc.) were too small to yield reliable effects on marital quality. Moderate effects were found for studies conducted in the 1980s ( $es=.46$ ,  $p<.001$ ), and 2000s ( $es=.32$ ,  $p<.001$ ) on post-program evaluations. The number of studies in the 1970s and 1990s was too small. Similarly, all decade subgroup cells were too small at follow-up.

*Communication.* Although the effects on communication outcomes for married couples in experimental studies were moderate at post-test ( $es=.36$ ,  $p<.01$ ), they were small at follow-up ( $es=.21$ ,  $p<.05$ ). However, as might be expected, programs with a primary content of communication skills training had moderate effects on communication outcomes at post-test ( $es=.56$ ,  $p<.001$ ) and participants maintained these gains at follow-up ( $es=.50$ ,  $p<.05$ ). Studies conducted in the 1980s and 2000s had moderate effects on communication outcomes (1980s  $es=.64$ ,  $p<.001$ ; 2000s  $es=.32$ ,  $p<.05$ ). Other decade subgroup cells were too small to examine effects on communication outcomes.

#### *Quasi-Experimental Studies by Moderator Variables*

Twenty-five studies compared a marriage education program to a no-treatment control group, but did not employ true random assignment of subjects to these groups. Many of these studies used naturally occurring groups such as multiple church congregations. Because the sample of quasi-experimental studies was small, most of the subgroup analyses had less than 10 studies per effect. These  $N$ 's were too small to report reliably; they are tabled in Appendix F.

*Marital Quality/Satisfaction.* Quasi-experimental studies reported moderate effects for married subjects at immediate post-test ( $es=.29$ ,  $p<.001$ ) and at follow-up ( $es=.32$ ,  $p<.001$ ) evaluations. Studies that emphasized communication skills had a

moderate effect on marital quality at post-test ( $es=.31$ ,  $p<.001$ ); this effect was maintained at follow-up ( $es=.36$ ,  $p<.001$ ).

*Communication.* No subgroups were large enough to make comparisons between groups. See Appendix F for significant single-group effects on communication outcomes.

#### *Pre-Post, One-Group Studies by Moderator Variables*

According to the manner in which we coded the reports, we identified forty-two studies using a pre-post, one-group study design. These studies had the highest effect sizes at the immediate post-assessment. This result is interesting in our particular sample because these studies included “true” treatment groups as well as low-intensity placebo groups to which subjects were randomly assigned. For several articles or reports, we coded two or three studies.

*Marital Quality/Satisfaction.* On post-program evaluations, pre-post, one-group studies had a large effect on marital quality for couples married six-to-ten years ( $es=1.31$ ,  $p<.001$ ). These studies reported non-significant effects ( $es=.65$ ,  $p>.05$ ) for couples married one-to-five years on post-test evaluations, but significant, moderate effects at follow-up evaluations ( $es=.35$ ,  $p<.001$ ). Programs with a medium intensity (9-20 hours) reported a moderate effect at post-test ( $es=.49$ ,  $p<.001$ ) and follow-up ( $es=.35$ ,  $p<.001$ ). High-intensity programs (more than 21 hours) had a large effect ( $es=1.29$ ,  $p<.001$ ) at post-test; this subgroup was too small to examine effects at follow-up. Marriage education programs that emphasized communication skills had a large effect on marital quality at post-test ( $es=.87$ ,  $p<.001$ ) and a moderate effect ( $es=.31$ ,  $p<.001$ ) at follow-up. Programs that primarily discussed expectations and information had a moderate effect at

post-test ( $es=.51, p<.001$ ). Programs conducted in the 1980s and 2000s reported large program effects (1980s  $es=1.08, p<.001$ ; 2000s  $es=.81, p<.001$ ). There was a moderate effect at follow-up for programs conducted in the 2000s ( $es=.26, p<.001$ ).

*Communication.* Pre-post, one-group studies had a large effect on communication for both married and engaged couples at post-program evaluations (married  $es=.85, p<.01$ ; engaged  $es=.84, p<.001$ ). At follow-up, these studies reported a moderate effect on communication for married ( $es=.34, p<.05$ ) and engaged couples ( $es=.67, p<.001$ ). At post-test, studies of pre-post program comparisons reported a large effect on communication outcomes for couples married one-to-five years ( $es=.84, p<.001$ ); at follow-up this effect was moderate ( $es=.32, p<.01$ ). For couples married 11-to-20 years, the communication gains were modest at immediate post-test ( $es=.31, p<.05$ ). Programs with medium intensity (9-20 hours) had a moderate effect at post-program evaluations ( $es=.54, p<.001$ ) and a non-significant effect at follow-up. Programs with high intensity (more than 21 hours) had a large effect on communications at post-program evaluation ( $es=.92, p<.001$ ) and a moderate effect at follow-up evaluations ( $es=.39, p<.01$ ). Studies conducted in the 1980s reported large effects at post-test ( $es=.91, p<.001$ ) and moderate effects at follow-up ( $es=.62, p<.001$ ). Studies conducted in the 2000s had a non-significant effect on communication outcomes at post-test and a small negative effect at follow-up ( $es=-.25, p<.001$ ).

#### *Randomized-Groups, Post-Only Comparison*

Only five studies used a randomized-groups, post-only -assessment design. This number is far too few to yield reliable effect size statistics. Although there are not enough studies to report any reliable subgroup analyses here, effects for this design group

are found in Tables in Appendix F. (See Appendix G for descriptive information on these studies.)

### *Uncode-able Studies*

A number of studies have been done on the effectiveness of marriage education that cannot be included in this meta-analysis for such reasons as non-standard statistical analyses (e.g., Gottman, Ryan, Swanson, & Swanson, 2005), correlational design issues (e.g., Stanley, Amato, Johnson, & Markman, 2006), or because insufficient data were reported to code effect sizes (e.g., Shapiro & Gottman, 2005). Nevertheless, these studies can shed further light on the practice of marriage education. In order to glean valuable insights from these studies and compare these insights to what was learned in the formal meta-analysis, I will discuss these studies in the following sections. (See Appendix G for descriptive information on these studies.)

### *Incompatible or Missing Data*

I could not enter data into this meta-analysis for twenty-two marriage education evaluation studies (fifteen articles/reports; these articles are marked with a single asterisk in Appendix C). Effect sizes could not be computed for these studies because the study authors did not report useable statistics. Consequently, what follows is a conceptual look at these studies.

Most of these studies were conducted recently. Ten were published in the 2000s and four in the 90s. Six were conducted in the 80s and two in the 70s. Fifteen of these studies were of a pre-post, one-group comparison design; six were experimental and one was quasi-experimental. One study was a dissertation; the rest were published in journals.

All of these studies reported positive gains on satisfaction or communication outcomes for couples. None of these studies reports effects that are different than what was reported in the code-able studies. Rehabilitating the data from this group of studies by estimating means and standard deviations when they are not reported in the article, and then adding these studies to the meta-analytic work would lend strength to the conclusions already drawn and perhaps make further subgroup comparisons possible.

### *Correlational design*

Several new studies have been conducted that target marriage education practices and do so in a way that is creative and interesting, but cannot be used in a meta-analytic work. Of note, two of these studies address the outcome of divorce which is virtually unaddressed by studies in our meta-analysis. For example, Stanley, Amato, Johnson, and Markman (2006) used a phone survey of nearly 2000 adults from Oklahoma, Kansas, Arkansas and Texas to examine post-hoc reports of the influence of premarital education on marital quality and stability. They found that premarital education was associated with higher marital satisfaction and commitment and less marital conflict. For college-educated respondents, premarital education was also associated with a 31% decrease in the odds of divorce; this was not true for respondents with less than a high school education. These researchers found that a moderate dosage of marriage education is more likely to improve marital satisfaction than a low-dosage program. Reports of marital conflict decreased as the amount of premarital education increased from one-to-ten hours; marital satisfaction increased as education increased from one-to-twenty hours.

Birch, Weed and Olsen (2004) also produced an innovative report of marriage education practices. These researchers examined marriage and divorce rates in 122

counties (46 in the Midwest, 28 in the South, 23 in the West, 13 in the Southwest, 12 in the East) that have implemented a Community Marriage Policy, which includes the promotion of premarital education, marriage enrichment retreats and couple mentorship for struggling marriages. They found that relative to matched comparison counties, those counties that signed a Community Marriage Policy had a greater decrease in the divorce rate (by 2%). This decrease could not be accounted for by time alone or a number of other factors tested.

This conceptual analysis lends strength to the quantitative results of the meta-analysis. Marriage education is not only effective in improving marital satisfaction/quality and communication, it also may have a significant effect on decreasing marital distress and divorce.

### Discussion

The following sections will qualitatively address the research questions raised in the methods and results sections. I will also provide a critique of the current evaluation studies and suggestions for future marriage education research.

After an exhaustive search for evaluation studies, published and unpublished, and the employment of the most appropriate and conservative methodologies, I confidently conclude that marriage education works in producing improvements in marital quality/satisfaction and communication. Past meta-analytic studies have pointed toward this conclusion, but they have been limited by various issues including confounding therapy with education interventions or by methods that do not accurately reflect the body of marriage education work (Reardon-Anderson et al., 2005) . Over a broad range of settings, using a diverse range of contents and a variety of methods, in general

marriage education has a moderate, positive effect on marital satisfaction/quality and communication. (Note that I only reported effect sizes that were both statistically significant and had fail-safe N's that conservatively estimated their reliability.) The many unreliable effect sizes computed, usually due to small numbers of studies in a particular cell, generally were of similar magnitude as the reported effect sizes. However, as surely as I state that marriage education is effective, the results also clearly show that there is ample room for larger effects and important questions about the effectiveness of marriage education for more diverse populations.

### *Moderating Variables*

We need researchers to address the question: How do we improve our effectiveness? To answer this question, researchers will need to explore a variety of moderators, and perhaps be more creative in the following CoFRaMe (Hawkins, Carroll, Doherty & Willoughby, 2004) areas. In order to know how to improve marriage education, we may need to explore settings beyond university and therapy clinics in accessible and integrated venues such as the workplace, churches, healthcare, and homes of couples (Laurenceau, Stanley, Olmos-Gallo, Baucom, & Markman, 2004). To improve our effectiveness, marriage education may need to go beyond traditional content areas such as training a specific communication technique. We may want to consider teaching spouses to be better people; it may be also effective to focus on teaching couples about the meaning of marriage in society. Another interesting variable is the timing of the intervention. To understand how to provide more effective marriage education, we may need to consider helping couples with marital issues beyond the first years of marriage and the transition to parenthood. The amount of marriage education is also an

interesting variable. To know what really works for couples, we may need to offer marriage education in much smaller and much larger doses than we currently are offering. Our target audience is also an area for increased research. We do not yet know what works best for more diverse ethnic groups and populations with less education and less income. If, as a group of educators, we increase our creativity in providing marriage education, then there may be enough variation in the moderating variables that we will be better able to answer what the best marriage education practices are. Most importantly, we may also gain an insight into how to produce large positive effects instead of only moderate ones.

*Gender.* Gains in marital satisfaction and communication were similar for men and women at post-test. However, communication gains were smaller for men at follow-up. (See Tables 1 and 2 in Appendix F.) Decades of research have shown that husbands and wives see their marriages very differently (Miller, R. B. & Henry, R. G, 2006). Perhaps practitioners need to address these different perceptions in their training. Perhaps men are willing to use a communication skill to please a program leader, or to please their spouses at post-test, but in the daily work of marriage as life goes on, they find the use of a formalized communication skill cumbersome. If these gains are not being maintained over time, then better learning and motivation techniques will be needed. We know that the un-gendered majority of effects are positive and moderate at follow-up and that programs with communication training content typically show large effects; yet, some men are not following this pattern. More investigation into which groups of men are not maintaining post-test communication gains is needed.

*Marital Status.* Marriage education programs seem to have moderate effects on marital satisfaction and communication for married couples. Although these benefits decrease, they continue to be present when assessed months after the program ends. In light of our findings for gender, these couple gains may primarily reflect the wives' continued use of communication skills. Of note, engaged couples report the greatest communication gains at post-test and follow-up. Perhaps these young couples who are experiencing the challenges of the first year of marriage find communication skills particularly helpful. These couples are typically more open and amenable to change as well as deeply committed to their relationship. It is also possible that this finding reflects the phenomenon of anticipatory socialization; men are more pliable and motivated before marriage than after.

The majority of marriage education programs do not work as well with single people; in our sample of programs, single people reported the smallest increases in communication. (See Tables 3a and 3b in Appendix F.) This finding may indicate that when a person does not perceive a need, a solution is unnecessary. According to role theory, when people are not ready for a role, they think less about it and do not respond personally to information about that role. When marriage education is taught in high school or university settings to single audiences, communication skills training may be less helpful than other types of relationship education such as friendship building. Testing for communication outcomes may not tap into actual gains made by these participants.

*Relationship Length.* Although a great deal of research emphasized the need for marital education as an early prevention strategy (Markman, Floyd, Stanley & Storaasli,

1988; Markman & Hahlweg, 1993), this meta-analysis found greatest gains for couples in longer relationships. Increases in marital satisfaction were greater for those who had been together 6-10 years compared to couples together one-to-five years. Couples with an average relationship length of 11-20 years also saw moderate gains in marital satisfaction, and these effects were larger than the gains reported by couples married one to five years. (See Tables 4a and 4b in Appendix F.)

This interesting finding deserves attention in future studies. Once the honeymoon period is gone, couples may gain more from marriage education; perhaps marriage educators should target couples struggling with challenges beyond early marriage. Keeping in mind that communication skills training is helpful for engaged couples, but less helpful for married couples, a future focus on couples in mature marriages may call for increased attention to additional types of marriage education such as an emphasis on forgiveness, partnership in parenting and housework, and/or a shared vision of future goals and roles.

*Program Length.* Medium- and high-dosage programs had much larger effects on marital satisfaction and communication than low-dosage programs. (See Tables 5a and 5b in Appendix F.) Some researchers have begun to suggest that low-dose, “inoculation” interventions may be valuable for couples. The results of this meta-analysis suggest that low-dose interventions do not yet have enough content salience to make the difference that longer programs have. However, the number of low-intensity programs evaluated is still very small which makes this an important area for continued research.

*Program Setting.* The vast majority of marriage education programs have been affiliated with university clinics and the effects on marital quality and communication in

clinic or university settings are the largest and most reliable. However, other settings such as the military, healthcare, community, and home seem to be equally effective when cell sizes are large enough to provide a reliable effect. (See Tables 6a and 6b in Appendix F.) The Laurenceau, Stanley, Olmos-Gallo, Baucom, and Markman (2004) report, which compared marriage education provided in university and religious settings, found that couple gains were greatest when a formal marriage education program was offered by a trusted religious leader. There is also at least one home-based study (e.g. Couple Care) that has potentially promising results. This report has set the stage for more exploration into program setting.

*Program Content.* As expected, communication skills training has moderate effects on communication outcomes. Communication skills and a program content primarily focused on marital expectations and information both had moderate effects on marital quality/satisfaction at post-test and follow-up. Too few studies emphasize marital virtues to provide an accurate view of how this content influences communication outcomes. However, in experimental studies, programs with virtues content had a moderate effect on marital quality/satisfaction. (See Tables 7a and 7b in Appendix F.)

*Publication Decade.* I expected that more recent publications might have larger effects because the past few decades have focused on improving marital interaction and providing empirically supported interventions. However, studies done in the 1980s, 1990s, and 2000s have similar effects on marital quality. Too few studies were completed in the 1970s to yield reliable effects. Effect sizes for communication outcomes are largest for studies published in the 1980s and 1990s; but during these decades,

researchers placed a primary focus on improving marital communication. (See Tables 8a and 8b in Appendix F.)

*Study Design.* Effect sizes at immediate post-program evaluations were generally largest for pre-post, one-group designs, followed by experimental studies and then quasi-experimental studies. It is possible that the larger effects associated with pre-post, one group designs were inflated because of uncontrolled error and variation. However, it is also possible that these effects are more meaningful, even more accurate, than those effects generated in more sterile, controlled environments. Most marriage education is done without random assignment and no-treatment control groups; in fact, most marriage education is not even evaluated. Perhaps a simple pre-post, one group study reflects the majority of marriage education work and therefore is the most interpretable effect.

Generally at follow-up, all groups had similar moderate effect size magnitudes. The follow-up effects for experimental and quasi-experimental studies were similar to post-test effects. In contrast, follow-up effects diminished for pre-post, one-group designs. This finding may suggest that post-test scores for pre-post, one-group studies are inflated and follow-up data are more accurate for the other groups. It is important for policy makers, who offer grant money to effective programs, and for program directors who earnestly seek to help couples, to understand that a follow-up evaluation may be required to achieve an accurate picture of the program results.

#### *Critique of Marriage Education Evaluation Studies*

An important contribution of meta-analytic studies is to point out methodological weaknesses in the field, data reporting problems in published work, and important areas of neglected inquiry. As mentioned above, I have found that many researchers do not

report important information and they do not always report results in such a way that they can be used in meta-analytic work. I have identified key demographic and measurement information that needs to be specified for studies to be included in future meta-analyses.

In meta-analytic work, means are needed; ranges are not especially helpful. For example reporting that a sample of subjects had ages ranging from 21 to 46 doesn't provide information that can be coded into a meta-analysis unless all future studies report ranges. To be able to examine the best practices for a variety of samples, researchers should report means for the following sample characteristics: age, education, ethnicity, socio-economic status, marital status, relationship length, and level of marital distress.

Strangely, one of the most difficult parts of this meta-analysis was coding group size. Program attrition and data attrition are frequently confounded. Future evaluative studies would be strengthened by including a flow chart or table of the number of subjects who were recruited and the number of subjects who finished the program in each group. In addition to this, explanations of lost or missing data would be helpful to meta-analytic researchers seeking to reconcile program group sizes with N's reported in results tables. A good example of a participant flow chart is found in Hawkins, Fawcett, Carroll, and Gilliland (in press).

When reporting program characteristics, researchers need to consider CoFraME dimensions (Hawkins, Carroll, Doherty & Willoughby, 2004; see also Appendix E). At the very least, researchers should explicitly discuss the following program characteristics, even when they are offering a manualized program that has been described in previous reports: setting (home, university clinic, church, etc.), dosage (how many hours), and primary content (skills training, expectations and information, virtues).

The most helpful results are reported by group and by gender. Descriptive statistics, including means and standard deviations, are needed to compute gain scores in a meta-analysis. If results are reported by providing F and p values, a pre-post correlation is needed to compute an accurate effect size (and no reports did this). Fifteen articles identified in the article list (Appendix C) with a single asterisk did not report these simple results and are therefore currently not included in the meta-analysis. Appendix H provides a recommended checklist of all information that should be reported in evaluation studies to improve the effectiveness of future meta-analytic studies as well as to provide readers with relevant information about the program.

#### *Critique of Meta-Analytic Studies*

As much as meta-analytic researchers demand rigorous methodology from the studies they gather, these researchers also need to use appropriate methods in their own report. Some meta-analytic studies have reported effects for subgroups with an N of 2. Not only does this stand in opposition to what the Cochrane Handbook recommends, it is also impossible to compute a fail-safe N with less than three studies. Basically, effects with such a small cell size are unreliable.

#### *Random Effects Model*

Most meta-analytic studies in the marriage and family field do not report whether they use a random or fixed effects model. In my analyses, several fixed model effect sizes were larger or more significant compared to random effects, but the random effects model was more appropriate because of substantial heterogeneity in the distribution of effects. The model used should be explicitly stated in the methods or results. In fact, in the vast majority of meta-analytic studies, it is most appropriate to report just the random

effects model effect size statistics (Shadish & Baldwin, 2003). In this report, a small  $r$  is placed next to every effect size for which a random effects model was used (see Appendix F).

#### *Moderator Variables*

Moreover, most meta-analytic studies do not look at moderator variables (Shadish & Baldwin, 2003; Shadish & Ragsdale, 1996). As researchers begin to conduct evaluations with more diverse groups, settings and intensities, it will be important to include these variables in meta-analytic work so that we can identify which types of marriage education efforts are most effective for which groups and at what times.

#### *Grass-roots Data*

The grass-roots efforts of the marriage movement are beginning to dwarf the efforts of professionals. Community members, church leaders and policy makers are becoming increasingly involved in promoting healthy marriage. Although some may criticize my decision to include pre-post, one-group study designs, and to code comparison groups as separate interventions, I believe that these studies represent the way in which evaluation will be conducted in the growing efforts of the grass-roots marriage movement because these designs are less resource-intensive and more compatible with field restrictions. For those interested in only the most strict methodology, I have provided separate results for experimental studies; however, I do not believe these efforts alone represent the burgeoning efforts of non-professionals.

Meta-analytic researchers need to build a way to facilitate getting evaluation data from marriage educators in the field who are interested in knowing if their programs are working but not especially interested in publishing their results. In the future, researchers

may set up websites where small, non-publishable evaluation efforts can be coded into pre-set databases. These might be websites where a church leader could download a copy of the DAS and offer it to couples before and after a weekend retreat (and at a one-year follow-up booster session), or a high-school teacher could enter in results on communication measures before a relationship course or module, after the course (and perhaps at the end of the school year). Then, these innovative and integrated community-level efforts can become a part of future meta-analyses that will better represent the marriage education work being done. As this type of effort is made to find evaluation work of grass-roots efforts, meta-analytic researchers using these data will need to employ conservative methodologies so that they do not misrepresent (over or underestimate) true effects.

#### *Needed Future Directions*

As the burgeoning marriage movement reaches out to more diverse program leaders and populations, creativity in program delivery and setting will push marriage education into new areas. The future of marriage education will be a far reaching and multifaceted effort to strengthen families in diverse communities. It is my hope that church and community leaders as well as professional educators and policy makers will continue to remain invested in marriage education. I also hope that as the body of evaluation research grows that we will find a way to provide the most effective types of marriage education for many different groups of people at multiple time points in the marital life cycle. Increased effectiveness in marriage education will also require marriage educators and leaders of the marriage movement to come together; marriage

educators will need to move out of the universities and into the communities while community leaders will need to understand which types of education are the most helpful.

### *Increased Diversity*

Although research-based programs have been evaluated for several decades, the vast majority of these programs have been developed by professional educators in university or therapy settings and tested on White, well-educated, middle-class samples. Eighty-seven percent of the 102 studies included in this meta-analysis worked with participants that had virtually no ethnic diversity. Seven studies reported some ethnic diversity (10-25% of participants); one study had sufficient diversity (25-33% of the sample). Four studies reported significant diversity (more than 33% of the sample). Only one study targeted a sample that was not predominantly Euro-American; that study reported evaluation work with a Hispanic sample (Dyer & Kotrla, 2006). Eighty-four percent of studies that reported socioeconomic status worked with a middle-class sample; 17 studies did not report this information and it could not be deduced from education level or profession. Twelve studies worked with a mixed sample of middle- and lower-income couples; only two studies targeted a low-income sample. Twenty-two studies did not report average education level of participants. Of the eighty remaining studies, seventy-one studies worked with samples that had an average education of at least some college. The problem with this convenience sampling is that we only know what works well for this relatively advantaged group; we do not know what educational contents and methods will be empirically supported for other groups, such as fragile families, the less educated or poor couples (Ooms & Wilson, 2004).

According to Martin and Parashar (2006), less educated groups have divorce rates much higher (60-70%) than more educated couples (9-10%). Increasingly, government funding will be offered to programs that have been found to be effective for a broader range of couples; policy makers have called for programs that work well with fragile families. One-third of all children are born to unwed parents, which are at higher risk of poverty; and, single-parent birth rates are higher for Hispanic and African American families (Parke, 2004). The future of marriage education will be the promotion of empirically supported programs that can be integrated into existing settings and easily accessed by at-risk couples. Further development and evaluation of the best marriage education practices for diverse and non-traditional families is clearly needed.

#### *Increased Accessibility*

Self-guided programs represent a creative and flexible methodological approach; these programs require fewer resources (e.g., physical facilities, instructor time), which make the content potentially available to more people. Only five program evaluations in this meta-analysis were completed in home or in Internet settings. Although these subgroups were too small to provide reliable results, marriage education programs conducted in other settings such as home, healthcare, military, and the community had moderate effects on marital satisfaction at post-test and follow-up. Home-based and Internet programs provide much more convenience and accessibility to couples than traditional programs. Many couples feel that marital issues are private; the potential for discretion in a home-based program may make marriage education accessible to couples who would never participate in public-group settings.

Marriage education has been too distant, too dependent upon specialists and professionals. To make marriage education more accessible, professionals must train leaders in the community. Much of this work is being done through church groups; sixteen of the studies in this meta-analysis were offered through church settings or by church leaders. In the quasi-experimental studies of this meta-analysis, marriage education done in religious settings had a moderate effect on marital quality/satisfaction and communication at follow-up. (Curiously, these effects were not significant at immediate post-test). Although more investigation is needed into this interesting finding, there is certainly no reason to think marriage education can only be done in clinical/university settings. Only two studies were done in a community setting. The essence of citizen initiatives is that neighborhood and community members take a leadership role in promoting healthy marriage among their neighbors, colleagues, congregants, or community members. Marriage experts are “on tap” in these efforts, but not “on top”; that is, they are a resource but do not control the initiatives (Doherty & Carroll, 2002). Community members do this through mentorship of other couples, and by providing informal counseling or resources to couples who desire it.

### *Timing*

Sayers, Kohn, and Heavey (1998) recommend that educators and program developers take a more comprehensive approach to marriage education and theory construction by identifying developmental milestones and trajectories beyond the first few years of marriage. Doherty and Carroll (2002) also called for a life course perspective in working with families. Few programs have been developed to reach forward to help couples deal with the developmental challenges of middle and later life

(Brubaker & Roberto, 1993). A glaringly absent piece of marriage education is the lack of emphasis on marital stresses after the transition to parenthood. In this meta-analytic report, thirty-one studies evaluated premarital programs. Seven studies were evaluations of transition to parenthood programs; one study was a high school program evaluation. Although many of the marriage education programs worked with samples that had average ages of 31-40 and 41-50, these programs did not specifically address marital issues associated with mid-life. No studies worked with samples older than 50 or discussed later-life marriage.

According to a review by Karney and Bradbury (1995) of 115 longitudinal studies on marriage, “marriages tend to become more stable but less satisfying with time” (p. 18). Despite the potential need to help mature couples increase their satisfaction and cope with the challenges of marriage, there seem to be very few formal programs specifically designed for couples during later portions of the marital life course. Some of the common developmental tasks of mid- and later-life include parenting teens, launching children, coping with the loss of parents, dealing with job stress and eventual retirement, and renegotiating relationships with siblings (Carter & McGoldrick, 1999). Parenting is a long-term, dynamic, stressful marital task, and while several programs offer information to couples prior to or at the transition to parenthood, marriage education does not seem to focus on this aspect of the mid-life marriage. This is clearly an area for parent education and marriage education to combine efforts.

In light of the finding that marriage education seems to be more effective for couples that have been married longer, an increased focus on marital tasks at later-life stages is warranted. Although the risk of divorce decreases over time, it does not fall to

levels that put couples beyond risk. It is unreasonable to expect that ten hours of marriage education is going to have a positive effect on couples for the rest of their relationships. Ongoing wellness checkups are an important part of medical treatment, and consistent group meeting attendance is an important part of addiction intervention. Although we coded for follow-up or booster sessions, one premarital program had post-marriage sessions. We found no programs that offered booster sessions to couples several months after the program. I believe this is an area where marriage education could increase its effectiveness.

#### *Outcome Measures*

I wanted to examine additional outcome variables, such as marital intimacy, kindness, and commitment. While a few studies used these measures to evaluate program success, unfortunately, these virtues are seldom measured in marriage education research. There are not yet enough evaluative studies using these measures to compute effect sizes for the current analysis.

In a recent study with 400 couples, Gottman found that while there was no effect for overall marital satisfaction on a standardized scale, couple reports of marital happiness on a single item improved as a result of intervention (Gottman & Ryan, 2005). Marital friendship was a central feature of program content. According to Fowers (2000), “a couple creates a strong marriage by embracing a set of ideals and goals toward which the partners strive together” (p. 4). Marital virtues such as friendship and partnership warrant increased evaluation as a primary program content. For a more complete discussion of variety in program content, see Appendix E.

Marital health or quality is a complicated and multifaceted construct. Although satisfaction and happiness are a part of marital quality, research has repeatedly shown that marital happiness varies over the life course, and that most couples stay together despite low levels of reported satisfaction (Orbuch, House, Mero, & Webster, 1996). Existing measures of marital satisfaction do not adequately measure personal commitment to marriage, or other marital virtues that contribute to marital longevity and health including forgiveness and partnership. In addition, many couples are very happy with their marriages, despite not having had any skills training or formal marriage education. It is plausible that the presence of virtues such as fairness and generosity in these marriages contributes to happiness. I wonder how measuring marital virtue might add to our understanding of marital quality beyond what we know from traditional measures of marital satisfaction.

Lastly, in the field of marriage education, we have extensively examined marital satisfaction, but we do not know much about how to influence marital stability. This is an outcome variable that also warrants more attention. Is marriage education contributing not only to couple satisfaction but also to a decrease in the divorce rate? If it did, this finding would provide increased strength and importance to the marriage movement.

### *Conclusion*

Extensive efforts were made to find and code every evaluated marriage education program. Sixty nine articles/reviews were found; these articles yielded 102 studies and 457 effect sizes. These studies were coded and discussed by Ph. D.-trained raters. This process accomplished 100% inter-rater reliability. The effects computed in this meta-

analysis show that marriage education has moderate positive effects on marital satisfaction/quality and communication outcomes. These effects were strongest for medium and high intensity programs and for couples married six to ten years. Effects were also greater for pre-post, one-group designs at post-test.

The strength of meta-analytic work is the ability to look across study design, sample, setting, and method and answer the big question: Does it work? Moreover, meta-analysis can explore across studies what factors produce stronger effects (at least when the body of work is mature enough to support such analyses). Many individual studies have suggested that marriage education works, but a single study cannot address the big question of efficacy. Other meta-analytic reviews have approached the question, but due to various limitations (explained previously) they have not provided an adequate answer. The general conclusion I draw from this population of marriage education research is that marriage education efforts have moderate, positive effects. The results of this meta-analysis allow us to state with confidence: Yes, marriage education works.

Of course, a confident affirmation does not mean that there is no more work to do. Indeed, there are many more important questions waiting for a confident answer. Does marriage education work for more diverse and disadvantaged couples? What program content and settings are most effective? It is my hope this focus on marriage education will continue and that the efforts of professionals, community leaders, and policy makers will address the means and the meanings by which we can make marriage education more effective. The culture of an individual couple (the shared meanings, beliefs and values they bring to the marriage or come to over time) may suggest much about how and why some couples benefit more from marriage education than others. This is a beginning; it is

also a call for more diversity, more evaluation of the work being done by the grass-roots marriage movement, and more research into the best marriage education practices.

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## Appendix A

### Marriage Education: Professional Efforts, The Marriage Movement, and Public Policy

Though the quantitative examination of program research has reinforced the value of marriage education in general, a thorough qualitative discussion of the current state of marriage education is absent in the literature. The time has come for a more comprehensive look at marriage education. The following conceptual review will explore both the history and current state of the marriage education movement, marriage policy, and examine specific programs through a sophisticated and descriptive framework of marriage education.

Marriage education is a significant phenomenon throughout the United States. It includes a broad range of efforts that include everything from pamphlets and billboards to organized retreats and communication training classes. According to the Coalition for Marriage, Family and Couples Education, marriage education is “a broad range of educational practices, curricula and programs that prepare, teach and equip individuals and couples at any stage of a relationship with the knowledge, skills and attitudes necessary to form and sustain healthy marriages” (<http://www.smartmarriages.com/training.html>). Mental health professionals, clergy, and community members have become strong supporters of marriage education efforts. Marriage education has reached into high schools, the military, even the healthcare system. Currently, marriage education is at the center of public policy efforts to strengthen families. The following sections will describe the emergence of marriage education. Three distinct, but integrated forces have influenced marriage education today: professional marriage education, the marriage movement and public policy.

### *The Professionalization of Marriage Education*

As early as the 1930's marriage education efforts in the United States were begun by therapists seeking an approach to help couples adjust to marriage (Sayers, Kohn, & Heavey, 1998). In 1962, David and Vera Mace made these efforts more preventive by offering weekend retreats to couples as an opportunity to renew their commitment and attention to marriage (Dyer & Dyer, 1999). The Maces determined that couples needed support and marriage enrichment long before their problems damaged their marriages to the extent that these couples needed therapy. A decade later, the Maces founded ACME (Association for Couples in Marriage Enrichment), an organization dedicated to helping couples improve their marriages by actualizing the strengths already present in their relationships (Dyer & Dyer, 1999).

#### *Clinical Impact*

An important legacy of the Maces' work was the interest of other marital therapists in prevention efforts and relationship enrichment. According to the AAMFT website ([http://www.aamft.org/faqs/index\\_nm.asp](http://www.aamft.org/faqs/index_nm.asp)), over the past 35 years there has been a 50-fold increase in the number of marriage and family therapists. This has impacted the development of marriage education content, methodology, and evaluation. In the 1970's and 80's, a significant number of relationship programs (Couple Communication, PAIRS, PREP, Relationship Enhancement, and The Marriage Survival Kit) were developed and evaluated by therapists who worked with couples and families.

Though their primary theoretical foundations vary, each program was shaped, in part, by behavioral theory and skills-training approaches, which emphasize the dynamics of marital interaction including the exchange of communication behaviors. Karney and

Bradbury (1995) assert, “Research in this tradition has concentrated on behaviors exchanged during problem solving discussions and has been guided by the premise that rewarding or positive behaviors enhance global evaluations of the marriage while punishing or negative behaviors do harm” (p. 20).

United in their clinical history and behavioral foundations, the most well-known marriage education programs require systematic, authorized training for group leaders, empirical support for treatment outcomes, and program manuals that outline specific skill interventions. Another legacy of these clinical therapists and researchers is a science-based model for program evaluation including formal assessment of couple communication and satisfaction (Doherty & Carroll, 2002). Professional marriage education today continues to be guided by the empirically supported work of therapists and evaluation researchers.

### *The Marriage Movement*

Although the marriage movement did not begin to gather momentum until the 1990s, the emergence of marriage education efforts by respected members of the community began in the early 1960s. These efforts by religious leaders marked the advent of an integrated approach to marriage education, relationship enrichment within church communities and among neighbors. Although the work of researchers and therapists has been important to the practice of marriage education, by any reasonable analysis, local, non-professional efforts, such as the Marriage Encounter program, now dwarf the efforts of professionals. In a direction opposite to marital therapy, marriage education has resisted increased professionalism and professional regulation. The practice of marriage education has become less managed, controlled, and directed by

researchers and research-based programs. Among the general public, marriage education in the past decade has become less specialized and less clinical.

In 1962, Father Gabriel Calvo offered a series of conferences, which he called marriage retreats, to couples in Barcelona, Spain. By the end of the decade, priests and lay couples were conducting workshops for couples in several cities in the United States. The World Wide Marriage Encounter is now offered in more than 90 countries and has involved over 2 million couples (Elin, 1999). The purpose of these weekend retreats is to provide couples with an escape from their regular routines and time together to examine marital strengths and weaknesses. The basic Marriage Encounter program broadened into three national organizations: National Marriage Encounter, which is nondenominational; Worldwide Marriage Encounter, which is used by 13 denominations including Baptist, Roman Catholic, Jewish, Presbyterian, and Lutheran congregations; and United Marriage Encounter, which serves several Protestant denominations.

Clergy, and community members have become increasingly involved in strengthening the institution of marriage. Religious leaders are a significant force in the marriage movement. The success of Marriage Savers and Catholic Encounter demonstrates the strength of this movement. Between 1986 and 2005, Michael and Harriet McManus and their Marriage Savers program helped religious leaders in 200 cities implement a Community Marriage Policy (<http://www.marriagesavers.com/MarriageSaversOverview.htm>). According to these policies, clergy members agree to require premarital education of couples marrying in the church and to train mentor couples to help premarital, engaged, troubled, separated, and divorced couples in the community. All of these efforts have survived and succeeded because of the willingness

and energies of volunteer couples, which seems to signify a substantial, nation-wide belief in the value of marriage education.

The Catholic Church has continued to be a major proponent of marriage education. According to a national survey in 2003, Catholic Engaged Encounter, a premarital education program, was used in 121 of the 195 dioceses in the United States (<http://www.usccb.org/comm/archives/2004/04-184.htm>). The survey results indicated that 81 percent of interviewed couples had some type of premarital education program and 128 of the 130 dioceses surveyed had a policy requiring premarital education. Many other religious denominations now are active in promoting premarital education and marriage enrichment programs.

Perhaps the strength of the grass-roots interest in marriage education can be seen best in Diane Sollee's Coalition for Marriage, Family and Couples Education. The Coalition's Smart Marriages conference has received increased enrollment and attendance each year since its Coalition's 1996 conception. Sollee claims that the Smart Marriages electronic newsletter goes out almost daily to more than 15,000 subscribers. At the annual conferences, nearly 400 individuals receive specific training as marriage educators. While the Coalition appreciates academic research and the interest of mental health professionals, it also supports programs and efforts delivered by non-professionals. In fact, the Coalition has encouraged and called for more "out of the box" marriage programs, which require no specialized training for program leaders.

### *Public Policy*

Marriage policy efforts began to take shape after the marriage movement began to pick up momentum. These efforts started to receive widespread political focus and

support in the 1990's as the social and economic costs of marital breakdown became increasingly apparent. Prior to this time, marriage education programs were more isolated, delivered by therapists and clergy within their own communities. The 1970's and 80's were a time when marriage was at the center of competing social ideals. Effects of the industrial, and sexual revolutions challenged traditional ideas of healthy marriage and family relationships. The individual's search for independence and happiness permeated popular culture; at the same time, marriage was held up as an ideal for lifelong personal fulfillment. The pre-nuptial agreement and the soul-mate dream became part of our social lexicon and individual expectations.

According to the marriage scholar and therapist Blaine Fowers (2000), "In the second half of the twentieth century, the demand for personal happiness became the central imperative in our lives, and we increasingly judge the adequacy of our marriages by whether they contribute to our happiness" (p. 70). No-fault divorce laws made leaving an unhappy marriage easier than it had ever been; in the early 1980's divorce rates peaked. Cohabitation became more popular; in fact, half of all first marriages and two-thirds of second marriages were preceded by cohabitation (Bumpass & Lu, 2000; U.S. Census Bureau, 2000). According to the U.S. Census, in the late 1990s, more than five million people (about 5% of all households) reported that they were cohabiting. Professional marriage education efforts and the marriage movement gained strength in reaction to some of these social trends.

Once a condition is defined as a national problem, a social dialogue develops around the trend and the problem becomes a focus of public policy (Moen & Coltrane, 2004, p. 549). In reaction to the debate regarding cohabitation, the rise of divorce rates

and the number of out-of-wedlock births, a growing body of research began to document the health, social, emotional, and economic impacts of disrupted marriages (Amato, 2001; McLanahan & Sandefur, 1994; Waite & Gallagher, 2000). As the economic, mental, and physical health benefits of marriage for both adults and children became well documented, the U.S. government became progressively more involved in promoting healthy marriages. The weakening of the institution of marriage and the social problems—particularly poverty—that accompanied it have become a matter of political discussion and policy.

Marriage education is now at the center of public policy efforts to support healthy marriages and families. On August 22, 1996, Congress reported the following: “(1) Marriage is the foundation of a successful society. (2) Marriage is an essential institution of a successful society which promotes the interests of children” (104<sup>th</sup> Congress, 1996). The U.S. Congress and President Clinton then enacted the Temporary Assistance for Needy Families law (TANF), a broad welfare policy reform effort designed to help families become more self-sufficient, reduce teen and unmarried pregnancy, provide state incentives for reduced numbers of teen pregnancies and abortions, and reform food stamp guidelines. Several policies proposed through this legislation were founded on research that shows the most effective way to raise children within families and to increase the economic resources to women and children is to promote healthy marriages, two-parent families, and involved fatherhood.

Building upon this foundation, the Healthy Marriage Initiative (HMI) was proposed by the Administration for Children and Families in 2002 as a response to President Bush’s pledge of unprecedented support from his administration for

strengthening marriage. President George W. Bush explained his support for the HMI: “to encourage marriage and promote the well-being of children, I have proposed a healthy marriage initiative to help couples develop the skills and knowledge to form and sustain healthy marriages...Through education and counseling programs, faith-based, community, and government organizations [the HMI will] promote healthy marriages and a better quality of life for children”(http://www.acf.hhs.gov/healthymarriage/about/mission.html). In connection with the TANF program, the HMI supports skills-based marriage education for couples and individuals to reduce conflict and provides the public accurate information about the value of marriage (Rector & Pardue, 2004).

Responding to federal invitations, many states are exploring ways to promote marriage education. According to a Center for Legal and Social Policy review of marriage policy, by Ooms, Bouchet, and Parke (2004), “Since the mid-1990’s, every state has made at least one policy change or undertaken at least one activity designed to promote marriage, strengthen two-parent families, or reduce divorce” (p. 10). Because they have enacted a comparatively high number of marriage-related activities, seven states (Arizona, Florida, Louisiana, Michigan, Oklahoma, Utah and Virginia) were identified as “high activity.” Each of these states has done some of the following activities to promote healthy marriage: launched initiatives, established marriage commissions, held summits or media campaigns, issued proclamations, or published handbooks. Six states (Arizona, Florida, Maryland, Minnesota, Oklahoma, and Tennessee) have ratified laws to reduce marriage license fees for couples who participate in marriage preparation classes or counseling. Three states (Arizona, Arkansas, and Louisiana) offer couples the choice to be married traditionally or under a covenant

marriage contract, which requires counseling or education before marriage, and marital counseling when problems threaten a marriage. Unfortunately, the success of these efforts is not clear because divorce rates are not reliably reported (Parke & Ooms, 2002).

Two states, Oklahoma and Florida, have led the nation in marriage education efforts. Government officials in Oklahoma have used TANF funds to launch an unprecedented, state-wide effort to build an infrastructure for promoting and delivering marriage education, with special attention to needy and low-income families. These states have succeeded in these efforts because of the synergistic dedication to marriage of professional educators, community leaders and policy makers. Former Governor Frank Keating's (and current governor Brad Henry's) goals were to reduce Oklahoma's 44 percent divorce rate by one-third before the year 2010, and also to reduce child abuse and neglect, the number of out-of-wedlock births, and drug and alcohol addiction (Johnson, et al., 2002). The Oklahoma Marriage Initiative (OMI) makes relationship skills workshops (PREP and Becoming Parents programs) available to married and premarital couples in many counties across the state (<http://www.okmarriage.org/Services/index.asp>). The OMI, by means of training workshops, a research-based website, newspaper articles and forums, also seeks to unite businesses, educators, clergy, therapists and counselors, and legislators in promoting healthy families. In fact, PREP workshop leaders have been recruited from each of these sectors.

In 1998, then Governor Chiles of Florida signed the Marriage Preparation and Preservation act that required marriage education as a part of public high school curricula, and reduced marriage license fees for couples that completed at least four hours of marriage preparation. All couples applying for a marriage license must sign a

statement indicating they have read a handbook on the legal aspects of marriage and divorce created by the Florida Bar Association. In 2003, current Governor Jeb Bush of Florida signed the Strengthening Families and Marriage Initiative. As part of this initiative, the Commission on Marriage and Family Support was created. This commission provides resources and education, including parenting and relationship skills programs. The Big Bend Community-Based Care organization is currently conducting research and working with families in eight Florida counties. This organization is focused on families in the child welfare system; the project is based on John Gottman's Sound Marital House program. These state- and nation-wide efforts to promote healthy marriages underscore the social value of marriage and the importance of effective marriage education. As individual states have sought ways to meet TANF goals, marriage education has been a principal focus. In fact, marriage education seems to be at the core of public policies to strengthen marriage.

### *Synergistic Efforts*

Family life education, the marriage movement, and public policy efforts are integrated and synergistic forces. Professional educators have begun offering formal marriage programs through community outlets such as religious organizations. By involving trusted community members, program effects are strengthened (Laurenceau, Stanley, Olmos-Gallo, & Markman, 2004). Family Life Educators have also worked with policy makers to implement and integrate research-based programs into state law. Policy makers have become aware of the efforts made by professionals and the citizen-led grass-roots marriage movement, and have offered incentives and grants to developers of effective marriage programs.

State-level policies often involve multiple sectors of a community, including business, clergy, and education. Leaders in the grass-roots marriage movement have called for programs that can be directed by community members. Given the grass-roots nature of the movement, there is a great diversity in the delivery, content, methods, and settings involved in marriage education. This diversity represents a strength. Efforts by spiritual leaders and community members have made marriage education increasingly dynamic and democratic. These efforts, with the support of professional educators and policy makers have become part of a movement, which targets more people and creates fewer access barriers. (For a complete review of the history and rationale of marriage promotion efforts, see the Institute for Family Values (2004); see also Ooms, 2005.)

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## Appendix B

### Inclusion and Exclusion Criteria Rationale

In meta-analytic work, decisions of study inclusion and exclusion define the population of literature examined. These decisions are what sets this particular work apart from other meta-analytic reports. What follows is a discussion of the rationale behind inclusion and exclusion decisions made for this report.

#### *Quasi-Experimental Evaluation Studies*

Clinical efficacy describes the results of an intervention which, by the means of rigorous methodology, has established its benefit for a specific population. “Efficacy studies of treatment optimally are randomized, controlled clinical trials with well-defined protocols, multiple outcome criteria, and independent treatment evaluators” (Pinsof & Wynne, 1995, p. 341). The advantages of random assignment and control groups are that they allow a researcher to account for a significant amount of between-group variation, and to then conclude that group differences are accounted for by the applied intervention. The disadvantage of using this methodology is that it sterilizes away the true variation that exists in life, outside the clinic and laboratory. “The results of efficacy studies are often difficult to translate into recommendations for therapy under more "normal" conditions” (Pinsof & Wynne, 1995, p. 341). When experiments are done with control groups and random assignment, the real-life applications of our conclusions come into question. Further, this type of methodology isn’t transportable; it is available to researchers with grant funding, but it is not cost effective for nor accessible to “in-the-trenches” marriage educators. If this meta-analysis included only true experimental

studies, it would exclude many mainstream education programs and therefore not portray an ecologically valid picture of the current marriage education movement.

Although quasi-experimental and pre, post-program comparison studies are less able to identify all sources of error, which may have an influence on effect size, they do represent a more realistic estimate of education done in the field. In an effort to assess the effectiveness of what is happening in the marriage movement, I chose to include quasi-experimental reports, and not to exclude studies on the basis of methodology alone. Marriage education is voluntary, non-randomized, and a review of this work should include methods that represent the “in-the-trenches reality.”

In order to account for the tendency of experimental and quasi-experimental studies to yield statistically different effect sizes (Shadish, Ragsdale, Glaser, & Montgomery, 1995), randomization produced significantly larger effect sizes than quasi-experimental studies, I have examined these types of studies separately. According to Lipsey and Wilson (2001), if less stringent methodological studies are included in a meta-analysis, methodology can be coded and then used to compare effects across studies. Consequently, I have used the quality of study methodology as a moderating variables in this analysis. In sub-group analyses, I have examined the effects of experimental, quasi-experimental, pre-post one study, and post-program study comparisons separately.

#### *Education vs. Therapy*

The second key inclusion decision involved which types of programs to include in the meta-analysis. The marriage education movement is not at a place where creating a definition of inclusion is a priority; definitions create limits and the movement does not yet seem to be heading in the direction of establishing its limits. Perhaps there is wisdom

in not trying to define what marriage education does and does not include. Guerney and Maxon (1990) proposed: "...sharp demarcation between problem prevention, enrichment, and therapy have not, and perhaps cannot and should not, be made" (p. 1127). In the Reardon-Anderson, Stagner, Macomber, and Murray (2005) study, researchers chose not to make a distinction between therapy and education. They included any study that reported its goal to be relationship improvement. Consequently, their meta-analysis included education, therapy, and counseling programs; in fact, 19 of the 39 studies included in their analysis were one-on-one therapy programs.

According to the Handbook of Research Synthesis, "...one meta-analysis might lump into a single category studies that a second meta-analyst sees as crucially different, thereby obscuring a distinction that is crucial to the second meta-analyst's reasoning and research" (Hall, Tickle-Degnen, Rosenthal, & Mosteller, 1994, p. 26). I have chosen to make a distinction between therapy and education programs; further, I have specifically chosen to exclude therapy programs and interventions. I do not believe that clinical and educational interventions are the same phenomenon; moreover, the Reardon-Anderson study already reports such results.

Furthermore, policy efforts specifically target marriage education for pragmatic reasons. If the current meta-analysis were to find a large effect for marital therapy and subsequently inform policy makers that therapy is what produces significant gains for couples, the practical implications of this finding would render it unhelpful. The realities of bringing about policy initiatives that are therapy-oriented are much more difficult than bringing about marriage education; the training and implementation of this type of public policy would be onerous. Marriage education is much more realistic at a community

level. With respect to dosage, it is also more practical as a first line of defense. We already have an infrastructure for marital therapy; we still need that for preventative work.

Although the line is not always clear, several researchers have attempted to make a distinction between therapy and education. According to Berger and Hannah (1999), educational, or preventative, programs are more didactic, structured, time-limited, and skill-based than therapeutic, or “remedial,” approaches (pp. 2-3). Educational enrichment programs target non-distressed couples and are designed to help couples before they experience significant problems. In their review of marriage enrichment programs, these authors describe three levels of program intervention. The primary level is clearly enrichment, helping healthy couples prepare for future challenges before they happen. At the secondary level, programs are preventative, designed to help at-risk couples cope with current challenges and intervene before these problems get worse (Berger & Hannah, 1999, p. 4). The tertiary level describes therapeutic programs, which target distressed couples and are considered remedial rather than preventative.

In a similar effort to distinguish family education from family therapy, Doherty (1995) proposed a hierarchical *five-levels-of-involvement* model of family intervention. The level of involvement with a couple or family increases as one moves up the hierarchy, again suggesting that the more involved one becomes with a family the more therapy and less education they provide. The tasks of family educators are relevant to levels two through four and include providing information, creating a collaborative environment, encouraging participant disclosure and discussion, and at times, working specifically with families with special needs. The amount of family involvement at the

fifth and most involved level is described as therapy and is distinct from the work of educators. According to Doherty (1995), “Family therapy generally involves an extended series of family sessions aimed at treating serious psychological and family problems by stimulating significant change in family interaction patterns” (p. 356). Family therapy efforts include managing intense distress and conflict, as well as discussion around family of origin and mental health issues that go beyond education.

According to DeMaria (2005), marriage education typically describes skills-based, group intervention (p. 2). Programs such as PREP, Relationship Enhancement, Couple Communication, and PAIRS clearly fall within this description. Each of these well-researched programs is targeted for groups of engaged or married couples and led by trained, though not necessarily clinically licensed, instructors who teach relationship skills and help group members practice these skills. Community initiatives, which promote marriage preparation, marriage enhancement and divorce prevention skills, also fall within the rubric of marriage education.

Of a certainty, setting, method of instruction, group size, couple characteristics, and discussion content are factors that contribute to an accurate definition of marriage education. However, I tend to agree with Doherty (1995) who suggested, “Perhaps no issue has plagued the profession of family and parent education more than how to distinguish education from therapy” (p. 353). For example, when a therapist meets with one or two couples in a therapy clinic and teaches communication skills or administers a relationship enrichment program, is that marriage education? When a therapist provides skills training within the context of marital therapy, should it be included in a review of marriage education efforts? When a marriage education program requires a significant

temporal and financial commitment, is offered to only a few couples at a time and is conducted by a licensed mental health professional, is it still “education?” To add to the confusion, DeMaria (2005) explains that while therapy, education, and enrichment are theoretically distinct, there is a great deal of practical overlap. She proposes: “...a linear model in which treatment and education occupy opposite ends of a continuum may be less useful than a systemic model that explores overlapping dimensions that can provide a wider range of intervention strategies for couples” (DeMaria, 2005, p. 252).

For the sake of cleanliness and precision in this meta-analysis, I was forced to draw a definitive line, admittedly one that is much less clear in the practice of marriage education. Because I encourage a broad view of marriage education, I acknowledge the possibility that therapeutic endeavors may include educational activities (while educational activities typically avoid therapeutic endeavors). However, if I included all interventions, possible differences between therapy and education may be obscured, and those differences have potential impacts on effect sizes. Because I do not put myself forward as an expert on the issue, I have taken what study authors have reported at face value. Interventions that study authors describe as therapy or counseling were excluded. Furthermore, while I believe that a meta-analytic reviews of marital therapy interventions have been helpful both to clinicians and educators, the purpose of this study is to evaluate programs deemed by their developers—many of whom are therapists—as primarily educational rather than therapeutic.

Furthermore, if I found that marital therapy had the greatest effects, then I would be forced to recommend that marriage therapy become more widely available to all couples. This would require a tremendous amount of resources; and in our current

healthcare system and social structure, it would be an unreasonable recommendation. It is not my desire to suggest to policy makers that marital therapy would be beneficial to every couple; instead, I recommend a public health model, which promotes less intensive more far-reaching intervention work. Developing more integrated, less intensive, low-cost interventions is particularly important for low-income couples whose resources make participation in traditional psycho-educational programs difficult (Dion, 2004), and who may be at greater risk for marital distress than more educated, higher income couples (Martin & Parashar, 2006). For these reasons, I believe that a meta-analytic review of marriage education studies should not include therapy interventions.

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## Appendix C

### Reference List of Articles Used in the Meta-analysis

#### Key

\*\* = Coded Articles

\* = Uncode-able Articles

+ = Data replicated in another Article (not coded as a unique study)

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## Appendix D

### Codebook for Marriage Enhancement Programs

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#### *STUDY IDENTIFICATION*

1. Study Code
2. Study Title
3. Authors
4. Year (Mark with an \* if data was collected more than 10 years prior to publication date)
5. Type of Publication
  1. Journal Article
  2. Book or Chapter
  3. Doctoral Dissertation
  4. Master's Thesis
  5. Other
6. Study quality/Empirically Supported Treatment
  1. Experimental – Random Assignment to Groups (couple assigned to group by researcher), and Control Group (no treatment, delayed treatment, comparison group)
  2. Quasi-Experimental – Non Random Assignment to Groups (groups formed themselves – 1<sup>st</sup> 20 callers or this church group...), and Control Group
  3. Pre-post – No Control Group
  4. Post only – Post hoc analysis

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#### *SUBJECTS*

7. Total Number of Subjects (Individuals) who started the intervention program and completed pre-assessment (multiply by 2 if N is reported for number of couples).
8. Total Number of Subjects (Individuals) who finished the program (multiply by 2 if N is reported for number of couples).
9. Rate of Attrition (%) for entire sample \_\_\_\_\_
10. Rate of Attrition (%) for treatment group \_\_\_\_\_  
999. Not Reported
11. Rate of Attrition (%) for control group \_\_\_\_\_  
999. Not Reported

12. Subject Gender
  1. Female Majority (over 67%)
  2. Male Majority (over 67%)
  3. Women and Men (roughly equal numbers)
  
13. Subjects' Marital Status
  1. High school students
  2. Single college students
  3. Married college students
  4. Single adults
  5. Engaged Couples
  6. Married and/or co-habiting adults
  7. Divorced adults
  8. Sample included several of the above groups
  
14. Average Age of Male Subjects
  1. 15-20 years
  2. 21-25 years
  3. 26-30 years
  4. 31-40 years
  5. 41-50 years
  
15. Average Age of Female Subjects
  1. 15-20 years
  2. 21-25 years
  3. 26-30 years
  4. 31-40 years
  5. 41-50 years
  
16. Was this a North American Sample
  1. Yes
  2. No
  
17. Was the Ethnicity of Subjects explicitly reported?
  1. Yes
  2. No
  
18. Ethnicity of Subjects (reported and/or inferred)
  1. Virtually no diversity (less than 10% of sample)
  2. Some diversity (10-25% of sample)
  3. Sufficient diversity (25-33% of sample) – representative of national population
  4. Significant diversity ( more than 33% of subjects not part of dominant group)
  5. Unknown (no way to infer)

19. SES of Subjects
  1. Primarily Middle-class
  2. Primarily Low Income
  3. Mixed Middle and Lower class
  4. Not reported
  
20. Husband's Average Education
  1. Some High School
  2. High School Degree
  3. Some College
  4. College Graduates
  5. Post Graduate Education
  6. Not reported
  
21. Wife's Average Education
  1. Some High School
  2. High School Degree
  3. Some College
  4. College Graduates
  5. Post Graduate Education
  6. Not reported
  
22. Average relationship length
  1. 0-2 years
  2. 3-5 years
  3. 6-10 years
  4. 11-15 years
  5. 16-20
  6. No relationship
  7. Not reported
  
23. Percentage of Distressed Couples \_\_\_\_\_  
 999. Not Reported

---

*PROGRAM DESCRIPTION*

24. Program Name \_\_\_\_\_
  
25. Type of Program
  1. Education in high schools on the value of marriage, relationship skills, and budgeting
  2. Pre-marital education and skills training
  3. Transition to parenthood
  4. Marriage enhancement and skills training

26. Primary Program Content (Explicitly taught/presented during the program)
  1. Communication Skills Training
  2. Expectations & Knowledge (Specific Informational Topic Discussions – Finances, Sexuality, In-laws, Parenting)
  3. Motivation/Virtues (Intimacy, Commitment, Friendship)
  4. Content determined by couple discussion (not a pre-determined program content)
  
27. Secondary Program Content (Information taught or inferred by subjects during the program)
  1. Communication Skills Training
  2. Expectations & Knowledge (Specific Informational Topic Discussions – Finances, Sexuality, In-laws, Parenting)
  3. Motivation/Virtues (Intimacy, Commitment, Friendship)
  4. Content determined by couple discussion (not a pre-determined program content)
  5. None
  
28. Was the program didactic-based or self-guided?
  1. Didactic-based
  2. Mostly didactic-based (60-80%) and some self-guided
  3. Roughly equal didactic and self-guided components
  4. Self-guided
  5. Mostly self-guided (60-80%) and some didactic-based
  6. Not Reported/Unknown
  
29. Did the program utilize a video?
  1. Yes
  2. No
  3. Not Reported/Unknown
  4. Probably Yes
  5. Probably No
  
30. Did the program ask couples to role-play situations?
  1. Yes
  2. No
  3. Not Reported/Unknown
  4. Probably Yes
  5. Probably No
  
31. Did the program delivery use group discussion?
  1. Yes
  2. No
  3. Not Reported/Unknown
  4. Probably Yes
  5. Probably No

32. Did the program use workbook exercises/homework between sessions?
1. Yes
  2. No
  3. Not Reported/Unknown
  4. Probably Yes
  5. Probably No
33. Did the program use support groups/mentor couples for between session or post-program support?
1. Yes
  2. No
  3. Not Reported/Unknown
  4. Probably Yes
  5. Probably No
34. Number of hours spent in follow-up or booster sessions:  
999. Not reported/Unknown
35. Program Length, total # of hours \_\_\_\_\_ (total time in program)  
999. Not Reported/Unknown
36. Dosage (total time in program)
1. Low (1-8 hours)
  2. Moderate (9-20 hours)
  3. High (21+ hours)
37. Program Setting (Primary)
1. Church
  2. Therapy Clinic
  3. Health-Care
  4. High-school or University Class
  5. Community (YMCA, library, mother's group, shelter)
  6. Military
  7. Unspecified
  8. Prob. Univ./Therapy
38. Program Setting (Secondary)
1. Church
  2. Therapy Clinic
  3. Health-Care
  4. High-school or University Class
  5. Community (YMCA, library, mother's group, shelter)
  6. Military
  7. Unspecified
  8. None

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## METHODS

### 39. Timing of Data Collection

1. Pre – Program only
2. Post – Program only (within 1 month following the program)
3. Pre, Post – Program
4. Pre, Post, Follow-up
5. Pre, Post, Multiple Follow-ups
6. Pre, Multiple Follow-ups

### 40. Timing of Follow-up (1) from post-assessment

1. 1-3 months
2. 4-6 months
3. 7-9 months
4. 10 months to 1 year
5. Longer than 1 year
6. None

### 41. Did the study have more than 1 Follow-up?

1. Yes
2. No

42. Timing of the last Follow-up \_\_\_\_\_ months (from post-assessment)

### 43. Did the study use Subject Self-Report measures?

1. Yes
2. No

### 44. Did the study use a Standardized Relationship Satisfaction Scale (RDAS, LMAT)?

1. Yes
2. No

45. **List** the Satisfaction scale used \_\_\_\_\_.

999. None

### 46. Did the study use a Standardized Communication Scale?

1. Yes
2. No

47. **List** the Communication scale used \_\_\_\_\_.

48. Did the study use an Observed Communication Task?
1. Yes
  2. No
49. **List** the method of coding used \_\_\_\_\_.
50. Did the study measure Relationship virtues (friendship, commitment, loyalty, intimacy)?
1. Yes
  2. No
51. Control Group
1. Classic No-treatment control group
  2. Comparison control group (received some type of intervention) /Placebo
  3. Wait list control group (delayed)
  4. No-control group
52. Random Assignment to groups (\*after volunteering for the study)
1. Yes (if researcher put couples into groups)
  2. No (if group is pre-formed)
  3. Matched (if characteristics are equal as part of group assignment – not a test of homogeneity)
  4. One group only
53. Did the study report results for men and women separately?
1. Yes
  2. No
54. Did the study conduct group-equivalence analyses?
1. No, it wasn't appropriate for their design (1 group, pre-post program evaluation)
  2. No. (They should have, but didn't)
  3. Yes, they found group differences.
  4. Yes, they found minimal differences, or none.

#### DATA

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\*Refer to data collection software.

CMA identifies the required data based upon the type of methods reported in the article/report. Most studies will require a *mean*, *standard deviation* and *number of subjects* for men and women in each group at each time of measurement.

## Appendix E

### A Multi-dimensional Analysis of Current Marriage Education Efforts

#### Using the CoFraME Model

Hawkins, Carroll, Doherty, and Willoughby (2004a, 2004b) proposed a Comprehensive Framework for Marriage Education (or CoFraME), which encouraged marriage educators to consider an extensive range of practices. These authors called for a far-reaching view of marriage education and thorough attention to each of the following dimensions: content, intensity, methods, timing, setting, target, and delivery. To date, reviews and syntheses of marriage education have not employed this in-depth level of analysis. The following conceptual analysis will discuss each of these dimensions. Although they are not mutually exclusive, each of these dimensions will be discussed separately. For example, a program's use of booster sessions, and self-guided interventions could be features of both program intensity and method.

Guernsey and Maxson (1990) called for increased attention to the specific factors that make enrichment programs most effective, for which populations, and how to make them more marketable. Ridley and Sladeczek (2001) also suggested, "the ultimate goal of program evaluation research is to determine what intervention, by whom, is most effective for which individuals and couples, with which specific problems and needs, under which sets of circumstances" (p. 148). What follows, then, is an analysis of contemporary marriage education through a CoFraME lens.

#### *Content*

According to CoFraME, there are three research-based content areas of marriage education that have been given consideration by program creators. These content

dimensions include skills, knowledge or attitudes, and motivation or virtues. Perhaps the clinical legacy of marriage education is best seen in the skills dimension; where couples are taught how to interact, primarily through empirically supported communication techniques (Gottman & Silver 1999; Markman, Stanley, & Blumberg, 1994, Wampler & Sprenkle, 1980). For most marriage education programs, skills are a part of their primary content. In addition, many programs discuss what to watch out for or be careful of in marriage; they provide a knowledge-based content often secondary to skills-training. Lastly, although some interventions identify the need for commitment (Stanley, Trathen, McCain, & Bryan, 1995), few programs focus on virtues such as generosity and fairness as a component of healthy marriage (Fowers, 2000). To not measure such dimensions in concert with skill outcomes renders them invisible in the assessment of program outcomes. In a study of marriage education among church groups and non-church groups, the authors reported, “Unfortunately, in the outcome literature on marital enrichment there is a confounding of program emphasis and outcome measures. Thus it is difficult to discern whether the stronger results found with skill-oriented behavioral interventions are the result of their skill-oriented approach to marital enrichment or their use of objective behavioral outcome measures” (Noval, Combs, Miinamaki, Bufford, & Halter, 1996, p. 48). Because we simply do not yet know whether skills or the virtues that motivate skill use contribute to couple gains, this content dimension warrants further attention as research by program developers.

*Skills.* A central curriculum element across the best known marriage education programs includes improving marital communication and problem solving. This skills training is based on decades of research on couple communication (Gottman, 1994;

Gottman & Silver 1999; Markman, Stanley & Blumberg, 1994). The speaker-listener technique central to the PREP program, Relationship Enhancement's expresser-empathic responder model, and Couple Communication's awareness wheel are examples of how a few of the well-known couple programs make communication and conflict resolution a primary feature of their educational content. Many mainstream programs, including TIME, PAIRS, PREPARE/ENRICH and SYMBIS, also list communication and conflict negotiation skills as key features of their programs (Berger & Hannah, 1999).

One criticism of most of the major marital programs is that they use a deficit-based model for marital skill-training, emphasizing risk factors rather than protective ones (Sayers, Kohn & Heavey, 1998). Sayers, Kohn, and Heavey suggest that program developers consider a prevention model, which would teach what happy couples do "right" and identify protective factors, such as flexibility. One curriculum that answers this critique is Bodenmann's Couple's Coping Enhancement Training (CCET) program, which "goes beyond teaching communication skills and also addresses the acquisition of coping skills in couples" (Pihet, Bodenmann, Cina, Widmer, & Shantinath, unpublished manuscript, p. 12).

*Knowledge or attitudes.* In addition to the skills-based training component of marriage education, many programs present specific information about common areas of marital stress. Marriage 101, a premarital program offered through Northwestern University, invites students to discuss the following topics: cohabitation, divorce, infidelity, violence, parenting, in-law relationships, parenting, and finances. Learning to Live Together and Growing Together are premarital programs that also emphasize understanding sexual intimacy, financial partnership, and expectations for marriage. The

PICK (Premarital Interpersonal Choices and Knowledge) program, a premarital education program for soldiers, teaches singles about family dynamics and relationship patterns, trust, bonding and commitment (Futris, Van Epp, & Van Epp, 2005). David and Amy Olson's (2000) book, Empowering Couples, is based on the ENRICH program and also encourages couples to discuss specific topics such as money management, sexual intimacy, parenting, and housework.

The CoFraME developers highlight the importance of providing couples with information about the societal and institutional impact of marriage. This information is part of the knowledge and attitudes sub-dimension of content. Nock (2005) argues that as a society we expect maturity, fidelity, economic responsibility, and parenthood from married people and that these expectations are some "of the main reasons for the enormous benefits produced for individuals and societies" (Nock, 2005) [World Family Policy Forum paper]. Unfortunately, these cultural and institutional features of marriage, though important, are currently lacking as an element of most marriage education curricula. I have found little evidence that the major program curricula discuss the value or impact of the institution of marriage on society, the institutional features of marriage, or the impact of culture on individual relationships. Moreover, these factors represent an often neglected feature of program evaluations.

Connections, a program offered to adolescents through their high schools and youth groups, is one exception. The Connections curriculum does emphasize the societal importance of marriage, particularly the impact of marriage on children. According to an evaluation of this program, students that participated in Connections reported an increase in positive attitudes about marriage and less favorable attitudes about divorce compared

to a group of peers (Gardner, Giese, & Parrott, 2004). Marline Pearson (2000), a marriage educator, has observed that the generation of emerging adults carries unprecedented emotional and family stresses. They are using anti-depressants more frequently and taking on parental responsibilities earlier than their parents. Pearson reports that the students she teaches seem to have few, if any, healthy expectations of family responsibility. Essentially, this generation is left alone to figure out how to manage their own lives and simultaneously care for children. She describes her observation as a “new kind of poverty among the young” (p. 5). Pearson’s experiences with college students, many of whom come from lower-income and/or disrupted families, point to the need for marriage education that goes beyond skills training. A generation needs to understand what they have a right to expect from a spouse, what a healthy marriage looks like, and how that marriage impacts children, other marriages, and society in general. Certainly, this aspect of the knowledge and attitudes dimension of educational content deserves more attention from program developers, educators, and evaluators.

*Motivation or virtues.* Though a great deal of research (Gottman & Silver, 1999) points toward the importance of marital communication, the question has been raised: Is marital communication or even relationship satisfaction a good indication of marital quality? In addition to focusing on behavioral couple interaction—what couples do—marriage education might be strengthened by also emphasizing couple attributes—who a spouse is. Carroll, Knapp, and Holman (2005) suggest: “An alternative to this ‘communication-based satisfaction’ definition of marital quality is available in concepts that relate to personal characteristics and focus on what spouses contribute to marriage,

such as generosity, loyalty, sacrifice, friendship, devotion, maturity and goodwill” (p. 273).

Marriage Moments (Hawkins, Fawcett, Carroll & Gilliland, in press) is one program that has attempted to help couples transitioning into parenthood by emphasizing the aforementioned marital virtues. This program offers a marriage education curriculum to couples through a self-guided video and workbook emphasizing marital partnership, generosity, fairness, and loyalty. Some of the more well known educational programs have added a discussion of marital virtues to their basic communication skills content. For example, PREP curriculum emphasizes commitment as one of the goals of conflict resolution, and Gottman’s Sound Marital House model places friendship and positive sentiment as fundamental to good communication.

In a recent study, Gottman, Ryan, Swanson, and Swanson (2003) compared the communication of couples that participated in a friendship workshop with couples that participated in a conflict management workshop. The friendship enhancement curriculum had a greater effect on reducing negativity and its reciprocation during a second conflict discussion than the conflict management curriculum. Marriage is a relationship that involves the well-being of another person, which makes it an inherently moral experience. In the context of a society that heralds the individual pursuit of happiness, discussing virtue within the content of marriage education seems to be an increasingly important content consideration.

### *Intensity*

According to the CoFraME model, the intensity, or dosage, of a marriage education program may occur in low, moderate or high degrees. Providing the right

amount of dosage is essential to program effectiveness and efficiency: too little will not effectively “inoculate” a couple while too much wastes couple and educator resources.

Essentially, the question is: How much of a good thing is enough of a good thing?

*Low-intensity.* A low-dosage marriage education program may direct couples to focus on a just a few basic skills or ideas because content is very specific and direct. Low dosage efforts describe brief interventions and community-level inoculations. Caring Days (LeCroy, Carroll, Nelson-Becker, & Sturlaugson, 1989), which encourages couples to exchange loving behaviors, is an example of a brief and very focused relationship intervention. Because the technique is simple and specific, a low-dosage of program time is needed. According to the program developers, the Caring Days technique requires approximately one hour to administer. Despite the low level of program intensity, couples that participated in Caring Days showed a greater rate of increase in marital satisfaction than couples in a placebo group. Another example of low-dosage marriage education is the Dream Sharing program, in which couples document and share their nighttime dreams (Duffey, Wooten, Lumadue, & Comstock, 2004). The Dream Sharing program offers a four-hour workshop to teach how to understand the Jungian symbolism of dreams, and to discuss intimacy and self-disclosure. Couples who shared their dreams with each other had higher intimacy scores than control group couples and couples who shared daily events only. Couples who shared events reported levels of marital satisfaction comparable to couples that shared dreams; both of these groups reported higher satisfaction than control group couples.

Low-dosage interventions at the community level are not yet a significant aspect of marriage education. A few efforts are underway to employ media campaigns to send

simple, constructive messages to whole communities about forming and sustaining healthy marriages, but I am not aware of any evaluation studies of such efforts to date (Hawkins, Barnes, & Gilmore, 2005).

*Moderate-intensity.* The majority of mainstream marriage education programs are a moderate level of intensity, presented in weekly, 2-3 hour segments for a total of 10-20 hours. This model is true for RE, CC, PREP, TIME, and Growing Together. Several of these programs also offer a weekend seminar option for couples. The Connections program is offered once a week for 15 weeks. These programs represent a moderate level of program intensity because they fall between low and high intensity interventions and because they require a medium time commitment from participants.

A moderate dosage of marriage education also may be indicated by instructor requirements. For example, programs that do not require an instructor to have a professional degree, and programs that utilize lay instructors such as Connections, PREP, Retrouvaille and Marriage Encounter likely qualify as moderate-dosage programs. The psychological depth of the content also influences the level of program intensity. Programs that require intimate discussion of specific couple concerns, and interventions that deal with mental health concerns probably do not represent a moderate dosage of marriage education.

Self-guided marital education, such as Gottman's Seven Principles for Making Marriage Work (1999) and Olson's Empowering Couples (2000) books, allow couples to choose the level of intensity and therefore represent a moderate level of education. Further, workbooks and videos (such as those given to couples applying for marriage licenses in Florida and Utah) allow couples to fit the program to their needs. They may

spend many hours discussing and completing the entire curriculum, or they may choose topics relevant to their situation (such as parenting, money management, sexual intimacy, or conflict resolution) and spend just a few hours discussing those specific topics.

*High-intensity.* Because it is offered over the course of a semester, Marriage 101, a 27-hour program, is a high-intensity program. Pam Jordan's Becoming Parents program is also 27-hours long, 21 hours during pregnancy and two, three-hour classes after the baby is born (<http://www.becomingparents.com/curriculum.html>). Becoming Parents is the only program reviewed that also offers "booster sessions" for couples at a later date (when the baby is 3-6 weeks old and when the baby is 6-months old). Although the evaluation study of this program is not yet complete, it seems that booster sessions for transitioning couples would be particularly helpful, as parents could review program curriculum and discuss practical concerns during the time that they actually face the challenges of parenthood. Because these programs require a significant time commitment, one much higher than other marriage education programs, Marriage 101 and Becoming Parents should probably be designated as high-dosage interventions.

PAIRS is perhaps the most notable high-intensity marriage education program. One marriage educator and scholar stated, "of the many programs described as marriage education, PAIRS is one of the most comprehensive, lengthy and intense" (DeMaria, 2005, p. 7). It is a 4-5 month, 120-hour program offered over the course of 16 weeks (DeMaria, 2005), including weekday and weekend classes. Due to this high level of program intensity, instructors must be licensed mental health professionals and undergo 15 days of training. Because it addresses family-of-origin problems and requires a significant time commitment, PAIRS is described as incorporating aspects of marriage

education, enrichment, and marital therapy. PAIRS appeals to a high number of distressed couples, which indicates that its dosage and/or content do not make it just a preventative program. The depth of content, professional instructor qualification, and significant time requirements place PAIRS in the high-dosage category of program intensity.

### *Methods*

The method of program presentation seems to have the least amount of diversity across studies. In the CoFraME model (Hawkins, et al., 2004), this dimension of intervention describes how a program is taught, including decisions about instructor, couple learning style, and skill maintenance. An instructor's ability to convey understanding, not only of the program material, but also of the participants' life experience, creates trust and may foster increased couple gains. Most of the primary marriage education programs are structured by a didactic element, followed by group or couple discussion and couple exercises or homework. Growing Together, MCCP and TIME, are just a few examples of programs that use group leader presentations, group discussion, and couple exercises as standard methods of content delivery (Hawley & Olson, 1995; Wampler & Sprenkle, 1980). Learning to Live Together uses a video to provide standardized program delivery and to foster group discussion (Hawley & Olson, 1995). PREP also uses video presentations to provide examples of couple interaction that group members can then discuss (Floyd & Stanley, 1988).

Some researchers theorize that couples may respond better to trusted members of their own community than they would to experts outside of their community. This issue is important because increased efforts are currently being made to make marriage

education available to couples from a broader range of socioeconomic and racial/ethnic backgrounds. Laurenceau, Stanley, Olmos-Gallo, Baucom, and Markman (2004) trained religious leaders to offer PREP curriculum to premarital couples in several congregations. Couples that participated in clergy-led groups showed more improvement in positive communication than couples in professor-led university settings. The choice of who leads marriage education groups and what methods will be used to present the information will become increasingly important. Program creators will need to think broadly and creatively about how best to meet the needs of individuals and couples in diverse circumstances.

One example of a program reaching beyond the traditional marriage education audience is Gottman's Sound Marital House program, currently being used to help lower-income "fragile families" in Florida. Many other marriage education programs are beginning to adapt their curricula and methods with lower-income couples in mind. As programs target less educated couples, it may be that formal, school-like, didactic delivery will be less effective; experiential methods may be preferred. Much more exploration of these questions remains to be done.

Self-guided programs represent a creative and flexible methodological approach; these programs require fewer resources (e.g., physical facilities, instructor time), which makes the content potentially available to more people. The Marriage Moments program offered couples a workbook and video to review in their own homes. Couples that completed the program at home reported higher levels of involvement (reading the workbook, watching the video, and doing workbook activities) than couples that participated in the program as part of their childbirth education class (Hawkins, Fawcett,

Carroll, Gilliland, in press). It is interesting that couples actually did more when they were left to explore the program on their own. In another recent study, John Gottman used his book, Seven Principles for Making Marriage Work, as a method of treatment for one comparison group (Gottman, Ryan, Swanson, & Swanson, 2005). This self-guided approach is a creative variation on standardized content delivery. The book, which is full of couple activities, encouraged couple discussion and homework without the need of a group facilitator; however, this group was allowed up to three hours telephone contact with a clinically trained graduate student, which renders this group not completely self-guided. The group that read Gottman's book showed improvement in couple communication, though couples involved in workshops and therapy showed greater gains in both communication and friendship. This study points both to the value of instructor-led intervention, and the power of group support and reinforcement, as well as the potential for more self-guided participation to strengthen relationships.

In a recent study, Duncan, Steed, and Martino (2006) compared traditional and Internet-based marriage education to a control group. Both intervention curricula were based on Gottman's book, Seven Principles for Making Marriage Work. As predicted, traditional education, in which couples discussed topics with a group leader, had the greatest effect on subjects perceptions of love and clear communication (Duncan, Steed, & Martino, 2006). The Internet-based group showed gains, particularly for men, beyond the control group. Clearly, which types of couples and couple circumstances might benefit the most from non-traditional approaches need to be explored further.

Follow-up, or booster, sessions are a methodological issue that most programs do not utilize. As mentioned, Pam Jordan's Becoming Parents program is the only one

located that offers post-program training. This underutilized aspect of marriage education has a great deal of potential power. One flu shot isn't a lifetime inoculation. As couples face challenges throughout their marriages, small, but continued 'dosages' of marriage education may be the most helpful approach. I simply do not know. Indeed, the idea of on-going, regular, continuing educational intervention, though commonsensical, is virtually unexplored,. Professionals well know that continuing education is essential to maintaining their occupational viability. Marriage education programs that offer continuing education "credits" should be explored. Most program evaluation studies provide a measure of pre- to post-program gains. A few programs have evaluated their programs at longer follow-up intervals, a few months or a year. PREP has been the focus of the most extensive follow-up evaluation studies, even 4-5 years post intervention (Stanley, Markman, Peters, & Leber, 1995). Does a single dosage of marriage education have the power to last throughout years of marital change without booster sessions? We need much further exploration of this methodological issue.

### *Timing*

Marriage education began as a preventive effort designed to help couples before they needed therapy. The concept of prevention is that it inherently occurs prior to the development of a problem. This has meant that marriage prevention has typically targeted couples either before they married or within the first few years of marriage, during a time of stressful transition and before couples develop damaging patterns of interaction. As marriage education has grown, programs have begun to target individuals even earlier in the relationship formation process. Several programs have been

developed for adolescents and college-age adults. Perhaps because of its roots in prevention, educational efforts have reached back into the developmental life-cycle.

*Adolescence.* With growing concern about cohabitation and divorce and its impact on children and family relations, more attention and research has been directed toward younger marriage preparation. The developmental tasks of adolescence include differentiation from parents, increased autonomy, and relationship development (Pearson, 2000). Since 1993, seven national programs have been developed that reach adolescents in their schools; Connections: Relationship and Marriage is one of these programs (Gardner, Giese, & Parrott, 2004). It is a 15-lesson program used primarily by teachers and counselors who work with juniors and seniors in high school. This program helps teens improve self-esteem and develop healthy communication skills with parents and peers. It also presents seven lessons on different types of love, faulty mate selection, principles for successful marriages, money management, dealing with crises, the benefits of marriage, and the impact of marriage on children. Compared to their peers, students in the Connections program reported more positive views toward marriage and less positive views of divorce. Students in the Connections program, however, did not show a better ability to resist sexual pressure than other students. Another program for young adults, PAIRS kids, has also been used for almost a decade in Florida middle and high schools. Though it does not address marriage or marital issues specifically, this program teaches communication and conflict resolution skills (Pearson, 2000) with the goal that these skills will eventually help young people develop healthy relationships. Reports from students indicate better communication with parents and better emotional control after enrolling in PAIRS kids. Other traditional marriage education programs such as PREP,

SYMBIS, and PREPARE/ENRICH have also been adapted for adolescent audiences with early success (Pearson, 2000).

*Cohabitation.* Although cohabitation is viewed by many as a transition preparatory to marriage, more young adults are viewing cohabitation as an end unto itself, an alternative to “singleness,” but not a prelude to marriage (Heuveline & Timberlake, 2004; Manning & Smock, 2005; Sassler, 2004). Judith Seltzer reported that in 1970 60% of couples married within the first three years of cohabiting; by 1990 only 35 percent of those couples married. Marriage is more common among those couples that become pregnant or plan to have children together. Despite this trend, cohabitation remains an unstable relationship; over half of couples break up within the first five years, whether they marry or not (Seltzer, 2001). Premarital education programs often have cohabiting couples in them, but usually they have already made the commitment to marry. Marriage education programs designed specifically for cohabiting couples who may have thoughts but no specific plans about marriage also are needed. Many couples eventually “slide” (rather than decide) into marriage (Stanley, Kline, & Markman, 2005) but can develop ineffective relationship habits while cohabiting that reduce the chances of marital success. For those couples who do believe their cohabitation is preparation for marriage, this is a prime time to offer marriage education resources. Cohabitation is also becoming more popular for individuals who have already experienced a divorce. These individuals may be particularly interested in marriage education, and would likely benefit from skills training even more than those who have never been married because they have seen the effects of divorce and are less naïve about the effort it takes to make a marriage work.

*Engagement.* Sayers and Kohn (1998) describe organized marriage preparation efforts for engaged couples beginning as early as 1930. Since that time, a great deal of attention has been given to premarital and engaged couple education. According to Carroll and Doherty (2003): “In an effort to reduce the current rates of marital distress and divorce scholars and educators have advocated for the development and implementation of premarital prevention programs” (p. 105). Hawley and Olson (1995) explain that systemic changes and stress during the transition to marriage make it a prime time for marital enrichment. Growing Together is just one of many programs designed specifically for premarital and newlywed couples; it emphasizes specific topics of concern to most newlyweds including finances, sexual intimacy, family-of-origin, communication and conflict resolution. Carroll and Doherty (2003) reviewed 13 premarital education programs and found that, on average, those who participated in marriage preparation had better communication, conflict resolution and relationship satisfaction than the majority (79%) of those who did not participate.

*Transition to parenthood.* In numerous studies, the transition to parenthood has been documented as a significant challenge for couples (Cowan & Cowan, 1990; Shapiro & Gottman, 2005). The drop in marital satisfaction after the birth of the first child has become one of the most predictable marital trends (Worthington & Buston, 1986). Less time spent together as a couple and greater inequality in the division of household tasks add stress to a marriage. Although the transition to parenthood is becoming a more popular focus of study, until recently there have been few programs focused on couples at this point in their marriages. The Marriage Moments program used a self-guided, virtues-based program to help couples become more intentional and other-centered in

their interactions after the baby (Hawkins, Fawcett, Carroll, Gilliland, in press). Couples that participated in the Marriage Moments program, however, did not report significantly different levels of satisfaction or marital virtue than control group couples. In 2003, a Marriage Moments module was incorporated into the Welcome Baby home visiting program sponsored by the United Way. Again, there was a ceiling effect and therefore no significant differences between participating and control group couples (Lovejoy, 2004).

Shapiro and Gottman's Bringing Baby Home program offers workshops to help couples strengthen marital friendship, reduce negative communication patterns, and better understand their baby's developmental needs. At 1-year after the birth of their child, couples who attended these workshops reported higher levels of marital quality, lower levels of depression, and lower levels of criticism, defensiveness, and belligerence during marital conversations than couples who did not attend the workshop. Notably, couples who attended the workshop maintained pre-birth levels of satisfaction. Couples in the control group decreased in marital quality from 3-months to 1-year after the birth of their child (Shapiro & Gottman, 2005). Pam Jordan is currently evaluating her program, Becoming Parents, which targets new parents and is based on PREP curriculum (data will be available in 2006). This program also includes infant care instruction and information on maternal health issues.

*Mid-life.* Sayers, Kohn, and Heavey (1998) recommend that educators and program developers take a more comprehensive approach to marriage education and theory construction by identifying developmental milestones and trajectories beyond the first few years of marriage. But few programs have been developed to reach forward to

help couples deal with the developmental challenges of middle and later life (Brubaker & Roberto, 1993). A glaringly absent piece of marriage education is the lack of emphasis on marital stresses after the transition to parenthood. According to a review by Karney and Bradbury (1995) of 115 longitudinal studies on marriage, “marriages tend to become more stable but less satisfying with time” (p. 18). Despite the potential need to help mature couples increase their satisfaction and cope with the challenges of marriage, there seem to be very few formal programs specifically designed for couples during this life stage.

Some of the common developmental tasks of mid- and later-life include parenting teens, launching children, coping with the loss of parents, dealing with job stress and eventual retirement, and renegotiating relationships with siblings (Carter & McGoldrick, 1999). Parenting is a long-term, dynamic, stressful marital task, and while several programs offer information to couples prior to parenthood, marriage education does not seem to focus on this aspect of the mid-life marriage. Given the strong evidence that marital quality and parenting quality are reciprocally related to each other (Jenkins, Simpson, Dunn, Rabash, & O’Connor, 2005; Krishnakumar & Buehler, 2000), marriage education that addresses the challenges of parenting beyond the transition to parenthood is needed.

*Later-life.* Brubaker and Roberto (1993) identified a few programs for older adult singles and families, but they also highlight the need for more attention to couples and individuals during this life stage. They sent out a call: “family life educators need to direct more of their attention toward the later stages of the family life cycle and address the changing marital relationships of older persons, including their sexuality and

retirement needs, widowhood, intergenerational relationships and care-giving for dependent elderly persons” (Brubaker & Roberto, p. 218). Unfortunately, empty nesting, retirement, and coping with physical illness are part of marriage that seem to be overlooked by mainstream education efforts. Specific curriculum content developed to help more mature marriages through the challenges of adult life would be a valuable contribution to the field of marriage education.

One educational program designed by Gold and Gwyther (1989) was created to reduce elder abuse by helping couples feel less tension when addressing stressful issues with each other and with their adult children. The primarily didactic curriculum introduced family members to the following areas of potential conflict: finances (inheritance, self-support), function (health and illness, disability), social role (expectations and changes) and emotions (responses to aging). Although this program has not been formally evaluated, couples and family life educators reported that they enjoyed the flexibility of the program and the opportunity to discuss positive solutions to potential problems (Gold & Gwyther, 1989). MATE is a marriage inventory, similar to ENRICH, that is designed for older couples. Programs based on these inventories involve several sessions of feedback from trained clergy members or counselors about inventory results. ([http://www.prepare-enrich.com/about\\_us.cfm?id=33](http://www.prepare-enrich.com/about_us.cfm?id=33)).

*Divorce.* In addition to normative life-cycle challenges, there are also increasingly common family crises. Divorce adjustment is a part of adult life for one-third to about half of the population (Amato, 2001). Divorce prevention is an important consideration for marriage educators, not only when couples are in the early stages of marriage, but also when couples have become emotionally separated and distressed.

Retrouvaille is a Catholic program designed to help separated couples and couples considering divorce “rediscover” their marriage through communication training and couple discussion (<http://www.retrouvaille.org>). According to a recent survey, nearly 600 couples in Michigan have participated in the past decade; 200 of those had filed for divorce prior to attending and 480 (or 80%) were able to work through their problems (<http://www.retrouvaille.org/publicity/saver.htm>). According to the Retrouvaille website, this program has been used by 50,000 couples in the United States and Canada, and has been able to help a large proportion of them work through marital problems. During separation and the transition to divorce, people may be especially open to information to improve their current or next relationship.

According to McKenry, Clark, and Stone (1999), divorce education programs are becoming more popular. These psychoeducational programs frequently teach divorcing individuals about the impact of divorce on children and essential co-parenting skills. Although these programs do not typically discuss the impact of divorce on future marriage or essential marital skills, it would be valuable to do so. Seventy-five percent of those who divorce eventually remarry (Coleman, Ganong, & Fine, 2001). Half of these couples have at least one child together. Unfortunately, these remarriages may be more at risk for divorce than first marriages (Amato, 2001). Second marriages often involve ambiguous roles and complex family dynamics, including less-than-harmonious relationships with ex-spouses and stepchildren. While there have been many efforts directed toward helping children adjust to divorce (Haine, Sandier, & Wolchik, 2003), programs designed to help couples navigate the unique stresses and challenges of remarriage are not as extensive. Adler-Baeder and Higginbotham (2004) outline

important content issues for remarried couples based on extant research on remarriage and stepfamilies, and evaluated a handful of educational programs for remarried couples and stepfamilies against this content. But there are no evaluation studies to date of programs targeted specifically at remarried couples (Adler-Baeder & Higginbotham, 2004).

Both for the sake of theory development and the best practice of marriage education, it would be helpful to be able to compare programs for couples across each marital stage or life-course transition. As the baby boom generation matures, marriage education that highlights the specific challenges of mid- and later-life marriage is becoming increasingly relevant and desired. Unfortunately, little program evaluation work has focused on marriage beyond the transition to parenthood, nor have programs been specifically targeted toward cohabiting or remarried couples.

### *Setting*

In their Comprehensive Framework for Marriage Education, Hawkins, Carroll, Doherty, & Willoughby (2004) challenge educators to consider more critically the location of and potential benefits from adopting an organic, or integrated, approach to marriage education. Many settings lend themselves well to marriage support and education. Because much of the research on marriage education has roots in clinical work, most published and evaluated programs are offered through clinics and universities. Notwithstanding, the marriage movement has taken marriage education into the religious, military, and healthcare sectors. Connections and PAIRS for kids are offered to high school students through their schools, and media campaigns have begun to represent a unique, but far-reaching setting for marriage education. The CoFraME

developers encourage educators to look for opportunities to promote marriage within established settings and systems, such as: home, community, faith-based institutions, education, healthcare, employment, military, media, and government agencies.

*Home and community.* Marriage education that occurs in the setting of the home describes the efforts of parents to instill a healthy view of marriage in their children. Home-based education also describes informal discussions between friends and neighbors. This type of marriage education describes an important part of the marriage culture, but cannot be used in the current meta-analysis because home-based programs are virtually nonexistent and have not been quantitatively evaluated.

Community-level marriage education, however, has undergone more formal dissemination and evaluation. One of the first Community Marriage Initiatives was developed by Mike McManus and a group of religious leaders in Modesto California in 1986. This initiative was called Marriage Savers and its objective was to encourage clergy members to publicly pledge and sign their support to a Community Marriage Policy (CMP). A CMP seeks to strengthen marriage in at least the five following ways: marriage preparation for couples seeking a religious wedding (at least 4 months in length, communication skills training, a premarital inventory, and discussion with a trained mentor); marriage enhancement (annual enrichment retreat); restore troubled marriages (work with a mentor couple); reconcile separated marriages (a course with support for each spouse), strengthen remarriages (stepfamily support groups). Since its conception, Marriage Savers has helped clergy in about 200 cities implement CMPs. Birch, Weed and Olsen (2004) compared CMP county divorce rates with matched counties and found that counties that signed a Community Marriage Policy had a greater decrease (about 2%)

in the divorce rate compared to matched communities without CMPs, a decrease which could not be accounted for by time alone. The effect was modest but present, which the authors remind the reader is significant, particularly given the variability in program delivery and the confounding effects of individual, state, and federal level marriage strengthening efforts. This study provides preliminary evidence that marriage is positively affected by community support. A large-scale, federal study is underway to evaluate the effectiveness of other community marriage initiatives.

*Religion.* Religious organizations represent a trusted, established branch of the community. At a minimum, many religious organizations provide some kind of premarital education in conjunction with religious-based weddings. Increasingly, religious organizations are also providing additional types marriage education services to their congregants. In fact, religious organizations are probably the largest provider of marriage education (Noval, Combs, Wiinamaki, Bufford, & Halter, 1996). Marriage Encounter (ME), an inter-faith program led by clergy members and volunteer couples, has become a world-wide program. Marriage Encounter offers 13 steps that encourage couples to focus attention on commitment and spirituality in marriage and to improve their communication skills (Elin, 1999). In a study of ME effectiveness, couples reported that ME had a positive impact on their communication, intimacy and closeness, and sexual relationship (Elin, 1999).

Clergy members have also been invited to participate as leaders of research-based marriage education programs such as PREPARE/ENRICH ([http://www.prepare-enrich.com/about\\_us.cfm?id=33](http://www.prepare-enrich.com/about_us.cfm?id=33)) and PREP. Laurenceau, Stanley, Olmos-Gallo, Baucom, and Markman (2004) recruited and randomly assigned religious organizations

to provide one of three types of premarital education interventions to congregation members: PREP led by one of the trained religious clergy; PREP led by a trained university therapist; or premarital information and services typically provided by the clergy member. Wives in the clergy-led PREP program showed the greatest declines in negative communication (i.e., withdrawal, denial, conflict, dominance). Wives in the other two groups showed less decline in negative communication. There were no group differences for husbands' negative communication over the course of the study.

Husbands and wives who participated in the clergy-led PREP program showed no change in positive communication (i.e., support, problem-solving, validation) over the course of the study. Husbands and wives who participated in the normal marriage-preparation activities with their clergy (without PREP) showed declines in positive communication compared with the clergy-led PREP group. Wives in the university-therapist-led PREP group also showed declines in positive communication; husbands in this group showed no change in positive communication. The authors of this study concluded that couples responded most positively to marriage education led by the clergy, a trusted member of their community.

*Education.* Over the past 30 years, the formal training of marriage professionals has significantly increased and the study of marriage has received widespread recognition as an academic pursuit. According to the AAMFT website ([http://www.aamft.org/faqs/index\\_nm.asp](http://www.aamft.org/faqs/index_nm.asp)), over the past 35 years there has been a 50-fold increase in the number of marriage and family therapists. Family focused undergraduate programs, including training for Certified Family Life Educators, have also become more popular. As more universities and colleges have become invested in

training marriage professionals, a greater number of formal classes on marriage theory and practice have been offered to the undergraduate student body. Further, the divorce generation is now college-age and they are eager to take courses to help them better prepare for marriage. Marriage 101 at Northwestern University is just one example of marriage education in a university setting. This program has been well received by students, who have evaluated it highly and qualitatively indicated that the information was helpful. After the course, students were better able to identify helpful ways to work through a conflict and see both sides of an issue (Nielsen, Pinsof, Rampage, Solomon, & Goldstein, 2004). With respect to unique populations, several colleges and universities, such as Indiana University and Hampton College, offer marriage education courses focused specifically on African American couples.

Marriage education is also becoming an increasingly popular part of high school curriculums. Relationship Smarts is a part of the Love U2 Courses developed by Marline Pearson to help young adults make wise and safe choices about dating and marriage relationships ([http://www.dibblefund.org/love\\_u2.htm](http://www.dibblefund.org/love_u2.htm)). A recent study reports that results of a Relationship Smarts curriculum used by family and consumer science high school teachers in several Alabama counties (Adler-Baeder, 2005). Preliminary results from over 200 program participant and 125 control group students indicate that the program curriculum increases awareness of the characteristics of healthy relationships. Many students and teachers openly responded that the program was helpful and informative (Adler-Baeder, 2005).

*Healthcare.* Healthcare settings are a growing venue for marriage education. Integrating marriage education into the healthcare system seems like an efficient

opportunity to work with couples who are already invested in learning, preparing, and changing, and to utilize trained educators who have a forum and opportunity to meet with families. Because many transitioning couples attend classes together at their local hospital, childbirth education classes have been identified as an “ideal place for intervention efforts” (Belsky & Pensky, 1988, p. 153; Hawkins Gilliland, Christiaens, & Carroll, 2002). Marriage Moments, Bringing Baby Home, and Becoming Parents programs are marriage-focused programs for transitioning couples that have been offered in conjunction with local prenatal classes. Each of these programs focuses on improving marital interaction and helping couples anticipate the stresses that accompany parenthood. Although they were only recently developed, these programs are beginning to demonstrate success (Shapiro & Gottman, 2005). Welcome Baby is a monthly, in-home, educational program for new parents offered through a county health department and a United Way program. A recent study added a marriage-strengthening component to the Welcome Baby curriculum. Though the results of the study showed that the marriage curriculum did not significantly change spouses’ communication or satisfaction (Lovejoy, 2004), this program represents an innovative integration of health and marriage education.

*Workplace.* According to the Office of Personnel Management, a branch of the federal government’s Human Resource Agency, the workplace is an extension of the home, and stresses from family life influence employee productivity  
[http://www.opm.gov/Employment\\_and\\_Benefits/WorkLife/OfficialDocuments/HandbooksGuides/Parents/index.asp](http://www.opm.gov/Employment_and_Benefits/WorkLife/OfficialDocuments/HandbooksGuides/Parents/index.asp)). The Office of Personnel Management offers information and incentives to

agencies that create family-friendly workplaces. Family-friendly work programs include support groups for parents, child care, flexible hours, job sharing, and even programs for nursing mothers. Despite the many family programs this agency supports, there do not seem to be resources, groups, or information specific to marriage. According to Shumway, Wampler, Dersch, and Arredondo (2004), employee assistance programs provide health care for 55 percent of the United States workforce. These authors report that the assistance providers identified family issues as the most prevalent and second most severe problem for employees; employees rate marital and family problems as the first or second most frequent problem they face (p. 72). These problems affect employee morale, attendance and productivity. Despite the many potential benefits to employees and businesses, most EAPs do not offer nor cover marital and family services. But given how these issues impact the bottom line, it is likely that workplace-sponsored intervention programs, including marriage education programs, are on the horizon. Of note, The Administration for Children and Families, which is investing millions of dollars into supporting marriage education efforts around the country, has initiated a workplace marriage education program for their own employees.

*Military.* Strong families are better able to cope with deployment and other stresses of military life. With this goal in mind, the PREP program has been used to strengthen marriages in military settings. An interim report conducted by Science Applications International Corporation and PREP Inc. describes early successes of the Building Strong and Ready Families preventative program used with new military couples. BSRF introduces couples to active listening skills, teaches PREP problem-solving skills, and uses a weekend retreat to help couples focus on their strengths and

support one another. According to the report, couples that participated in the program reported increases in their levels of relationship satisfaction, relationship quality and confidence (Science Applications International Corporation). The PICK (Premarital Interpersonal Choices and Knowledge) program is another marriage-focused program used by the military to strengthen future relationships. This program was presented in four separate training centers to help single soldiers make decisions about partner compatibility (Futris, Van Epp, & Van Epp, 2005). Program participants reported a better understanding of what healthy relationships look like and how to create them; they also reported a stronger understanding of the importance of taking time during courtship to prepare for marriage. These soldiers reported fewer unrealistic expectations about love and relationships, and a better understanding of how family background influences personal and partner behaviors.

*Media.* The media is an important setting for healthy marriage education that has not yet been widely utilized. What we see in the media is sex without strings or consequences, marriage commitment reduced to a reality T.V. game show, single adults choosing to live together and raise children without marriage, and cartoon and sitcom families that portray fathers as stupid, blundering, partial members of the family (Horn, Weinert, Hawkins, & Sylvester, 2001; Kaiser Family Foundation, 2005). Whether you believe that art imitates life or life imitates art, the power of the media to influence cultural values is tremendous (Kaiser Family Foundation). It is a largely untapped resource for promoting healthy family relationships. Within the past few decades, we have seen media efforts help turn the tide on smoking, teen pregnancy, and other

important health issues, and there is reason for optimism that media campaigns could also help couples form and sustain healthy marriages (Hawkins, Barnes, & Gilmore, 2004).

A seminal media campaign to strengthen marriage was developed by a community marriage initiative in Chattanooga, Tennessee. The First Things First campaign has inundated the community with messages about healthy marriage. One of the many outreach avenues utilized by this project was an alliance with local news media to promote a marriage culture. The campaign has utilized electronic (television, radio, internet, movie theaters), print (newspaper, magazines, entertainment tabloids, and special publications) and advertising media (cable television, billboards, and bus placards). Members of the campaign work actively with the media; they even call reporters on a regular basis to offer information and story ideas about family issues (<http://www.firstthings.org/inflow/templates/?a=120&z=65>). Similar campaigns in other communities are emerging. To date, however, there has been no evaluative research on the effectiveness of these campaigns.

*Government agencies.* Many government agencies were created to help struggling families. The Administration for Children and Families oversees many of these agencies and develops family policies. The ACF Healthy Marriage Initiative has included such efforts as the Office of Child Support working to encourage new ways of approaching unwed parents to emphasize the importance of healthy marriages. Similarly, the Children's Bureau has awarded a number of grants to state and county child welfare agencies to promote healthy marriages as a means to improving child well-being. They have also sponsored grants to help train front-line child welfare staff to address issues of forming and sustaining healthy marriages with their cliental. The Office of Family

Assistance is developing a web-based National Healthy Marriage Resource Center as a national clearinghouse of information to help individuals and couples form and sustain healthy marriages. Even the Office of Refugee Resettlement is exploring pilot programs to assist this population with marriage-strengthening programs.

### *Target*

Target refers to the intended recipients of programmatic efforts. Though increased attention has been given to fragile families and the need for programmatic support to minority and economically disadvantaged couples, most published studies continue to report a sample of college-educated, middle-class couples that do not report minority affiliation (Ooms & Wilson, 2004; Butler & Wampler, 1999). Most of these couples are 20-30 years of age, and married for the first time. However, a few of the well-known education programs have begun to be evaluated with unique populations. For example, between 1995 and 1998, Relationship Enhancement was tested with prisoners and their spouses (Accordino & Guerney, 1998); spouses reported that the program was helpful. As previously discussed, PREP has been used with military couples and the Sound Marital House curriculum is currently being used with fragile families in Florida. Each of these programs was developed for mainstream couples, then tested and modified with unique samples. It is also noteworthy that developers of marital and premarital inventories (e.g., FOCCUS, ENRICH, RELATE) have begun to target different groups by translating their inventories into multiple languages.

Even while some studies evaluate interventions for unique populations such as couples with breast cancer (Revenson, Kayser, & Bodenmann, 2005), couples with HIV (Pomeroy, Green, & Van Laningham, 2002), and couples with alcohol addition (Kelly,

Halford, & Young, 2000), few complete marriage enhancement programs have been specifically developed to target unique types of couple circumstances. The Family Wellness program is an example of one of these efforts; it was specifically created for low-income, multi-cultural communities. This California-based program was developed in 1980 by a group of marriage and family therapists devoted to multi-cultural issues. In addition to its primary content, which focuses on communication and conflict resolution, Family Wellness also provides specific information on domestic violence, drug abuse, step-families, and parenting. According to their website, Family Wellness has been used to help “families in the military, faith based communities, school parental involvement, child abuse prevention and intervention, spousal abuse prevention and intervention, drug and alcohol abuse prevention and intervention, and by a number of gang prevention and community based programs” (<http://www.familywellness.com/couples.html>). One evaluation of this program with 92 individuals in a parent education program showed an increase in adaptability for English-speaking program participants, but not for Spanish-speaking individuals. Levels of couple cohesion were not influenced by program participation (Rhodes, 1995).

Programs specifically created for the unique needs of different populations, including minority groups, rural couples, and immigrants, are limited but now increasing. In fact, the federal government is investing heavily in developing marriage education programs for lower-income, fragile families and at-risk married couples. These programs will be evaluated with large samples, including large numbers of African American and Hispanic couples, and will employ rigorous designs and methods (Dion & Hawkins, in press).

Another important issue related to program target is whether marriage education functions only as prevention for relatively healthy couples, or benefits distressed marriages also. Research and experience show that unhappy couples commonly participate in education programs. In fact, Durana (1997) reported that 38 percent of PAIRS participants had MAT scores that placed them in the distressed category. De Maria (2005) reported that 61 percent of PAIRS participants indicated they had previously been in marital therapy; 16 percent were concurrently participating in marital therapy. In a German study using the PREP program, 70 percent of the couples were distressed (Kaiser, Hahlweg, Fehm-Wolfsdorf, & Groth, 1998). These findings suggest that marriage education, while preventative for some, should not be constrained as a prevention effort only. Some marriage education serves couples that have already experienced stresses and disappointments in marriage. However, other research suggests that couples most at risk for marital problems are not the ones seeking help. In a study exploring which types of couples seek premarital intervention, Sullivan & Bradbury (1997), found that couples in counseling or education programs were at no greater risk for marital discord than those who do not seek help. In fact, they found that none of the participants were high risk and most had a fairly low risk for marital discord. According to Sayers, Kohn, and Heavey (1998), "Delivering preventative programs to predefined risk groups may greatly increase the efficiency of preventive efforts because more couples who could benefit from a program would actually participate in it" (p. 738). Further, Halford, Markman, Kline, and Stanley (2003) suggest that distressed couples may actually gain more from marriage education than non-distressed couples. Target is becoming more of a focus in program design. Over the past few decades, convenience

sampling led to marriage education designed for and adapted to White, middle-class, newly-married couples. Public policy makers have succeeded in pushing for broader educational efforts, targeting fragile families, diverse racial and ethnic families, and others. Undoubtedly, the target of marriage education efforts will become increasingly diverse, and a critical variable in future studies.

### *Delivery*

The delivery of a marriage education program describes the way in which the information is presented to a community. How does the public receive messages about the importance of marriage and the benefits of healthy marriage? How do couples learn good marital skills; how do they get motivated to keep working at their marriage when challenges arise? The CoFraME authors identified four levels of program delivery: specialist, integrated education, citizen initiatives, and cultural seeding. These levels describe increasingly wide-spread methods of delivering marriage education to couples.

*Specialist.* To date, most marriage education—or at least the formally evaluated and published programs—has been in the “specialist” category. Delivery of these programs is typically provided by a highly educated, trained group leader, and the setting is usually within a university or clinic. Specialist-led programs are research-focused, both at the level of content development and outcome evaluation. This category describes most of the well known programs, including PREP, Couple Communication, and Relationship Enhancement, which were originally developed and tested by therapists working with couples.

*Integrated education.* A newly emerging category of program delivery is a more “integrated” approach, such as marriage education presented within the context of

childbirth education, religious education, or a government-supported substance abuse program. As part of the Oklahoma Marriage Initiative, business leaders, educators, and clergy have been trained as PREP workshop leaders. Examples of integrated marriage education programs also include Marriage Moments and Bringing Baby Home, which are transition-to-parenthood programs offered through prenatal education classes. Marriage Encounter is another example of an integrated education program for religious couples offered by clergy members of many different denominations to their respective congregations.

*Citizen initiatives.* The essence of citizen initiatives is that neighborhood and community members take a leadership role in promoting healthy marriage among their neighbors, colleagues, congregants, or community members (Doherty & Anderson, 2004). Marriage experts are “on tap” in these efforts, but not “on top”; that is, they are a resource but do not control the initiatives (Doherty & Carroll, 2002). Community members do this through mentorship of other couples, and by providing informal counseling or resources to couples who desire it. Marriage Savers is an example of a citizen-led marriage education program that strengthens marriage in a community by helping community leaders, including local clergy, develop Community Marriage Policies. In their review of 122 different counties, Birch, Weed, and Olsen (2004) found that those with Community Marriage Policies had lower divorce rates. Doherty and Carroll (2002) also describe a handful of citizen-led initiatives they have been involved in that have a focus on marital issues.

*Cultural seeding.* Cultural seeding refers to large-scale efforts to promote the value of marriage throughout a community or society. As mentioned, the First Things

First campaign has used the media and journalism to emphasize marriage at the cultural level in Chattanooga, Tennessee. To date, there have been no national media campaigns directed specifically at helping couples form and sustain healthy marriages (Hawkins, Barnes, & Gilmore, 2005), nor have there been studies evaluating the effectiveness of these local media efforts. Because I believe, and preliminary research confirms, that they are effective in strengthening marriage and preventing divorce, I hope that community and cultural-level education efforts will continue with public and legislative support.

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## Appendix F

### Effect Size Tables

#### Key:

- BESD “Success Rate” = proportion of treatment group vs. control group above median score of distribution or chance of treatment group improvement vs. chance of control group improvement
- $ES_{smdg}$  = overall effect size, standardized mean difference (of gain scores)
- $ES_{sgn}$  = overall effect size, standardized mean gain scores
- $ES_{smd}$  = overall effect size, standardized mean difference scores
- fsN = fail-safe N (number of non-significant effect sizes it would take to nullify results)
- (n) = number of effect sizes used to compute overall effect size
- r = effect size estimate with random effects due to significant heterogeneity in distribution of effect sizes
- ns = non significant (if effect size is non-significant, the fail-safe N is 0)
- -- = no data (at least 3 effect sizes are needed to compute a fail-safe N)

#### Tables 1, 2

- All = scores for men/women separately, individual scores (no gender designated), couple scores
- Global Communication: includes individual and couple measures of observed positive/negative communication, observed positive/negative problem solving, self-report positive/negative communication, self-report positive/negative problem solving

#### Tables 3a, 3b

- Married = married college students, and married or co-habiting adults; Single = high school students, single college students, single adults, divorced adults; Engaged = engaged couples

#### Tables 5a, 5b

- Low = 1-8 program hours, Medium = 9-20 program hours, High = 21 or more program hours

#### Tables 6a, 6b

- Other Setting = home/internet, community, military, health care, high school or university class

Table F1. Comparison of the Effectiveness of Marriage & Relationship Education Programs on Men and Women:

Overall Effect Sizes, Ns, and Fail-safe Ns for Marital Quality/Satisfaction.

Outcome Measure: Marital Quality/Satisfaction									
Time-Point Comparison	Study Design								
	Experimental (randomized, control)		Quasi-Experimental (non-random, control)		Pre-Post 1-Group (no control)		Post Only 2-Groups (randomized)		
	ES <sub>smdg</sub> (n)	fsN	ES <sub>smdg</sub> (n)	fsN	ES <sub>sgn</sub> (n)	fsN	ES <sub>smd</sub> (n)	fsN	
Pre→Post All (100)	.34*** (37)	758	.31*** (26)	214	.85*** <sup>f</sup> (33)	6,235	.42* (4)	1	
Pre→Post BESD “Success Rate”	58% vs. 41%		57% vs. 42%		68% vs. 31%		60% vs. 40%		
Pre→Post Men (29)	.23** (9)	10	.11 <sup>ns</sup> (7)	ns	.43*** <sup>f</sup> (11)	295	.47 <sup>ns</sup> (2)	ns	
Pre→Post BESD “Success Rate”	55% vs. 45%		52% vs. 47%		60% vs. 40%		60% vs. 40%		
Pre→Post Women (29)	.30** (10)	28	.22* (7)	1	.36*** <sup>f</sup> (10)	209	.37 <sup>ns</sup> (2)	ns	
Pre→Post BESD “Success Rate”	57% vs. 42%		55% vs. 45%		58% vs. 41%		58% vs. 41%		
Pre→Follow-up All (66)	.32*** <sup>f</sup> (26)	281	.34** (17)	122	.29*** (19)	202	.31 <sup>ns</sup> (4)	ns	
Pre→Follow-up BESD “Success Rate”	57% vs. 42%		58% vs. 41%		57% vs. 42%		57% vs. 42%		
Pre→Follow-up Men (25)	.17* (9)	3	.29** (7)	10	.26** (7)	16	.24 <sup>ns</sup> (2)	ns	
Pre→Follow-up BESD “Success Rate”	52% vs. 47%		55% vs. 45%		55% vs. 45%		55% vs. 45%		
Pre→Follow-up Women (25)	.21* (9)	13	.29** (7)	11	.33*** (7)	20	.38 <sup>ns</sup> (2)	ns	
Pre→Follow-up BESD “Success Rate”	55% vs. 45%		55% vs. 45%		57% vs. 42%		58% vs. 41%		

Table F2. Comparison of The Effectiveness of Marriage & Relationship Education Programs on Men and Women:

Overall Effect Sizes, Ns, and Fail-safe Ns for Communication.

Outcome Measure: Communication								
Time-Point Comparison	Study Design							
	Experimental (randomized, control)		Quasi-Experimental (non-random, control)		Pre-Post 1-Group (no control)		Post Only 2-Groups (randomized)	
	ES <sub>smdg</sub> (n)	fsN	ES <sub>smdg</sub> (n)	fsN	ES <sub>sgn</sub> (n)	fsN	ES <sub>smd</sub> (n)	fsN
Pre→Post All (105)	.53*** <sup>f</sup> (22)	390	.20*** <sup>r</sup> (23)	106	.73*** <sup>f</sup> (56)	4,296	.60*** (4)	9
Pre→Post BESD “Success Rate”	57% vs. 42%		55% vs. 45%		67% vs. 32%		64% vs. 35%	
Pre→Post Men (35)	.52*** (6)	36	.12 <sup>ns</sup> (7)	8	.51*** <sup>f</sup> (20)	259	.41 <sup>ns</sup> (2)	ns
Pre→Post BESD “Success Rate”	62% vs. 38%		52% vs. 47%		62% vs. 38%		60% vs. 40%	
Pre→Post Women (34)	.67* <sup>f</sup> (5)	24	.31* <sup>r</sup> (7)	11	.52*** <sup>f</sup> (20)	262	.78 (2)	--
Pre→Post BESD “Success Rate”	65% vs. 34%		57% vs. 42%		62% vs. 38%		67% vs. 32%	
Pre→Follow-up All (59)	.50* <sup>f</sup> (11)	42	.24** (10)	15	.33*** <sup>f</sup> (32)	228	.54*** (6)	26
Pre→Follow-up BESD “Success Rate”	62% vs. 38%		56% vs. 44%		58% vs. 41%		62% vs. 38%	
Pre→Follow-up Men (23)	.02 <sup>ns</sup> (3)	ns	.15 <sup>ns</sup> (4)	ns	.38* <sup>f</sup> (13)	52	.53*** (3)	4
Pre→Follow-up BESD “Success Rate”	50% vs. 50%		52% vs. 47%		58% vs. 41%		62% vs. 38%	
Pre→Follow-up Women (23)	.34 <sup>ns</sup> (3)	ns	.33 <sup>ns,r</sup> (4)	ns	.34* <sup>f</sup> (13)	27	.54*** (3)	7
Pre→Follow-up BESD “Success Rate”	57% vs. 42%		57% vs. 42%		57% vs. 42%		62% vs. 38%	

Table F3a. Comparison of the Effectiveness of Marriage & Relationship Education Programs on Married vs. Single Individuals: Overall Effect Sizes, Ns, and Fail-safe Ns for Marital Quality/Satisfaction.

Outcome Measure: Marital Quality/Satisfaction									
Time-Point Comparison		Study Design							
		Experimental (randomized, control)		Quasi-Experimental (non-random, control)		Pre-Post 1-Group (no control)		Post Only 2-Groups (randomized)	
		ES <sub>smdg</sub> (n)	fsN	ES <sub>smdg</sub> (n)	fsN	ES <sub>sgn</sub> (n)	fsN	ES <sub>smd</sub> (n)	fsN
Pre→Post	<i>Married</i> (67)	.32*** (29)	405	.29*** (23)	143	1.34*** <sup>†</sup> (15)	2,969	--	--
Pre→Post	<i>Singles</i> (4)	--	--	--	--	--	--	.42* (4)	1
Pre→Post	<i>Engaged</i> (10)	.83 <sup>ns,r</sup> (3)	ns	.72** (2)	--	.54*** <sup>†</sup> (5)	123	--	--
Pre→Follow-up	<i>Married</i> (48)	.22*** (23)	128	.32*** (16)	94	.27*** (9)	56	--	--
Pre→Follow-up	<i>Single</i> (4)	--	--	--	--	--	--	.31 <sup>ns</sup> (4)	ns
Pre→Follow-up	<i>Engaged</i> (3)	1.6 <sup>ns,r</sup> (3)	ns	--	--	--	--	--	--

Table F3b. Comparison of the Effectiveness of Marriage & Relationship Education Programs on Married vs. Single Individuals: Overall Effect Sizes, Ns, and Fail-safe Ns for Communication.

Outcome Measure: Communication									
Time-Point Comparison		Study Design							
		Experimental (randomized, control)		Quasi-Experimental (non-random, control)		Pre-Post 1-Group (no control)		Post Only 2-Groups (randomized)	
		ES <sub>smdg</sub> (n)	fsN	ES <sub>smdg</sub> (n)	fsN	ES <sub>sgn</sub> (n)	fsN	ES <sub>smd</sub> (n)	fsN
Pre→Post	<i>Married</i> (55)	.36*** <sup>†</sup> (14)	83	.32*** (17)	99	.85*** <sup>†</sup> (20)	1,135	.60*** (4)	9
Pre→Post	<i>Singles</i> (1)	--	--	-.18 <sup>ns</sup> (1)	ns	--	--	--	--
Pre→Post	<i>Engaged</i> (33)	.95*** <sup>†</sup> (4)	27	.05 <sup>ns</sup> (4)	ns	.84*** <sup>†</sup> (25)	923	--	--
Pre→Follow-up	<i>Married</i> (35)	.21* (10)	3	.22* (9)	8	.34* <sup>†</sup> (10)	19	.54*** (6)	26
Pre→Follow-up	<i>Single</i> (0)	--	--	--	--	--	--	--	--
Pre→Follow-up	<i>Engaged</i> (13)	4.31*** (1)	--	--	--	.67*** <sup>†</sup> (12)	129	--	--

Table F4a. The Influence of Relationship Length on the Effectiveness of Marriage & Relationship Education Programs: Overall Effect Sizes, Ns, and Fail-safe Ns for Marital Quality/Satisfaction.

Outcome Measure: Marital Quality/Satisfaction								
Time-Point Comparison	Study Design							
	Experimental (randomized, control)		Quasi-Experimental (non-random, control)		Pre-Post 1-Group (no control)		Post Only 2-Groups (randomized)	
	ES <sub>smdg</sub> (n)	fsN	ES <sub>smdg</sub> (n)	fsN	ES <sub>sgn</sub> (n)	fsN	ES <sub>smd</sub> (n)	fsN
Pre→Post 1-5 years (39)	.28** <sub>r</sub> (12)	44	.22** (11)	21	.65 <sup>ns,r</sup> (16)	ns	--	--
Pre→Post 6-10 years (27)	.36*** (10)	41	.66** <sub>r</sub> (6)	42	1.31*** <sub>r</sub> (11)	477	--	--
Pre→Post 11-20 years (29)	.43*** (15)	171	.23* (9)	0	.68*** <sub>r</sub> (5)	582	--	--
Pre→Follow-up 1-5 years (25)	.58* <sub>r</sub> (9)	51	.18 <sup>ns</sup> (6)	ns	.35*** (10)	37	--	--
Pre→Follow-up 6-10 years (21)	.17* (9)	6	.52*** (5)	19	.29*** (7)	31	--	--
Pre→Follow-up 11-20 years (15)	.28*** (8)	29	.39*** (6)	15	.29** (1)	--	--	--

Table F4b. The Influence of Relationship Length on the Effectiveness of Marriage & Relationship Education Programs: Overall Effect Sizes, Ns, and Fail-safe Ns for Communication.

Outcome Measure: Communication								
Time-Point Comparison	Study Design							
	Experimental (randomized, control)		Quasi-Experimental (non-random, control)		Pre-Post 1-Group (no control)		Post Only 2-Groups (randomized)	
	ES <sub>smdg</sub> (n)	fsN	ES <sub>smdg</sub> (n)	fsN	ES <sub>sgn</sub> (n)	fsN	ES <sub>smd</sub> (n)	fsN
Pre→Post 1-5 years (51)	.82** <sub>r</sub> (5)	41	.09* (10)	9	.84*** <sub>r</sub> (36)	2,110	--	--
Pre→Post 6-10 years (19)	.19 <sup>ns</sup> (6)	ns	.45** (5)	11	1.01*** <sub>r</sub> (8)	98	--	--
Pre→Post 11-20 years (32)	.60*** <sub>r</sub> (11)	115	.38 <sup>ns,r</sup> (7)	ns	.31* <sub>r</sub> (10)	44	.60*** (4)	9
Pre→Follow-up 1-5 years (25)	4.31*** (1)	--	-.15 <sup>ns</sup> (2)	ns	.32** <sub>r</sub> (22)	95	--	--
Pre→Follow-up 6-10 years (15)	.01 <sup>ns</sup> (6)	ns	.39** (4)	7	.29 <sup>ns,r</sup> (5)	ns	--	--
Pre→Follow-up 11-20 years (19)	.55** (4)	8	.38* (4)	2	.41 <sup>ns,r</sup> (5)	ns	.54*** (6)	26

Table F5a. Comparison of the Effectiveness of Marriage & Relationship Education Programmatic Intensity: Overall Effect Sizes, Ns, and Fail-safe Ns for Marital Quality/Satisfaction.

Outcome Measure: Marital Quality/Satisfaction									
Time-Point Comparison		Study Design							
		Experimental (randomized, control)		Quasi-Experimental (non-random, control)		Pre-Post 1-Group (no control)		Post Only 2-Groups (randomized)	
		ES <sub>smdg</sub> (n)	fsN	ES <sub>smdg</sub> (n)	fsN	ES <sub>sgn</sub> (n)	fsN	ES <sub>smd</sub> (n)	fsN
Pre→Post	<i>Low</i> (19)	.18* (8)	2	.13 <sup>ns</sup> (6)	ns	.21 <sup>ns</sup> (1)	ns	.42* (4)	1
Pre→Post	<i>Medium</i> (54)	.43*** <sup>r</sup> (23)	446	.32*** (14)	42	.49*** <sup>r</sup> (17)	415	--	--
Pre→Post	<i>High</i> (23)	.35** (6)	6	.34* (3)	2	1.29*** <sup>r</sup> (14)	2,795	--	--
Pre→Follow-up	<i>Low</i> (14)	.19* (5)	0	.17 <sup>ns</sup> (4)	ns	.06 <sup>ns</sup> (1)	ns	.31 <sup>ns</sup> (4)	ns
Pre→Follow-up	<i>Medium</i> (42)	.36*** <sup>r</sup> (15)	110	.38*** (12)	67	.35*** (15)	89	--	--
Pre→Follow-up	<i>High</i> (9)	.45** (6)	12	--	--	.28*** (3)	18	--	--

Table F5b. Comparison of the Effectiveness of Marriage & Relationship Education Programmatic Intensity: Overall Effect Sizes, Ns, and Fail-safe Ns for Communication.

Outcome Measure: Communication									
Time-Point Comparison		Study Design							
		Experimental (randomized, control)		Quasi-Experimental (non-random, control)		Pre-Post 1-Group (no control)		Post Only 2-Groups (randomized)	
		ES <sub>smdg</sub> (n)	fsN	ES <sub>smdg</sub> (n)	fsN	ES <sub>sgn</sub> (n)	fsN	ES <sub>smd</sub> (n)	fsN
Pre→Post	<i>Low</i> (6)	.01 <sup>ns</sup> (2)	ns	--	--	.60*** (4)	--	--	--
Pre→Post	<i>Medium</i> (66)	.51*** <sup>r</sup> (18)	264	.21* <sup>r</sup> (17)	54	.54*** <sup>r</sup> (27)	528	.60*** (4)	9
Pre→Post	<i>High</i> (29)	1.3*** (2)	--	.14 <sup>ns</sup> (3)	ns	.92*** <sup>r</sup> (24)	1,254	--	--
Pre→Follow-up	<i>Low</i> (4)	--	--	--	--	.60*** (4)	--	--	--
Pre→Follow-up	<i>Medium</i> (37)	.49 <sup>ns,r</sup> (9)	--	.26** (9)	14	.15 <sup>ns,r</sup> (13)	ns	.54*** (6)	26
Pre→Follow-up	<i>High</i> (17)	.56* (2)	--	--	--	.39*** <sup>r</sup> (15)	40	--	--

Table F6a. Comparison of the Effectiveness of Marriage & Relationship Education Program Setting: Overall Effect Sizes, Ns, and Fail-safe Ns for Marital Quality/Satisfaction.

Outcome Measure: Marital Quality/Satisfaction								
Time-Point Comparison	Study Design							
	Experimental (randomized, control)		Quasi-Experimental (non-random, control)		Pre-Post 1-Group (no control)		Post Only 2-Groups (randomized)	
	ES <sub>smdg</sub> (n)	fsN	ES <sub>smdg</sub> (n)	fsN	ES <sub>sgn</sub> (n)	fsN	ES <sub>smd</sub> (n)	fsN
Pre→Post <i>University/Therapy</i> (63)	.48*** (23)	403	.33*** (15)	77	.58*** <sup>r</sup> (21)	651	.42 <sup>ns</sup> (4)	ns
Pre→Post <i>Church</i> (12)	--	--	.44 <sup>ns,r</sup> (7)	ns	1.56*** <sup>r</sup> (5)	1,531	--	--
Pre→Post <i>Other</i> (25)	.22*** (14)	44	.10 <sup>ns</sup> (4)	ns	.84*** <sup>r</sup> (7)	192	--	--
Pre→Follow-up <i>University</i> (41)	.37*** <sup>r</sup> (18)	121	.31* (5)	5	.32*** (14)	100	.31 <sup>ns</sup> (4)	ns
Pre→Follow-up <i>Church</i> (7)	--	--	.46*** (6)	17	.06 <sup>ns</sup> (1)	ns	--	--
Pre→Follow-up <i>Other</i> (16)	.32*** (8)	25	.17 <sup>ns</sup> (4)	ns	.29*** (4)	13	--	--

Table F6b. Comparison of the Effectiveness of Marriage & Relationship Education Program Setting: Overall Effect Sizes, Ns, and Fail-safe Ns for Communication.

Outcome Measure: Communication								
Time-Point Comparison	Study Design							
	Experimental (randomized, control)		Quasi-Experimental (non-random, control)		Pre-Post 1-Group (no control)		Post Only 2-Groups (randomized)	
	ES <sub>smdg</sub> (n)	fsN	ES <sub>smdg</sub> (n)	fsN	ES <sub>sgn</sub> (n)	fsN	ES <sub>smd</sub> (n)	fsN
Pre→Post <i>University/Therapy</i> (75)	.62*** <sup>r</sup> (18)	331	.28*** (15)	77	.49*** <sup>r</sup> (42)	1,180	--	--
Pre→Post <i>Church</i> (17)	--	--	.07 <sup>ns</sup> (7)	ns	2.85*** <sup>r</sup> (6)	780	.60*** (4)	9
Pre→Post <i>Other</i> (13)	.11 <sup>ns</sup> (4)	ns	-.18 <sup>ns</sup> (1)	ns	.20 <sup>ns,r</sup> (8)	ns	--	--
Pre→Follow-up <i>University</i> (45)	.50*** <sup>r</sup> (11)	42	.23 <sup>ns,r</sup> (4)	ns	.39*** <sup>r</sup> (30)	338	--	--
Pre→Follow-up <i>Church</i> (10)	--	--	.32** (6)	7	--	--	.26 <sup>ns</sup> (4)	ns
Pre→Follow-up <i>Other</i> (2)	--	--	--	--	-.30*** (2)	--	--	--

Table F7a. Effectiveness of Marriage Education Content: Overall Effect Sizes, Ns, and Fail-safe Ns for Marital Quality/Satisfaction.

Outcome Measure: Marital Quality/Satisfaction								
Time-Point Comparison	Study Design							
	Experimental (randomized, control)		Quasi-Experimental (non-random, control)		Pre-Post 1-Group (no control)		Post Only 2-Groups (randomized)	
	ES <sub>smdg</sub> (n)	fsN	ES <sub>smdg</sub> (n)	fsN	ES <sub>sgn</sub> (n)	fsN	ES <sub>smd</sub> (n)	fsN
Pre→Post <i>Communication Skills</i> (50)	.46*** (18)	259	.31*** (15)	51	.87*** <sup>r</sup> (17)	1,316	--	--
Pre→Post <i>Expectations/Info.</i> (28)	.33*** (7)	24	.24* (6)	5	.51*** <sup>r</sup> (11)	501	.42* (4)	1
Pre→Post <i>Virtues/Attitudes</i> (18)	.24** (11)	24	.12 <sup>ns</sup> (4)	ns	3.50 <sup>ns,r</sup> (3)	ns	--	--
Pre→Post <i>Couple Discussion</i> (3)	.05 <sup>ns</sup> (1)	ns	--	--	.24 <sup>ns</sup> (2)	ns	--	--
Pre→Follow-up <i>Comm. Skills</i> (40)	.37*** <sup>r</sup> (19)	177	.36*** (11)	47	.31*** (10)	68	--	--
Pre→Follow-up <i>Expectations</i> (17)	.38** (3)	4	.22 <sup>ns</sup> (2)	--	.31*** (8)	26	.31 <sup>ns</sup> (4)	ns
Pre→Follow-up <i>Virtues</i> (8)	.12 <sup>ns</sup> (4)	ns	.27* (3)	1	.06 <sup>ns</sup> (1)	ns	--	--
Pre→Follow-up <i>Couple Discussion</i> (0)	--	--	--	--	--	--	--	--

Table F7b. Effectiveness of Marriage Education Content: Overall Effect Sizes, Ns, and Fail-safe Ns for Communication.

Outcome Measure: Communication								
Time-Point Comparison	Study Design							
	Experimental (randomized, control)		Quasi-Experimental (non-random, control)		Pre-Post 1-Group (no control)		Post Only 2-Groups (randomized)	
	ES <sub>smdg</sub> (n)	fsN	ES <sub>smdg</sub> (n)	fsN	ES <sub>sgn</sub> (n)	fsN	ES <sub>smd</sub> (n)	fsN
Pre→Post <i>Communication Skills</i> (78)	.56*** <sup>r</sup> (16)	217	.24* <sup>r</sup> (18)	81	.74*** <sup>r</sup> (40)	1,924	.60*** (4)	9
Pre→Post <i>Expectations/Info.</i> (12)	--	--	.09 <sup>ns</sup> (4)	ns	.20 <sup>ns,r</sup> (8)	ns	--	--
Pre→Post <i>Virtues/Attitudes</i> (7)	.46* (6)	20	--	--	4.48*** (1)	--	--	--
Pre→Post <i>Couple Discussion</i> (7)	--	--	--	--	.18* (7)	4	--	--
Pre→Follow-up <i>Comm. Skills</i> (46)	.50* <sup>r</sup> (11)	42	.29 <sup>ns,r</sup> (8)	7	.52*** <sup>r</sup> (21)	240	.54*** (6)	26
Pre→Follow-up <i>Expectations</i> (6)	--	--	--	--	-.20** (6)	0	--	--
Pre→Follow-up <i>Virtues</i> (1)	--	--	.35 <sup>ns</sup> (1)	--	--	--	--	--
Pre→Follow-up <i>Couple Discussion</i> (5)	--	--	--	--	.14 <sup>ns</sup> (5)	ns	--	--

Table F8a. Effectiveness of Marriage Education by Decade: Overall Effect Sizes, Ns, and Fail-safe Ns for Marital Quality/Satisfaction

Outcome Measure: Marital Quality/Satisfaction									
Time-Point Comparison		Study Design							
		Experimental (randomized, control)		Quasi-Experimental (non-random, control)		Pre-Post 1-Group (no control)		Post Only 2-Groups (randomized)	
		ES <sub>smdg</sub> (n)	fsN	ES <sub>smdg</sub> (n)	fsN	ES <sub>sgn</sub> (n)	fsN	ES <sub>smd</sub> (n)	fsN
Pre→Post	1970s (3)	.19 <sup>ns</sup> (1)	ns	.37 <sup>ns</sup> (2)	ns	--	--	--	--
Pre→Post	1980s (33)	.46*** (12)	75	.43* <sup>r</sup> (9)	23	1.08*** <sup>r</sup> (12)	401	--	--
Pre→Post	1990s (20)	.42* <sup>r</sup> (6)	28	.32*** (9)	38	.58*** <sup>r</sup> (5)	153	--	--
Pre→Post	2000s (44)	.32*** (18)	141	.13 <sup>ns</sup> (6)	ns	.81*** <sup>r</sup> (16)	2,127	.42* (4)	1
Pre→Follow-up	1970s (0)	--	--	--	--	--	--	--	--
Pre→Follow-up	1980s (21)	.37** (8)	14	.45*** (8)	28	.38*** (5)	14	--	--
Pre→Follow-up	1990s (15)	.36* <sup>r</sup> (9)	32	.27 <sup>ns</sup> (3)	ns	.30*** (3)	6	--	--
Pre→Follow-up	2000s (30)	.34*** (9)	35	.29** (6)	11	.26*** (11)	49	.31 <sup>ns</sup> (4)	ns

Table F8b. Effectiveness of Marriage Education by Decade: Overall Effect Sizes, Ns, and Fail-safe Ns for Communication.

Outcome Measure: Communication									
Time-Point Comparison		Study Design							
		Experimental (randomized, control)		Quasi-Experimental (non-random, control)		Pre-Post 1-Group (no control)		Post Only 2-Groups (randomized)	
		ES <sub>smdg</sub> (n)	fsN	ES <sub>smdg</sub> (n)	fsN	ES <sub>sgn</sub> (n)	fsN	ES <sub>smd</sub> (n)	fsN
Pre→Post	1970s (5)	.76* (1)	--	.05 <sup>ns</sup> (4)	ns	--	--	--	--
Pre→Post	1980s (62)	.64*** <sup>r</sup> (10)	116	.41*** (12)	54	.91*** <sup>r</sup> (36)	2,605	.60*** (4)	9
Pre→Post	1990s (10)	.70 <sup>ns,r</sup> (3)	ns	.18* (6)	1	-.33*** (1)	--	--	--
Pre→Post	2000s (28)	.32* <sup>r</sup> (8)	18	-.18 <sup>ns</sup> (1)	ns	.34 <sup>ns</sup> (19)	ns	--	--
Pre→Follow-up	1970s (0)	--	--	--	--	--	--	--	--
Pre→Follow-up	1980s (39)	.38** (6)	7	.39*** (8)	24	.62*** <sup>r</sup> (21)	486	.26 <sup>ns</sup> (4)	ns
Pre→Follow-up	1990s (8)	.74 <sup>ns,r</sup> (5)	ns	-.15 <sup>ns</sup> (2)	ns	-.25** (1)	--	--	--
Pre→Follow-up	2000s (12)	--	--	--	--	-.25*** (10)	15	.68*** (2)	--

Appendix G

Descriptive Characteristics of Included Studies

Table G1. Descriptive Program Characteristics of Each of the Studies in the Meta-Analysis

<i>Program Characteristics</i>	<i>Study Design</i>				
	Experimental (randomized, control)  N = 32	Quasi- Experimental (non-random, control)  N = 25	Pre-Post One-Group (no control)  N = 42	Post Only Two-Groups (randomized)  N = 5	Not Code-able   N = 22
<i>Program Type</i>					
High School Education	--	1	--	--	--
Premarital	4	6	19	2	9
Marriage Education	23	16	23	3	12
Transition to Parenthood	5	2	--	--	1
<i>Content</i>					
Communication Skills	17	15	27	5	11
Knowledge/Expectations	6	6	8	--	7
Virtues/Motivation	7	4	3	--	1
Group Discussion	1	--	4	--	--
Equal: Skills and Virtues	--	--	--	--	3
<i>Setting</i>					
University Clinic	22	14	27	2	16
Church Group	--	7	7	2	5
High school/University class	3	1	2	--	--
Health Care	4	--	1	--	1
Home/Community	3	2	2	--	--
Military	--	--	3	--	--
Not Reported/Unknown	--	1	--	1	--

Table G2. Demographic Characteristics of Each of the Studies in the Meta-Analysis

<i>Sample Characteristics</i>	<i>Study Design</i>				
	Experimental (randomized, control)  N = 32	Quasi-Experimental (non-random, control) N = 25	Pre-Post One-Group (no control)  N = 42	Post Only Two-Groups (randomized)  N = 5	Not Code-able   N = 22
<i>Average Age (men/women)</i>					
15-20	1	1	5	2	3
21-25	4	5/7	10	--	2
26-30	2	9/7	3/8	--	3
31-40	18/22	8	12/9	2	7
41-50	6/2	2	4/2	1	6
Not Reported	1	--	8	--	1
<i>Sample SES</i>					
Middle Class	24	16	29	3	21
Mixed Middle and Lower	2	5	3	2	--
Lower Income	--	--	2	--	--
Not Reported	6	4	7	--	1
<i>Ethnic Diversity</i>					
Virtually None	25	19	36	3	9
Some (10-25%)	7	2	2	2	5
Sufficient (25-33%)	--	--	1	--	5
Significant (33%)	--	3	1	--	--
Sample not Euro-American	--	--	1	--	--
Not Reported	--	1	1	--	3
<i>Sample Average</i>					
Education	3	2	1	--	1
High school	14/13	12	16/20	5	9/10
Some college	10/11	7	12/8	--	2/1
College degree	5	4	13	--	10
Not Reported					

## Appendix H

### Program Evaluation Report Checklist

	<b>Did you include/describe the following:</b>	✓
<i>Demographic Information</i>	<ul style="list-style-type: none"> <li>• Recruitment method adequately explained</li> <li>• Number of Subjects who Started the Program (by group)</li> <li>• Number of Subjects who Completed the Program (by group)</li> <li>• Average Age for Males and Females</li> <li>• Average Education for Males and Females</li> <li>• Average Socio-Economic Status/Income</li> <li>• Marital Status                             <ul style="list-style-type: none"> <li>• Average Relationship Length</li> <li>• Average Number of Children</li> <li>• % of Distressed Couples at pre-test</li> </ul> </li> <li>• Proportion of sample in various racial/ethnic groups</li> </ul>	
<i>Program Characteristics</i>  Treatment Group and Comparison or Placebo Control Group	<ul style="list-style-type: none"> <li>• Type of Program (high school, pre-marital, marriage, trans. to parenthood, etc.)</li> <li>• Primary Content</li> <li>• Secondary Content</li> <li>• Setting</li> <li>• Number of Hours</li> <li>• Number of Sessions</li> </ul>	
<i>Methods</i>	<ul style="list-style-type: none"> <li>• Method of Group Assignment (random/non-random)</li> <li>• Type of Control Group (no treatment, wait list)</li> <li>• Group Equivalence Analyses (before and after attrition)</li> <li>• Timing of Evaluations (pre, post, follow-ups)</li> <li>• Description of Measures                             <ul style="list-style-type: none"> <li>• Standardized, Cut-off Scores</li> </ul> </li> </ul>	
<i>Results</i>	<ul style="list-style-type: none"> <li>• Means and Standard Deviations and Ns</li> <li>• By Gender</li> <li>• By Group</li> </ul>	Table

## Appendix I

### Coded Studies: Study, Demographic, and Program Characteristics

Table I1 Coded Studies: Study Characteristics

<b>Study Code</b>	<b>Authors</b>	<b>Title</b>	<b>Date</b>	<b>Publication Type</b>	<b>Author's Design/ Coded Design</b>	<b>Number of Effects Created</b>
1a	Adam & Gringas	Short- and Long-Term Effects of a Marital Enrichment Program upon Couple Functioning	1982	Journal Article	Experimental/ Experimental	6
2a,b,c	Avery, Ridley, Leslie, & Milholland	Relationship Enhancement with Premarital Dyads: A Six Month Follow-up	1982	Journal Article	Experimental/ Pre-Post	12
3a	Bagarozzi, Bagarozzi, Anderson, & Pollane	Premarital Education and Training Sequence (PETS): A 3-year Follow-up of an Experimental Study	1984	Journal Article	Experimental/ Quasi-Experimental	2
4a	Bodenmann, Charvoz, Cina, & Widmer	Prevention of Marital Distress by Enhancing the Coping Skills of Couples: 1 Year Follow Up Study	2001	Journal Article	Post Only/ Post Only	4
5a	Boike	The Impact of a Premarital Program on Communication Process, Communication Facilitativeness, and Personal Trait Variables of Engaged Couples	1977	Doctoral Dissertation	Quasi-Experimental/ Quasi-Experimental	2
6a,b	Braukhaus, Hahlweg, Kroger, Groth, & Fehm-wolfsdorf	A Little Bit More? The Impact of Adding Booster Sessions to a Prevention Training Program for Marital Distress	2001	Journal Article	Experimental/ Experimental	7
7a,b	Brock	Unilateral Marital Intervention: Training Spouses to Train Their Partners in Communication Skills	1978	Doctoral Dissertation	Quasi-Experimental/ Quasi-Experimental	6
8a,b	Brock & Joanning	A Comparison of the Relationship Enhancement Program and the Minnesota Couple Communication Program	1983	Journal Article	Experimental/ Experimental	12
9a	Busick	The Effects of Communication Training on Marital Communication, Marital Satisfaction, and Self-Concept	1982	Doctoral Dissertation	Quasi-Experimental/ Quasi-Experimental	8
10a	Carson, Carson, Gil, & Baucom	Mindfulness-Based Relationship Enhancement	2004	Journal Article	Experimental/ Experimental	4
11a,b	Cina, Widmer,	The Effectiveness of the		Journal	Pre-Post/ Pre-Post	8

	& Bodenmann	Couples Coping Enhancement Training: A Comparison of Two Training Versions	2002	Article	Pre-Post	
12a,b	Cleaver	Marriage Enrichment by Means of a Structured Communication Programme	1987	Journal Article	Experimental/ Pre-Post	15
13a	Cooper & Stoltenberg	Comparison of a Sexual Enhancement and a Communication Training Program on Sexual and Marital Satisfaction	1987	Journal Article	Experimental/ Experimental	1
14a,b	Duffey, Wooten, Lumadu, & Comstock	The Effects of Dream Sharing on Marital Intimacy and Satisfaction	2004	Journal Article	Experimental/ Experimental	2
15a,b	Duncan, Steed, & Martino	Comparing Web-based and Traditional Family Life Education on Outcomes for Marriage	2006	Unpublished Manuscript	Experimental/ Experimental	8
16a	Durana	Bonding and Emotional Education of Couples in the PAIRS Training	1996	Journal Article	Pre-Post/ Pre-Post	1
17a	Durana	A Longitudinal Evaluation of the Effectiveness of the PAIRS Psycho-educational Program for Couples	1996/ 1997	Journal Article	Pre-Post/ Pre-Post	4
18a	Dyer & Kotrla	Hispanic Active Relationships Program	2006	Pamphlet	Pre-Post/ Pre-Post	4
19a	Farris & Avery	Training Marital Couples in Problem-Solving Skills: An Evaluation of a Weekend Training Format	1980	Journal Article	Quasi- Experimental/ Quasi- Experimental	6
20a	Floyd	Couples' Cognitive/Affective Reactions to Communication Behaviors	1988	Journal Article	Quasi- Experimental/ Quasi- Experimental	4
21a	Gardner, Giese, & Parrott	Evaluation of the Connections: Relationships and Marriage Curriculum	2004	Journal Article	Quasi- Experimental/ Quasi- Experimental	1
22a,b	Greene	The Effect of the Relationship Enhancement Program on Marital Communication and Self-esteem	1985/ 1986	Journal Article	Experimental/ Pre-Post	2
23a	Griffin & Apostol	The Influence of Relationship Enhancement Training on Differentiation of Self	1993	Journal Article	Quasi- Experimental/ Quasi- Experimental	2
24a	Hahlweg, Markman, Thurmaier, Engl, & Eckert	Prevention of Marital Distress: Results of a German Prospective Longitudinal Study	1998	Journal Article	Quasi- Experimental/ Quasi- Experimental	12
25a,b,c,d	Halford, Sanders, & Behrens	Can Skills Training Prevent Relationship Problems in At-Risk Couples? Four-Year Effects of a Behavioral	2001	Journal Article	Quasi- Experimental/ Pre-Post	80

		Relationship Education Program				
26a	Hardwick	Credo marriage enrichment retreat: Measuring program efficacy for the Canadian Forces Chaplaincy	2005	Doctoral Dissertation	Pre-Post/ Pre-Post	2
27a,b	Hawkins, Fawcett, Carroll, & Gilliland	The Marriage Moments Program for Couples Transitioning to Parenthood: Divergent Conclusions from Formative and Outcome Evaluation Data	2006	Journal Article	Experimental/ Experimental	8
28a	Hawkins, Roberts, Christiansen, & Marshall	An Evaluation of a Program to Help Dual-earner Couples Share the Second Shift	1994	Journal Article	Pre-Post/ Pre-Post	4
29a,b,c	Hawley & Olson	Enriching Newlyweds: An evaluation of Three Enrichment Programs	1995	Journal Article	Quasi- Experimental/ Quasi- Experimental	9
30a	Jensen, Brady, & Burr	Effects of Student Practice on Several Types of Learning in a Functional Marriage Course	1979	Journal Article	Experimental/ Experimental	1
31a,b	Jessee & Guerney	A Comparison of Gestalt and Relationship Enhancement Treatments with Married Couples	1981	Journal Article	Pre-Post/ Pre-Post	6
32a	Joanning	The Long-Term Effects of the Couple Communication Program	1982	Journal Article	Pre-Post/ Pre-Post	14
33a	Kaiser & Hahlweg	The efficacy of a Compact Psycho-Educational Group Treatment Program for Married Couples	1998	Journal Article	Experimental/ Experimental	8
34a	Kaiser, Hahlweg, Fehm-Wolfsdorf, & Groth	Indicated Prevention for Longer Married Couples: Efficacy of a Compact Group Program	1999	Journal Article	Experimental/ Experimental	1
35a	Kemper	The Impact of a Community Marital Enrichment Program: Today's Marriage	2004	Doctoral Dissertation	Pre-Post/ Pre-Post	2
36a	Kermeen	Improving Postpartum Marital Relationships	1995	Journal Article	Experimental/ Experimental	1
37a	Kirby	A Study of the Marital Satisfaction Levels of Participants in a Marriage Education Course	2005	Doctoral Dissertation	Pre-Post/ Pre-Post	2
38a,b	Larson, Vatter, Galbriath, Holman, & Stahman	The RELATE <sup>i</sup> onship Evaluation (RELATE) with Therapist-Assisted Interpretation: Short-term Effects on Premarital Relationships	2006	Journal Article	Experimental/ Post-Only	8
39a,b	Lovejoy	Marriage Moments: An Evaluation of an Approach to	2004	Unpublished Masters	Quasi- Experimental/	8

		Strengthening Couples' Relationship During the Transition to Parenthood in the Context of a Home Visitation Program		Thesis	Quasi-Experimental	
40a	Markman, Floyd, Stanley, & Storaosli	Prevention of Marital Distress: A Longitudinal Investigation	1988	Journal Article	Experimental/Experimental	6
41a	Mason	Relationship Enhancement: Evaluating the Effects of a Couples Wilderness Program	1980	Unpublished Masters Thesis	Pre-Post/Pre-Post	1
42a	Midmer, Wilson, & Cumming	A Randomized, Controlled Trial of the Influence of Prenatal Parenting Education on Postpartum Anxiety and Marital Adjustment	1995	Journal Article	Experimental/Experimental	2
43a	Milholland & Avery	Effects of Marriage Encounter on Self-disclosure, Trust and Marital Satisfaction	1982	Journal Article	Quasi-Experimental/Quasi-Experimental	4
44a	Miller, Nunnally, & Wackman	A Communication Training Program for Couples	1976	Journal Article	Experimental/Experimental	1
45a,b	Moitinho	The Effects of Marriage Enrichment Conferences on Marital Satisfaction of English-speaking Hispanic Married Couples	2000	Doctoral Dissertation	Quasi-Experimental/Quasi-Experimental	2
46a	Most & Guerney	An Empirical Evaluation of the Training of Lay Volunteer Leaders for Premarital Relationship Enhancement	1983	Journal Article	Pre-Post/Pre-Post	3
47a	Nathan & Joanning	Enhancing Marital Sexuality: An Evaluation of a Program for the Sexual Enrichment of Normal Couples	1985	Journal Article	Experimental/Experimental	1
48a	Noval, Combs, Winamaki, & Bufford	Cognitive-behavioral Marital Enrichment Among Church and Non-church Groups: Preliminary Findings	1996	Journal Article	Pre-Post/Pre-Post	1
49a	Parish	A Quasi-experimental Evaluation of the Premarital Assessment Program for premarital counseling.	1992	Journal Article	Quasi-Experimental/Quasi-Experimental	2
50a	Pretorius, van Wyk, & Schepers	The Evaluation of a Marital Preparation Programme	1992	Journal Article	Experimental/Experimental	6
51a	Reissman, Aron, & Bergen	Shared Activities and Marital Satisfaction: Causal direction and Self-expansion Versus Boredom	1993	Journal Article	Experimental/Experimental	1
52a,b	Ridley, Avery, Harrell, Haynes-Clements, & McCunney	Conflict Management: A Premarital Training Program in Mutual Problem Solving	1981	Journal Article	Experimental/Pre-Post	16

53a,b	Ridley & Bain	The Effects of a Premarital Relationship Enhancement Program on Self-disclosure	1983	Journal Article	Experimental/ Pre-Post	2
54a,b	Ridley, Jorgensen, Morgan, & Avery	Relationship Enhancement with Premarital Couples: An Assessment of Effects on Relationship Quality	1982	Journal Article	Experimental/ Pre-Post	8
55a,b	Ridley & Nelson	The Behavioral Effects of Training Premarital Couples in Mutual Problem Solving Skills	1984	Journal Article	Experimental/ Pre-Post	8
56a,b	Ripley & Worthington	Hope-focused and Forgiveness-based Group Interventions to Promote Marital Enrichment	2002	Journal Article	Experimental/ Experimental	6
57a	Russell, Bagarozzi, Atilano, & Morris	A Comparison of Two Approaches to Marital Enrichment and Conjugal Skills Training: Minnesota Couples Communication Program and Structured Behavioral Exchange Contracting	1984	Journal Article	Experimental/ Experimental	2
58a	Sager & Sager	SANCTUS Marriage Enrichment	2005	Journal Article	Pre-Post/ Pre-Post	2
59a,b	Sams	Marriage Preparation: An Experimental Comparison of the Premarital Relationship Enhancement (PRE) and the Engaged Encounter (EE) Programs	1983	Doctoral Dissertation	Pre-Post/ Pre-Post	8
60a	Schilling, Baucom, Burnett, Allen, & Ragland	Altering the Course of Marriage: The Effect of PREP Communication Skills Acquisition on Couples' Risk of Becoming Maritally Distressed	2003	Journal Article	Pre-Post/ Pre-Post	4
61a	Schulz, Cowan, & Cowan	Promoting Healthy Beginnings: A Randomized Controlled Trial of a Preventative Intervention to Preserve Marital Quality During the Transition to Parenthood	2005	Journal Article	Experimental/ Experimental	4
62a,b	Stanley, Allen, Markman, Saiz, Bloomstrom, Thomas, Schumm, & Bailey	Dissemination and Evaluation of Marriage Education in the Army	2005	Journal Article	Pre-Post/ Pre-Post	8
63a,b	Strickland	The Effects of Two Marriage Enrichment Retreat Models on Marital Satisfaction	1981	Doctoral Dissertation	Quasi- Experimental/ Quasi- Experimental	24
64a	Turner	The Impact of a Psycho-	1998	Doctoral	Quasi-	4

		educational Group Intervention on Marital Discord, Adult Interaction Style, Projective Identification, and Perceptive Identification		Dissertation	Experimental/Quasi-Experimental	
65a	Van der Molen, Gramsbergen-Hoogland, Wolters, & de Meijer	Effecten van een communicatie-cursus voor (echt) paren	1987	Journal Article	Experimental/Experimental	8
66a,b	Van Widenfelt, Hosman, Schaap, and van der Staak	The Prevention of Relationship Distress for Couples at Risk	1996	Journal Article	Experimental/Experimental	12
67a,b	Wampler & Sprenkle	The Minnesota Couple Communication Program: A Follow-up Study	1980	Journal Article	Experimental/Pre-Post	8
68a	Wilson	The Effects of a Partially Structured Christian Marriage Enrichment Program Upon Marital Communication, General Marital Adjustment, and Purpose in Life	1980	Doctoral Dissertation	Quasi-Experimental/Quasi-Experimental	2
69a,b	Witkin, Edleson, Rose, & Hall	Group Training in Marital Communication: A Comparative Study	1983	Journal Article	Experimental/Experimental	14

Table I.2 Coded Studies: Sample Demographic Characteristics

Study Code	Authors	Average Age (years)	Diversity	Average Education Male/Female	Average Socio-economic Status	Marital Status	Relationship Length (years)
1a	Adam & Gringas	31-40	Less than 10%	Some College	Middle Class	Married and/or Cohabiting	6-10
2a,b,c	Avery, Ridley, Leslie, & Milholland	15-20	Less than 10%	Some College	Middle Class	Engaged	0-2
3a	Bagarozzi, Bagarozzi, Anderson & Pollane	21-25	Less than 10%	Some College	Middle Class	Married College Students	0-2
4a	Bodenmann, Charvoz, Cina & Widmer	41-50	Less than 10%	Some College	Middle Class	Married and/or Cohabiting	16-20
5a	Boike	21-25	Less than 10%	Some College	Middle Class	Engaged	3-5
6a,b	Braukhaus, Hahlweg, Kroger, Groth, & Fehm-wolfsdorf	41-50 (men) 31-40 (women)	Less than 10%	Some College	Middle Class	Married and/or Cohabiting	11-15
7a,b	Brock	26-30	Less than 10%	Some College	Middle Class	Married College Students	6-10
8a,b	Brock & Joanning	31-40	Not Reported	Not Reported	Not Reported	Married and/or Cohabiting	11-15
9a	Busick	26-30	Less than 10%	Some College	Middle Class	Married and/or Cohabiting	6-10
10a	Carson, Carson, Gil & Baucom	31-40	Less than 10%	Post Graduate Education	Middle Class	Married and/or Cohabiting	11-15
11a,b	Cina, Widmer, & Bodenmann	41-50 (men) 31-40 (women)	Less than 10%	Not Reported	Not Reported	Married and/or Cohabiting	11-15
12a,b	Cleaver	31-40	Less than 10%	Not Reported	Middle Class	Married and/or Cohabiting	11-15
13a	Cooper & Stoltenberg	31-40	10-25%	Some college	Not Reported	Married and/or Cohabiting	6-10
14a,b	Duffey, Wooten, Lumadu & Comstock	31-40	Less than 10%	Some college	Middle Class	Married and/or Cohabiting	11-15
15a,b	Duncan, Steed & Martino	41-50 (men) 31-40 (women)	10-25%	College Graduates	Middle Class	Included Several Groups	16-20
16a	Durana	41-50	Less than 10%	College Graduates	Middle Class	Included Several Groups	11-15

17a	Durana	41-50	Less than 10%	College Graduates	Middle Class	Married and/or Cohabiting	11-15
18a	Dyer & Kotrla	31-40	Predominantly Hispanic	Some College	Mixed Middle and Lower	Included Several Groups	11-15
19a	Farris & Avery	31-40	Less than 10%	Not Reported	Not Reported	Married and/or Cohabiting	11-15
20a	Floyd	21-25	Not Reported	Some College	Mixed Middle and Low Income	Engaged	0-2
21a	Gardner, Giese, & Parrott	15-20	More than 33%	Some High School	Mixed Middle and Low Income	High School Students	No Relationship
22a,b	Greene	Not Reported	Less than 10%	Not Reported	Not Reported	Married and/or Cohabiting	Not Reported
23a	Griffin & Apostal	31-40	Less than 10%	College Graduates	Not Reported	Married and/or Cohabiting	6-10
24a	Hahlweg, Markman, Thurmaier, Engl & Eckert	26-30	Less than 10%	High School Degree	Middle Class	Married and/or Cohabiting	3-5
25a,b,c,d	Halford, Sanders & Behrens	31-40 (men) 26-30 (women)	Less than 10%	College Grad/ Some College	Middle Class	Included Several Groups	0-2
26a	Hardwick	31-40	10-25%	Some College	Middle Class	Married and/or Cohabiting	6-10
27a,b	Hawkins, Fawcett, Carroll, & Gilliland	21-25	Less than 10%	College Grad/ Some College	Middle Class	Married and/or Cohabiting	3-5
28a	Hawkins, Roberts, Christiansen, & Marshall	31-40	Less than 10%	College Graduates	Middle Class	Married and/or Cohabiting	6-10
29a,b,c	Hawley & Olson	26-30	Less than 10%	College Graduates	Middle Class	Married and/or Cohabiting	0-2
30a	Jensen, Brady, Burr	15-20	Less than 10%	Some College	Middle Class	Included Several Groups	0-2
31a,b	Jessee & Guerney	31-40	Less than 10%	College Graduates	Middle Class	Married and/or Cohabiting	6-10
32a	Joanning	26-30	Not Reported	Some College	Middle Class	Married and/or Cohabiting	6-10
33a	Kaiser & Hahlweg	31-40	Less than 10%	High School Degree	Not Reported	Married and/or Cohabiting	11-15
34a	Kaiser, Hahlweg, Fehm-Wolfsdorf, Groth	31-40	Less than 10%	Some College	Middle Class	Married and/or Cohabiting	11-15

35a	Kemper	Not Reported	Less than 10%	Not Reported	Not Reported	Married and/or Cohabiting	No Relationship
36a	Kermeen	26-30 (men) 31-40(Women)	Less than 10%	Some College	Middle Class	Married and/or Cohabiting	3-5
37a	Kirby	Not Reported	Less than 10%	College Graduates	Middle Class	Married and/or Cohabiting	11-15
38a,b	Larson, Vatter, Galbriath, Holman, & Stahman	21-25	10-25%	Some College	Middle Class	Single College Students	Not Reported
39a,b	Lovejoy	26-30 (men) 21-25(women)	Less than 10%	College Grad/ Some College	Middle Class	Married and/or Cohabiting	3-5
40a	Markman, Floyd, Stanley & Storaasli	21-25	Less than 10%	Some College	Mixed Middle and Low Income	Engaged	3-5
41a	Mason	31-40 (men) 26-30(women)	Less than 10%	College Graduates	Middle Class	Included Several Groups	6-10
42a	Midmer, Wilson, & Cumming	31-40	10-25%	College Graduates	Middle Class	Married and/or Cohabiting	6-10
43a	Milholland & Avery	31-40	Less than 10%	Not Reported	Middle Class	Married and/or Cohabiting	6-10
44a	Miller, Nunnally, & Wackman	Not Reported	Less than 10%	Not Reported	Not Reported	Engaged	0-2
45a,b	Moitinho	31-40	More than 33%	Not Reported	Not Reported	Married and/or Cohabiting	11-15
46a	Most & Guerny	21-25	Less than 10%	High School Degree	Middle Class	Engaged	0-2
47a	Nathan & Joanning	31-40	Less than 10%	College Graduates	Mixed Middle and Low Income	Married and/or Cohabiting	6-10
48a	Noval, Combs, Winamaki, & Bufford	Not Reported	10-25%	Not Reported	Not Reported	Engaged	0-2
49a	Parish	21-25	10-25%	Some College	Middle Class	Engaged	0-2
50a	Pretorius, van Wyk, & Schepers	21-25	Less than 10%	Not Reported	Middle Class	Engaged	0-2
51a	Reissman, Aron & Bergen	41-50	Less than 10%	College Graduates	Middle Class	Married and/or Cohabiting	11-15
52a,b	Ridley, Avery, Harrell, Haynes-Clements, & McCunney	15-20	Less than 10%	Some College	Middle Class	Engaged	0-2
53a,b	Ridley & Bain	21-25	Less than 10%	Some College	Middle Class	Engaged	0-2

54a,b	Ridley, Jorgensen, Morgan & Avery	Not Reported	Less than 10%	Some College	Middle Class	Engaged	0-2
55a,b	Ridley & Nelson	21-25	Less than 10%	Some College	Middle Class	Engaged	0-2
56a,b	Ripley & Worthington	31-40	10-25%	Some College	Middle Class	Married and/or Cohabiting	6-10
57a	Russell, Bagarozzi, Atilano, & Morris	26-30	Less than 10%	Some College	Middle Class	Married and/or Cohabiting	3-5
58a	Sager & Sager	Not Reported	Less than 10%	Not Reported	Not Reported	Married and/or Cohabiting	0-2
59a,b	Sams	21-25	Less than 10%	Not Reported	Mixed Middle and Low Income	Engaged	0-2
60a	Schilling, Baucom, Burnett, Allen, & Ragland	26-30	Less than 10%	College Graduates	Middle Class	Engaged	0-2
61a	Schulz, Cowan & Cowan	31-40 (men) 26-30 (women)	10-25%	Some College	Middle Class	Married and/or Cohabiting	3-5
62a	Stanley, Allen, Markman, Saiz, Bloomstrom, Thomas, Schumm, & Bailey	21-25	More than 33%	Not Reported	Low Income	Married and/or Cohabiting	6-10
62b	Stanley, Allen, Markman, Saiz, Bloomstrom, Thomas, Schumm, & Bailey	26-30	25-33%	Not Reported	Low Income	Married and/or Cohabiting	6-10
63a,b	Strickland	31-40	Less than 10%	Some College	Mixed Middle and Low Income	Married and/or Cohabiting	11-15
64a	Turner	41-50	Less than 10%	College Graduates	Middle Class	Included Several Groups	16-20
65a	Van der Molen, Gramsbergen-Hoogland, Wolters, & de Meijer	41-50	Less than 10%	Not Reported	Not Reported	Married and/or Cohabiting	16-20
66a,b	Van Widenfelt, Hosman, Schaap, and van der Staak	31-40	Less than 10%	High School Degree	Middle Class	Married and/or Cohabiting	6-10
67a,b	Wampler & Sprengle	21-25	Less than 10%	Some College	Middle Class	Included Several Groups	3-5
68a	Wilson	31-40	Less than 10%	Some College	Mixed Middle and Low Income	Included Several Groups	6-10
69a,b	Witkin, Edleson, Rose, & Hall	31-40	Not Reported	College Graduates	Middle Class	Married and/or Cohabiting	6-10

Table I.3 Coded Studies: Program Characteristics

<b>Study Code</b>	<b>Authors</b>	<b>Program Type</b>	<b>Primary Name</b>	<b>Primary Content</b>	<b>Setting</b>	<b>Program Length (Hours)</b>
1a	Adam & Gringas	Marriage Enhancement/ Skills Training	MEP Marital Enrichment	Communication Skills	Probably University/Therapy	20
2a	Avery, Ridley, Leslie, & Milholland	Pre-Marital	Relationship Enhancement	Communication Skills	Probably University/Therapy	24
2b	Avery, Ridley, Leslie, & Milholland	Pre-Marital	Relationship Enhancement w/Booster	Communication Skills	Probably University/Therapy	25
2c	Avery, Ridley, Leslie, & Milholland	Pre-Marital	Lecture/Discussion Group	Determined Weekly by Couples	Probably University/Therapy	24
3a	Bagarozzi, Bagarozzi, Anderson & Pollane	Pre-Marital	PETS (Premarital Education and Training Sequence)	Communication Skills	Therapy Clinic	12
4a	Bodenmann, Charvoz, Cina & Widmer	Marriage Enhancement/ Skills Training	CCET (Couples Coping Enhancement Training)	Communication Skills	Unspecified	18
5a	Boike	Pre-Marital	Pre-Cana	Communication Skills	Church	10
6a	Braukhaus, Hahlweg, Kroger, Groth, & Fehm-wolfsdorf	Marriage Enhancement/ Skills Training	EPL: A Learning Program for Married Couples	Communication Skills	High School or University Class	18
6b	Braukhaus, Hahlweg, Kroger, Groth, & Fehm-wolfsdorf	Marriage Enhancement/ Skills Training	EPL w/Booster	Communication Skills	High School or University Class	20
7a	Brock	Marriage Enhancement/ Skills Training	Communication Skills Training	Communication Skills	Probably University/Therapy	25
7b	Brock	Marriage Enhancement/ Skills Training	Discussion Group	Expectations & Knowledge	Probably University/Therapy	25
8a	Brock & Joanning	Marriage Enhancement/ Skills Training	Couples Communication	Communication Skills	Therapy Clinic	20
8b	Brock & Joanning	Marriage Enhancement/ Skills Training	Relationship Enhancement	Communication Skills	Therapy Clinic	20

9a	Busick	Marriage Enhancement/ Skills Training	Minnesota Couples Communication Program	Communication Skills	Therapy Clinic	12
10a	Carson, Carson, Gil & Baucom	Marriage Enhancement/ Skills Training	Mindfulness-based relationship enhancement	Behavioral Skill Training	Probably University/Therapy	27
11a	Cina, Widmer, & Bodenmann	Marriage Enhancement/ Skills Training	CCET (Couples Coping Enhancement Training)	Communication Skills	High School or University Class	18
11b	Cina, Widmer, & Bodenmann	Marriage Enhancement/ Skills Training	CCET Revised (emphasis on coping)	Communication Skills	High School or University Class	18
12a	Cleaver	Marriage Enhancement/ Skills Training	Couples Communication Video	Communication Skills	Probably University/Therapy	8
12b	Cleaver	Marriage Enhancement/ Skills Training	Couples Communication	Communication Skills	Probably University/Therapy	8
13a	Cooper & Stoltenberg	Marriage Enhancement/ Skills Training	KISS (Knowledge Increases Sexual Satisfaction)	Expectations & Knowledge	Probably University/Therapy	12
14a	Duffey, Wooten, Lumadu, & Comstock	Marriage Enhancement/ Skills Training	Dream Sharing	Behavioral Skill Training	Probably University/Therapy	10+
14b	Duffey, Wooten, Lumadu, & Comstock	Marriage Enhancement/ Skills Training	Event Sharing	Behavioral Skill Training	Probably University/Therapy	10+
15a	Duncan, Steed, & Martino	Marriage Enhancement/ Skills Training	Traditional FLE (Gottman, Seven Principles)	Motivation & Virtues	Probably University/Therapy	12
15b	Duncan, Steed, & Martino	Marriage Enhancement/ Skills Training	Web-based FLE (Gottman, Seven Principles)	Motivation & Virtues	Home	10
16a	Durana	Marriage Enhancement/ Skills Training	PAIRS	Expectations & Information	Therapy Clinic	120
17a	Durana	Marriage Enhancement/ Skills Training	PAIRS	Expectations & Information	Therapy Clinic	120
18a	Dyer & Kotrla	Marriage Enhancement/ Skills Training	ARP (Active Communicaiton)	Communication Skills	Community	--
19a	Farris & Avery	Marriage Enhancement/ Skills Training	Problem Solving Program	Communication Skills	Therapy Clinic	12
20a	Floyd	Pre-Marital	Cognitive-Behavioral Intervention	Communication Skills	Therapy Clinic	15
21a	Gardner, Giese, & Parrott	High School Program	Connections: Relationships and Marriage	Expectations & Information	High School or University Class	15
22a	Greene	Marriage Enhancement/ Skills Training	Relationship Enhancement	Communication	Probably	Unknown

		Skills Training	Initial Treatment Group	Skills	University/Therapy	
22b	Greene	Marriage Enhancement/ Skills Training	Relationship Enhancement Wait List Comparison Group	Communication Skills	Probably University/Therapy	Unknown
23a	Griffin & Apostol	Marriage Enhancement/ Skills Training	Relationship Enhancement	Communication Skills	Probably University/Therapy	18
24a	Hahlweg, Markman, Thurmaier, Engl, & Eckert	Pre-Marital	EPL (A Learning Program for Married Couples	Communication Skills	Therapy Clinic	18
25a	Halford, Sanders, & Behrens	Pre-Marital	Low-Risk Self-PREP	Communication Skills	Therapy Clinic	10
25b	Halford, Sanders, & Behrens	Pre-Marital	High-Risk Self-PREP	Communication Skills	Therapy Clinic	10
25c	Halford, Sanders, & Behrens	Pre-Marital	Low-Risk Comparison Group	Expectations & Information	Therapy Clinic	10
25d	Halford, Sanders, & Behrens	Pre-Marital	High-Risk Comparison Group	Expectations & Information	Therapy Clinic	10
26a	Hardwick	Marriage Enhancement/ Skills Training	CREDO (Chaplain's Religious Enrichment & Development)	Communication Skills	Military	9
27a	Hawkins, Fawcett, Carroll, & Gilliland	Transition to Parenthood	Marriage Moments Instructor Encouraged	Motivation & Virtues	Health Care	6
27b	Hawkins, Fawcett, Carroll, & Gilliland	Transition to Parenthood	Marriage Moments Self Guided	Motivation & Virtues	Home	7
28a	Hawkins, Roberts, Christiansen, & Marshall	Marriage Enhancement/ Skills Training	Dual-earner housework education program	Expectations & Information	Health Care	12
29a	Hawley & Olson	Marriage Enhancement/ Skills Training	Learning to Live Together	Expectations & Information	Probably University/Therapy	8+
29b	Hawley & Olson	Marriage Enhancement/ Skills Training	Growing Together	Expectations & Information	Probably University/Therapy	8+
29c	Hawley & Olson	Marriage Enhancement/ Skills Training	TIME (Training in Marriage Enrichment)	Communication Skills	Probably University/Therapy	10+
30a	Jensen, Brady, Burr	Pre-Marital	Functional Marriage Course	Expectations & Information	High School or University Class	Unknown
31a	Jessee & Guerney	Marriage Enhancement/ Skills Training	Gestalt Relationship Facilitation Program	Communication Skills	Therapy Clinic	30
31b	Jessee & Guerney	Marriage Enhancement/ Skills Training	Relationship Enhancement	Communication	Therapy Clinic	30

		Skills Training		Skills		
32a	Joanning	Marriage Enhancement/ Skills Training	Couples Communication	Communication Skills	Therapy Clinic	12
33a	Kaiser & Hahlweg	Marriage Enhancement/ Skills Training	EPL (A Learning Program for Married Couples)	Communication Skills	Therapy Clinic	18
34a	Kaiser, Hahlweg, Fehm- Wolfsdorf, Groth	Marriage Enhancement/ Skills Training	EPL (A Learning Program for Married Couples)	Communication Skills	Probably University/Therapy	18
35a	Kemper	Marriage Enhancement/ Skills Training	Today's Marriage: Investing for a Lifetime	Motivation & Virtues	Church	7
36a	Kermeen	Transition to Parenthood	New Pre-natal Program	Expectations & Information	Health Care	14
37a	Kirby	Marriage Enhancement/ Skills Training	Dynamic Marriage Course	Expectations & Information	Church	50
38a	Larson, Vatter, Galbriath, Holman, & Stahman	Pre-Marital	RELATE: self- interpretation	Expectations & Information	Therapy Clinic	5
38b	Larson, Vatter, Galbriath, Holman, & Stahman	Pre-Marital	RELATE: therapist- assisted interpretation	Expectations & Information	Therapy Clinic	5
39a	Lovejoy	Transition to Parenthood	Marriage Moments	Motivation & Virtues	Home	6
39b	Lovejoy	Transition to Parenthood	Welcome Baby	Expectations & Information	Home	1
40a	Markman, Floyd, Stanley & Storaasli	Pre-Marital	PREP (Preparation and relationship enhancement program)	Communication Skills	Probably University/Therapy	15
41a	Mason	Marriage Enhancement/ Skills Training	Couples Climbing Relationship Enhancement Program	Motivation & Virtues	Community	24+
42a	Midmer, Wilson, & Cumming	Transition to Parenthood	Postpartum marital adjustment	Expectations & Information	Health Care	6
43a	Milholland & Avery	Marriage Enhancement/ Skills Training	Marriage Encounter	Motivation & Virtues	Church	Unknown
44a	Miller, Nunnally, & Wackman	Pre-Marital	Couples Communication	Communication Skills	Probably University/Therapy	12
45a	Moitinho	Marriage Enhancement/ Skills Training	Great Commandment Marriage	Motivation & Virtues	Church	8
45b	Moitinho	Marriage Enhancement/ Skills Training	Five Love Languages	Motivation & Virtues	Church	3

		Skills Training	Conference	Virtues		
46a	Most & Guerney	Pre-Marital	Premarital Relationship Enhancement	Communication Skills	Church	Unknown
47a	Nathan & Joanning	Marriage Enhancement/ Skills Training	Enhancing Marital Sexuality	Expectations & Information	Probably University/Therapy	11
48a	Noval, Combs, Winamaki, & Bufford	Marriage Enhancement/ Skills Training	Cognitive Behavioral Marriage Enhancement	Communication Skills	Church	10
49a	Parish	Pre-Marital	PAP with Couples Communication	Communication Skills	Therapy Clinic	12
49a	Parish	Pre-Marital	Premarital Assessment Program	Expectations & Information	Therapy Clinic	12
50a	Pretorius, van Wyk, & Schepers	Pre-Marital	Marital Preparation Program	Communication Skills	Probably University/Therapy	9
51a	Reissman, Aron & Bergen	Marriage Enhancement/ Skills Training	Shared Activities: Pleasant and Exciting	Determined by Couple Discussion	Home	15
52a	Ridley, Avery, Harrell, Haynes-Clements, & McCunney	Pre-Marital	MPS (Mutual Problem Solving)	Communication Skills	Probably University/Therapy	24
52b	Ridley, Avery, Harrell, Haynes-Clements, & McCunney	Pre-Marital	Relationship Discussion Group	Determined by Couple Discussion	Probably University/Therapy	24
53a	Ridley & Bain	Pre-Marital	Relationship Enhancement	Communication Skills	Probably University/Therapy	24
53b	Ridley & Bain	Pre-Marital	Relationship Discussion Group	Determined by Couple Discussion	Probably University/Therapy	24
54a	Ridley, Jorgensen, Morgan, & Avery	Pre-Marital	Relationship Enhancement	Communication Skills	Probably University/Therapy	24
54b	Ridley, Jorgensen, Morgan, & Avery	Pre-Marital	Relationship Discussion Group	Determined by Couple Discussion	Probably University/Therapy	24
55a	Ridley & Nelson	Pre-Marital	MPS (Mutual Problem Solving)	Communication Skills	Probably University/Therapy	30
55b	Ridley & Nelson	Pre-Marital	Relationship Discussion Group	Determined by Couple Discussion	Probably University/Therapy	30
56a	Ripley & Worthington	Marriage Enhancement/ Skills Training	Hope-Focused Marital Enrichment	Motivation & Virtues	Therapy Clinic	6
56b	Ripley & Worthington	Marriage Enhancement/ Skills Training	Empathy-Centered Marital	Motivation &	Therapy Clinic	6

		Skills Training	Enrichment	Virtues		
57a	Russell, Bagarozzi, Atilano, & Morris	Marriage Enhancement/ Skills Training	SBE (Structured Behavior- Exchange)	Behavioral Skills	Probably University/Therapy	12
57b	Russell, Bagarozzi, Atilano, & Morris	Marriage Enhancement/ Skills Training	MCCP (Minnesota Couples Communication Program)	Communication Skills	Probably University/Therapy	12
58a	Sager & Sager	Marriage Enhancement/ Skills Training	SANCTUS	Motivation & Virtues	Church	48
59a	Sams	Pre-Marital	Premarital Relationship Enhancement	Communication Skills	Church	16
59b	Sams	Pre-Marital	Engaged Encounter	Expectations & Information	Church	20
60a	Schilling, Baucom, Burnett, Allen, & Ragland	Pre-Marital	PREP (Weekend Version)	Communication Skills	Probably University/Therapy	12
61a	Schulz, Cowan & Cowan	Transition to Parenthood	Promoting Healthy Beginning	Expectations & Information	Health Care	60
62a	Stanley, Allen, Markman, Saiz, Bloomstrom, Thomas, Schumm, & Bailey	Marriage Enhancement/ Skills Training	Building Strong and Ready Families	Communication Skills	Military	Unknown
62b	Stanley, Allen, Markman, Saiz, Bloomstrom, Thomas, Schumm, & Bailey	Marriage Enhancement/ Skills Training	Building Strong and Ready Families (second group)	Communication Skills	Military	Unknown
63a	Strickland	Marriage Enhancement/ Skills Training	Basic Marriage Encounter	Communication Skills	Church	14
63b	Strickland	Marriage Enhancement/ Skills Training	SE Marriage Encounter	Communication Skills	Church	11
64a	Turner	Marriage Enhancement/ Skills Training	PAIRS	Communication Skills	Probably University/Therapy	120
65a	Van der Molen, Gramsbergen-Hoogland, Wolters, & de Meijer	Marriage Enhancement/ Skills Training	Help as Teaching	Communication Skills	Probably University/Therapy	38
66a	Van Widenfelt, Hosman, Schaap, and van der Staak	Marriage Enhancement/ Skills Training	PREP-based Marriage Education Program	Communication Skills	Probably University/Therapy	15
66b	Van Widenfelt, Hosman, Schaap, and van der Staak	Marriage Enhancement/ Skills Training	PREP-based Marriage Education Program	Communication Skills	Probably University/Therapy	15
67a	Wampler & Sprenkle	Marriage Enhancement/ Skills Training	MCCP (Minnesota	Communication	Probably	15

		Skills Training	Couples Communication Program)	Skills	University/Therapy	
67b	Wampler & Sprenkle	Marriage Enhancement/ Skills Training	EPS (Enrichment Program Survey)	Expectations & Information	Probably University/Therapy	15
68a	Wilson	Marriage Enhancement/ Skills Training	Enjoying Marriage	Motivation & Virtues	Church	14
69a	Witkin, Edleson, Rose, & Hall	Marriage Enhancement/ Skills Training	CSW (Communication Skills Workshop)	Communication Skills	Therapy Clinic	12
69b	Witkin, Edleson, Rose, & Hall	Marriage Enhancement/ Skills Training	Couples Communication	Communication Skills	Therapy Clinic	12