



2004-04-19

Helping with the Transition to Parenthood: An Evaluation of the Marriage Moments Program

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HELPING WITH THE TRANSITION TO PARENTHOOD: AN
EVALUATION OF THE *MARRIAGE MOMENTS* PROGRAM

by

Elizabeth Brinton Fawcett

A thesis submitted to the faculty of

Brigham Young University

in partial fulfillment of the requirements for the degree of

Master of Science

Marriage and Family Therapy Program

School of Family Life

Brigham Young University

April 2004

BRIGHAM YOUNG UNIVERSITY

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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

HELPING WITH THE TRANSITION TO PARENTHOOD: AN EVALUATION OF THE *MARRIAGE MOMENTS* PROGRAM

Elizabeth Brinton Fawcett

Marriage and Family Therapy Program

Master of Science

In an attempt to strengthen marriages during the transition to parenthood, the *Marriage Moments* program was developed from Blaine Fowers' virtues based model of marital quality. *Marriage Moments* is a non-intrusive, mostly self-guided approach to marriage education, which is easily incorporated into childbirth education classes. The *Marriage Moments* curriculum stresses building marriage on a strong foundation of friendship and partnership. In this model, marital friendship is strengthened through a shared vision of life and important life goals; partnership is nurtured by the virtues of generosity, fairness and loyalty.

This program was tested on 155 married couples that were expecting their first child. Couples were randomly assigned to one control or two treatment groups. The control group participated in a childbirth education class, but did not receive the *Marriage Moments* program. The instructor-encouraged treatment group viewed the

Marriage Moments video in their childbirth education classes and were encouraged to do workbook activities by their class instructor; the self-guided treatment group couples were given the video and workbook to use at home. The *Marriage Moments* video is comprised of five, eight-minute segments introducing the marital virtues of friendship, generosity, fairness and loyalty. The workbook provides couples with additional information about the transition to parenthood and the possible applications of the virtues principles, including individual and couple activities.

All couples were assessed using a battery of self- and spouse-report measures immediately before and after their child-birth classes and then at three and nine months after the birth of their babies. This longitudinal study examined the effect of the *Marriage Moments* program on marital virtues, marital quality, and intentionality. Relationship outcome measures included in this study were the Marital Virtues Profile, Revised-Dyadic Adjustment Scale, RELATE Satisfaction subscale and Transition Adjustment Scale.

Treatment group couples reported high involvement in and enjoyment of the program. When asked to rate the program, couples evaluated the program as ‘important’ and ‘worthwhile.’ However, despite positive program evaluation, statistical tests revealed no consistent difference between the control and treatment groups over four times. Subgroup analysis also failed to reveal group differences when controlling for education, number of years married, and early marital distress. Suggestions for future study include contrasts of skills and virtues based curriculums, as well as high and low dosage interventions. In addition, this program should be studied in both clinical and educational settings.

ACKNOWLEDGMENTS

I am thankful to Dr. Hawkins, for inviting me to participate in the creation and evaluation of the *Marriage Moments* program. From him, I have learned more than I ever imagined about analyzing and ‘torturing’ data. I am thankful to both Dr. Hawkins and Dr. Carroll for introducing me to a marital-virtues perspective. It has had a great and positive impact on my approach to therapy and on my life. I am also thankful for Dr. Stahmann’s support. I admire and respect his approach to teaching and his clinical work. His gentle encouragement has been a gift throughout my time in the Marriage and Family Therapy program.

I am thankful for my husband, David, whose patience and love have helped me to be more than I ever thought I could be. He is the one who has taught me the most about generosity, loyalty, fairness and teamwork in marriage. He is my truest friend and partner. I am also thankful for my parents and family, who been my proofreaders and cheerleaders in this endeavor; they have supported and encouraged me in everything I have ever pursued. Lastly, I am thankful to my God, for the many gifts he has bestowed upon me. I feel greatly blessed and deeply thankful to Him.

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Chapter 1. Introduction

In the two years that I have been practicing as a Marriage and Family Therapist student intern, I have been struck by the dramatic dichotomy between types of clients who request marital therapy. For example, Amy and John were students who had been married one year. They requested marital therapy to work on improving their communication and affection so that they could begin to prepare for parenthood. This couple wanted to become pregnant within the next year and met with me with the goal to strengthen their marriage in preparation for the stressful changes to come. In contrast to Amy and John, I also worked with a woman who has been divorced and re-married and who is considering giving up custody of her daughter because her new husband threatened to divorce her if her child continued to disrupt their marriage. I have often wondered how we, as therapists and educators, can help more couples become more intentional about strengthening their marriages before they become so overwhelmed that they consider divorce. Particularly as couples face stressful transitions, like parenthood, how can we provide them with the resources for strengthening their marriages and families? As the old proverb states, we know that an ounce of prevention is worth a pound of cure. How can we educate and strengthen couples during the transition to parenthood in a way that will give them the best chance of maintaining marital quality and commitment after they become parents?

The transition from familial dyad to triad brings many changes. Based upon their research, Worthington and Buston (1986) make a general conclusion about the transition to parenthood: "Becoming parents seems to disrupt most marriages to some extent and some marriages to a great extent" (p. 453). These disruptions affect new parents on

personal and marital levels (Grossman, 1988; Levy-Shiff, 1994). Some of these changes typically include a more traditional division of labor, a decrease in personal and leisure time, and an increase in baby-centered activities and other instrumental functions (Belsky, Lang & Rovine, 1985; Belsky & Pensky, 1988; Crawford & Huston, 1993; Crohan, 1996). The extent to which couples are able to anticipate and adjust to these changes is predictive of marital strain or satisfaction during and after the transition to parenthood. For many couples unmet expectations and declines in communication and intimacy contribute to decreases in marital satisfaction after the birth of the first baby (Helms-Erikson, 2001). In fact, researchers have begun to refer to the decline in marital satisfaction during the transition to parenthood as “one of the most pervasive and consistent findings in the literature” (Cowan, 1990, p.178).

Strengthening marriages during the transition to parenthood has become the focus of several interventions. Because of the challenges faced by couples as they become parents, many researchers have identified this transition as an ideal time for marital intervention (Bryan, 2000; Cowan & Cowan, 1995; Hawkins , Gilliland, Christiaens & Carroll, 2002; Shapiro, Gottman, & Carrere, 2000). In fact, Belsky and Pensky (1988) stated, “childbirth education classes would seem to be an ideal place for intervention efforts to be undertaken, particularly because large numbers of families voluntarily enroll in these community sponsored programs” (p. 153). *Marriage Moments* is an educational intervention program for couples that are making the transition to parenthood. This program utilizes the existing infrastructure of childbirth education classes as a context for marriage education. This thesis will evaluate the success of the *Marriage Moments* program.

The thesis is organized as follows: first, I will discuss the need for such a program, derived from the research on the effects of the transition to parenthood on marital relations. Next, I will discuss the *Marriage Moments* program itself, how it was designed to meet the challenges couples face at this unique time. Then, I will discuss the research design and methodology that was used to evaluate the efficacy of the *Marriage Moments* program. Finally, I will present the results of the program evaluation and discuss the implications of the findings.

Chapter 2. Literature Review: The Challenges of the Transition to Parenthood

For several decades, family life researchers have identified the transition to parenthood as one of the most difficult and challenging life adjustments (Crohan, 1996; Cox, 1985; Michaels & Goldberg, 1988). Marital adjustment across this transition has been the focus of numerous studies (Belsky, Lang & Rovine, 1985; Belsky & Pensky, 1988; Huston & Vangelisti, 1995; MacDermid, Huston & McHale, 1990; Wallace & Gotlib, 1990; Worthington & Buston 1986). Many researchers have highlighted a significant and predictable decline in marital interchange and satisfaction and an increase in marital conflict after the birth of the first baby (Cox, Paley, Burchinal & Payne, 1999; Crohan, 1996; Helms-Erikson, 2001; Shapiro et al., 2000). These declines in marital quality often include decreases in positive affection, communication, and time (Belsky, et al., 1985). Role specialization and spouses' expectations have also been shown to influence the transition to parenthood. Husband and wife must make personal meaning of their respective roles as father and mother. They must negotiate their expectations of one another as parents and find joint meaning as parents.

The greatest challenge of the transition to parenthood seems to be the changing nature of the marital relationship from a romantic dyad to a familial triad. This transition is particularly difficult because of our cultural belief in the "myth of marital happiness" (Fowers, 2000). According to Fowers, many spouses enter marriage expecting to live "happily ever after," expecting that the purpose of marriage is to bring personal happiness and satisfaction. These spouses quickly become dissatisfied when the marriage becomes stressful, or requires personal sacrifice. Fowers' perspective on marriage is a virtues-

based approach. He proposes that marriage is most fulfilling as a partnership of shared goals nurtured by the virtues of friendship, generosity, justice and loyalty. These virtues play a particularly important role in marriage as spouses become parents because this is a transition during which romantic and idealistic expectations for marriage face the realities of limited time, energy, and the need to create space in the dyad for another person. The marital virtues perspective provides an interesting lens through which to view previous research on the transition to parenthood. (For a comprehensive review of the literature on the transition to parenthood see: Cowan & Cowan, 1995; Hawkins et al., 2002; Kurdek, 1993, 1999.)

Belsky and Pensky (1988) reviewed several studies, which examined the transition to parenthood. They found that the greatest source of conflict for couples during the transition to parenthood was the division of labor. A typical finding among studies of the transition to parenthood is the increase in household division of labor along gender lines after the birth of the first baby, even in marriages that were more egalitarian before pregnancy. According to Crohan (1996), “many studies suggest that conflicts over decisions and roles, primarily over who does what, may be the most common source of tension” (p. 942). The division of labor is often an issue of fairness in marriage. From a virtues perspective, spouses need to focus on sharing the workload more than obtaining their fair share. Although this perspective can produce many different ways of allocating household labor, even some that may look quite traditional, spouses who practice the virtue of fairness emphasize both partners giving their best to a shared goal. In addition, couples that value fairness ensure that the workload is fair for their spouses; they monitor their own workload to make sure they are giving all that they can.

Several studies have also highlighted the role of spouses' expectations during the transition to parenthood (Belsky & Kelly, 1994; Shapiro et al., 2000). According to Worthington and Buston (1986), unrealistic expectations or expectations greater than the actual experience lead to more negative changes in marriage. Unrealistic expectations likely flow from the myth that marriage is exclusively about emotional gratification. Those couples whose expectations of marriage and parenthood challenged the myth tended to be more satisfied with parenthood than those couples who "enter the starting gate wearing rose-colored glasses" (Belsky & Kelly, 1994, p. 2). Spouses' expectations about the transition to parenthood are influenced by their belief in the myth of marital happiness (Fowers, 2000). The amount of preparation by the couple - their readiness for parenthood - is positively correlated with higher levels of marital satisfaction as these couples become parents (Worthington & Buston, 1986). Parental expectations were also identified by Belsky and Pensky (1988) as a key factor related to the variation in the transition experience. Those couples that are able to anticipate the challenges of parenthood and prepare together for changes in their relationship are those who are able to maintain high levels of marital quality throughout the transition.

According to researchers, many factors influence the ease of the transition to parenthood, such as: timing, planned versus unplanned pregnancy, age of the parents, gender of the baby, and perceived competence in parenting (Cox et al., 1999; Helms-Erikson, 2001; Hock, Schirtzinger, Lutz & Widaman, 1995; Wallace & Gotlib, 1992). The timing of parenthood in the marital life cycle is a crucial factor in the ability of the couple to adjust. Helms-Erikson (2001) explains, "the implications of a given transition depend on the timing of the event relative to normative patterns and cultural expectations" (p. 1100). The normative timing of the first child depends upon culture.

Nationally, the average ages of first time parents are 29 for husbands and 27 for wives. According to the US Department of Health and Human Services (1995), fewer individuals are marrying and those who marry are doing so at later ages. A generation ago, the average age of men and women marrying for the first time was 23 and 21; now the ages of first-time spouses are 25 for women and 27 for men. Helms-Erikson (2001) suggests that younger couples may rely more on their families of origin for financial or emotional support during this time. In contrast, older couples may be more independent, may have a wider range of others with whom to compare their relationship and may have had more time to negotiate household tasks. Additionally, older or longer married couples may have had time to move beyond the myth of marital happiness and develop a stronger sense of partnership.

Another source of stress associated with the timing of the transition to parenthood is whether or not the pregnancy was planned: "...off-timed events are stressful. If a pregnancy is unplanned, it is more likely to result in a more stressful transition" (Cowan & Cowan, 2000; Cox et al., 1999, p. 614). As might be expected, research has typically shown that couples experiencing unplanned pregnancies have lower levels of marital satisfaction than parents who plan the transition (Cox et al., 1999). It is possible that the transition is more difficult for these couples because they do not enter parenthood as a team; unplanned pregnancies are sometimes indicative of a lack of partnership or shared goals in marriage.

In addition to identifying factors which increase marital stress during the transition to parenthood, many studies have identified factors which contribute to the maintenance of marital quality during this transition. In a review of several studies, researchers found that a wife's ability to keep the marriage central was a strong predictor

of comfort and confidence in the transition (Grossman, 1988). This centrality of marriage reflects a spouse's loyalty to the marriage (Fowers, 2000). Spouses who place one another first and give priority to the marital union above friends, work, hobbies, and even extended family, build a strong marital partnership. The centrality of marriage is also a key feature of what Doherty (1997, 2001) calls "intentional marriages." Doherty (2001) defines an intentional marriage as "one where the partners are conscious, deliberate and planful about maintaining and building their commitment and connection over the years" (p. 18). Those spouses who are deliberate about making their marriage a central part of their transition to parenthood maintain higher levels of marital quality and lower levels of stress as they become parents.

A healthy marriage prior to pregnancy is not only the best predictor of good post-natal adjustment, but may also act as a buffer against dissatisfaction during the transition to parenthood. Researchers (Shapiro et al., 2000) have concluded that a strong marital friendship acts as a protective factor during the transition to parenthood. Fondness and admiration, which are critical elements of the virtue of generosity, are indices of marital friendship which serve as a buffer against stress and contribute to marital satisfaction (Shapiro et al., 2000). In fact, in their recent study of the transition to parenthood, Shapiro and her colleagues identified the expression of fondness and admiration as the most significant factor in marital satisfaction after the birth of the baby; fondness and admiration were described as "the glue that holds the relationship together" (p. 67). These researchers also found that a couple's degree of "we-ness," or unity, was predictive of marital satisfaction. Valuing friendship and unity in marriage is also in line with Fowers' virtue-based approach to marriage. Couples who show admiration and appreciation for one another strengthen their marital friendship. This friendship creates a

strong base for an enduring marital partnership.

Interventions

According to Cowan (1990), “the most pervasive and consistent finding of longitudinal studies is that both husbands and wives report declining satisfaction with marriage as they move from life as a couple to becoming a family” (p. 278). In concordance with these findings, several researchers have identified the transition to parenthood as a critical time for education and intervention (Cowan & Cowan, 1995). These researchers and interventionists have attempted to educate couples about parenthood, how to care for themselves and for their babies. Some researchers and educators have also begun to attempt to help couples strengthen their marriages during this transition.

Some childbirth educators have focused on parenting education, touching indirectly on the marital relationship. Ewy-Edwards (2000) has created a curriculum for childbirth educators including information, demonstrations, and group activities around the following topics: changing roles, responsibilities, and lifestyle; concerns of new parents; realistic expectations about the birth; and skills for interpreting their baby’s behaviors. This program has not yet been tested or implemented, though this researcher is trying to identify the extent to which childbirth educators prepare couples for parenting and the amount of influence these educators have.

Bryan (2000) created the “Growing as a Couple and Family” series of three, two-hour classes around parental roles, infant abilities, and “the fourth trimester” (p. 141). The program was administered to 48 couples; these couples were compared to 85 control group couples who attended community parenting classes. Treatment-group mothers and fathers were significantly more sensitive and responsive to their child’s cues, more

interactive, gentle, relaxed and attentive than control-group couples. In general, this study found that childbirth education classes were helpful in decreasing negative, critical remarks by parents. However, this study allowed couples to self-select into groups and more single-parents joined the treatment group. Like many pre-natal programs, GCF focuses on parenting skills instead of the influence of the transition on the marriage. This study also did not examine the marital quality of the parents' relationship before or after the birth of the baby. According to Cowan and Cowan (1995), "Few (childbirth classes) evaluate the impact of the intervention on men, women or their relationships as couples" (p. 416).

Almost two decades ago, Philip and Carolyn Cowan developed and tested an intensive intervention for couples wrapped around the transition to parenthood (Cowan, & Cowan, 2000; 1990). Their in-depth, longitudinal study of this intervention found that, compared to a control group, intervention-group couples had a lower risk of divorce and a higher sense of marital quality over the first five years of parenthood, even though both groups experienced the same problems (Cowan & Cowan, 2000). Their impressive study, however, did not immediately spawn further program development and evaluation. This expensive and time intensive 16-session intervention involving 10 trained therapists did not lend itself to easy replication. Eventually, talented scholar-practitioners, perhaps nurtured by the growing marriage education movement, began to turn their attention to developing and evaluating research-based, educational interventions to help new-parent couples with the challenges of the transition to parenthood.

For instance, John Gottman, who extolled the Cowans' landmark study in a foreword to their book (Cowan & Cowan, 2000, p. xx), and his colleague Alyson

Shapiro, have developed a preventive intervention using a psycho-educational format for new-parent couples ("Bringing Baby Home"; Shapiro & Gottman, 2003) based on two decades of seminal research on relationship principles and communication behaviors that make marriage work (Gottman & Silver, 1999). A pilot evaluation study showed the intervention was effective compared to a control group on measures of mother and father relationship quality, mother and father self-reported psychopathology, and mother's hostile affect.

In addition, Pam Jordan has developed an intensive, psycho-educational intervention for couples delivered both before and after the birth of their first child based on the extensively evaluated PREP curriculum ("Becoming Parents"; Jordan, Stanley & Markman, 1999). Jordan's program similarly stresses effective conflict-resolution behavior and important relationship principles such as commitment. She is currently evaluating the effectiveness of the program for strengthening marriage and early parenting behavior with support from a major federal grant.

A program developed and tested by Bill Doherty and his colleagues for transitioning couples stresses co-parenting issues but also includes couple relationship challenges ("Parenting Together"; Doherty, Erickson & La Rossa, 2003). Their eight-hour educational intervention before and after the birth of the first child was designed to increase father involvement with children, enhance the quality of father-child relationships, promote co-parenting partnerships, and decrease parenting stress. This is a critical area of intervention to strengthen couple relationships and marriage during the early parenting years.

Clearly, there is an impressive beginning to research focused on strengthening

marriages during the transition to parenthood. A similar component to each of these programs, however, is their intensive approach to parent education. Accordingly, a significant challenge faced by these programs is the difficulty of transportability.

Marriage Moments

The *Marriage Moments* program, created by Hawkins and his colleagues (Gilliland, Hawkins, Christiaens, Carroll & Fowers, 2002) seeks to fill a unique niche in the range of transition-to-parenthood interventions. *Marriage Moments* is a non-intrusive marriage education program designed to strengthen couple's relationships as they become new parents. The program is designed to fit comfortably within existing childbirth education classes. The curriculum uses five brief video presentations each introducing a topic based on Blaine Fowers' (2000) marriage virtues model. Accompanying the video, a workbook with individual and couple activities reinforces the video modules. The video and workbook present five concepts: the myth of marital happiness, and the marital virtues of friendship, generosity, fairness, and loyalty. (See *Marriage Moments* Curriculum table [Appendix C] for a more extensive curriculum outline.) The curriculum stresses building marriage on a strong foundation of friendship and partnership. In this model, marital friendship is strengthened through a shared vision of life and important life goals; partnership is nurtured by the virtues of generosity, fairness and loyalty.

Program rationale and structure. Each year, tens of thousands of couples expecting their first child attend classes to prepare for the birth of their baby. (Some estimate about 50% of first-time parents attend these classes.) Unfortunately, these classes do not prepare couples for the changes and challenges that confront their relationships after the baby is born. These transitional challenges can sow early seeds of marital breakdown. Capitalizing on couples' availability in an educational setting and

their openness to change at this important transition point in their lives, *Marriage Moments* is integrated into childbirth education classes for pregnant couples. The *Marriage Moments* program is designed to fit within the existing structure of childbirth education classes and to enhance rather than replace or compete with standard childbirth curriculum. For five weeks in childbirth education classes, a new topic is introduced in a seven-minute video presentation. The video is followed up by a brief, in-class activity led by the childbirth class instructor. Couples are given an activity workbook to guide more active learning with individual and partner exercises at home.

The *Marriage Moments* program, then, inhabits a different niche within family life education. Rather than offering educational programs in small groups to a limited number of couples, *Marriage Moments* is presented within the context of prenatal childbirth classes. The structure of these classes and the large numbers of couples utilizing these classes make them potentially an ideal context for educating couples as they prepare for parenthood. Because childbirth educators do not have to be extensively trained, the cost to health care organizations is minimal. Because *Marriage Moments* seeks to strengthen marriages through a low-intensity, flexible, self-guided curriculum, this program has the potential to impact many more couples than traditional family life education approaches.

This public health model has potentially far reaching effects because of its accessibility and ease of administration. The rubric of public health education is an effective way to think about the *Marriage Moments* approach. Although this intervention was not designed specifically from a public health education perspective, it fits the model well. Public health education generally attempts to promote health and well-being by targeting whole populations rather than focusing on single individuals or couples, as in

clinical work, or small groups of people, as in most family life education programs (National Institutes of Health, 2002). An example of an effective public health intervention has been initiatives to discourage pregnant mothers from smoking and drinking for the health of their unborn children. Specific strategies in a public health intervention model are different from a traditional psycho-educational model using intensive personal interaction. Rather, the intervention involves simpler messages, informational brochures, or other easy-to-access materials distributed as efficiently and widely as possible with supportive buy-in from community systems to reinforce the value of the information (National Institutes of Health, 2002). The *Marriage Moments* intervention is primarily an informational workbook with learning activities that is distributed to transitioning couples with encouragement through the healthcare system. *Marriage Moments* creators emphasize getting a small but helpful amount of information (and activities) in the hands of a large segment of pregnant couples who avail themselves of childbirth education classes. This approach avoids the costs and hassles of more intensive family life education and puts straightforward information into the hands of a greater number of transitioning couples in hopes that it can benefit them.

Similar to other transition to parenthood programs, the *Marriage Moments* program attempts to normalize the transition to parenthood by helping couples anticipate the challenges that can be expected, and also by helping them understand that facing these challenges doesn't mean that the marriage is in trouble. The theory of change that under-girds this program is that participants will be more intentional (Doherty, 2001) in preparing for these changes to their relationship. Intentional couples are conscientious about strengthening their marriages; they work together to avoid drifting apart.

Marriages are strengthened as couples become proactive in protecting and enhancing

their union. The *Marriage Moments* workbook and video materials are designed to help couples begin to think and dialogue specifically about the state of their marriage as well as deliberately plan for the challenges ahead. The unique aspect of this program is its emphasis on marital virtues. Video segments emphasized a different marital issue or virtue (the myth of marital happiness, partnership/friendship, generosity, fairness, and loyalty) through narration by Dr. Blaine Fowers, thematic scenes portrayed by actors, and first-time parent testimonials. The purpose of the video was to present couples with a virtues perspective on marriage and to help them understand how these virtues apply to their marriages as they transition into parenthood.

Workbook activities highlight and emphasize the virtues in their relationship. For example, in the workbook section on friendship, couples engage in exercises to share feelings about the importance of their marriage and their expectations about how becoming parents will affect their marriage; a section on generosity provides activities for spouses to look for the best in one another, to examine the strengths and weaknesses of their relationship. Couples also are asked to discuss the virtues of fairness with respect to dependability and the division of household labor, and loyalty in the face of extended family pressures, and decreased leisure time. Activities encourage couples to talk with one another, to make a plan for how they will work together as they face the challenges of parenthood. (See the *Marriage Moments* Curriculum Table, Appendix C.) The goal of the program is to strengthen marriage during the transition to parenthood by helping couples become intentional about maintaining a healthy partnership.

Chapter 3. Method

Procedure and Sample

Couples expecting their first child phoned to enroll in pre-natal classes at three hospitals in Utah County, Utah, which has the highest fertility of any county in the United States. Couples signed up for a particular class that met with their schedules. Unknown to couples and instructors, pre-natal classes had been randomly assigned to be one of two treatment groups or to a control group. As couples signed up for childbirth classes, the clerk informed them that there was a study of how having a baby impacts couples' marriages. They were asked if they were interested in participating in the study. Couples were told that their childbirth class fee of \$45 would be paid for them by the researchers if they participated in the study. The clerk recorded names and numbers of interested couples. Research assistants then contacted interested couples by phone, and explained the nature and requirements of the study. They also explained the class fee waiver and other incentives before enrolling couples in the study. Over a period of about eight months, 155 couples were enrolled in the study.

Fifty-one couples were assigned to the "instructor-encouragement" treatment group classes (IE-T). This group viewed a *Marriage Moments* video segment each week as part of their five-week, pre-natal class instruction. In addition, these couples were given *Marriage Moments* workbooks and told by their class instructors to do specific readings and activities at home each week. These instructors were not specifically trained in the *Marriage Moments* curriculum, though they received procedural instructions on what to do in class. Instructors were told to encourage involvement each week and briefly checked up on couples during each class. However, program content

was communicated through the video and workbooks. This approach reduced training demands and general hassle on class instructors and administrators. (Not all couples in these classes were participating in the evaluation study, but because *Marriage Moments* was discussed in class, all couples in the group received copies of the workbook.)

A second treatment group was comprised of 56 couples who did not receive this kind of encouragement to participate in the *Marriage Moments* curriculum from their childbirth instructors. As with the other two groups, research assistants visited these couples in their homes for in-take, baseline interviews. However, after the interview with this second group of couples, research assistants gave them the *Marriage Moments* video and workbooks, and explained a little about them; they also answered any questions and then encouraged the couple to participate in the program. We labeled this group the “self-guided” treatment group (SG-T). These couples were told that a \$20 gift certificate would be given to couples who completed most of the curriculum materials. (Instructor-encouraged treatment group couples were also told by research assistants about the participation incentive.) We included this slightly different treatment-group to test explicitly whether childbirth educators’ involvement was essential to the intervention, or whether simply putting educational materials directly into the hands of transitioning couples would be sufficient.

Forty-eight couples were assigned to the control group and did not receive any *Marriage Moments* materials, and no mention of *Marriage Moments* was made in their childbirth classes. Control-group couples were told by research assistants at the initial interview that they could receive *Marriage Moments* workbooks at the end of the study if they desired them.

All couples agreed to complete a battery of assessments at four times of measurement: before the childbirth class, immediately following the childbirth class, at three months and at nine months following the birth of the first child. This battery of assessments includes individual and relationship measures (to be described in detail later). Assessments before and after the childbirth classes, and at three months were assisted by trained research assistants who visited couple homes to collect the data. The final nine-month assessment was collected via mail, because couples were familiar with the survey instrument and to save resources. Moreover, several couples in this highly-mobile sample moved out of the area by the nine-month assessment. Thus, to maintain uniformity of assessment, we decided to employ this mail out/in procedure with all couples. A research assistant contacted the couples at approximately nine months after the birth of their baby and explained that they would receive the assessments in the mail. The research assistant gave specific instructions on the phone, and these were reinforced in a letter that accompanied the surveys. Participants were instructed to fill out the assessments individually and return them in a stamped envelope. After couples sent back their surveys, they were told they could open a small envelope that contained a \$10 gift certificate, which had been included with the survey as a token of appreciation. Control-group couples were also given these gift certificates after completing the surveys, along with copies of the *Marriage Moments* guidebook.

Table 1 (page 21) summarizes various characteristics of the samples. The age range of individuals in this sample was 19 to 41 for the men and 19 to 33 for the women. Average age among husbands was 25; average wife's age was 24. Compared with national reports, this sample of first-time parents is somewhat young. According to the U.S. Department of Health and Human Services (1995), the average age of parents at the

birth of their first child is 29 for husbands and 27 for wives. Seventy-three percent of the men in the *Marriage Moments* sample were 26 or younger at time-1. Sixty-one percent of the women were 24 or younger. Some researchers theorize that older couples may be better prepared for parenthood and that younger couples may have more difficult transitions (Helms-Erikson, 2001). The younger age of the *Marriage Moments* sample may influence the difficulty of their transition.

The relative lack of racial and ethnic diversity in the *Marriage Moments* sample is reflective of the communities in which the studies were conducted. Ninety-one percent of the individuals in our sample were Caucasian; 4.5% was Hispanic; 2.6% are Asian; one was Native American. Approximately half (51%) of this sample indicated the completion of some college education. Only a small proportion (1.3%) of this sample did not received a high school diploma. Nearly forty percent have obtained a college or graduate degree. Utah Valley has a large population of college students and almost 40% of individuals in our sample were full- or part-time students at our first interview, including sixty-two percent of the men and seventeen percent of the women. Utah Valley also has an unusually high degree of religious homogeneity. More than 90% of residents are members of the Church of Jesus Christ of Latter-day Saints (Mormons). This demographic feature is reflected in our sample.

A large percentage of the *Marriage Moments* sample indicated current employment at the first interview and throughout the study. Nearly eighty-six percent of all subjects were employed, 94.2% of men and 77.1% of women at the first interview. Three months after the birth of the baby, 90.8% of men and 36.8% of women were employed. The average reported number of hours spent in paid employment each week was 31.4 for the entire sample at time-3, 35.3 hours per week for men and 21.9 hours for

women. Thirty-four percent of this sample indicated moderate flexibility of work hours; forty-eight percent indicated no flexibility of work location. The average number of weeks on leave from work was 1.6 for men and 8.9 for women.

Measures

Several relationship outcome measures were included in our assessment booklet to help us identify the impact of *Marriage Moments* on the marital relationship during the transition to parenthood. The presence and degree of partner virtues and marital partnership were assessed by the Marital Virtues Profile. Marital quality, including satisfaction, stability and cohesion, was assessed by the Revised Dyadic Adjustment Scale and the RELATE Satisfaction scale. The R-DAS is commonly used as a measure of relationship satisfaction or distress. To aid in the assessment of individual expectations and stresses, we included a measure of transition-to-parenthood adjustment, the Transition Adjustment Scale, in our battery of assessments. Each of these measures will be explained further. (Though this study also included measures of communication, depression, life satisfaction, infant adjustment and father involvement, the analyses of these measures is beyond the scope of this thesis.)

Marital Virtues. As previously mentioned, the *Marriage Moments* program was designed from Fowers' (2000) marital virtues model of marital quality. Fowers identifies friendship, generosity, fairness, and loyalty as virtues which support marital partnership. Because no extant measure adequately captured these dimensions of a marriage, Carroll, Hawkins and Gilliland (2001) created the Marital Virtues Profile (MVP) for this study, which is made up of brief scales assessing each of these virtues on self, partner, or relationship levels. The original MVP had 72 items, each assessed on a 5-point Likert scale (1=strongly disagree, 2=disagree, 3=neither disagree nor agree, 4=agree, 5=strongly

Table 1 – Demographic Information for Men and Women in Control and Treatment

Groups at Time 1

| | All Subjects Mean (SD) (N = 310) | Instructor Encouraged Group (n = 102) | Self- Guided Group (n = 112) | Control Group (n = 96) | ANOVA/ Chi Square (df) |
|---|--|--|---------------------------------------|-------------------------------|--|
| Age | | | | | |
| Men | 25.33 (3.21) range: 19-41 | 24.94 (2.3) range: 21-31 | 25.65 (3.9) range: 19-41 | 25.35 (3.02) range: 20-34 | F = .64 (2) p = .53 |
| Women | 24.02 (2.83) range: (19-33) | 24.08 (2.63) range: 19-30 | 24.21 (3.22) range: 19-33 | 23.73 (2.52) range: 19-30 | F = .39 (2) p = .68 |
| Ethnicity | | | | | |
| Caucasian | 91.2% | 92.7% | 93.2% | 87.4% | 9.93 (8) p = .27 |
| Hispanic | 4.5% | 1.0% | 4.3% | 8.4% | |
| Asian/Islander | 2.6% | 3.1% | 1.7% | 3.2% | |
| Native American | .6% | 1.0% | 0% | 1.1% | |
| Education | | | | | |
| Some High School | 1.3% | 2.1% | 0% | 2.1% | 5.73 (8) p = .72 |
| High School degree | 6.8% | 9.4% | 6.8% | 4.2% | |
| Some College | 51.9% | 51% | 51.3% | 53.7% | |
| College degree | 36.7% | 34% | 37.6% | 37.9% | |
| Graduate degree | 3.2% | 3.1% | 4.3% | 2.1% | |
| Current Students | 39.3% of sample | 34.4% | 39.3% | 44.2% | 1.94 (2) p = .38 |
| Men | 61.7% of men | 58.3% | 61% | 66% | |
| Women | 16.9% of women | 10.4% | 10.4% | 22.9% | |
| Current Employment | 85.7% of sample | 82.1% | 83.8% | 91.6% | 4.03 (2) p = .13 |
| Men | 94.2% of men | 91.7% | 96.6% | 93.6% | |
| Women | 77.1% of women | 72.3% | 70.0% | 89.6% | |
| Occupational Category | | | | | |
| Managerial, specialty | 21.6% | 15.6% | 26% | 21.8% | 12.92 (14) p = .53 |
| Technical, sales | 26.1% | 27.3% | 22% | 29.9% | |
| Service occupation | 17.8% | 20.8% | 18% | 14.9% | |
| Other | 34.6% | 36.4% | 34% | 33.3% | |
| Hours per week in Paid Employment (SD) | 33.90 (13.1) | 34.01 (11.94) | 34.04 (14.38) | 33.63 (12.59) | F = .09 (2) p = .91 F = .14 (2) p = .87 |
| Men | 35.39 (14.0) range: 0-84 | 36.14 (12.22) range: 10-68 | 35.18 (15.82) range: 0-84 | 34.91 (13.51) range: 15-80 | |
| Women | 32.08 (11.6) range 0-55 | 31.18 (11.12) range: 8-48 | 32.53 (12.24) range: 0-55 | 32.33 (11.58) range: 5-50 | |
| Flexibility of Hours | | | | | |
| No flexibility | 6.1% | 2.6% | 6.1% | 9.2% | F = .03 (2) p = .97 |
| Minimal flexibility | 22.8% | 31.2% | 21.2% | 17.2% | |
| Moderate flexibility | 41.8% | 40.3% | 42.4% | 42.5% | |
| Significant flexibility | 17.5% | 11.7% | 21.2% | 18.4% | |
| Complete flexibility | 11.8% | 14.3% | 9.1% | 12.6% | |

*52% of the men are 24 or younger. 73% are 26 or younger
61% of the women are 24 or younger. 83% are 26 or younger*

agree). This study employed partner and relationship reports because they are likely more objective measures than self-report measures. Because the MVP is a new measure, and one central to our intervention, substantial psychometric analyses were done on this measure. More complete details of these analyses were presented elsewhere (Hawkins, Fowers, Yang & Carroll, 2003).

The first- and second-order standardized factor loadings, correlations between the husbands' and wives' responses, goodness-of-fit indices, and model-comparison parameters are listed in Table A4, Appendix A. In summary, we found only two items with significantly different factor loadings between husbands and wives at time-1; we found no significantly different factor loadings between husbands and wives for time-2 and time-3. Accordingly, we concluded that the measure worked similarly for both husbands and wives (spouse invariance).

We then calculated Cronbach's alpha coefficients as an estimate of internal consistency reliability for the six first-order factors and the single second-order factor comprising the MVP for husbands and wives for the first three times of measurement (see A3, Appendix A). To summarize, Cronbach's alphas ranged from .61 to .94 for husbands and from .71 to .93 for wives. An overall Cronbach's alpha for a global relational virtues scale comprised of all 24 items ranged from .92 to .94 for husbands and from .92 to .93 for wives. Overall, the MVP subscales and overall scale appear to have good internal consistency. A more stringent test of instrument reliability, however, is test-retest reliability. Hence, we computed correlations between the overall MVP scale at time-1 and time-2 (about 8 weeks apart) for husbands and wives in the control group. (Because

treatment-group couples received an intervention after the initial assessment at time-1 that attempted to strengthen these virtues, we deemed it inappropriate to include treatment-group participants' scores in this analysis.) The stability coefficient for the overall MVP for husbands was .80, and for wives, .83. The overall MVP mean was used for our outcome measure of marital virtues.

Marital quality and distress. The study included a general measure of marital distress vs. satisfaction, the 15-item Revised Dyadic Adjustment Scale (Busby, Crane, Larson & Christensen, 1995). This is a shorter, validated version of the original Spanier Dyadic Adjustment Scale (DAS: Spanier, 1976). An exploratory factor analysis of this data revealed four factors. Three of the four factors, satisfaction, consensus, and cohesion, were congruent with R-DAS factor structures hypothesized and tested by Busby and his colleagues (1995). The fourth factor extracted in my analysis – affection – was comprised of two questions originally designed to examine couple consensus on demonstrations of affection and sexual relations (see Table A5 [Appendix A] for details). Because of the timing of this survey for this specific sample (the third trimester of pregnancy), the issue of affection may be its own separate relationship dynamic for this sample.

Because the R-DAS is used as a total scale in clinical settings, all items were combined into a one-factor solution. Only three of twelve items loaded onto this factor with strength less than .50. Total scale reliability ranged from .81 at time-1 (.82 for men and .79 for women) to .86 at time-4 (.84 for men and .87 for women). The mean total score for all subjects was 55 at time-1 (54.7 for men, 55.2 for women). These averages are more than one standard deviation above the mean R-DAS total for distressed couples

(Busby et al., 1995). Scores ranged from 31-66. The cut-off point for marital distress is 48 with a 95% confidence interval of plus or minus five points. Scores below 48 indicate distress. Of the 306 individuals who completed this portion of the survey, 32 (10.4%) scored in the distressed range at time-1. Of those 32 individuals, 9 (28%) were women and 23 (71.9%) were men. The number of couples in which both partners indicated distress was three (1.96% of all couples). The number of marriages in which only one partner was distressed was 29 (18.9% of all couples). These findings are fairly consistent with research indicating that often (72% of the time) only one spouse is unhappy with the marriage (Waite & Joyner, 2002). The test-retest stability coefficient for the R-DAS, which was taken at time-1 and about eight weeks later at the time-2 assessment, was $r = .72$ ($r = .78$ for husbands, and $r = .68$ for wives).

As a second measure of marital quality, a brief measure of marital satisfaction from the RELATE (Holman, Busby, Doxey, Klein & Loyer-Carlson, 1997) inventory was included in the assessment. Chronbach alpha coefficients for the *Marriage Moments* sample were consistent with alpha levels published by Busby, Holman, and Taniguchi (2001). On the relationship satisfaction scale, Busby and his colleagues reported alphas of .82 for men and .85 for women; on the relationship stability scale, reported alphas were .81 for men and .82 for women. In this study, average relationship satisfaction for men and women on the RELATE measure were 4.30 (SD = .53) and 4.38 (SD = .50) respectively (on a scale of 1-5). These averages reflect a generally satisfied sample of couples, which is congruent with the R-DAS findings. The Chronbach alpha statistics for our sample ranged from .83 at time-1 to .86 at time-4 for men and .84 to .88 for women (see Table A6 [Appendix A] for complete RELATE scale information). Though I also examined the RELATE Stability scale, it was clear that this scale was inappropriate for

our sample. Couples transitioning into parenthood are typically not contemplating divorce and separation. Due to a lack of variation in response, this scale was excluded from our final outcome analyses.

Adjustment to parenthood and marital intentionality. To assess couples' expectations concerning the difficulty of the transition to parenthood, Hawkins and Gilliland (2001) constructed the eight-item Transition Adjustment Scale (TAS) to assess adjustments to common challenges associated with the transition to parenthood, such as housework and childcare, leisure, relationship with spouse, etc. Higher scores indicate better adjustment (See Table A7, Appendix A). At time-1 and time-2, participants were asked to what extent they expected these issues would be a problem for them. At time-3 and time-4, they were asked to what degree these issues were actually problems. All items loaded onto one factor with a strength of .55 or better. The overall alpha level for the scale ranged from .77 at time-1 (.77 for men and women) to .83 at time-4 (.82 for men and .83 for women). At time-1 and time-2, men's and women's average scores reflected a general anticipation of these items being "not much of a problem." Two items were lower, on average, than the other items for both men and women: time with spouse and time for personal leisure. Spouses in general indicated that these issues may become a "pretty big problem" or "somewhat of a problem." Overall, couples anticipated being able to adjust "pretty well." Total averages for men and women were very close at time-1, 3.54 (SD = .55) for the men and 3.53 (SD = .54) for the women. At time-3, 27.4% (29.5% at time-4) of subjects reported that they adjusted to the changes "very well"; 49.4% (53.7% at time-4) reported adjusting "pretty well"; 14.5% (16.3% at time-4) adjusted "fairly well". One person (.4% at time-4) reported adjusting "not too well" to the changes associated with becoming a parent. The TAS scale was found to be

positively correlated with R-DAS ($r = .40$) and Satisfaction With Life Scale (Pavot & Diener, 1993) ($r = .36$) and negatively correlated with the Center for Epidemiological Studies Depression Scale (CES-D; Devins & Orme, 1985) ($r = -.22$).

As part of the TAS scale at time-3 and time-4, two new questions were added, which asked about the conscious effort individuals felt they and their partner were giving to protect their relationship. At time-3, fifty-two percent of our sample (51.5% at time-4) reported that they were giving “a lot” of conscious effort to the marriage; 53.4% of our sample (53.7% at time-4) reported that their partners were giving “a lot” of conscious effort to protecting the marriage. These questions attempted to capture the amount of loyalty and intentionality parents were giving the marriage. I expected that those couples who expressed higher levels of intentionality towards strengthening their marriages would maintain higher levels of marital quality than less intentional couples.

Program Involvement. In evaluation studies, it is important to measure the extent to which treatment-group participants actually engage in the prescribed treatment in order to accurately interpret the program impact estimates (Orr, 1999). If program involvement varies considerably then it is difficult to evaluate the program’s impact on outcome measures, unless program involvement is taken into account. This is important for the *Marriage Moments* study because interventions were largely self-guided. Program participation was measured by asking couples in the two treatment groups about the number of video segments watched, lessons read (in the guidebook), activities completed, and use made of additional information in the guidebook.

However, we gave more weight to activities than to other aspects of the program. Program activities were the core of our intervention; they were the principal means by which couples integrated information and advice into their own marriages. Participants

self-administered the intervention to the extent that they applied information through couple and personal activities. Reading the "Additional Information" chapters also may have enhanced their learning experience.

The extent of self-directed participation in the *Marriage Moments* program, then, was determined by responses to the question about exposure to the program, completion of workbook activities and use of additional information. Specifically, participants were asked to indicate on a scale of one to four (*none, some, most, all*) how many activities they completed. The activities score was then multiplied by subject exposure to the program content. Exposure scores were achieved by assigning a value to reported number of videos segments watched or workbook chapters read (0=none; 1=1 to 3 segments/chapters; 2=4 to 5 segments/videos. No participants indicated that they watched no segments or read none of the chapters; the majority received an exposure score of 2.) The extent to which participants made use of additional information in the guidebook was assessed on a scale from one to four (*not at all, a little, some, a lot*). But because only 58% of participants reported reading the "Additional Information" chapters, we simply gave participants who read a little of the material one extra point and participants who read some or a lot of the material two extra points to add onto their activities score. Thus, scores for program involvement could range from zero to ten, but the actual range was from 1 to 10, with a mean of 6.51 (SD=2.38). The scores fell into a distribution skewed slightly toward the high scores. Fifteen participants (8%) received the maximum involvement score; 21 (11%) received scores of only 1 or 2. The modal score was 8 (24%). We acknowledge, however, that participants received modest incentives to participate in the study (\$45) and to do the "homework" associated with the program

(\$20). Accordingly, we do not claim that the program involvement levels we observed in this study would be produced if the program were given without incentives.

Nevertheless, average program involvement scores appeared high enough to generate program outcomes, given that the program is effective. It may be important, however, to account for the variation in this measure in planned outcome analyses.

We were also interested in a comparison by spouse and treatment group of possible differences in program involvement. Wives generally are more enthusiastic about participation in family life education programs, although we designed *Marriage Moments* with an explicit purpose of appealing as much to men as to women. And we wanted to know if exposure to the *Marriage Moments* content by means of the video presentations in their childbirth class would motivate greater participation among the instructor-encouraged-group participants. Wives in the Self-Guided Treatment group had the highest mean involvement score of 7.39 (SD=2.08), followed by husbands in the SG-T group (M=7.04, SD=1.97). The mean involvement score for wives in the Instructor-Encouraged Treatment group was 6.02 (SD=2.54), followed by husbands in the IE-T group (M=5.76, SD=2.49). We employed a 2 x 2 ANOVA, with group (IE-T/SG-T) as a between-subjects factor and spouse (husband/wife) as a within-subjects factor (because we expected and observed a high correlation between spouses' reports of involvement) to test for group differences in the four cells defined by this analysis. These results are presented in Table B1, Appendix B.

As expected, the results indicated that there was a significant main effect for spouse ($F(1,92)=6.2, p<.05$); women reported slightly higher levels of involvement than men, though the difference was small (Effect Size=.13). (The activity guidebook included

personal activities and additional information to read, so spouses could have differing levels of involvement.). Similarly, there was a main effect for treatment group ($F(1,92)=8.3, p<.05$), but in the opposite direction anticipated; SG-treatment group participants reported greater involvement, and the magnitude of the difference was noteworthy ($ES=.58$). From some written feedback, we speculated on two reasons for this unanticipated finding. First, some participants wrote that they thought the video material was somewhat "cheesy." This impression, received by the in-class *Marriage Moments* video, may have diminished a sense of confidence in the program that diminished involvement. A second speculation, derived from a handful of written comments, is that some participants felt that they already understood the issues raised by the program; the video presentation may have confirmed this impression and actually discouraged them from spending time doing the activities in the guidebook. But whatever the reason, there was no evidence that viewing the video in the childbirth class was essential to motivating involvement in the program. There was no interaction effect in this analysis; that is, spouse gender did not modify the effects of treatment group membership on participants' program involvement.

Research Questions

The overarching question of this study was: "Is the *Marriage Moments* program effective?" This question was assessed with different lenses according to a set of marital quality outcome measures: the Marital Virtues Profile, R-DAS, RELATE Satisfaction scale, and Transition Adjustment Scale. Specifically, we examined three main research questions. First, can a marriage education program help couples strengthen their

marriages during the transition to parenthood? Second, is a marital-virtues curriculum effective? Third, can a low-dosage intervention make a significant difference?

Interventions during the transition to parenthood are preventative; that is, they seek to anticipate common problems that can threaten a marriage and try to inoculate couples against serious marital decline. Therefore, I anticipated that couples who participated in the *Marriage Moments* program (both IE-T and SG-T groups) would maintain pre-birth levels of marital quality, or show only slight decline. Based upon trends outlined in the transition to parenthood research reviewed earlier, I expected that the control-group couples would report decreased marital quality over the transition to parenthood and less marital satisfaction compared to treatment-group couples. Because marital decline during the transition to parenthood generally does not occur in the first three months, I specifically hypothesized that the group differences would emerge only at time-4 (nine months post-birth), although I explored the possibility that effects could emerge from time-3 assessments.

Moreover, going beyond simple group analyses, I tested for specific subgroups in our sample that may have benefited more or less from the *Marriage Moments* program. I expected that this program might have been more helpful to couples with higher levels of participation. Based on previous transition to parenthood research, I also expected that the program would be more helpful to more educated couples, who may experience more disruption to their lifestyles after the birth of the first child (Twenge, Campbell & Foster, 2003). Furthermore, more highly educated couples may be more suited to managing a self-guided intervention. I also sought to understand if the program was more helpful to distressed or non-distressed couples; I hypothesized that the program would have a more beneficial effect on couples who were more distressed at time-1 because they are more at

risk for significant marital decline (Karney & Bradbury, 1997). In addition to education and marital distress, I examined the number of years married as a factor influencing couples during the transition to parenthood. I expected that individuals who had married for a very short time would have more difficulty with the transition to parenthood (Belsky & Rovine, 1990).

Chapter 4. Results

Preliminary Analyses

Group Equivalence Comparisons. An important point of validity in evaluation studies is establishing that treatment and control groups are equivalent on important dimensions at the beginning of a study. Although childbirth classes were randomly assigned to treatment and control groups in our study, it was conceivable that some unknown selection process operated for certain couples to choose one class (e.g., the Monday night class) over another (e.g., the Tuesday night class). This could bias the groups. Accordingly, we checked to see if groups were equivalent at the beginning of the study.

As shown in the last column of Table 1 (methods section, page 21), overall there were no significant demographic differences among groups. A one-way analysis of variance across the one control and two treatments groups revealed no significant differences among groups regarding age, employment, flexibility of work hours and location, and other demographic characteristics. Though the control group was slightly more diverse ethnically (87.4% Caucasian and 8.4% Hispanic), a chi-square statistical analysis revealed the difference was not statistically significant. Slightly more men and women in the control group indicated that they were students at time-1, but again chi-square analyses indicated that this difference did not reach conventional levels of statistical significance.

Furthermore, on a host of outcome variables, there were no statistically significant differences among groups on any measure at time-1 (see Table 2, pages 34-35). On measures of marital satisfaction, marital virtues, communication, depression, life satisfaction and transition adjustment, groups also proved to be equivalent at time-1.

Consistency of response across groups is a strong indication that the process of couple randomization was successful. Accordingly, any group differences over the course of the study can be confidently attributed to the program intervention and not initial group differences.

Attrition analyses. One of the primary threats to the internal validity of a longitudinal program evaluation study is differential attrition of participants. That is, when participants leave the study prematurely, do they do so randomly, or is there some systematic reason behind their exits that would result in biasing effects? By time-4, our sample size had been reduced from 310 to 232 individuals (115 couples and two women whose husbands did not return the time-4 survey), primarily due to student couples moving out of Utah. Despite our best efforts to track all individuals, we did not receive time-4 surveys back from 40 men, which is a 26% loss. This left 78 men in the treatment groups (36 men in the IE-T group and 41 men in the SG-T group), and 37 men in the control group. We did not receive time-4 surveys back from 37 women, a loss of 24%. This left 79 women in the treatment group (38 women in the IE-T and 41 women in SG-T groups), and 38 in the control group.

Participants who did not complete the study were compared to treatment and control group participants on time-1 demographic measures, including age, number of years married, education level, depression level, expectations of adjustment to parenthood, and on initial levels of marital quality. I used F-tests (ANOVAs) to compare these demographic and initial relationship measures of participants who stayed in the program with those who withdrew, similar to the group-equivalence analyses reported earlier (see Tables A1-a and A1-b, Appendix A). This type of analysis was

Table 2 - Measure Summaries for Men and Women in Control and Treatment Groups at Time 1

| Summaries for Men | | | | | |
|---------------------------------------|---------------------------------------|---|-------------------------------|-------------------------------|------------------------|
| Item | All Subjects' Means (SD) (N = 155) | Instructor Encouraged Group (n = 51) | Self-Guided Group (n = 56) | Control Group (n = 48) | F (df) ANOVA |
| MVP | | | | | |
| Other Centeredness | 5.14 (.61) range: 3.5-6 | 5.04 (.66) range: 3.5-6 | 5.18 (.60) range: 3.67-6 | 5.18 (.58) range: 3.83-6 | F = .87 (2) p = .42 |
| Generosity | 4.96 (.77) range: 2.43-6 | 5.02 (.82) range: 2.86-6 | 4.98 (.75) range: 2.43-6 | 4.89 (.77) range: 3-6 | F = .33 (2) p = .72 |
| Admiration | 5.18 (.79) range: 2.67-6 | 5.19 (.82) range: 2.67-6 | 5.13 (.86) range: 2.67-6 | 5.25 (.68) range: 3.67-6 | F = .29 (2) p = .75 |
| Teamwork | 4.41 (.57) range: 2.67-5 | 4.40 (.58) range: 3-5 | 4.40 (.59) range: 2.67-5 | 4.45 (.56) range: 3-5 | F = .12 (2) p = .89 |
| Shared Vision | 4.90 (.54) range: 3-5.33 | 4.85 (.57) range: 3-5.33 | 4.91 (.56) range: 3.3-5.3 | 4.92 (.48) range: 3.67-5.3 | F = .29 (2) p = .75 |
| Loyalty | 5.48 (.84) range: 1-6 | 5.49 (.86) range: 2.5-6 | 5.55 (.70) range: 3.5-6 | 5.38 (.98) range: 1-6 | F = .52 (2) p = .59 |
| R-DAS (total score) | 54.7 (5.85) range: 36-66 | 54.7 (5.91) range: 36-63 | 54.1 (6.15) range: 40-66 | 55.4 (5.44) range 42-65 | F = .62 (2) p = .54 |
| RELATE | | | | | |
| Neg. Conflict Behavior | 2.24 (.61) range: 1-4 | 2.16(.60) range: 1.1-3.57 | 2.23(.59) range: 1-3.43 | 2.34(.66) range: 1.14-4 | F = .91 (2) p = .41 |
| Stonewalling | 2.78 (.86) range: 1-5 | 2.74 (.74) range: 1.25-5 | 2.89 (.95) range: 1-5 | 2.69 (.87) range: 1-5 | F = .82 (2) p = .44 |
| Flooding | 2.37 (.94) range: 1-4.67 | 2.42 (.92) range: 1-4.33 | 2.40 (.89) range: 1-4 | 2.29 (1.04) range: 1-4.67 | F = .26 (2) p = .77 |
| Soothing | 3.41 (.79) range: 1-5 | 3.32 (.80) range: 1-5 | 3.46 (.81) range: 1-5 | 3.44 (.75) range: 1.67-5 | F = .45 (2) p = .64 |
| Partner's Neg. CB | 2.18 (.76) range: 1-4.43 | 2.15 (.77) range: 1-4.43 | 2.15 (.76) range: 1-4.29 | 2.25 (.75) range: 1-3.86 | F = .28 (2) p = .76 |
| Partner's Stonewalling | 2.83 (1.05) range: 1-5 | 2.74 (.98) range: 1-4.75 | 2.95 (1.10) range: 1-5 | 2.78 (1.08) range: 1-5 | F = .61 (2) p = .55 |
| Partner's Flooding | 2.78 (1.05) range: 1-5 | 2.67 (.96) range: 1-4.67 | 2.85 (1.07) range: 1-5 | 2.76 (1.12) range: 1-5 | F = .38 (2) p = .68 |
| Partner's Soothing | 2.86 (.81) range: 1-5 | 2.79 (.83) range: 1-4.33 | 2.78 (.79) range: 1-5 | 3.04 (.79) range: 1.67-5 | F = 1.7(2) p = .18 |
| Relationship Stability | 1.27 (.39) 1-2.67 | 1.27 (.39) 1-2.67 | 1.25 (.34) 1-2.33 | 1.29 (.44) 1-2.67 | F = .16 p = .86 |
| Relationship Satisfaction | 4.30 (.53) range: 2.43-5 | 4.26 (.55) range: 2.43-5 | 4.30 (.52) range: 3-5 | 4.32 (.53) range: 2.71-5 | F = .15 (2) p = .86 |
| CESD (total score) | 9.01 (6.48) range: 0-32 | 9.27 (6.88) range: 2-32 | 8.49 (6.32) range: 0-30 | 9.40 (6.38) range 0-29 | F = .30 (2) p = .74 |
| Transition/Adjustment (mean score) | 3.54 (.56) range: 2.25-5 | 3.46 (.48) range: 2.8-4.75 | 3.57 (.59) range: 2.5-5 | 3.57 (.59) range: 2.25-4.5 | F = .60 (2) p = .55 |

| Summaries for Women | | | | | |
|---------------------------------------|--|---|----------------------------------|-------------------------------|------------------------|
| Item | All Subjects' Means (SD) (N = 155) | Instructor Encouraged Group (n = 51) | Self-Guided Group (n = 56) | Control Group (n = 48) | F (df) ANOVA |
| MVP | | | | | |
| Other Centeredness | 4.99 (.74) range: 2.5-6 | 5.02 (.78) range: 2.5-6 | 4.95 (.72) range: 3.33-6 | 5.02 (.73) range: 3-6 | F = .20 (2) p = .81 |
| Generosity | 5.26 (.62) range: 2.71-6 | 5.26 (.59) range: 3.86-6 | 5.21 (.62) range: 3.71-6 | 5.32 (.65) range: 2.71-6 | F = .39 (2) p = .68 |
| Admiration | 5.19 (.86) range: 3-6 | 5.10 (.87) range: 3-6 | 5.19 (.87) range: 3-6 | 5.30 (.85) range: 3-6 | F = .61 (2) p = .54 |
| Teamwork | 4.48 (.56) range:2.33-5.6 | 4.58 (.51) range: 3.3-5.67 | 4.34 (.49) range: 3.3-5.3 | 4.56 (.66) range: 2.33-5 | F = 2.98(2) p = .05 |
| Shared Vision | 5.03 (.43) range: 3.33-6 | 5.13 (.38) range: 4-6 | 4.94 (.43) range: 3.3-5.3 | 5.04 (.41) range: 4-5.33 | F = 2.50(2) p = .08 |
| Loyalty | 5.61 (.61) range: 3.5-6 | 5.52 (.70) range: 3.5-6 | 5.57 (.62) range: 3.5-6 | 5.74 (.473) range: 4-6 | F = 1.76(2) p = .18 |
| R-DAS (total score) | 55.2 (5.25) range: 31-64 | 55.5 (4.33) range: 47-64 | 54.6 (5.01) range: 43-64 | 55.7 (6.29) range: 31-64 | F = .71 (2) p = .50 |
| RELATE | | | | | |
| Neg. Conflict Behavior | 2.28 (.64) range: 1-4.57 | 2.35 (.59) range: 1.3-3.57 | 2.20 (.70) range: 1-3.86 | 2.30 (.63) range: 1.14-4.6 | F = .79 (2) p = .46 |
| Stonewalling | 2.53 (.74) range: 1-4.75 | 2.49 (.82) range: 1-4 | 2.70 (.76) range: 1-4.75 | 2.38 (.60) range: 1-3.50 | F = 2.65(2) p = .07 |
| Flooding | 2.62 (.95) range: 1-5 | 2.56 (.80) range: 1-5 | 2.68 (1.02) range: 1-4.67 | 2.61 (1.01) range: 1-5 | F = .22 (2) p = .81 |
| Soothing | 3.32 (.70) range: 1-4.67 | 3.20 (.65) range: 1.3-4.67 | 3.30 (.75) range: 1-4.67 | 3.48 (.69) range: 2-4.67 | F = 1.87(2) p = .16 |
| Partner's Neg. CB | 2.00 (.62) range: 1-3.71 | 1.98 (.65) range: 1-3.43 | 1.98 (.64) range: 1-3.71 | 2.04 (.58) range: 1-3.43 | F = .15 (2) p = .86 |
| Partner's Stonewalling | 2.83 (1.10) range: 1-5 | 2.81 (1.25) range: 1-5 | 2.83 (1.09) range: 1-5 | 2.84 (.96) range: 1-5 | F = .01 (2) p = .86 |
| Partner's Flooding | 2.29 (.89) range: 1-5 | 2.15 (.84) range: 1-4 | 2.38 (.93) range: 1-5 | 2.33 (.89) range: 1-4.67 | F = .98 (2) p = .38 |
| Partner's Soothing | 3.34 (.78) range: 1-5 | 3.19 (.70) range: 1.67-4.3 | 3.35 (.88) range: 1-5 | 3.48 (.71) range: 2-5 | F = 1.70(2) p = .19 |
| Relationship Stability | 1.25 (.32) range: 1-2.67 | 1.23 (.26) range: 1-2 | 1.26 (.34) range: 1-2 | 1.26 (.37) range: 1-2.67 | F = .17 (2) p = .85 |
| Relationship Satisfaction | 4.38 (.50) range:2.6-5.14 | 4.35 (.54) range:2.57-5 | 4.34 (.48) range:3.3-5.14 | 4.46 (.48) range:2.57-5 | F = .88 (2) p = .42 |
| CESD (total score) | 13.11 (9.12) range: 0-41 | 12.49 (9.13) range: 0-41 | 14.00 (9.81) range: 0-37 | 12.63 (8.28) range: 1-32 | F = .45 (2) p = .64 |
| Transition/Adjustment (mean score) | 3.52 (.54) range: 2-4.88 | 3.49 (.63) range: 2-4.88 | 3.45 (.49) range: 2.5-4.5 | 3.65 (.47) range: 2.6-4.63 | F = 1.81(2) p = .17 |

**No group differences were significant at the .05 level*

essential in confirming that our treatment and control groups, which were equivalent at time-1, remained equivalent when drop-outs were excluded. Moreover, as an interventionist, it may be a significant practical concern to identify specific groups of people who do not maintain participation in this type of program. However, no significant differences were found between groups on any measure. This finding suggests a random loss of subjects.

Analyses were done to confirm the statistical power to determine differences between groups even with an anticipated 15-20% attrition rate. (The actual attrition rate was 25%.) Because *Marriage Moments* is a modest, low-level intervention, I expected modest effects. Power analyses were performed to insure detection of small or modest intervention effects. According to these tests, with effect sizes of .20, with alpha at the .05 level, and with 40 couples per group, there was power to detect group (power=1.00), time (.97) and group-by-time interactions (.74). With effect sizes of .25, group-by-time interactions were detectable with a power of .92.

I examined our results by looking for effects, which are significant at the .05 level. However, because this is an initial study of an intervention that has the potential to assist a large number of couples during the transition to parenthood and thereby strengthen the institution of marriage, and in order to reduce the risk of type I error, I also examined results for effects significant at the .10 level (Keppel, 1991).

Formative Program Evaluation

In most marriage education interventions, treatments are more standardized than they were for our study. For most programs, treatments are delivered by a trained marriage educator with a set curriculum, usually in a classroom setting, sometimes

reinforced by "homework" assignments. Because *Marriage Moments* is primarily a self-administered intervention, we had less control over the actual treatment that couples received. Accordingly, an important first step in our analyses was to assess couples' reactions to their involvement in the program. Understanding how participants reacted to the *Marriage Moments* curriculum is important because a generally positive reaction is likely necessary for the intervention to be successful. Participant evaluations are also helpful to modifying curricula to be more effective.

Accordingly, we asked participants to evaluate the quality of the program by asking them to rate the program on a scale from 1 to 5 on the following criteria: *not enjoyable/enjoyable*, *not interesting/interesting*, *not fun/fun*, *not important/important*, *not worthwhile/worthwhile*, *not informative/informative*, and *not useful/useful*. The strongest response was for the program's *importance* (M=4.30, SD=.87); the weakest—though still positive—response was for *fun*, with a mean of 3.65 (SD=.81). We explored whether these responses could be collapsed into a strong, composite scale that assessed participants' overall evaluation to the program. All seven items loaded strongly onto one factor; with loadings ranging from .72 (*fun*) to .87 (*useful*). This scale generated a Cronbach's alpha reliability coefficient of .90. (There were no major differences due to gender. For men, all components of the evaluation scale loaded onto one factor. *Fun* was weakest (.74) and *useful* was strongest (.91). Overall scale reliability was .92 for the men. A factor analysis for the women also specifying a single factor revealed that *enjoyable* was the weakest loading (.65); *fun* was second weakest (.71). *Worthwhile* loaded most strongly for the women (.85), though *useful* was second strongest (.81). Overall scale reliability for the women was .87.) The mean evaluation score for this

composite measure for all participants, then, was 4.02 (SD=.67, range = 1-5). Thus, participants overall reacted positively to the program, and thought it was useful and worthwhile.

We were also interested in any differences between wives and husbands and between the IE- and SG-treatment groups in terms of the composite program evaluation score. Again, wives generally have more positive evaluations than husbands of family life education programs. In addition, given the previous results that SG-T-group participants were more involved, we anticipated that they would also react more positively to the program. Wives in the SG-T group evaluated the program the highest (M= 4.22, SD=.54), followed by husbands in the SG-T group (M = 4.05, SD=.62). The mean evaluation score for wives in the IE-T group was 4.00 (SD=.61), followed by husbands in the IE-T group (M= 3.83, SD=.81). Again, we employed a 2 x 2 ANOVA, with group (IE-T/SG-T) as a between-subjects factor and spouse (husband/wife) as a within-subjects factor (because we expected and observed a high correlation between spouses' evaluation scores) to test for group differences in the four cells defined by this analysis. These results are presented in Table B1, Appendix B. As expected, the results indicated that there was a significant main effect for spouse ($F(1,94)=5.8, p<.05$); women reported more positive evaluations than men, though the difference was modest (ES=.26). Similarly, there was the anticipated, significant main effect for treatment group ($F(1,94)=4.0, p<.05$); SG-treatment group participants reacted more positively, although the magnitude of the difference was modest (ES=.34). There was no interaction effect; that is, spouse gender did not modify the effects of treatment group membership on participants' evaluation of the program.

Not surprisingly, we found significant correlations between program involvement and program evaluation for both IE-treatment participants ($r = .39, p < .01$) and SG-treatment group participants ($r = .48, p < .01$). Still, program involvement only explained 15% to 23% of the variation in participants' evaluations of the program.

We also directly asked both treatment-group participants whether they thought the *Marriage Moments* program was helpful to them in strengthening their marital relationship. On a scale ranging from one (not at all) to four (a lot), the mean response for all participants was 2.92 ($SD = .71$). We were also interested in comparing responses to this question from wives and husbands and from SG-T and IE-T group participants. A simple comparison of the means revealed that women in the SG-T group had the highest scores (3.04, $SD = .69$). Men in the SG-T group and women in the IE-T group both had mean scores of 2.98 ($SD_{IE-T \text{ women}} = .65, SD_{SG-T \text{ men}} = .61$). Men in the IE-T group, while responding less favorably than other group, also indicated that the program helped strengthen their marriage (2.70, $SD = .839$). Again, we employed a 2 x 2 ANOVA, with group (IE-T/SG-T) as a between-subjects factor and spouse (husband/wife) as a within-subjects factor (because we expected and observed a high correlation between spouses' responses) to test for group differences in the four cells defined by this analysis. These results are presented in Table B1. There was no main effect for treatment group ($F(1,95) = 2.0, p = .15$). There was, however, a significant main effect for gender ($F(1,95) = 4.8, p < .05$), with women a little more likely to report that the program strengthened their marriage ($ES = .24$).

We expected strong correlations between participants' responses to this question of whether they thought the program helped strengthen their relationship and their

composite program involvement and evaluation scores. For the program involvement measure, the observed correlation for husbands was $r=.45$ ($p<.01$), and for wives $r=.27$ ($p<.01$). Note that the correlation was significantly stronger for husbands than for wives. This suggests the possibility that connections between program involvement and program outcome measures (to be discussed soon) may be even stronger for husbands than for wives.

Finally, we also allowed subjects to respond to three open-ended, written, evaluation questions, including an overall reaction to the program, and the most and the least helpful aspects of the program. Overall reaction to the program was very positive. One-hundred-and-ninety-one individuals responded to this first question. Because several people made multiple comments, these 191 responses were broken into 256 separate reactions to the program. Of 256 total comments made, 210 (82%) indicated a positive effect of the program. One-hundred-and-nine comments were made about specific aspects of the program, including the activities and guidebook (28), video (20), and 81 comments were about the program in general. Forty-five individuals specifically indicated that the program had strengthened their marriage, often through better communication and increased understanding of the challenges couples normally face during the transition to parenthood. For example, one wife responded: *“I enjoyed it a lot. It helped me realize that the changes we’re going through are actually positive ones and part of a growing relationship. I no longer worry about things being difficult between us because different can be a good thing.”* Nineteen people stated that they had learned more about themselves or their partner through the program. A husband commented: *“[The program] helped me realize what my wife was feeling.”* A wife stated: *“[The*

program] helped me realize how my husband feels and realize what love and marriage really is about.” Seventeen people indicated that the program reinforced principles of marriage that they already knew. For example, a wife in the active group said, “[*This program] is a good idea. There were things I learned that were common sense, but it took Marriage Moments to remind me.*”

Of course, not all comments were positive about the program. Forty-six comments (18% of all comments) indicated in some part a negative reaction to *Marriage Moments*. Thirteen people responded that the program itself could be helpful for other couples including newlyweds, younger or distressed couples, but that the program was not specifically helpful to them. Eleven people (3% of all comments) expressed an overall negative reaction to the program. Other negative reactions were specific to the video (13), activities (7), and workbook (2). Table B2 (Appendix B) provides some more detail on participants' open-ended, evaluation comments.

These analyses related to program involvement and evaluation, then, give us some confidence that *Marriage Moments* could be a valuable program for couples making the transition to parenthood. Of course, the bottom-line test is found in the relationship outcomes. Nevertheless, the results presented above indicate to us that there was adequate involvement and positive reaction to *Marriage Moments* such that intervention effects on outcome measures are possible.

Outcome Analyses

To test the primary hypotheses about program effectiveness, I compared the levels of marital quality within treatment and control groups by examining Revised Dyadic Adjustment Scale and RELATE Satisfaction scale scores. I performed a series of 3-

(group) by 4-(time) analyses of variance using these relationship outcome measures as dependent variables. Significant time-by-group interactions would indicate noteworthy program effects. I also examined marital virtues by exploring group-by-time interactions for the Marital Virtues Profile (MVP). For the time-4 Transition Adjustment Scale (TAS), I used a one-way ANOVA to explore group differences on this dependent variable.

These initial ANOVAs revealed no significant group-by-time interactions on any of the following scales: MVP, R-DAS, RELATE and TAS (see Table 3, page 45). Because no pattern emerged to indicate a difference between the two treatment groups, and to simplify analyses, treatment groups were combined and ANOVA analyses were repeated in a two-(group) by four-(time) model (see Table 4, page 45). These simplified analyses are reported in the text. Because we expected a quadratic trend of relationship outcomes over time, the quadratic interaction effects are listed in this section. For linear and cubic interaction effects on these measures, see Tables 3 and 4. For most analyses, there was a significant main effect for time; however because these effects do not reflect program outcome, I will not discuss these effects further.

Marital virtues. No significant group-by-time interaction effects were found on the MVP for men [$F = .640 (1, 111), ns$] or women [$F = .189 (1, 110), ns$]. The six MVP subscales were also examined, but no clear pattern emerged. There was one significant effect in this series of 24 subscale tests. However, because no consistent pattern emerged and because it is likely that this effect was due to chance, I chose not to interpret this effect.

Marital quality and distress. The 14-item R-DAS scale was one measure used to

assess marital distress. The group-by-time interaction effects were not significant for men [$F = .189 (1, 110), ns$] or women [$F = .621 (1, 111), ns$]. The RELATE Satisfaction scale was also used to assess marital quality. The group-by-time interaction effects also were non-significant for men [$F = .005 (1, 109), ns$] and women [$F = .845 (1, 113), ns$] on this measure.

Adjustment to parenthood and marital intentionality. The TAS was used as a measure of transition-to-parenthood adjustment and of marital intentionality. Because this measure was not designed to be consistent before and after the birth of the child, a one-way ANOVA was used to examine group differences at time-4. The eight-item adjustment to parenthood scale revealed no significant group differences at time-4 for men [$F = .583 (1, 112), ns$] and women [$F = .564 (1, 113), ns$]. The two-item marital intentionality scale also showed no significant group differences at time-4 for men [$F = .945 (1, 112), ns$] and women [$F = .156 (1, 113), ns$].

Participation

Because the *Marriage Moments* program is largely a self-guided intervention, participation was anticipated to affect the outcome. In the presence of the pattern of non-significant group differences, I explored whether program participation could be affecting these analyses. A preliminary step in the analysis of program results was examining the level of participation by subjects in both treatment groups. Most couples reported high levels of program participation; the mean score was 6.51 on a 10-point scale ($SD = 2.38$). However not all treatment-group couples participated fully in the *Marriage Moments* program, and I adjusted for this variation in the model by including program participation as a covariate. This allowed me to test specifically whether change over time for the

groups depended on participation levels among the treatment-group couples. (Control-group couples were assigned a zero-value for this factor). None of the three-way interaction effects (group-by-time-by-participation) were significant for men or women (see Table 5, page 45). (I also pursued this question by using participation as a continuous covariate in all models, but the results were similar: participation level did not appear to affect program outcomes.) These results suggest that level of participation did not influence the program effect over time.

Subgroup Analyses

In addition to the previous ANCOVAs, I also examined education, initial marital quality, and number of years married as factors theorized to influence couples during the transition to parenthood. (See Table 6, page 47, for means and standard deviations at four times.) However, these factors were not significant in a covariate model. Because these variables were not normally distributed, I transformed them into dichotomous variables and included them in a two group by three time ANOVA model as an additional between group factor. This was done in an effort to understand if the *Marriage Moments* program was more helpful to specific subgroups of our treatment group, or if these specific factors had a systematic influence on the program effects. Though I tested for cubic trends, few were significant; thus, again, the linear and quadratic interaction effects are reported in this section (see Table 7, page 47).

Education. The education was divided into two groups: those with “some high school” or “some college education,” and those with a “college or professional degree.” The level of an individual’s education had a different effect on each of the relationship scales. On the R-DAS, the linear three-way interaction effect was significant for men

Table 3 - ANOVA Results of Hypothesized Program Effects on Relationship Outcome Measures for Men and Women in Control and (Two) Treatment Groups

| Scale | Trend | Men | | Women | |
|---------------------|-----------|---------------|-----|---------------|-----|
| | | F | p | F | p |
| R-DAS | Linear | 1.65 (2, 109) | .20 | .151 (2, 110) | .86 |
| | Quadratic | .187 (2, 109) | .83 | .826 (2, 110) | .44 |
| | Cubic | .412 (2, 109) | .66 | .933 (2, 110) | .40 |
| RELATE Satisfaction | Linear | 1.58 (2, 108) | .21 | .080 (2, 112) | .92 |
| | Quadratic | .008 (2, 108) | .99 | .608 (2, 112) | .55 |
| | Cubic | 1.01 (2, 108) | .37 | .442 (2, 112) | .64 |
| MVP Total Scale | Linear | .484 (2, 110) | .62 | .554 (2, 109) | .58 |
| | Quadratic | .322 (2, 110) | .73 | .281 (2, 109) | .76 |
| | Cubic | .952 (2, 110) | .39 | 1.16 (2, 109) | .32 |

Table 4 - ANOVA Results of Hypothesized Program Effects on Relationship Outcome Measures for Men and Women in Control and (One/Combined) Treatment Groups

| Scale | Trend | Men | | Women | |
|---------------------|-----------|---------------|-----|---------------|-----|
| | | F | p | F | p |
| R-DAS | Linear | .078 (1, 110) | .78 | .228 (1, 111) | .63 |
| | Quadratic | .189 (1, 110) | .67 | .621 (1, 111) | .43 |
| | Cubic | .093 (1, 110) | .76 | .652 (1, 111) | .42 |
| RELATE Satisfaction | Linear | .966 (1, 109) | .33 | .146 (1, 113) | .70 |
| | Quadratic | .005 (1, 109) | .94 | .845 (1, 113) | .36 |
| | Cubic | .753 (1, 109) | .39 | .918 (1, 113) | .34 |
| MVP Total Scale | Linear | .164 (1, 111) | .69 | 1.02 (1, 110) | .32 |
| | Quadratic | .640 (1, 111) | .43 | .189 (1, 110) | .66 |
| | Cubic | .153 (1, 111) | .70 | .019 (1, 110) | .89 |

Table 5 – ANCOVA Results of Hypothesized Program Effects on Relationship Outcome Measures for Men and Women in Control and (One/Combined) Treatment Groups with Program Participation as the Covariate

| Scale | Trend | Men | | Women | |
|---------------------|-----------|---------------|------|---------------|-----|
| | | F | P | F | P |
| R-DAS | Linear | .993 (1, 107) | .32 | .481 (1, 108) | .49 |
| | Quadratic | .000 (1, 107) | .99 | 1.38 (1, 108) | .24 |
| | Cubic | .325 (1, 107) | .57 | .428 (1, 108) | .52 |
| RELATE Satisfaction | Linear | .003 (1, 106) | .96 | .820 (1, 110) | .37 |
| | Quadratic | .002 (1, 106) | .97 | .044 (1, 110) | .83 |
| | Cubic | 4.34 (1, 106) | .04* | .497 (1, 110) | .48 |
| MVP Total Scale | Linear | .000 (1, 108) | .99 | 1.02 (1, 107) | .32 |
| | Quadratic | .001 (1, 108) | .97 | 1.93 (1, 107) | .17 |
| | Cubic | 1.56 (1, 108) | .21 | .711 (1, 107) | .40 |

[F = 4.51 (1, 108), $p < .05$]. The quadratic three-way interaction was significant for men on the RELATE satisfaction scale [F = 4.99 (1, 107), $p < .05$]. Level of education did not have a significant effect on MVP totals for men or women.

Initial marital quality. This variable divided the sample into those individuals who were below a clinical cut-off score at time-1 and those who were above. Those with a cut-off score below 48 (on an 79 point scale) indicated marital distress. When this variable was included as a third factor in the model, none of the quadratic three-way interactions were significant for men or women. The linear interaction effects were significant for women on the MVP [F=3.60 (1, 107), $p < .10$], R-DAS [F=5.41 (1, 109), $p < .05$] and RELATE Satisfaction scale [F=4.86 (1, 111), $p < .05$] (see Table 7, page 47). The average control and treatment group scores at all four times were higher for non-distressed women on each of the subscale measures. Marital virtues and satisfaction scores were higher for women who were not distressed at time-1. The linear effects were not significant for men on any outcome measure.

Number of years married. As a dichotomous variable, this factor split the sample into individuals who had been married up to three years and those who had been married longer than three years. None of these quadratic three-way interaction effects was significant for men or women. These results suggest that number of years married did not influence program effects over time. There was a significant linear effect on the MVP for men [F=3.99 (1, 100), $p=.05$]. A surprising trend is that the average MVP scores for men in control and treatment groups were higher for those married fewer years. Those men married more than three years had lower marital virtues scores over time.

Table 6 – Subgroup Means and Standard Deviations of Program Outcome Measures For Men and Women in Control and (One/Combined) Treatment Groups at Four Times

| Outcome Measures | Men | | | | Women | | | |
|------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | T1 | T2 | T3 | T4 | T1 | T2 | T3 | T4 |
| <i>R-DAS</i> | | | | | | | | |
| Control | 55.57(5.67) | 56.86(6.52) | 51.89(5.71) | 54.79(6.64) | 56.93(4.40) | 57.37(5.05) | 51.47(5.08) | 55.33(5.96) |
| Treatment | 54.58(5.90) | 55.96(4.88) | 50.35(4.78) | 52.95(6.65) | 55.14(4.80) | 56.22(4.50) | 51.71(6.36) | 52.78(7.30) |
| <i>RELATE</i> | | | | | | | | |
| Control | 4.39(.65) | 4.34(.65) | 4.27(.44) | 4.03(.63) | 4.52(.31) | 4.49(.38) | 4.03(.58) | 4.09(.59) |
| Treatment | 4.25(.53) | 4.35(.48) | 4.15(.51) | 4.03(.65) | 4.37(.47) | 4.37(.50) | 4.02(.67) | 3.89(.80) |
| <i>MVP</i> | | | | | | | | |
| Control | 5.11(.53) | 5.12(.55) | 4.98(.54) | 4.89(.55) | 5.19(.53) | 5.17(.51) | 5.06(.52) | 5.02(.50) |
| Treatment | 4.98(.53) | 5.02(.48) | 4.90(.49) | 4.78(.55) | 5.05(.51) | 5.04(.53) | 4.87(.64) | 4.72(.73) |

Table 7 – Subgroup ANOVA Results on Relationship Outcome Measures for Men and Women in Control and (One/Combined) Treatment Groups with Education, Marital Distress and Years Married as additional between group variables

| Scale | Trend | Men | | Women | |
|---------------------|------------------|---------------|---------------|---------------|------|
| | | F | p | F | p |
| R-DAS | Education | | | | |
| | Linear | 4.51 (1, 108) | .04* | .80 (1, 109) | .37 |
| | Quadratic | 1.93 (1, 108) | .17 | .06 (1, 109) | .81 |
| | Marital Distress | | | | |
| | Linear | 1.51 (1, 108) | .22 | 5.41 (1, 109) | .02* |
| | Quadratic | .66 (1, 108) | .42 | 1.35 (1, 109) | .25 |
| | Years Married | | | | |
| | Linear | .00 (1, 100) | .95 | .02 (1, 104) | .89 |
| Quadratic | .84 (1, 100) | .36 | .17 (1, 104) | .68 | |
| RELATE Satisfaction | Education | | | | |
| | Linear | 2.43 (1, 107) | .12 | .40 (1, 111) | .60 |
| | Quadratic | 4.99 (1, 107) | .03* | .01 (1, 111) | .92 |
| | Marital Distress | | | | |
| | Linear | .14 (1, 107) | .71 | 4.86 (1, 111) | .03* |
| | Quadratic | .92 (1, 107) | .34 | .02 (1, 111) | .89 |
| | Years Married | | | | |
| | Linear | .40 (1, 99) | .53 | .14 (1, 106) | .71 |
| Quadratic | .43 (1, 78) | .51 | .76 (1, 106) | .40 | |
| MVP Total Scale | Education | | | | |
| | Linear | .30 (1, 109) | .58 | 1.12 (1, 108) | .29 |
| | Quadratic | 2.04 (1, 109) | .16 | .73 (1, 108) | .40 |
| | Marital Distress | | | | |
| | Linear | 1.97 (1, 108) | .16 | 3.60 (1, 107) | .06* |
| | Quadratic | .60 (1, 108) | .44 | .24 (1, 107) | .62 |
| | Years Married | | | | |
| | Linear | 3.99 (1, 100) | .05* | .25 (1, 101) | .62 |
| Quadratic | 1.50 (1, 100) | .66 | 1.05 (1, 101) | .31 | |

Chapter 5. Discussion

The design of the *Marriage Moments* program fits well into the public health model, which emphasizes a modest effect multiplied across a large group of people. Likewise, the goal of the *Marriage Moments* program was to have a small but significant effect on couples making the transition to parenthood, with the hope that the program couple be replicated in hundreds of childbirth education classes across the United States. The majority of treatment-group couples reported that they enjoyed the program and found it worthwhile. In fact, treatment group couples rated the program's importance as a 4.30 (SD=.87) on a scale from 1-5. In free response answers to what the couples liked and did not like about the program, nearly 82% of the comments were positive reactions to the program. Couples commonly responded that the program had helped them strengthen their relationship, learn more about themselves and reinforce principles that they knew (see Appendix B for full program involvement and evaluation information). Many couples also reported that they would participate in a program like *Marriage Moments* again, if given the opportunity.

In the context of a well-liked, thoughtfully designed program, the lack of statistically significant outcomes can be accounted for in a variety of ways. In this section, I will attempt to explain the results and several possible reasons for the lack of significant statistical results, including program design and sample characteristics. I will also discuss possible educational and clinical applications, as well as future research directions.

Program design. There are many possible implications of non-significant findings. The first and most obvious possibility for the lack of a consistent difference

between treatment and control groups is that program content was not helpful. It is possible that the concept of a partnership or virtuous marriage was too familiar to our sample of couples. In fact, 7.6% of the written responses by treatment-group couples were that the program reminded them of something they had learned before. These are religious couples repeatedly taught about respect, kindness, and fidelity in marriage. If the material was not novel, then it is arguable whether or not the program would provide treatment-group couples something that control-group couples would not have.

One difficulty with a virtues-based approach to marital quality is the lack of specific applications. More specific behavioral skills may have been more helpful to couples during this time of significant stress. It is also possible that our presentation of the content was too cognitive, and therefore difficult for couples to apply. Though the workbook encouraged couples to participate in couple and individual activities, the substance of the program was written in the workbook or spoken by Dr. Fowers on the video. To make significant virtuous changes in their marriages, couples had to understand the concepts and discover ways to apply the concepts in their marriage. Further, to make a lasting difference, spouses then had to be aware of changes in their partners and appreciate those virtuous changes. Many couples reported that what they enjoyed most about the workbook was a “love map” activity borrowed with permission from Dr. John Gottman. Perhaps, more behavioral activities like this one would have been easier for couples to apply.

Rather than creating an intensive program for couples, *Marriage Moments* was designed to be transportable and easily integrated into childbirth education classes without having to train hospital staff. The trade-off of program intensity for

transportability may have made it more difficult to create program effects. In other words, it is possible that our low dosage did not reach a threshold to create change. It is also possible that our method of assessing program effects – self and partner reports – were not as powerful as other methods (e.g. direct observation) would be at detecting changes in behavior or motivation over time. A problem with our program design was that the virtues curriculum and the dosage levels were confounded. It is possible that a higher dosage of the virtues curriculum may have yielded more significant results.

Sample. I also considered the possibility that our sample's responses were too close to asymptote to detect change (a ceiling effect); our couples reported high satisfaction with their marriages at times one and two. However, the effect we were anticipating was a decrease in the control group (not an increase in the treatment group) at time-4. Both groups experienced a decrease in marital satisfaction and quality at time-3; I expected the treatment group, but not the control group, to recover at time-4. The control group's unexpected recovery at time-4 points to the presence of a unique sample characteristic. The vast body of literature on the transition to parenthood fails to describe couples returning to pre-childbirth levels of marital quality and satisfaction without intervention.

Another possibility for similar trends among control and treatment groups was that our sample was simply too high functioning. Our sample was comprised largely of highly religious couples living in Utah County, primarily White, middle-class students. This sample was low risk and high functioning. At our four times of testing, the average R-DAS score for the entire sample did not fall below the clinic cut-off for marital distress (T1 = 55.00, T2 = 55.99, T3 = 50.62, T4 = 53.27). Though marital satisfaction averages

did decrease at time-3, these couples did not report experiencing the marital dissatisfaction typically reported in the transition to parenthood literature. A possible future step for this research would be to study program effects with a lower functioning sample. If our sample is unique, then our design was inadequate in that it did not include an additional group that was lower functioning. It would be valuable to repeat this study with a different, lower functioning sample.

Our sample is also unique in its preparation for parenthood. Nearly eighty three percent of our sample reported that they planned the pregnancy (86.5% of the control group and 80.4% of the treatment group). Only 4.1% of the control and 6.3% of the treatment groups in our sample reported that the pregnancy was unplanned. A one-way ANOVA revealed no difference between these groups. On a national level, closer to 50% of couples plan their first pregnancy. In a study of 128 middle class families, Belsky and Rovine (1990) found that wives who experienced decline in marital quality were more typically the women who had planned their pregnancies, which they attributed to discrepant expectations and experience. This is further evidence for the argument that we have a unique sample. Our sample was not ambivalent about parenthood or marriage; they come from a family- and baby-centric culture. A couple's intentionality toward parenthood may be a predictor of less difficulty during this transition.

A common difficulty during the transition to parenthood is the renegotiation of household roles. Couples must determine how the father will help with the care of the baby, what will happen when/if the mother returns to work, and how they will coordinate couple time. The renegotiation of roles and responsibilities can create marital tension. In many Latter-day Saint homes, a more traditional division of labor is expected. When

couples make the transition to parenthood, it may be that the wife assumes her primary role as mother. Congruent couple expectations may ease the difficulty of the transition to parenthood for these couples. Latter-day Saint families also place a high value on community. It is likely that the couples in our sample received consistent family and community support. This support may have buffered couples from some of the early stresses of parenthood.

It is possible that these characteristics of our sample will cause them to experience the stress of the transition to parenthood later than other couples. We would have needed to follow these couples longer (perhaps into the second year) to see the effects of a delayed transition impact. This intervention may also have been more helpful to couples if delivered after the birth of the baby. Couples may be able to use this intervention more while they are in the thick of the transition rather than while they are planning ahead for changes they can only anticipate.

Education is an emerging influential factor in the transition to parenthood literature. The majority of individuals in our sample (70%) were students with some college education. It is possible that our sample group has the ideal amount of education to ease the transition to parenthood. They have enough education to help them think analytically and problem-solve together; they are motivated and employable. However, they don't yet have a high enough standard of living that the transition to parenthood interrupts their lifestyle, or requires a sacrifice of prestigious employment. In addition, the couples in our sample were younger than nationally reported ages of couples typically making the transition to parenthood. The couples in our sample were not established in a 'DINK' (dual-income-no-kids) lifestyle before the birth of their first

child. The interruption of this type of lifestyle is more predictive of stress during the transition to parenthood (Twenge et al., 2003). For our sample, the education variable had a significant, but inconsistent influence on the reported levels of marital satisfaction and virtues throughout the transition to parenthood. Further research is needed to explore the consistent effect of education on transitioning men and women.

Implications for marriage education

It is sometimes said that we learn more from failure than from success. Based on the lack of significant program effects, we have several recommendations for marriage education. It is possible that a virtues paradigm may not be most helpful to couples. A virtues-based model of marital quality helps couples by providing awareness and education. This approach to marriage enhancement emphasizes marriage ideals. Perhaps an emphasis on concrete skills, such as the Markman, Stanley and Blumberg (1994) PREP approach or Gottman and Silver (1999) communication skills approach, is more useful to couples in educational settings.

Realizing that perhaps our intervention did not reach a threshold to create change, a higher dosage of the intervention may also be recommended for future marriage educators. We look forward to the results of other transition-to-parenthood interventions, which employ a more intensive approach to marriage education. If these time and resource intensive programs are successful in creating significant group changes, it will lend further support to the hypothesis that marriage education is most helpful with a high dose of time and concrete information.

Implications for therapy

As a clinician, I appreciate Dr. Fowers' virtues based approach to marriage, and I find it very helpful as a conceptual framework. However, I often find it difficult to help couples apply virtuous principles. On a cognitive level, couples usually understand the principles of generosity, teamwork, and fairness in marriage. However, specific applications of these principles can be difficult to define. Typically, clinicians with a virtues paradigm use interventions from alternative theoretical frameworks. This approach may have been more effective in the *Marriage Moments* workbook and video. Or from a clinical view, this program may be more useful for couples in therapy. In fact, the *Marriage Moments* curriculum is being examined by LDS Family Services as a potential resource for couples planning for adoption. With the guidance of a social worker or therapist, the principles in the *Marriage Moments* program may be more directly applied through learning tasks and behavioral objectives, and may have a more significant impact. One example might be the use of the RELATE inventory by a therapist to help couples identify specific behaviors reflecting virtuous marital interactions.

Clearly, the challenges faced by couples during the transition to parenthood have a direct significance for marriage and family therapists. In pre-marital and marriage enhancement therapy, it would be valuable to help couples anticipate the changes and challenges associated with becoming parents. It would also be valuable to help couples become more intentional about preparing for these challenges. The principles of teamwork, partnership, generosity, loyalty, fairness, and friendship are a useful framework from which to address specific parenting stresses. Though the therapeutic

paradigm is typically one of intervention post crisis, it would be wise for therapists and educators alike to “flag the minefield,” by helping couples anticipate challenges before they become crises.

Conclusion

Program design and research can be a challenging process. The *Marriage Moments* program was designed by a team of students and professors over the course of a year. We performed pilot studies and early evaluation research, which indicated that the program was based on sound research and methodology. Despite these efforts, the application of program concepts did not yield expected significant group differences. Clearly, program design is a complicated process. In this study, sample characteristics and program dosage may have worked against hypothesized program effects. Though the ideas upon which a program is based may be novel and intriguing, much experimentation is needed to determine how to apply the concepts effectively. Further study is needed to fully understand the impact of the transition into parenthood on marital interaction for different groups, and how the negative effects of this transition can be modified.

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Appendix A: Demographic and Measures Summary Tables

Table A1-a - Demographic Attrition Information for Men and women with Three Groups

at Time 4

| | All Subjects Mean (SD) (N = 227) | Instructor Encouraged Group (n = 74) | Self-Guided Group (n = 78) | Control Group (n = 75) | ANOVA/ Chi Square |
|-----------------------------------|--|--|-------------------------------|-------------------------------|-------------------------|
| Age | | | | | |
| Men | 25.31 (2.85) range: 19-34 | 25.2 (2.35) range: 22-31 | 25.50 (3.39) range: 19-34 | 25.22 (2.71) range: 21-33 | F = .13 (2) p = .88 |
| Women | 23.96 (2.65) range: (19-33) | 24.05 (2.53) range: 20-30 | 24.34 (3.31) range: 19-33 | 23.47 (1.94) range: 20-29 | F = 1.01 (2) p = .35 |
| Ethnicity | | | | | Chi Square |
| Caucasian | 92.5% | 93.2% | 92.3% | 92.0% | 8.79 (8) p = .36 |
| Hispanic | 3.5% | 1.4% | 3.8% | 6.7% | |
| Asian/Islander | 1.8% | 2.7% | 2.6% | 0% | |
| Native American | .9% | 2.7% | 0% | 1.3% | |
| Other | 1.3% | 0% | 1.3% | 0% | |
| Education | | | | | Chi Square |
| Some H.S. | 0% | 0% | 0% | 0% | 2.29 (6) p = .89 |
| High School | 5.8% | 6.9% | 7.7% | 2.7% | |
| Some College | 49.3% | 54.2% | 44.9% | 49.3% | |
| College degree | 40.9% | 33.3% | 43.6% | 45.3% | |
| Graduate degree | 4.0% | 5.6% | 3.8% | 2.7% | |
| Current Students | 40.1% of sample | 37.8% | 37.2% | 45.3% | 1.58 (2) p = .45 |
| Current Employment | 85.0% of sample | 83.6% | 80.8% | 90.7% | 5.38 (2) p = .7 |
| Occupational Category | | | | | Chi Square |
| Managerial, specialty | 19.6% | 19.7% | 21.5% | 17.6% | 4.06 (10) p = .95 |
| Technical, sales | 26.8% | 27.9% | 23.2% | 29.4% | |
| Service | 20.1% | 21.3% | 20% | 19.1% | |
| Other | 33.5% | 31.1% | 35.4% | 33.8% | |
| Hours per week in Paid Employment | 33.72 (12.67) | 33.27 (10.65) | 35.31 (14.37) | 32.60 (12.62) | |
| Men | 34.60 (13.50) range: 4-84 | 33.70 (9.58) range: 10-45 | 37.32 (15.17) range: 4-84 | 33.21 (13.14) range: 12-80 | F=1.214(2) p = .30 |
| Women | 32.67 (11.6) range 0-55 | 32.91 (11.59) range: 12-48 | 32.48 (12.89) range: 0-55 | 32.00 (12.26) range: 5-50 | F = .16 (2) p = .85 |
| Flexibility of Hours | | | | | Chi Square |
| None | 5.7% | 1.7% | 7.8% | 7.4% | 6.48 = (8) p = .59 |
| Minimal | 25.0% | 31.7% | 32.8% | 19.1% | |
| Moderate | 42.7% | 45.0% | 42.2% | 41.2% | |
| Significant | 16.7% | 11.7% | 18.8% | 19.1% | |
| Complete | 9.9% | 10.0% | 6.3% | 13.2% | |
| Flexibility of Location | | | | | Chi Square |
| None | 46.9% | 45.8% | 49.2% | 45.6% | 6.56 (8) p = .58 |
| Minimal | 22.9% | 30.5% | 20% | 19.1% | |
| Moderate | 14.6% | 6.8% | 15.4% | 20.6% | |
| Significant | 8.3% | 8.5% | 7.7% | 8.8% | |
| Complete | 7.3% | 8.5% | 7.7% | 5.9% | |

Table A1-a continued

Measure Summaries T1 – Men

| Item | All Subjects' Means (SD) (N = 112) | Instructor Encouraged Group (n = 35) | Self-Guided Group (n = 40) | Control Group (n = 37) | F (df) ANOVA |
|--|---------------------------------------|---|--------------------------------|-------------------------------|-------------------------|
| MVP | | | | | |
| Other Centeredness | 5.17 (.57) range: 3.67-6 | 5.04 (.60) range: 3.67-6 | 5.21 (.60) range: 3.83-6 | 5.23 (.56) range: 3.83-6 | F = 1.19 (2) p = .31 |
| Generosity | 5.01 (.78) range: 2.43-6 | 5.04 (.76) range: 2.86-5.86 | 4.95 (.86) range: 2.43-6 | 5.05 (.74) range: 3.14-6 | F = .20 (2) p = .82 |
| Admiration | 5.21 (.78) range: 2.67-6 | 5.19 (.70) range: 3.67-6 | 5.13 (.93) range: 2.67-6 | 5.31 (.67) range: 3.67-6 | F = .53 (2) p = .59 |
| Teamwork | 4.45 (.54) range: 2.67-5 | 4.42 (.48) range: 3.33-5 | 4.43 (.61) range: 2.67-5 | 4.51 (.54) range: 3.33-5 | F = .28 (2) p = .76 |
| Shared Vision | 4.92 (.51) range: 3.33-5.33 | 4.85 (.53) range: 3.33-5.33 | 4.93 (.58) range: 3.33-5.33 | 4.99 (.40) range: 4-5.33 | F = .71 (2) p = .49 |
| Loyalty | 5.48 (.86) range: 1-6 | 5.40 (.86) range: 3-6 | 5.58 (.71) range: 3.5-6 | 5.44 (1.01) range: 1-6 | F = .42 (2) p = .66 |
| R-DAS (total score) | 54.74 (5.53) range: 40-65 | 54.97 (5.24) range: 41-63 | 53.83 (6.05) range: 40-65 | 55.51 (5.21) range 44-65 | F = .94 (2) p = .39 |
| RELATE Relationship Satisfaction | 4.28 (.54) range: 2.43-5 | 4.24 (.50) range: 2.43-5 | 4.25 (.59) range: 3-5 | 4.36 (.53) range: 2.71-5 | F = .51 (2) p = .60 |
| Transition/Adjustment (mean score) | 3.49 (.49) range: 2.25-4.63 | 3.46 (.42) range: 2.75-4.63 | 3.48 (.48) range: 2.63-4.63 | 3.52 (.56) range: 2.25-4.5 | F = .14 (2) p = .87 |

Measure Summaries T1 – Women

| Item | All Subjects' Means (SD) (N = 113) | Instructor Encouraged Group (n = 37) | Self-Guided Group (n = 38) | Control Group (n = 38) | F (df) ANOVA |
|--|---------------------------------------|---|--------------------------------|-------------------------------|-------------------------|
| MVP | | | | | |
| Other Centeredness | 4.99 (.74) range: 3-6 | 5.02 (.70) range: 3.5-6 | 4.84 (.79) range: 3.33-6 | 5.10 (.70) range: 3-6 | F = 1.29 (2) p = .28 |
| Generosity | 5.26 (.64) range: 2.71-6 | 5.28 (.57) range: 3.86-6 | 5.14 (.66) range: 3.71-6 | 5.35 (.67) range: 2.71-6 | F = 1.08 (2) p = .35 |
| Admiration | 5.20 (.84) range: 3-6 | 5.12 (.87) range: 3.67-6 | 5.18 (.82) range: 3.33-6 | 5.32 (.84) range: 3-6 | F = .55 (2) p = .58 |
| Teamwork | 4.53 (.57) range: 2.33-5.67 | 4.63 (.51) range: 3.33-5.67 | 4.35 (.50) range: 3.33-5 | 4.61 (.66) range: 2.33-5 | F = 2.97 (2) p = .06 |
| Shared Vision | 5.03 (.43) range: 3.33-6 | 5.14 (.37) range: 4.33-6 | 4.92 (.50) range: 3.33-5.33 | 5.04 (.40) range: 4-5.33 | F = 2.38 (2) p = .10 |
| Loyalty | 5.62 (.59) range: 3.5-6 | 5.53 (.67) range: 3.5-6 | 5.58 (.59) range: 3.5-6 | 5.76 (.49) range: 4-6 | F = 1.68 (2) p = .19 |
| R-DAS (total score) | 55.19 (5.43) range: 31-64 | 55.46 (4.26) range: 48-64 | 54.16 (5.19) range: 43-64 | 55.95 (6.56) range: 31-64 | F = 1.10 (2) p = .34 |
| RELATE Relationship Satisfaction | 4.40 (.46) range: 2.57-5.14 | 4.37 (.47) range: 3.43-5 | 4.34 (.49) range: 3.29-5.14 | 4.48 (.48) range: 2.57-5 | F = 1.01 (2) p = .37 |
| Transition/Adjustment (mean score) | 3.51 (.52) range: 2.25-4.75 | 3.42 (.55) range: 2.25-4.75 | 3.45 (.51) range: 2.5-4.5 | 3.65 (.45) range: 2.63-4.5 | F = 2.19 (2) p = .12 |

*No group differences were significant at the .05 level

Table A1-b - Demographic Attrition Information for Men and Women with Four Groups at Time 4

| | Instructor Encouraged Group (n = 74) | Self-Guided Group (n = 78) | Control Group (n = 75) | Missing at T4 group (n=77) | ANOVA/ Chi Square |
|-----------------------------------|--------------------------------------|------------------------------|-------------------------------|------------------------------|--|
| Age | | | | | |
| Men | 25.2 (2.35) range: 22-31 | 25.50 (3.39) range: 19-34 | 25.22 (2.71) range: 21-33 | 25.23 (4.03) range: 19-41 | F = .26 (3) p = .86 |
| Women | 24.05 (2.53) range: 20-30 | 24.34 (3.31) range: 19-33 | 23.47 (1.94) range: 20-29 | 24.11 (3.45) range: 19-31 | F = .75 (3) p = .52 |
| Ethnicity | | | | | |
| Caucasian | 93.2% | 92.3% | 92.0% | 87% | Chi Square 2.45 (3) p = .48 |
| Non-Caucasian | 6.8% | 7.7% | 8.0% | 13% | |
| Education | | | | | |
| Some H.S. | 0% | 0% | 0% | 5.2% | Chi Square 25.83 (12) p = .01 |
| High School | 6.9% | 7.7% | 2.7% | 10.4% | |
| Some College | 54.2% | 44.9% | 49.3% | 59.7% | |
| College degree | 33.3% | 43.6% | 45.3% | 23.4% | |
| Graduate degree | 5.6% | 3.8% | 2.7% | 1.3% | |
| Current Students | 37.8% | 37.2% | 45.3% | 35.1% | 1.77 (3) p = .62 |
| Current Employment | 83.6% | 80.8% | 90.7% | 87% | 3.18 (3) p = .36 |
| Occupational Category | | | | | |
| Managerial, specialty | 19.7% | 21.5% | 17.6% | 25.8% | Chi Square 3.88 (9) p = .92 |
| Technical, sales | 27.9% | 23.2% | 29.4% | 24.2% | |
| Service | 21.3% | 20% | 19.1% | 12.1% | |
| Other | 31.1% | 35.4% | 33.8% | 37.9% | |
| Hours per week in Paid Employment | | | | | |
| Men | 33.27 (10.65) range: 10-45 | 35.31 (14.37) range: 4-84 | 32.60 (12.62) range: 12-80 | 35.09 (13.97) range: 0-68 | F=1.32(3) p = .27 F = .17 (3) p = .92 |
| Women | 32.91 (11.59) range: 12-48 | 32.48 (12.89) range: 0-55 | 32.00 (12.26) range: 5-50 | 31.66 (10.86) range: 8-45 | |
| Flexibility of Hours | | | | | |
| None | 1.7% | 7.8% | 7.4% | 7.5% | Chi Square 8.85 (12) p = .72 |
| Minimal | 31.7% | 32.8% | 19.1% | 17.9% | |
| Moderate | 45.0% | 42.2% | 41.2% | 40.3% | |
| Significant | 11.7% | 18.8% | 19.1% | 19.4% | |
| Complete | 10.0% | 6.3% | 13.2% | 14.9% | |
| Flexibility of Location | | | | | |
| None | 45.8% | 49.2% | 45.6% | 46.3% | Chi Square 10.90 (12) p = .54 |
| Minimal | 30.5% | 20% | 19.1% | 20.9% | |
| Moderate | 6.8% | 15.4% | 20.6% | 16.4% | |
| Significant | 8.5% | 7.7% | 8.8% | 13.4% | |
| Complete | 8.5% | 7.7% | 5.9% | 3.0% | |

Table A1-b continued

Measure Summaries (Time 1) - Men

| Item | Instructor Encouraged Group (n = 35) | Self-Guided Group (n = 40) | Control Group (n = 37) | Missing at T4 (n=37) | F (df) ANOVA |
|--|---|--------------------------------|-------------------------------|-------------------------------|-------------------------|
| MVP | | | | | |
| Other Centeredness | 5.04 (.60) range: 3.67-6 | 5.21 (.60) range: 3.83-6 | 5.23 (.56) range: 3.83-6 | 5.09 (.66) range: 3.50-6 | F = .79 (3) p = .50 |
| Generosity | 5.04 (.76) range: 2.86-5.86 | 4.95 (.86) range: 2.43-6 | 5.05 (.74) range: 3.14-6 | 4.79 (.76) range: 2.86-6 | F = .95 (3) p = .42 |
| Admiration | 5.19 (.70) range: 3.67-6 | 5.13 (.93) range: 2.67-6 | 5.31 (.67) range: 3.67-6 | 5.14 (.86) range: 2.67-6 | F = .50 (3) p = .69 |
| Teamwork | 4.42 (.48) range: 3.33-5 | 4.43 (.61) range: 2.67-5 | 4.51 (.54) range: 3.33-5 | 4.35 (.64) range: 3.00-5 | F = .48 (3) p = .70 |
| Shared Vision | 4.85 (.53) range: 3.33-5.33 | 4.93 (.58) range: 3.33-5.33 | 4.99 (.40) range: 4-5.33 | 4.81 (.61) range: 3.0-5.33 | F = .78 (3) p = .51 |
| Loyalty | 5.40 (.86) range: 3-6 | 5.58 (.71) range: 3.5-6 | 5.44 (1.01) range: 1-6 | 5.46 (.80) range: 2.5-6 | F = .31 (3) p = .82 |
| R-DAS (total score) | 54.97 (5.24) range: 41-63 | 53.83 (6.05) range: 40-65 | 55.51 (5.21) range 44-65 | 54.77 (6.88) range 36-66 | F = .60 (3) p = .61 |
| RELATE Relationship Satisfaction | 4.24 (.50) range: 2.43-5 | 4.25 (.59) range: 3-5 | 4.36 (.53) range: 2.71-5 | 4.34 (.52) range: 3.00-5 | F = .46 (3) p = .71 |
| Transition/Adjustment (mean score) | 3.46 (.42) range: 2.75-4.63 | 3.48 (.48) range: 2.63-4.63 | 3.52 (.56) range: 2.25-4.5 | 3.68 (.71) range: 2.50-5 | F = 1.22 (3) p = .30 |

Measure Summaries (Time 1) – Women

| Item | Instructor Encouraged Group (n = 37) | Self-Guided Group (n = 38) | Control Group (n = 38) | Missing at T4 Group (n=) | F (df) ANOVA |
|--|---|--------------------------------|-------------------------------|--------------------------------|---------------------------|
| MVP | | | | | |
| Other Centeredness | 5.02 (.70) range: 3.5-6 | 4.84 (.79) range: 3.33-6 | 5.10 (.70) range: 3 -6 | 4.97 (.76) range: 2.5-6 | F = .66 (3) p = .58 |
| Generosity | 5.28 (.57) range: 3.86-6 | 5.14 (.66) range: 3.71-6 | 5.35 (.67) range: 2.71-6 | 5.29 (.54) range: 3.86-6 | F = 1.08 (3) p = .36 |
| Admiration | 5.12 (.87) range: 3.67-6 | 5.18 (.82) range: 3.33-6 | 5.32 (.84) range: 3-6 | 5.22 (.89) range: 3-6 | F = .38 (3) p = .77 |
| Teamwork | 4.63 (.51) range: 3.33-5.67 | 4.35 (.50) range: 3.33-5 | 4.61 (.66) range: 2.33-5 | 4.37 (.55) range: 3-5 | F = 2.96 (3)* p = .034 |
| Shared Vision | 5.14 (.37) range: 4.33-6 | 4.92 (.50) range: 3.33-5.33 | 5.04 (.40) range: 4-5.33 | 5.05 (.42) range: 4-5.33 | F = 1.56 (3) p = .20 |
| Loyalty | 5.53 (.67) range: 3.5-6 | 5.58 (.59) range: 3.5-6 | 5.76 (.49) range: 4-6 | 5.53 (.68) range: 4-6 | F = 1.22 (3) p = .31 |
| R-DAS (total score) | 55.46 (4.26) range: 48-64 | 54.16 (5.19) range: 43-64 | 55.95 (6.56) range: 31-64 | 55.68 (4.71) range: 43-63 | F = 1.20 (3) p = .31 |
| RELATE Relationship Satisfaction | 4.37 (.47) range:3.43-5 | 4.34 (.49) range:3.29-5.14 | 4.48 (.48) range:2.57-5 | 4.33 (.60) range: 2.57-5 | F = .86 (3) p = .46 |
| Transition/Adjustment (mean score) | 3.42 (.55) range: 2.25-4.75 | 3.45 (.51) range: 2.5-4.5 | 3.65 (.45) range: 2.63-4.5 | 3.61 (.56) range: 2-4.88 | F = 1.96 (3) p = .12 |

Table A2 - Construct Validity Table of Correlations for Outcome Measures at Time 1

| | R-DAS | Center for Epidemiological Studies-Depression | Satisfied With Life Scale | Education | Age | Program Participation |
|--|-------|---|---------------------------|-----------|------|-----------------------|
| <i>MVP</i> | | | | | | |
| Other - Centeredness | .57 | -.25 | .39 | -- | | .28 |
| Generosity | .61 | -.23 | .46 | .15 | | |
| Admiration | .51 | -.15 | .31 | -- | | |
| Teamwork | .38 | -.23 | .51 | .14 | | |
| Shared - Vision | .72 | -.22 | .50 | -- | | |
| Loyalty | .59 | -.15 | .24 | .21 | | |
| <i>RELATE</i> | | | | | | |
| Neg. Conflict Behavior | -.53 | .22 | -.37 | -.12 | | .16 |
| Stonewalling | -.22 | -- | -.15 | -- | | |
| Flooding | -.33 | .30 | -.23 | -- | | |
| Soothing Partner's Neg. CB | -.59 | .22 | -.45 | -.20 | | |
| Partner's Stonewalling | -- | -- | -- | -- | | |
| Partner's Flooding | -.43 | .14 | -.32 | -- | | |
| Partner's Soothing | .21 | -- | -- | -- | | |
| Relationship Instability | -.61 | .34 | -.47 | -.18 | | |
| Relationship Satisfaction | .75 | -.30 | .59 | .21 | | |
| <i>Stanley Commitment Scale (5 item)</i> | .52 | -.19 | .46 | -- | -.16 | |
| <i>CES-D</i> | -.28 | .96 | -.37 | -- | -- | |
| <i>Transition & Adjustment Scale</i> | .40 | -.22 | .36 | -- | -- | |
| <i>R-DAS</i> | -- | -.28 | .52 | -- | -- | |
| <i>Age</i> | -- | -- | -- | .43 | -- | |

*All Reported Pearson Correlations are Significant at the .01 level (2-tailed)

Table A3 - Confirmatory Factor Analysis of the Marital Virtues Profile: Standardized Factor Loadings across measurement times (Times 1-3)

| Factor/ Item# | Contents | Model 1 (time 1) | | Model 2 (time 2) | | Model 3 (time 3) | |
|------------------------|---|------------------|------------|------------------|------------|------------------|------------|
| | | Wives | Husbands | Wives | Husbands | Wives | Husbands |
| Factor I | Other-Centeredness (Fairness, Understanding, Sacrifice) | Alpha= .84 | Alpha= .79 | Alpha= .86 | Alpha= .85 | Alpha= .85 | Alpha= .80 |
| 244 | My partner recognizes when I am feeling that things are unfair in our relationship. | .61 | .72 | .81 | .78 | .82 | .80 |
| 251 | My partner is familiar with my likes and dislikes | .54 | .63 | .87 | .90 | .92 | .94 |
| 252 | My partner knows my preferred ways of receiving love. | .57 | .68 | .90 | .89 | .89 | .91 |
| 255 | My partner makes time to be with me. | .65 | .73* | .93 | .88 | .92 | .87 |
| 256 | My partner makes personal sacrifices for the good of the relationship. | .72 | .61 | .92 | .87 | .92 | .88 |
| 257 | My partner drops some personal activities to be more available to me. | .68 | .67 | .89 | .76 | .90 | .82 |
| Factor II | Generosity (Forgiveness, Acceptance, Appreciation) | Alpha= .81 | Alpha= .82 | Alpha= .82 | Alpha= .84 | Alpha= .83 | Alpha= .81 |
| 233 | My partner is forgiving of my mistakes. | .78 | .51 | .92 | .93 | .94 | .94 |
| 234 | My partner is able to truly let go of negative feelings toward me. | .72 | .42 | .93 | .89 | .89 | .92 |
| 236 | My partner brings up my past offenses when we are arguing. (R) | .66 | .51 | .80 | .88 | .84 | .90 |
| 241 | My partner is able to look past my shortcomings. | .54 | .81* | .93 | .93 | .94 | .94 |
| 242 | My partner expects me to change. (R) | .53 | .57 | .69 | .73 | .79 | .81 |
| 247 | My partner appreciates all the work I do for our relationship. | .73 | .75 | .90 | .85 | .91 | .88 |
| 248 | My partner struggles to recognize the things I do for him. (R) | .46 | .70 | .78 | .81 | .73 | .84 |
| Factor III | Admiration | Alpha= .90 | Alpha= .84 | Alpha= .88 | Alpha= .89 | Alpha= .90 | Alpha= .86 |
| 237 | My partner sincerely compliments me on a regular basis. | .88 | .82 | .92 | .84 | .89 | .91 |
| 238 | My partner recognizes my positive qualities. | .80 | .90 | .96 | .93 | .96 | .97 |
| 239 | My partner admires me. | .86 | .90 | .94 | .96 | .97 | .96 |
| Factor IV | Teamwork | Alpha= .80 | Alpha= .81 | Alpha= .81 | Alpha= .83 | Alpha= .84 | Alpha= .77 |
| 265 | My partner and I have a number of shared life goals we are working towards. | .64 | .56 | .92 | .94 | .93 | .96 |
| 269 | My partner and I work together as a team to accomplish our goals. | .88 | .74 | .93 | .94 | .94 | .97 |
| 270 | Our relationship is based on a deep sense of teamwork. | .79 | .72 | .91 | .91 | .95 | .96 |
| Factor V | Shared Vision | Alpha= .70 | Alpha= .80 | Alpha= .71 | Alpha= .78 | Alpha= .71 | Alpha= .77 |
| 266 | My partner and I are headed in different directions in life. (R) | .59 | .70 | .93 | .90 | .91 | .93 |
| 267 | My partner and I want the same things from life. | .75 | .74 | .95 | .96 | .97 | .98 |
| 268 | My partner and I have a shared vision of what makes up a good life. | .77 | .61 | .85 | .93 | .98 | .98 |
| Factor VI | Loyalty/Backbiting | Alpha= .61 | Alpha= .83 | Alpha= .85 | Alpha= .82 | Alpha= .91 | Alpha= .89 |
| 262 | My partner talks about me behind my back (in a negative way). (R) | .89 | .56 | .96 | .98 | .98 | .98 |
| 264 | My partner talks about my faults with others. (R) | .81 | .74 | .94 | .98 | .97 | .98 |
| | Correlations between husbands and wives | $\phi = .54$ | | $\phi = .87$ | | $\phi = .94$ | |
| 2 nd -Order | Global Relational Virtues | Alpha= .92 | Alpha= .92 | Alpha= .93 | Alpha= .94 | Alpha= .93 | Alpha= .93 |
| FI | Other-Centeredness | .82 | .91 | .98 | .94 | .98 | .96 |
| FII | Generosity | .85 | .81 | .97 | .97 | .99 | .99 |
| FIII | Admiration | .66 | .72 | .93 | .93 | .95 | .92 |
| FIV | Teamwork | .85 | .89 | .97 | .99 | .95 | .97 |
| FV | Shared Vision | .68 | .76 | .97 | .98 | .93 | .98 |
| FVI | Loyalty/Backbiting | .58 | .66 | .95 | .94 | .92 | .95 |

Table A4 - Marital Virtues Profile Correlations, Goodness-of-Fit Indices, and Cronbach's Alphas for Husbands and Wives across Measurement [Times for Various Models (Times 1-3)]

| | | | | |
|----------|--|--|--|--|
| | Goodness of fit indices of models without equality constraints on factor loadings | $\chi^2 = 1297.79$ df = 1047 CFI = .93 TLI = .92 RMSEA = .04 | $\chi^2 = 1616.94$ df = 1057 CFI = .95 TLI = .95 RMSEA = .06 | $\chi^2 = 1728.43$ df = 1053 CFI = .95 TLI = .94 RMSEA = .06 |
| | Chi-square increase of models with equality constraints on factor loadings | $\chi^2_{dif} = 38.39$, df _{dif} = 16, p < .05 | $\chi^2_{dif} = 4.29$, df _{dif} = 18, p > .05 | $\chi^2_{dif} = 5.19$, df _{dif} = 18, p > .05 |
| | Time Invariance (for wives and husbands) | Time 1 + Time 2 | Time 1 + Time 3 | |
| Wives | Goodness of fit indices without equality constraints on factor loadings of two measurements | $\chi^2 = 1465.18$ df = 1029 CFI = .90 TLI = .90 RMSEA = .05 | $\chi^2 = 1404.84$ df = 1025 CFI = .91 TLI = .90 RMSEA = .05 | |
| | Chi-square increase with equality constraints on factor loadings of two measurements | $\chi^2_{dif} = 13.94$, df _{dif} = 18, p > .05 | $\chi^2_{dif} = 36.15$, df _{dif} = 18, p < .05 | |
| | Correlation between two measurements | $\phi = .78$ | $\phi = .73$ | |
| | Items of variant loadings | | 251, 269 | |
| Husbands | Goodness of fit indices without equality constraints on factor loadings of two measurements | $\chi^2 = 1378.76$ df = 1031 CFI = .92 TLI = .91 RMSEA = .05 | $\chi^2 = 1440.45$ df = 1021 CFI = .90 TLI = .89 RMSEA = .05 | |
| | Chi-square increase with equality constraints on factor loadings of two measurements | $\chi^2_{dif} = 30.70$, df _{dif} = 18, p < .05 | $\chi^2_{dif} = 19.06$, df _{dif} = 18, p > .05 | |
| | Correlation between two measurements | $\phi = .79$ | $\phi = .68$ | |
| | Items of variant loadings | 242 | | |

Table A5 - Revised Dyadic Adjustment Scale Confirmatory Factor Analyses and Descriptive Statistics across Measurement Times for Men and Women (Times 1-4)

| Time 1 R-DAS One Factor Solution (N = 310) | | | |
|--|----------------|------|-----|
| Item | Factor Loading | Mean | SD |
| <i>Total Alpha</i> | .81 | | |
| Religious matters | .49 | 4.43 | .76 |
| Demonstrations of affection | .59 | 3.93 | .75 |
| Making major decisions | .52 | 4.28 | .66 |
| Sex relations | .62 | 3.97 | .90 |
| Conventionality (correct or proper behavior) | .63 | 3.94 | .77 |
| Career decisions | .50 | 4.33 | .66 |
| How often do you discuss or have you considered divorce, separation or terminating your relationship | .57 | 4.73 | .54 |
| How often do you and your partner quarrel | .61 | 3.59 | .68 |
| Do you ever regret that you married | .51 | 4.76 | .56 |
| How often do you and your mate “get on each other’s nerves” | .61 | 3.55 | .71 |
| Do you and your mate engage in outside interests together | .39 | 2.55 | .70 |
| Have a stimulating exchange of ideas | .51 | 3.56 | .89 |
| Work together on a project | .46 | 3.05 | .95 |
| Calmly discuss something | .51 | 4.32 | .78 |
| Time 1 R-DAS One Factor Solution for Men (n = 155) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Total Alpha</i> | .82 | | |
| Religious matters | .46 | 4.51 | .71 |
| Demonstrations of affection | .61 | 3.88 | .74 |
| Making major decisions | .49 | 4.33 | .67 |
| Sex relations | .62 | 3.96 | .86 |
| Conventionality (correct or proper behavior) | .63 | 3.92 | .79 |
| Career decisions | .47 | 4.34 | .65 |
| How often do you discuss or have you considered divorce, separation or terminating your relationship | .61 | 4.69 | .86 |
| How often do you and your partner quarrel | .63 | 3.64 | .72 |
| Do you ever regret that you married | .51 | 4.65 | .67 |
| How often do you and your mate “get on each other’s nerves” | .64 | 5.54 | .76 |
| Do you and your mate engage in outside interests together | .38 | 2.44 | .77 |
| Have a stimulating exchange of ideas | .60 | 3.48 | .87 |
| Work together on a project | .46 | 3.05 | .99 |
| Calmly discuss something | .55 | 4.29 | .83 |

| Time 1 R-DAS Multiple Factor Solution for Men (n = 155) | | | |
|--|----------------|------|-----|
| Item | Factor Loading | Mean | SD |
| <i>Factor 1</i> | | | |
| Religious matters | .72 | 4.51 | .72 |
| Making major decisions | .73 | 4.33 | .67 |
| Conventionality | .54 | 3.92 | .79 |
| Career Decisions | .65 | 4.34 | .65 |
| <i>Factor 2</i> | | | |
| Have a stimulating exchange of ideas | .76 | 3.48 | .87 |
| Work together on a project | .88 | 3.05 | .99 |
| <i>Factor 3</i> | | | |
| How often do you discuss or have you considered divorce, separation, or terminating your relationship? | .86 | 4.69 | .86 |
| Do you ever regret that you married? | .73 | 4.65 | .67 |
| Calmly discuss something | .59 | 4.29 | .83 |
| <i>Factor 4</i> | | | |
| How often do you and your partner quarrel? | .66 | 3.64 | .72 |
| How often do you and your mate get on each other's nerves? | .74 | 5.54 | .76 |
| Do you and your mate engage in outside interests together? | .51 | 2.44 | .77 |
| <i>Factor 5</i> | | | |
| Demonstrations of affection | .89 | 3.88 | .74 |
| Sex relations | .84 | 3.96 | .86 |
| Time 1 R-DAS One Factor Solution for Women (n = 155) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Total Alpha</i> | | | |
| Religious matters | .55 | 4.36 | .79 |
| Demonstrations of affection | .58 | 3.97 | .76 |
| Making major decisions | .58 | 4.23 | .65 |
| Sex relations | .63 | 3.97 | .75 |
| Conventionality (correct or proper behavior) | .63 | 3.97 | .63 |
| Career decisions | .54 | 4.32 | .68 |
| How often do you discuss or have you considered divorce, separation or terminating your relationship | .51 | 4.78 | .46 |
| How often do you and your partner quarrel | .61 | 3.55 | .63 |
| Do you ever regret that you married | .52 | 4.68 | .38 |
| How often do you and your mate "get on each other's nerves" | .55 | 3.56 | .67 |
| Do you and your mate engage in outside interests together | .40 | 2.65 | .60 |
| Have a stimulating exchange of ideas | .39 | 3.64 | .90 |
| Work together on a project | .46 | 3.05 | .91 |
| Calmly discuss something | .45 | 4.34 | .74 |

| Time 1 R-DAS Multiple Factor Solution for Women (n = 155) | | | |
|--|----------------|------|------|
| Item | Factor | Mean | SD |
| <i>Factor 1</i> | | | |
| Demonstrations of affection | .81 | 3.97 | .758 |
| Making major decisions | .67 | 4.23 | .652 |
| Sex Relations | .82 | 3.97 | .935 |
| Conventionality | .60 | 3.97 | .745 |
| How often do you and your partner quarrel? | .44 | 3.55 | 6.27 |
| <i>Factor 2</i> | | | |
| Do you and your mate engage in outside interests together? | .69 | 2.65 | .600 |
| Have a stimulating exchange of ideas | .80 | 3.64 | .899 |
| Work together on a project | .78 | 3.05 | .913 |
| Calmly discuss something | .61 | 4.34 | .735 |
| <i>Factor 3</i> | | | |
| How often do you discuss or have you considered divorce, separation, or terminating your relationship? | .93 | 4.78 | 4.61 |
| Do you ever regret that you married (or lived together)? | .83 | 4.68 | .380 |
| How often do you and your mate get on each other's nerves? | .45 | 3.56 | .666 |
| <i>Factor 4</i> | | | |
| Religious matters | .62 | 4.36 | .789 |
| Career decisions | .69 | 4.32 | .675 |
| Time 2 R-DAS One Factor Solution (N = 294) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Total Alpha</i> | | | |
| Religious matters | .46 | 4.56 | .66 |
| Demonstrations of affection | .53 | 3.97 | .66 |
| Making major decisions | .61 | 4.36 | .62 |
| Sex relations | .63 | 4.01 | .83 |
| Conventionality (correct or proper behavior) | .48 | 3.94 | .74 |
| Career decisions | .47 | 4.41 | .72 |
| How often do you discuss or have you considered divorce, separation or terminating your relationship | .50 | 4.82 | .49 |
| How often do you and your partner quarrel | .61 | 3.67 | .72 |
| Do you ever regret that you married | .54 | 4.86 | .39 |
| How often do you and your mate "get on each other's nerves" | .65 | 3.62 | .71 |
| Do you and your mate engage in outside interests together | .42 | 2.56 | .73 |
| Have a stimulating exchange of ideas | .58 | 3.63 | .90 |
| Work together on a project | .51 | 3.24 | .90 |
| Calmly discuss something | .54 | 4.34 | .82 |

| Time 2 R-DAS One Factor Solution for Men (n = 147) | | | |
|--|----------------|------|-----|
| Item | Factor Loading | Mean | SD |
| <i>Total Alpha</i> | .83 | | |
| Religious matters | .51 | 4.59 | .69 |
| Demonstrations of affection | .57 | 4.00 | .68 |
| Making major decisions | .65 | 4.39 | .68 |
| Sex relations | .68 | 4.06 | .82 |
| Conventionality (correct or proper behavior) | .51 | 3.96 | .73 |
| Career decisions | .43 | 4.39 | .78 |
| How often do you discuss or have you considered divorce, separation or terminating your relationship | .47 | 4.79 | .59 |
| How often do you and your partner quarrel | .67 | 3.72 | .77 |
| Do you ever regret that you married | .54 | 4.80 | .44 |
| How often do you and your mate “get on each other’s nerves” | .66 | 3.66 | .77 |
| Do you and your mate engage in outside interests together | .40 | 2.50 | .75 |
| Have a stimulating exchange of ideas | .63 | 3.53 | .94 |
| Work together on a project | .51 | 3.12 | .94 |
| Calmly discuss something | .64 | 4.26 | .85 |
| Time 2 R-DAS One Factor Solution for Women (n = 147) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Total Alpha</i> | .77 | | |
| Religious matters | .38 | 4.53 | .63 |
| Demonstrations of affection | .48 | 3.94 | .64 |
| Making major decisions | .55 | 4.33 | .55 |
| Sex relations | .59 | 3.97 | .83 |
| Conventionality (correct or proper behavior) | .46 | 3.92 | .75 |
| Career decisions | .52 | 4.42 | .64 |
| How often do you discuss or have you considered divorce, separation or terminating your relationship | .55 | 4.86 | .35 |
| How often do you and your partner quarrel | .53 | 3.62 | .67 |
| Do you ever regret that you married | .57 | 4.92 | .33 |
| How often do you and your mate “get on each other’s nerves” | .64 | 3.57 | .64 |
| Do you and your mate engage in outside interests together | .42 | 2.62 | .70 |
| Have a stimulating exchange of ideas | .51 | 3.72 | .85 |
| Work together on a project | .52 | 3.37 | .84 |
| Calmly discuss something | .38 | 4.42 | .64 |

| Time 3 R-DAS One Factor Solution (N = 288) | | | |
|--|----------------|------|------|
| Item | Factor Loading | Mean | SD |
| <i>Total Alpha</i> | .82 | | |
| Religious matters | .45 | 4.55 | .75 |
| Demonstrations of affection | .63 | 3.80 | .75 |
| Making major decisions | .72 | 4.38 | .68 |
| Sex relations | .64 | 3.76 | .89 |
| Conventionality (correct or proper behavior) | .58 | 3.91 | .76 |
| Career decisions | .60 | 4.36 | .74 |
| How often do you discuss or have you considered divorce, separation or terminating your relationship | .55 | 4.81 | .50 |
| How often do you and your partner quarrel | .54 | 3.58 | .68 |
| Do you ever regret that you married | .60 | 4.80 | .50 |
| How often do you and your mate “get on each other’s nerves” | .57 | 3.55 | .69 |
| Do you and your mate engage in outside interests together | .36 | 2.32 | .72 |
| Have a stimulating exchange of ideas | .55 | 3.43 | .86 |
| Work together on a project | .48 | 2.81 | 1.04 |
| Calmly discuss something | .57 | 4.25 | .82 |
| Time 3 R-DAS One Factor Solution for Men (n = 144) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Total Alpha</i> | .84 | | |
| Religious matters | .55 | 4.59 | .74 |
| Demonstrations of affection | .68 | 3.73 | .81 |
| Making major decisions | .75 | 4.35 | .72 |
| Sex relations | .67 | 3.75 | .92 |
| Conventionality (correct or proper behavior) | .65 | 3.88 | .77 |
| Career decisions | .64 | 4.33 | .78 |
| How often do you discuss or have you considered divorce, separation or terminating your relationship | .54 | 4.79 | .58 |
| How often do you and your partner quarrel | .57 | 3.62 | .69 |
| Do you ever regret that you married | .59 | 4.73 | .57 |
| How often do you and your mate “get on each other’s nerves” | .58 | 3.53 | .72 |
| Do you and your mate engage in outside interests together | .22 | 2.21 | .76 |
| Have a stimulating exchange of ideas | .56 | 3.38 | .79 |
| Work together on a project | .46 | 2.80 | 1.08 |
| Calmly discuss something | .56 | 4.13 | .84 |

| Time 3 R-DAS One Factor Solution for Women (n = 144) | | | |
|--|----------------|------|------|
| Item | Factor Loading | Mean | SD |
| <i>Total Alpha</i> | .80 | | |
| Religious matters | .34 | 4.52 | .76 |
| Demonstrations of affection | .54 | 3.87 | .69 |
| Making major decisions | .69 | 4.42 | .64 |
| Sex relations | .60 | 3.78 | .87 |
| Conventionality (correct or proper behavior) | .50 | 3.94 | .75 |
| Career decisions | .56 | 4.38 | .70 |
| How often do you discuss or have you considered divorce, separation or terminating your relationship | .59 | 4.84 | .42 |
| How often do you and your partner quarrel | .49 | 3.54 | .67 |
| Do you ever regret that you married | .61 | 4.87 | .41 |
| How often do you and your mate “get on each other’s nerves” | .55 | 3.58 | .67 |
| Do you and your mate engage in outside interests together | .52 | 2.42 | .65 |
| Have a stimulating exchange of ideas | .55 | 3.48 | .93 |
| Work together on a project | .49 | 2.82 | 1.00 |
| Calmly discuss something | .57 | 4.36 | .78 |
| Time 4 R-DAS One Factor Solution (N = 232) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Total Alpha</i> | .86 | | |
| Religious matters | .56 | 4.53 | .72 |
| Demonstrations of affection | .57 | 3.75 | .81 |
| Making major decisions | .67 | 4.32 | .65 |
| Sex relations | .60 | 3.63 | .93 |
| Conventionality (correct or proper behavior) | .60 | 3.84 | .86 |
| Career decisions | .52 | 4.26 | .76 |
| How often do you discuss or have you considered divorce, separation or terminating your relationship | .64 | 4.74 | .56 |
| How often do you and your partner quarrel | .67 | 3.48 | .68 |
| Do you ever regret that you married | .63 | 4.75 | .55 |
| How often do you and your mate “get on each other’s nerves” | .71 | 3.43 | .75 |
| Do you and your mate engage in outside interests together | .54 | 2.23 | .72 |
| Have a stimulating exchange of ideas | .59 | 3.34 | .93 |
| Work together on a project | .60 | 2.81 | 1.11 |
| Calmly discuss something | .50 | 4.15 | .88 |

| Time 4 R-DAS One Factor Solution for Men (n = 116) | | | |
|--|----------------|------|------|
| Item | Factor Loading | Mean | SD |
| <i>Total Alpha</i> | .84 | | |
| Religious matters | .54 | 4.58 | .72 |
| Demonstrations of affection | .59 | 3.75 | .73 |
| Making major decisions | .66 | 4.34 | .65 |
| Sex relations | .65 | 3.70 | .85 |
| Conventionality (correct or proper behavior) | .60 | 3.86 | .82 |
| Career decisions | .58 | 4.16 | .76 |
| How often do you discuss or have you considered divorce, separation or terminating your relationship | .66 | 4.78 | .50 |
| How often do you and your partner quarrel | .63 | 3.55 | .66 |
| Do you ever regret that you married | .54 | 4.80 | .48 |
| How often do you and your mate “get on each other’s nerves” | .71 | 3.48 | .77 |
| Do you and your mate engage in outside interests together | .47 | 2.17 | .65 |
| Have a stimulating exchange of ideas | .54 | 3.28 | .86 |
| Work together on a project | .54 | 2.85 | 1.09 |
| Calmly discuss something | .49 | 4.05 | .88 |
| Time 4 R-DAS One Factor Solution for Women (n = 116) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Total Alpha</i> | .87 | | |
| Religious matters | .59 | 4.49 | .72 |
| Demonstrations of affection | .55 | 3.75 | .88 |
| Making major decisions | .68 | 4.31 | .67 |
| Sex relations | .56 | 3.56 | 1.01 |
| Conventionality (correct or proper behavior) | .60 | 3.81 | .90 |
| Career decisions | .49 | 4.36 | .75 |
| How often do you discuss or have you considered divorce, separation or terminating your relationship | .62 | 4.71 | .62 |
| How often do you and your partner quarrel | .70 | 3.41 | .70 |
| Do you ever regret that you married | .69 | 4.71 | .60 |
| How often do you and your mate “get on each other’s nerves” | .71 | 3.38 | .73 |
| Do you and your mate engage in outside interests together | .60 | 2.28 | .79 |
| Have a stimulating exchange of ideas | .64 | 3.41 | .99 |
| Work together on a project | .65 | 2.77 | 1.14 |
| Calmly discuss something | .52 | 4.24 | .87 |

Table A6 - RELATE Confirmatory Factor Analyses and Descriptive Statistics across Measurement Times for Men and Women (Times 1-4)

| Time 1 RELATE Relationship scales (N = 310) | | | |
|--|-------|------|-----|
| Item | Alpha | Mean | SD |
| <i>Relationship Stability</i> | | | |
| How often have you though your relationship might be in trouble | .89 | 1.56 | .71 |
| How often have you and your partner discussed ending your relationship | .89 | 1.18 | .41 |
| <i>Relationship Satisfaction</i> | | | |
| The physical intimacy you experience | .65 | 4.37 | .78 |
| The love you experience | .78 | 4.73 | .52 |
| How conflicts are resolved | .81 | 4.11 | .81 |
| The amount of relationship equality you experience | .75 | 4.41 | .73 |
| The quality of your communication | .76 | 4.12 | .86 |
| Your overall relationship with your partner | .79 | 4.75 | .54 |
| Time 1 RELATE Relationship scales – Men (n = 155) | | | |
| Item | Alpha | Mean | SD |
| <i>Relationship Stability</i> | | | |
| How often have you though your relationship might be in trouble | .90 | 1.56 | .97 |
| How often have you and your partner discussed ending your relationship | .90 | 1.19 | .75 |
| <i>Relationship Satisfaction</i> | | | |
| The physical intimacy you experience | .56 | 4.30 | .86 |
| The love you experience | .80 | 4.67 | .56 |
| How conflicts are resolved | .79 | 4.07 | .84 |
| The amount of relationship equality you experience | .75 | 4.36 | .77 |
| The quality of your communication | .80 | 4.10 | .91 |
| Your overall relationship with your partner | .83 | 4.73 | .50 |
| Time 1 RELATE Relationship scales – Women (n = 155) | | | |
| Item | Alpha | Mean | SD |
| <i>Relationship Stability</i> | | | |
| How often have you though your relationship might be in trouble | .87 | 1.56 | .68 |
| How often have you and your partner discussed ending your relationship | .87 | 1.17 | .41 |
| <i>Relationship Satisfaction</i> | | | |
| The physical intimacy you experience | .75 | 4.45 | .71 |
| The love you experience | .75 | 4.79 | .47 |
| How conflicts are resolved | .82 | 4.16 | .79 |
| The amount of relationship equality you experience | .77 | 4.45 | .69 |
| The quality of your communication | .71 | 4.14 | .80 |
| Your overall relationship with your partner | .75 | 4.78 | .57 |

| Time 2 RELATE Relationship scales (N = 294) | | | |
|--|----------------|------|-----|
| Item | Factor Loading | Mean | SD |
| <i>Relationship Stability</i> | | | |
| How often have you though your relationship might be in trouble | .86 | 1.42 | .60 |
| How often have you and your partner discussed ending your relationship | .86 | 1.14 | .36 |
| <i>Relationship Satisfaction</i> | | | |
| The physical intimacy you experience | .75 | 4.24 | .79 |
| The love you experience | .79 | 4.73 | .55 |
| How conflicts are resolved | .79 | 4.17 | .81 |
| The amount of relationship equality you experience | .80 | 4.40 | .70 |
| The quality of your communication | .73 | 4.19 | .80 |
| Your overall relationship with your partner | .69 | 4.77 | .48 |
| Time 2 RELATE Relationship scales – Men (n = 147) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Relationship Stability</i> | | | |
| How often have you though your relationship might be in trouble | .87 | 1.44 | .62 |
| How often have you and your partner discussed ending your relationship | .87 | 1.14 | .37 |
| <i>Relationship Satisfaction</i> | | | |
| The physical intimacy you experience | .80 | 4.20 | .87 |
| The love you experience | .84 | 4.63 | .65 |
| How conflicts are resolved | .82 | 4.13 | .88 |
| The amount of relationship equality you experience | .80 | 4.40 | .73 |
| The quality of your communication | .73 | 4.17 | .84 |
| Your overall relationship with your partner | .79 | 4.76 | .46 |
| Time 2 RELATE Relationship scales – Women (n = 147) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Relationship Stability</i> | | | |
| How often have you though your relationship might be in trouble | .86 | 1.39 | .57 |
| How often have you and your partner discussed ending your relationship | .86 | 1.14 | .35 |
| <i>Relationship Satisfaction</i> | | | |
| The physical intimacy you experience | .67 | 4.28 | .71 |
| The love you experience | .70 | 4.83 | .42 |
| How conflicts are resolved | .77 | 4.20 | .74 |
| The amount of relationship equality you experience | .80 | 4.40 | .66 |
| The quality of your communication | .73 | 4.22 | .77 |
| Your overall relationship with your partner | .57 | 4.78 | .50 |

| Time 3 RELATE Relationship scales (N = 288) | | | |
|--|----------------|------|-----|
| Item | Factor Loading | Mean | SD |
| <i>Relationship Stability</i> | | | |
| How often have you thought your relationship might be in trouble | .87 | 1.52 | .66 |
| How often have you and your partner discussed ending your relationship | .87 | 1.16 | .41 |
| <i>Relationship Satisfaction</i> | | | |
| The physical intimacy you experience | .61 | 3.97 | .88 |
| The love you experience | .82 | 4.48 | .70 |
| How conflicts are resolved | .82 | 4.03 | .84 |
| The amount of relationship equality you experience | .79 | 4.17 | .81 |
| The quality of your communication | .77 | 3.90 | .92 |
| Your overall relationship with your partner | .82 | 4.58 | .62 |
| Time 3 RELATE Relationship scales – Men (n = 144) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Relationship Stability</i> | | | |
| How often have you though your relationship might be in trouble | .88 | 1.51 | .66 |
| How often have you and your partner discussed ending your relationship | .88 | 1.16 | .41 |
| <i>Relationship Satisfaction</i> | | | |
| The physical intimacy you experience | .61 | 3.98 | .88 |
| The love you experience | .81 | 4.44 | .73 |
| How conflicts are resolved | .82 | 4.12 | .77 |
| The amount of relationship equality you experience | .76 | 4.20 | .79 |
| The quality of your communication | .76 | 3.93 | .86 |
| Your overall relationship with your partner | .77 | 4.56 | .64 |
| Time 3 RELATE Relationship scales – Women (n = 144) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Relationship Stability</i> | | | |
| How often have you though your relationship might be in trouble | .86 | 1.53 | .67 |
| How often have you and your partner discussed ending your relationship | .86 | 1.16 | .42 |
| <i>Relationship Satisfaction</i> | | | |
| The physical intimacy you experience | .61 | 3.95 | .88 |
| The love you experience | .84 | 4.51 | .68 |
| How conflicts are resolved | .82 | 3.95 | .90 |
| The amount of relationship equality you experience | .82 | 4.15 | .84 |
| The quality of your communication | .78 | 3.86 | .98 |
| Your overall relationship with your partner | .86 | 4.60 | .61 |

| Time 4 RELATE Relationship scales (N = 233) | | | |
|--|----------------|------|-----|
| Item | Factor Loading | Mean | SD |
| <i>Relationship Stability</i> | | | |
| How often have you thought your relationship might be in trouble | .91 | 1.67 | .78 |
| How often have you and your partner discussed ending your relationship | .91 | 1.21 | .49 |
| <i>Relationship Satisfaction</i> | | | |
| The physical intimacy you experience | .70 | 3.89 | .96 |
| The love you experience | .82 | 4.34 | .75 |
| How conflicts are resolved | .82 | 3.81 | .93 |
| The amount of relationship equality you experience | .79 | 4.09 | .81 |
| The quality of your communication | .81 | 3.77 | .92 |
| Your overall relationship with your partner | .85 | 4.42 | .75 |
| Time 4 RELATE Relationship scales – Men (n = 116) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Relationship Stability</i> | | | |
| How often have you though your relationship might be in trouble | .92 | 1.58 | .74 |
| How often have you and your partner discussed ending your relationship | .92 | 1.22 | .45 |
| <i>Relationship Satisfaction</i> | | | |
| The physical intimacy you experience | .66 | 3.92 | .94 |
| The love you experience | .79 | 4.34 | .70 |
| How conflicts are resolved | .85 | 3.80 | .89 |
| The amount of relationship equality you experience | .80 | 4.16 | .72 |
| The quality of your communication | .81 | 3.80 | .85 |
| Your overall relationship with your partner | .77 | 4.41 | .72 |
| Time 4 RELATE Relationship scales – Women (n = 117) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Relationship Stability</i> | | | |
| How often have you though your relationship might be in trouble | .90 | 1.76 | .81 |
| How often have you and your partner discussed ending your relationship | .90 | 1.21 | .52 |
| <i>Relationship Satisfaction</i> | | | |
| The physical intimacy you experience | .73 | 3.85 | .99 |
| The love you experience | .83 | 4.34 | .80 |
| How conflicts are resolved | .79 | 3.81 | .98 |
| The amount of relationship equality you experience | .79 | 4.02 | .89 |
| The quality of your communication | .81 | 3.74 | 1.0 |
| Your overall relationship with your partner | .91 | 4.42 | .77 |

*See reference page for Busby, Holman and Taniguchi (2001) article

Table A7 - Transition Adjustment Scale Factor Analyses and Descriptive Statistics
across Measurement Times for Men and Women (Times 1-4)

| Time 1 Transition & Adjustment Table (N = 310) | | | |
|--|----------------|------|-------|
| Item | Factor Loading | Mean | SD |
| <i>Total Scale Alpha</i> | .77 | | |
| Sharing housework | .545 | 3.84 | .875 |
| Sharing childcare | .642 | 4.00 | .751 |
| Finding time for personal leisure | .645 | 2.93 | .847 |
| Maintaining an enjoyable sexual relationship | .647 | 3.49 | .957 |
| Finding time to be with just your spouse | .599 | 2.94 | .957 |
| Feeling more distant from your spouse | .660 | 3.79 | .911 |
| Balancing work and family responsibilities | .635 | 3.31 | 1.037 |
| Overall, how well do you expect to adjust to all the changes that go along with becoming new parents | .579 | 3.95 | .679 |
| Time 1 Transition & Adjustment Table – Men (n = 155) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Total Scale Alpha</i> | .77 | | |
| Sharing housework | .555 | 3.92 | .860 |
| Sharing childcare | .635 | 4.01 | .771 |
| Finding time for personal leisure | .648 | 2.88 | .848 |
| Maintaining an enjoyable sexual relationship | .560 | 3.51 | .965 |
| Finding time to be with just your spouse | .658 | 2.91 | 1.019 |
| Feeling more distant from your spouse | .607 | 3.88 | .966 |
| Balancing work and family responsibilities | .727 | 3.12 | 1.048 |
| Overall, how well do you expect to adjust to all the changes that go along with becoming new parents | .537 | 4.06 | .663 |
| Time 1 Transition & Adjustment Table – Women (n = 155) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Total Scale Alpha</i> | .78 | | |
| Sharing housework | .536 | 3.76 | .886 |
| Sharing childcare | .652 | 3.99 | .732 |
| Finding time for personal leisure | .643 | 2.97 | .848 |
| Maintaining an enjoyable sexual relationship | .725 | 3.46 | .951 |
| Finding time to be with just your spouse | .532 | 2.97 | .893 |
| Feeling more distant from your spouse | .721 | 3.71 | .847 |
| Balancing work and family responsibilities | .576 | 3.51 | .992 |
| Overall, how well do you expect to adjust to all the changes that go along with becoming new parents | .636 | 3.84 | .678 |

| Time 2 Transition & Adjustment Table (N = 294) | | | |
|---|----------------|------|-------|
| Item | Factor Loading | Mean | SD |
| <i>Total Scale Alpha</i> | .79 | | |
| Sharing housework | .604 | 3.88 | .840 |
| Sharing childcare | .666 | 4.02 | .760 |
| Finding time for personal leisure | .637 | 2.93 | .888 |
| Maintaining an enjoyable sexual relationship | .639 | 3.47 | .927 |
| Finding time to be with just your spouse | .723 | 2.99 | .898 |
| Feeling more distant from your spouse | .612 | 3.78 | .897 |
| Balancing work and family responsibilities | .651 | 3.41 | .995 |
| Overall, how well do you expect to adjust to all the changes that go along with becoming new parents | .571 | 4.11 | .620 |
| Time 2 Transition & Adjustment Table – Men (n = 147) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Total Scale Alpha</i> | .81 | | |
| Sharing housework | .643 | 3.97 | .853 |
| Sharing childcare | .675 | 4.01 | .816 |
| Finding time for personal leisure | .668 | 2.99 | .897 |
| Maintaining an enjoyable sexual relationship | .569 | 3.50 | .973 |
| Finding time to be with just your spouse | .707 | 3.05 | .938 |
| Feeling more distant from your spouse | .585 | 3.89 | .921 |
| Balancing work and family responsibilities | .755 | 3.23 | 1.021 |
| Overall, how well do you expect to adjust to all the changes that go along with becoming new parents | .616 | 4.23 | .635 |
| Time 2 Transition & Adjustment Table – Women (n = 147) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Total Scale Alpha</i> | .78 | | |
| Sharing housework | .556 | 3.80 | .822 |
| Sharing childcare | .662 | 4.03 | .701 |
| Finding time for personal leisure | .596 | 2.88 | .878 |
| Maintaining an enjoyable sexual relationship | .717 | 3.44 | .881 |
| Finding time to be with just your spouse | .742 | 2.93 | .855 |
| Feeling more distant from your spouse | .637 | 3.66 | .860 |
| Balancing work and family responsibilities | .588 | 3.59 | .940 |
| Overall, how well do you expect to be able to adjust to all the changes that go along with becoming new parents | .508 | 3.99 | .583 |

| Time 3 Transition & Adjustment Table (N = 288) | | | |
|---|----------------|------|------|
| Item | Factor Loading | Mean | SD |
| <i>Total Scale Alpha</i> | <i>.81</i> | | |
| Sharing housework | .60 | 3.77 | .89 |
| Sharing childcare | .71 | 3.98 | .80 |
| Finding time for personal leisure | .68 | 2.86 | .91 |
| Maintaining an enjoyable sexual relationship | .67 | 3.18 | 1.03 |
| Finding time to be with just your spouse | .70 | 2.79 | .95 |
| Feeling more distant from your spouse | .69 | 3.65 | .95 |
| Balancing work and family responsibilities | .49 | 3.33 | 1.02 |
| Overall, how well do you feel you have been able to adjust to all the changes that go along with becoming new parents | .61 | 4.12 | .68 |
| How much conscious effort are you giving now to protecting your relationship with your partner | .41 | 3.49 | .65 |
| How much conscious effort is your spouse giving now to protecting your relationship | .44 | 3.50 | .65 |
| Time 3 Transition & Adjustment Table – Men (n = 144) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Total Scale Alpha</i> | <i>.81</i> | | |
| Sharing housework | .67 | 3.82 | .88 |
| Sharing childcare | .77 | 3.91 | .81 |
| Finding time for personal leisure | .66 | 2.87 | .88 |
| Maintaining an enjoyable sexual relationship | .66 | 3.23 | 1.02 |
| Finding time to be with just your spouse | .73 | 2.84 | .96 |
| Feeling more distant from your spouse | .69 | 3.67 | .95 |
| Balancing work and family responsibilities | .48 | 3.09 | 1.01 |
| Overall, how well do you feel you have been able to adjust to all the changes that go along with becoming new parents | .55 | 4.11 | .66 |
| How much conscious effort are you giving now to protecting your relationship with your partner | .40 | 3.43 | .65 |
| How much conscious effort is your spouse giving now to protecting your relationship | .40 | 3.52 | .65 |

| Time 3 Transition & Adjustment Table – Women (n = 144) | | | |
|---|----------------|------|------|
| Item | Factor Loading | Mean | SD |
| <i>Total Scale Alpha</i> | .81 | | |
| Sharing housework | .54 | 3.73 | .90 |
| Sharing childcare | .66 | 4.06 | .79 |
| Finding time for personal leisure | .70 | 2.86 | .94 |
| Maintaining an enjoyable sexual relationship | .67 | 3.14 | 1.04 |
| Finding time to be with just your spouse | .69 | 2.74 | .93 |
| Feeling more distant from your spouse | .70 | 3.63 | .94 |
| Balancing work and family responsibilities | .53 | 3.56 | .99 |
| Overall, how well do you feel you have been able to adjust to all the changes that go along with becoming new parents | .67 | 4.13 | .70 |
| How much conscious effort are you giving now to protecting your relationship with your partner | .42 | 3.55 | .66 |
| How much conscious effort is your spouse giving now to protecting your relationship | .49 | 4.39 | .66 |
| Time 3 Two Factor Transition & Adjustment Table (N = 288) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Total Scale Alpha</i> | .81 | | |
| Sharing housework | .61 | 3.77 | .89 |
| Sharing childcare | .71 | 3.98 | .80 |
| Finding time for personal leisure | .70 | 2.86 | .91 |
| Maintaining an enjoyable sexual relationship | .67 | 3.18 | 1.03 |
| Finding time to be with just your spouse | .74 | 2.79 | .95 |
| Feeling more distant from your spouse | .69 | 3.65 | .95 |
| Balancing work and family responsibilities | .53 | 3.33 | 1.02 |
| Overall, how well do you feel you have been able to adjust to all the changes that go along with becoming new parents | .60 | 4.12 | .68 |
| <i>Intentionality Scale Alpha</i> | .85 | | |
| How much conscious effort are you giving now to protecting your relationship with your partner | .93 | 3.49 | .65 |
| How much conscious effort is your spouse giving now to protecting your relationship | .93 | 3.50 | .65 |

| Time 3 Two Factor Transition & Adjustment Table – Men (n = 144) | | | |
|---|----------------|------|------|
| Item | Factor Loading | Mean | SD |
| <i>Total Scale Alpha</i> | .82 | | |
| Sharing housework | .67 | 3.82 | .88 |
| Sharing childcare | .76 | 3.91 | .81 |
| Finding time for personal leisure | .66 | 2.87 | .88 |
| Maintaining an enjoyable sexual relationship | .67 | 3.23 | 1.02 |
| Finding time to be with just your spouse | .77 | 2.84 | .96 |
| Feeling more distant from your spouse | .69 | 3.67 | .95 |
| Balancing work and family responsibilities | .53 | 3.09 | 1.01 |
| Overall, how well do you feel you have been able to adjust to all the changes that go along with becoming new parents | .56 | 4.11 | .66 |
| <i>Intentionality Alpha</i> | .81 | | |
| How much conscious effort are you giving now to protecting your relationship with your partner | .92 | 3.43 | .65 |
| How much conscious effort is your spouse giving now to protecting your relationship | .92 | 3.52 | .65 |
| Time 3 Two Factor Transition & Adjustment Table – Women (n = 144) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Total Scale Alpha</i> | .81 | | |
| Sharing housework | .56 | 3.73 | .90 |
| Sharing childcare | .67 | 4.06 | .79 |
| Finding time for personal leisure | .73 | 2.86 | .94 |
| Maintaining an enjoyable sexual relationship | .67 | 3.14 | 1.04 |
| Finding time to be with just your spouse | .73 | 2.74 | .93 |
| Feeling more distant from your spouse | .69 | 3.63 | .94 |
| Balancing work and family responsibilities | .56 | 3.56 | .99 |
| Overall, how well do you feel you have been able to adjust to all the changes that go along with becoming new parents | .64 | 4.13 | .70 |
| <i>Intentionality Alpha</i> | .88 | | |
| How much conscious effort are you giving now to protecting your relationship with your partner | .95 | 3.55 | .66 |
| How much conscious effort is your spouse giving now to protecting your relationship | .95 | 4.39 | .66 |

| Time 4 Transition & Adjustment Table (N = 227) | | | |
|---|----------------|------|------|
| Item | Factor Loading | Mean | SD |
| <i>Total Scale Alpha</i> | .83 | | |
| Sharing housework | .63 | 3.65 | .85 |
| Sharing childcare | .67 | 3.90 | .79 |
| Finding time for personal leisure | .61 | 2.95 | .87 |
| Maintaining an enjoyable sexual relationship | .63 | 3.24 | 1.00 |
| Finding time to be with just your spouse | .73 | 2.84 | .92 |
| Feeling more distant from your spouse | .79 | 3.52 | 1.04 |
| Balancing work and family responsibilities | .63 | 3.29 | 1.01 |
| Overall, how well do you feel you have been able to adjust to all the changes that go along with becoming new parents | .62 | 4.12 | .68 |
| How much conscious effort are you giving now to protecting your relationship with your partner | .41 | 3.41 | .69 |
| How much conscious effort is your spouse giving now to protecting your relationship | .49 | 3.40 | .75 |
| Time 4 Transition & Adjustment Table – Men (n = 113) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Total Scale Alpha</i> | .82 | | |
| Sharing housework | .61 | 3.72 | .76 |
| Sharing childcare | .57 | 3.90 | .73 |
| Finding time for personal leisure | .55 | 3.05 | .83 |
| Maintaining an enjoyable sexual relationship | .64 | 3.28 | 1.00 |
| Finding time to be with just your spouse | .73 | 2.87 | .90 |
| Feeling more distant from your spouse | .74 | 3.58 | .96 |
| Balancing work and family responsibilities | .70 | 3.11 | .97 |
| Overall, how well do you feel you have been able to adjust to all the changes that go along with becoming new parents | .62 | 4.12 | .68 |
| How much conscious effort are you giving now to protecting your relationship with your partner | .53 | 3.41 | .68 |
| How much conscious effort is your spouse giving now to protecting your relationship | .46 | 3.51 | .63 |

| Time 4 Transition & Adjustment Table – Women (n = 114) | | | |
|---|----------------|------|------|
| Item | Factor Loading | Mean | SD |
| <i>Total Scale Alpha</i> | .83 | | |
| Sharing housework | .64 | 3.58 | .92 |
| Sharing childcare | .74 | 3.89 | .85 |
| Finding time for personal leisure | .66 | 2.84 | .90 |
| Maintaining an enjoyable sexual relationship | .61 | 3.19 | 1.01 |
| Finding time to be with just your spouse | .74 | 2.82 | .94 |
| Feeling more distant from your spouse | .83 | 3.46 | 1.12 |
| Balancing work and family responsibilities | .62 | 3.46 | 1.03 |
| Overall, how well do you feel you have been able to adjust to all the changes that go along with becoming new parents | .60 | 4.12 | .68 |
| How much conscious effort are you giving now to protecting your relationship with your partner | .30 | 3.42 | .70 |
| How much conscious effort is your spouse giving now to protecting your relationship | .50 | 3.29 | .84 |
| Time 4 Two Factor Transition & Adjustment Table (N = 227) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Total Scale Alpha</i> | .83 | | |
| Sharing housework | .63 | 3.65 | .85 |
| Sharing childcare | .70 | 3.90 | .79 |
| Finding time for personal leisure | .63 | 2.95 | .87 |
| Maintaining an enjoyable sexual relationship | .64 | 3.24 | 1.00 |
| Finding time to be with just your spouse | .74 | 2.84 | .92 |
| Feeling more distant from your spouse | .79 | 3.52 | 1.04 |
| Balancing work and family responsibilities | .68 | 3.29 | 1.01 |
| Overall, how well do you feel you have been able to adjust to all the changes that go along with becoming new parents | .61 | 4.12 | .68 |
| <i>Intentionality Scale Alpha</i> | .84 | | |
| How much conscious effort are you giving now to protecting your relationship with your partner | .93 | 3.41 | .69 |
| How much conscious effort is your spouse giving now to protecting your relationship | .93 | 3.40 | .75 |

| Time 4 Two Factor Transition & Adjustment Table – Men (n = 113) | | | |
|---|----------------|------|------|
| Item | Factor Loading | Mean | SD |
| <i>Total Scale Alpha</i> | .82 | | |
| Sharing housework | .61 | 3.72 | .76 |
| Sharing childcare | .60 | 3.90 | .73 |
| Finding time for personal leisure | .58 | 3.05 | .83 |
| Maintaining an enjoyable sexual relationship | .65 | 3.28 | 1.00 |
| Finding time to be with just your spouse | .74 | 2.87 | .90 |
| Feeling more distant from your spouse | .74 | 3.58 | .96 |
| Balancing work and family responsibilities | .74 | 3.11 | .97 |
| Overall, how well do you feel you have been able to adjust to all the changes that go along with becoming new parents | .65 | 4.12 | .68 |
| <i>Intentionality Alpha</i> | .87 | | |
| How much conscious effort are you giving now to protecting your relationship with your partner | .94 | 3.41 | .68 |
| How much conscious effort is your spouse giving now to protecting your relationship | .94 | 3.51 | .63 |
| Time 4 Two Factor Transition & Adjustment Table – Women (n = 114) | | | |
| Item | Factor Loading | Mean | SD |
| <i>Total Scale Alpha</i> | .85 | | |
| Sharing housework | .64 | 3.58 | .92 |
| Sharing childcare | .77 | 3.89 | .85 |
| Finding time for personal leisure | .68 | 2.84 | .90 |
| Maintaining an enjoyable sexual relationship | .63 | 3.19 | 1.01 |
| Finding time to be with just your spouse | .74 | 2.82 | .94 |
| Feeling more distant from your spouse | .83 | 3.46 | 1.12 |
| Balancing work and family responsibilities | .67 | 3.46 | 1.03 |
| Overall, how well do you feel you have been able to adjust to all the changes that go along with becoming new parents | .58 | 4.12 | .68 |
| <i>Intentionality Alpha</i> | .84 | | |
| How much conscious effort are you giving now to protecting your relationship with your partner | .93 | 3.42 | .70 |
| How much conscious effort is your spouse giving now to protecting your relationship | .93 | 3.29 | .84 |

Appendix B: Program Participation and Evaluation Summary Tables

Table B1 - Treatment Group Men and Women's Program Involvement

| | IE-T women (n = 50) | SG-T women (n = 50) | IE-T men (n = 50) | SG-T men (n = 50) |
|-------------------------------------|--|--------------------------|---|--------------------------|
| Activities | Mean = 2.66 SD = 1.04 | Mean = 3.43 SD = .72 | Mean = 2.62 SD = 1.07 | Mean = 3.23 SD = .76 |
| | t = -4.203, sig. = .000 Effect Size = .79 | | t = -3.25, sig = .002 Effect Size = .63 | |
| Additional Information | Mean = 1.82 SD=.85 | Mean = 2.02 SD=1.02 | Mean = 1.74 SD=.85 | Mean = 2.07 SD = 1.12 |
| | t = -1.049, sig = .297 Effect Size = .21 | | t = -1.61, sig = .110 Effect Size = .33 | |
| Activities & Additional Information | Mean = 4.48 SD=1.54 | Mean = 5.43 SD = 1.34 | Mean = 4.36, SD=1.37 | Mean = 5.33 SD = 1.3 |
| | t = -3.177, sig = .002 Effect Size = .63 | | t = -3.55, sig = .001 Effect Size = .69 | |
| Program Evaluation | Mean = 4.00 SD=.61 | Mean = 4.22 SD = .54 | Mean = 3.83 SD=.81 | Mean = 4.05 SD = .62 |
| | t = -1.898, sig = .061 Effect Size = .38 | | t = -1.50, sig = .138 Effect Size = .30 | |
| Strengthen Relationship | Mean = 2.98 SD=.65 | Mean = 3.04, SD = .69 | Mean = 2.70 SD=.84 | Mean = 2.98, SD = .61 |
| | t = -.458, sig = .648 Effect Size = .09 | | t = -1.864, sig = .065 Effect Size = .38 | |

Table B2 - Participant Free Response Reactions to the Program

| | Percent of all comments | Number of similar responses | Example Comments |
|---|-------------------------|-----------------------------|--|
| Positive Reactions (general) | 31.6% | 81 | It really helped to prepare us for the changes we were going to face. We knew we weren't the only ones with struggles that come with a new baby. I'm glad we did it. (Husband, IE-T group) I thought it was a good program. Usually when a couple prepares to have a baby, they only focus on the baby. It was nice to keep the focus on us, as a couple (Wife, IE-T group) |
| Video | 7.8% | 20 | The videos made me stop and think of all the things I need to be doing in order to help my wife and our relationship. (Husband, SG-T group) |
| Workbook | 1.2% | 3 | The booklet helped us talk about things we probably would not ever have talked about. (Wife, IE-T group) |
| Activities | 9.8% | 25 | I thought the activities were very helpful to our marriage. We discovered new things about each other. (Wife, SG-T group) |
| “Strengthened our relationship” | 17.6% | 45 | It helped us to discuss possible changes in our relationship and how we can overcome obstacles together. We may not have realized that we needed to talk about these kinds of things and keep working on our marriage (Wife, IE-T group) |
| “I now know more about myself, or my spouse” | 7.4% | 19 | I thought it was very thought provoking. It brought to light and asked questions that I wouldn't have otherwise thought of. (Husband, IE-T group) |
| “The program reinforced principles I have learned before” | 6.6% | 17 | Good reminder of principles I know to be true, all condensed into a short program. (Husband, passive group) I felt like it was a positive thing to help our marriage, although I was perfectly happy with our marriage (Husband, IE-T group) |

| | | | |
|--|------|----|--|
| Negative Reactions (general) | 4.3% | 11 | Didn't really seem like much new information. (Husband, IE-T group) |
| Video | 5.1% | 13 | The video was kind of distracting and cheesy. I felt the information was good, but I didn't like the way it was presented. (Wife, IE-T group) |
| Workbook | 0.8% | 2 | The topics and things discussed were interesting; however, I thought the guides were somewhat wordy and dry. (Husband, SG-T group) |
| Activities | 2.8% | 7 | Some of the activities I thought were a little silly such as the talking/listening card game, but I can see how in some situations it might be useful. (Husband, IE-T group) |
| "A helpful program for others, but not for us" | 5.1% | 13 | I could see how this program could be useful to a marriage that is having problems. Fortunately I am not in that demographic. (Husband, SG-T group) It is a worthwhile program, but not as useful to older couples (Wife, SG-T group) |

Appendix C: Description of *Marriage Moments* Curriculum

| Week | Video & Workbook Topic | Basic Content | Sample Personal Activity | Sample Partner Activity |
|------|--|--|---|---|
| 1 | Introduction to Marital Virtues/ Myth of Marital Happiness | Love is more than a personal feeling of happiness. A strong marriage is based on teamwork. | Assume words like “personal happiness” and “emotional gratification” were never invented. List five other reasons why your marriage is important. | Select another couple that you know who had a baby in the past year or so. Ask them questions: before the baby was born, what changes did you expect in your relationship; what changes did you actually experience; what did you do to adjust to those changes. Then spend time as a couple discussing what you learned and what your own expectations might be. |
| 2 | Friendship | A strong marital friendship is developed by sharing goals and knowing each other. It emphasizes partnership rather than just having fun. | List five things that you as an individual would like to do, accomplish or experience before you die. Then, list five things that you would like to do, accomplish or experience with your spouse before you die. | After you have completed personal activity #1, come together and compare notes. Make a list together of things you would both like to do as a couple. Look at what your partner has put down as personal goals and dreams. Take the opportunity to learn more about your partner by talking about the things he or she has listed. |
| 3 | Generosity | Generosity means focusing on your partner’s strengths and forgiving their mistakes. | List three of the things that you have been frustrated with in your spouse. Then, list five strengths or admirable qualities your spouse has next to each of those things. | After completing personal activity #1, sit down together. Share with each other the 15 good things you see in one another. Then promise each other not to pay attention to the 3 negative things on your list any more. |

| | | | | |
|---|----------|---|---|---|
| 4 | Fairness | Fairness means trusting your partner and working together to share the work instead of keeping track that you only do your equal share. | Consider the following question: what makes my spouse feel like he/she can't depend on me? Now identify one specific thing you can do differently to increase his/her trust in you on this point of dependability. For this week, focus on being 100% dependable in this area. | Think of areas in which you and your spouse divide the work that needs to be done now. Talk about which activities you could actually do together and pick one that you will start sharing now as a symbol of your fairness. Then think of some of the areas you might divide when the baby comes and identify one you could do together. |
| 5 | Loyalty | In our conversations and in our priorities, we are loyal to our spouses by remembering our commitment to them. We are their first champion and they are our first priority. | Next to each of the following areas, list ways this area could potentially become a problem for your marriage. Then describe a creative way that you will approach these things differently so that it doesn't detract from your marriage: leisure and hobbies, work, friends, extended family. | Create a loyal listening ritual by completing the following: discuss what you will do to set the stage for loyal listening, what you will do to practice loyal listening, and how you will finish your ritual. |