Marriage Moments: An Evaluation of an Approach to Strengthen Couples' Relationships During the Transition to Parenthood, in the Context of a Home Visitation Program

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MARRIAGE MOMENTS: AN EVALUATION OF AN APPROACH TO STRENGTHEN COUPLES’ RELATIONSHIPS DURING THE TRANSITION TO PARENTHOOD, IN THE CONTEXT OF A HOME VISITATION PROGRAM

by

Kimberly Lovejoy

A thesis submitted to the faculty of Brigham Young University in partial fulfillment of the requirements for the degree of Master of Science Marriage, Family, and Human Development Program School of Family Life Brigham Young University August 2004
BRIGHAM YOUNG UNIVERSITY

GRADUATE COMMITTEE APPROVAL

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ABSTRACT

MARRIAGE MOMENTS: AN EVALUATION OF AN APPROACH TO STRENGTHEN COUPLES’ RELATIONSHIPS DURING THE TRANSITION TO PARENTHOOD, IN THE CONTEXT OF A HOME VISITATION PROGRAM

Kimberly Lovejoy
Marriage, Family, and Human Development Program
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This study evaluates the efficacy of a self-guided, low-intensity curriculum, *Marriage Moments*, based on Fowers’ (2000) virtues model of marital quality that emphasizes friendship, generosity, justice and loyalty. The *Marriage Moments* program consists of a guidebook and a video that were designed to strengthen marriages during the transition to parenthood and is used in the context of a home visitation program for first-time parents. Participants in the study included 119 married couples who had recently given birth to their first child. They were assigned to either a treatment, comparison or control group. The treatment group received the *Marriage Moments* curriculum as well as the *Welcome Baby* home visitation curriculum, the comparison group only received the
*Welcome Baby* curriculum and the control group received neither program. Data were gathered through a battery of self- and spouse-report measures given at 3-months, 4-months, and 9-months postpartum. Relationship outcome measures included in this study were the Marital Virtues Profile, Revised-Dyadic Adjustment Scale, RELATE Satisfaction subscale, Transition Adjustment Scale, Father Involvement Scale, Household Labor Scale, and Maternal Depression Scale. Despite positive evaluations of the program from participants, analyses revealed a lack of significant, positive effects for members of the treatment group. Further research is needed before reliable conclusions can be drawn about the value of a marital virtues model as a guide for low intensity intervention.
ACKNOWLEDGEMENTS

I would like to acknowledge and express sincere appreciation to the many contributors who aided in the success of implementation of Marriage Moments in a home visitation program. First, I thank Dr. Alan Hawkins for giving me the opportunity to work with the project and trusting me to make decisions to continue its progress. Next, I appreciate Dr. Jason Carroll, for always being available to teach me and helping me to see my capabilities. I would also like to thank the Welcome Baby Coordinators, Melissa Leuck and Susanna Johnson who became not only associates, but also lifelong friends.

I lovingly acknowledge my husband, Peter, for supporting, applauding, and caring about all of my endeavors. I thank him for helping to make the transition to parenthood one of the best experiences of my life. Finally, I thank our beautiful daughter, Hannah, for the smiles and giggles that helped push me through the final stages of this paper.
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MVP

RDAS and RS

TAS

Father involvement

Household labor

Maternal depression

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Introduction

Supporting healthy marriages is critical in offering stability for children, couples, families, and communities. There is substantial evidence of the physical and mental health benefits available in non-distressed marriages (Kiecolt-Glaser & Newton, 2001; Waite & Gallagher, 2000). In addition to the benefits available for adults, there are also links between marriage and child-wellbeing (Amato & Booth, 1997; Parke, 2003; Waite & Gallagher, 2000). Children who grow up with their married, biological parents are less likely to live in poverty and develop social, behavioral and academic problems. In addition, there is evidence that marriage is linked to lower infant mortality rates and better infant and early childhood health (Armtzen et al., 1996; Bennet, 1992; Institute for American Values, 2002), making a strong case for marriage.

This study evaluates the efficacy of a self-guided, low-intensity curriculum, Marriage Moments, based on Fowers’ (2000) virtues model of marital quality that emphasizes friendship, generosity, justice and loyalty. The Marriage Moments program consists of a guidebook and a video that were designed to strengthen marriages during the transition to parenthood and is used in the context of a home visitation program for first-time parents. Participants in the study included 119 married couples who had recently given birth to their first child.

Transition to Parenthood

With all of the joys of having a first child come many new challenges for a couple. The transition to parenthood has been considered one of life’s most challenging
transitions (Crohan, 1996; LeMasters, 1957; Michaels & Goldberg 1988). While new parents are overwhelmed with information about their developing child and the daily routines necessary to care for a newborn, they receive little, if any, information about the changes that their relationship will experience. Keeping a marriage strong becomes even more crucial after the birth of a child due to the economic, physical, social and psychological changes that occur in the family.

Research consistently shows that the transition to parenthood is generally associated with a decline in satisfaction for both husbands and wives (Belsky & Pensky, 1988; Belsky & Rovine, 1990; Cowan & Cowan, 1995, 2000; Helms-Erickson, 2001; Huston & Vangelisti, 1995; Kurdek, 1993, 1999; Twenge, Campbell & Foster, 2003) as the family changes from a marital dyad to a familial triad. The violated expectations of the parents can also have a large impact on the ease of the transition. When spouse expectations are optimistic but unrealistic in the areas of spousal relationship, physical well-being, and maternal competence and satisfaction, the transition is usually more difficult. Kalmuss, Davidson, and Cushman (1992) found that women’s high expectations for parenting were not congruent with their experiences and these discrepancies affected their ability to adjust to the new situation. In their meta-analysis, Twenge, Campbell, and Foster (2003) found greater dissatisfaction in the marriages of more recent cohorts of new parents, especially mothers. They conjecture the declines in marital satisfaction are due to the role conflict and restrictions of freedom inherent in parenthood that are experienced in greater measure by recent cohorts.

While the transition is, on average, associated with a decline in marital happiness, not all couples experience “parenthood as a crisis” (LeMasters, 1957). Some couples
report experiencing a “honeymoon” phase immediately after birth, with a short-term increase in satisfaction (Belsky, Spanier, & Rovine, 1983; Worthington & Buston, 1997). Wallace and Gotlib (1990) posit that the variability in the quality of couple relationships may be affected by individual characteristics, experience, and other contextual factors. Their findings, along with those of Belsky and Rovine (1990), suggest that the best predictors of postpartum marital adjustment for husbands and wives are their prenatal levels of marital adjustment and their perceived parenting stress. Wives' prenatal marital adjustment also contributed to the prediction of husbands' marital adjustment at six months postpartum. Couples who initially relate well to each other continued to do so throughout the transition, whereas couples who did not have positive forms of relating tended to have more negative postnatal outcomes.

The most significant aspects of the marriage relationship that are influenced by the transition are love, labor, and leisure (Belsky, Lang, & Rovine, 1985; Belsky & Pensky, 1988; Crawford & Huston, 1993; Crohan, 1996). It appears that changes in these areas lead to increased conflict and fatigue, which lead to a decrease in romance and affection and a decline in marital quality. The more stress and fatigue couples experience because of these changes, the more likely they are to engage in conflict, if they have not learned better ways of dealing with the stress. Recent research in this area shows that a husband’s expressions of affection for his wife, his appreciation for her, and her appreciation for him are critical in buffering the affects of the transition on the feelings of declining love in the relationship. In addition, a husband’s negativity towards his wife, his expressions of disappointment in the relationship, and both partners’ feelings of chaos
or lack of control in their lives contribute the most to a difficult transition (Shapiro, Gottman, & Carrère, 2000).

Generally, research suggests that parents’ activities become more instrumental and child-oriented and the couples’ division of household labor becomes more traditional which, if different than expected, can cause conflict (Cowan & Cowan, 1995; MacDermid, Huston & McHale, 1990; Levy-Shiff, 1994). The increased workload can feel overwhelming and conflict usually arises about the fairness of the division of labor and the appropriate method for accomplishing the work. In addition, for couples with careers, greater attachment to one’s work identity tends to exacerbate marital decline (Levy-Shiff, 1994).

The time-consuming nature of infants, added to the other demands on time, allows for less leisure time alone and as a couple. When time is available, it is often interrupted by the cries of an infant or the constant fatigue of one or both of the parents. While the total amount of absolute time couples spend together does not necessarily change or differ from childless couples, these couples tend to work less on emotional aspects of their relationship during their time together and they feel less enjoyment and rejuvenation from these moments (Belsky, Lang, & Rovine 1985; Crawford & Huston, 1993).

Interventions

Numerous scholars have called for interventions to ease the difficulties of the transition to parenthood (Belsky & Pensky, 1988; Cowan & Cowan, 2000; Hawkins et al., 2002; Shapiro et al., 2000; Worthington & Buston, 1986). Some interventions include the Becoming a Family Project (Cowan & Cowan, 2000), the PREP-based Becoming
Parents program (Jordan, Stanley, & Markman, 1999), and the Baby Makes Three program (Shapiro & Gottman, in press).

The Cowan’s program is the most well researched approach beginning with weekly couples’ group meetings, run by the Cowan’s themselves, 3 months before the birth of the first child and continuing until 3 months postpartum. The purpose of the therapeutic group interactions, using a fluid curriculum, was to encourage understanding and support during the potential difficulties of the transition to parenthood. Cowan and Cowan (2000) found that the divorce rate was significantly lower for the couples who participated in the program, at least in the first few years, compared to control-group couples. However, the intensity of this intervention only allowed it to reach 24 couples, and, there is no documentation of the continuation of this type of program. While the intervention appeared to have positive effects for participating couples, it was resource intensive, the therapeutic emphasis was costly and it made large demands on participants and facilitators. Thus, the portability of the intervention is low.

Pam Jordan’s Becoming Parents program was adapted using the communication skills approach of PREP (Prevention & Relationship Enhancement Program; Markman, Stanley & Blumberg, 1994). Couples are involved in 21 hours of information about child development, parenting issues, and an abbreviated version of PREP before the birth of their child, as well as two additional 3-hour booster sessions 6-8 weeks postpartum. While no formal evaluations of this program are available currently, there is evidence showing the content of this PREP-based program--the most evaluated extant marriage education program--is effective at strengthening couple relationships (Stanley, Markman,
& Peters, 1995). A formal evaluation of Becoming Parents is underway with the support of a large federal grant.

John Gottman’s Baby Makes Three program is a psycho-educational, two-day, couples workshop designed to help strengthen marital relationships by preparing couples for the difficulties inherent during the transition to parenthood by promoting father and mother involvement, and providing basic information about infant psychological development and parenting skills (Shapiro & Gottman, in press). The longitudinal study tested the effectiveness of the workshop by comparing an experimental and control group as they experienced the transition to parenthood. They found the intervention to have positive results in the domains of marital quality and individual psychopathology for the workshop group compared to the control group. Marital quality remained stable in the experimental group while declines were evident in the control group. In addition, psychopathology increased for control group participants and decreased for those in the workshop group.

Government-funded efforts are also adding to the support for strengthening marriage. The Building Strong Families Project (BSF) was created to strengthen the relationships of low-income families around the birth of their child by developing, implementing, and evaluating programs that have the potential to help unwed parents achieve their dreams of having a stable, happy marriage and family life (Dion, 2004). Recent ACF/Children’s Bureau Grants were awarded in order to refine and implement programs meant to support marital relationships of parenting couples, which may or may not include couples who have recently had their first child. However, of the government
funded programs currently being developed to strengthen marital relationships, few were created for the specific needs of married couples making the transition to parenthood.

Recently there have been initial efforts to create specifiable programs supporting marriage relationships targeting married, parenting couples supported by the federal Children’s Bureau. However, there are more programs that focus on educating high-risk mothers about parenting. There is a bona fide need for more programs designed to help couples, not just mothers. According to the Fragile Families and Child Wellbeing Study (FFCWB), most unmarried parents are committed to each other and their children, with about half of them living together and one-third being romantically involved at the time of their child’s birth (CRCW, July 2002). Many of the parents, whether they are still together or not, agree that is better for children if their parents are married. Despite the high hopes many of these couples have to be married, few achieve their goal (Carlson, 2002; CRCW, July 2002). Only about 9 % of couples are married by the time their child is one-year-old, while 49 % are romantically involved and the other 42 % are no longer in any type of romantic relationship (CRCW, January 2003). Consequently, there is the potential for valuable interventions in this area.

While the previously mentioned interventions are effective, there is a need for a marital enhancement program accessible to couples during this transition that does not require facilitators and can be administered at a low intensity that can be incorporated more easily into the busy lives of new parents. There is also the necessity to acquire enough interest in programs so that individuals will participate without being paid for their involvement. In addition, programs need to be available to a larger population and hence their transportability is critical.
This thesis documents a unique effort to strengthen marriages during the transition to parenthood, but with a low-level, self-guided intervention—*Marriage Moments*—based upon a marital virtues model delivered to couples through a home visitation program. A previous study was conducted using the *Marriage Moments* curriculum delivered in a prenatal education setting. While the results of this study were disappointing in terms of relationship outcomes (Fawcett, 2004), it leaves open the possibility that a post-natal intervention may be more effective during the transition to parenthood due to a couple’s stark awareness of the difficulty of the transition and their desire to have a healthy relationship. In addition to the timing difference, the program will be delivered using a more personalized mechanism of home visitation. That is, the program may prove more beneficial due to an ongoing relationship between the home visitor and the couple which may enhance the intervention.

*Marriage Moments: Strengthening Marriage During the Transition*

*Marriage Moments* was developed in accordance with the need for an intervention to help couples during their difficult transition to parenthood. *Marriage Moments* in a home visitation setting is meant to help accentuate the positive attributes that the couple possesses, as well as to improve the areas of difficulty that they are experiencing. It is hoped that *Marriage Moments* will have a normalizing effect for couples on the transition to parenthood and that they will realize that with effort they can have the relationship they desire, despite their changing family life circumstances.

One of the key differences between the *Marriage Moments* curriculum and other interventions available to couples is its emphasis on marital virtues versus more common skills-based approaches that focus on speaker-listener techniques, conflict resolution, and
other similar abilities. By participating in *Marriage Moments*, it is intended that couples will strengthen the virtues upon which a lasting marriage is created and desire to continue on the path to establishing even stronger marital ties. The *Marriage Moments* program was created using *Beyond the Myth of Marital Happiness*, by Blaine Fowers (2000). In his book, Fowers challenges the concept that emotional gratification, or happiness, is the gold standard by which to judge the quality of a relationship. In contrast, Fowers argues that a high quality, stable marriage is built upon four "marital virtues": friendship, generosity, justice, and loyalty. The deepest meaning in life is found through shared life goals, being each other’s allies not adversaries, and really knowing each other, which characterize the first virtue of friendship. Second, generosity is shown by freely giving more than necessary, forgiving, and focusing on each other’s strengths which will foster more feelings of love and less tension in the relationship. Spouses should exhibit the third virtue of justice, or a willingness to shoulder the work of marriage together, prepared to rely on the strengths each spouse brings to the relationship. Finally, the fourth essential virtue is loyalty, a steadfast commitment in conversation and priority to the relationship in spite of difficulties that will inevitably arise in marriage. By developing and maintaining these marital virtues, the negative aspects of the transition can be alleviated in part and couples can find better ways of relating that will fortify their relationship.

Consistent with the virtues that Fowers suggests, implications related to spousal efforts to strengthen the marital relationship are recommended in the program curriculum. The virtues are linked to specific difficulties that couples may face during their transition in the realms of love, labor, and leisure, which were previously mentioned. Couples making the transition would benefit from a well-established friendship that is based upon
knowing the day-to-day likes, dislikes, dreams, hopes, fears, and wishes of each other and is strengthened through the pursuit of shared life goals. These couples will be able to rely on the partnership they have established when they are in the midst of a screaming baby, dirty diapers, and general life stress. By cultivating a character friendship, couples can deal with changes in their leisure by forming a more solid partnership and realizing the goals they share. In order for couples to exhibit a positive attitude during the transition they must be generous with their love and be willing to forgive the mistakes that will inevitably occur. Instead of mentally or physically creating a ledger of completed tasks, spouses need to focus more on sharing the workload in a way that works for them and evaluating their own efforts, making sure they are giving all they can. By sharing the work of raising their family and strengthening their marriage, couples will have less conflict about what labor should be done, by whom, and when. Practicing loyalty will improve partner’s trust in each other and their ability to see the relationship as a reservoir of strength and optimism. Spouses who are willing to listen to the concerns of their partners during the time they have together will promote loyalty in the marriage.

In addition to the virtue-based content of *Marriage Moments*, another unique feature of the program is its low-intensity, self-guided approach. Self-guided interventions have the advantage of being less costly because there is no need for facilitators. The *Marriage Moments* program is simply introduced to the couple by a home visitor at one of the home visits, whereas other transition-to-parenthood programs require extensive training by facilitators. Couples benefit from the self-guided approach by having the ability to complete the lessons and activities at their convenience, during a period when they are trying to adjust their schedules and lifestyle to a new baby. This
aspect also allows them to tailor the curriculum to their individual needs and concerns [see Appendix A for an overview of the curriculum]. Previously developed programs available for transitioning couples require significant resources from both educators and participants. The resource-intense implementation procedures of these programs have inhibited them from becoming widespread. However, a benefit of *Marriage Moments* is the potential to distribute the booklet and video to a wider audience and the possibility for the curriculum to reach large populations. Another aspect of the *Marriage Moments* curriculum is a section of supplemental information available to the couple, including research done on the transition to parenthood, ways in which they can help strengthen the relationships of other couples, other resources such as books and websites that couples can look to for more aid in improving their relationships, and lastly, how couples can seek professional help if they find the difficulties in their marriage are too much to handle alone. These resources can help couples prevent and eliminate problems before they become too cumbersome. Lastly, marriage education integrated into existing home visitation programs provides an innovative, easily accessible avenue for disseminating information to couples.

*Home Visitation as a Possible Avenue for Intervention*

Home visitation programs, such as The Nurse Home Visitation Program (NHVP), Hawaii’s Healthy Start, Parents as Teachers (PAT), The Comprehensive Child Development Program (CCDP), and Healthy Families America (HFA), exist widely throughout the country (Gomby, Culross & Behrman, 1999). Taking the suggestion of Gomby et al. (1999) to focus on program improvement of existing programs, we are hoping to improve an existing home visitation program by adding a new dimension: a
curriculum to help couples strengthen their relationships during their transition to parenthood. Home visitation programs could serve as an additional educational infrastructure to reach couples during this crucial period.

Recent research has shown that home visiting programs can create more positive health outcomes for young children, such as reducing child abuse and neglect (Chalk & King, 1998; Straus & Gelles, 1990; US Advisory Board on Child Abuse and Neglect, 1990), promoting school readiness and fostering self-sufficiency (Stebbins, 1998), and positive parenting (Gomby, et al., 1999). However, there is no evidence that such programs help to improve marriages, probably because a majority of home visitation programs target at-risk children of single mothers, or they simply center their curriculum around teaching mothers and have overlooked fathers and couple relationships.

The transition to parenthood is a considerable risk period for all making the transition, unwed or married. There is a substantive need for preventative services to focus specifically on relational interests of couples during this life change. However, few home visitation programs include education about the difficult changes that a couple’s relationship encounters during the transition to parenthood. Home visitation programs such as *Welcome Baby* can serve not only as a remedial solution for high-risk families, but as a preventative effort to keep lower-risk families from experiencing marital dissolution which could put their children in a high-risk category.

Home visitation is unique in that it occurs in the security of the client’s own home in which a trained visitor can earn the trust of parents and establish relationships with them in order to build on family strengths and address the individual needs of the family.
(Gomby, Culross & Behrman, 1999; Weiss, 1993). Home visitation services could function as a valuable resource and avenue for preventative, normative care.

Description of the Marriage Moments Intervention

Marriage Moments is a self-guided marital enhancement program developed to help couples improve their marital relationship after the birth of their first child. The method for disseminating this program to first-time parents was through the Welcome Baby program, a new-parent home visitation program run through the United Way of Utah County and the Utah County Health Department. A trained home visitor visited with one or both parents at monthly home visits to help increase their awareness of infant development, health and safety concerns, and the community resources at their disposal. All of the families received a Keeping Your Baby Healthy book at their first visit and a packet of child development information on each visit.

The Utah County Welcome Baby program’s goals are to assist first-time parents by focusing on their strengths and increasing their knowledge, tools, and community resources. It is also a “Success by Six” infant-based program with the mission to provide support and information for parents on how they can help their child have a healthy first year. Depending on the home visitation program, enrolled families are visited either by professionals, most of whom are community health nurses, or by paraprofessionals trained in the program’s curriculum. The Welcome Baby home visitors who are paraprofessionals volunteer to receive a 6-hour intensive training in basic development from birth to one year, infant health and safety, and community support resources. They must then schedule at least one home visit with a Health Department nurse before beginning their service to other families. Mandatory in-service training meetings occur
once a month for home visitors on topics of interest during the first year of life. Visitors must commit to at least six months of availability and be willing to visit three families. Monthly visits provide valuable information about development, health and safety concerns, community resources and any other interests of the family to parents who are obviously not preprogrammed with all of the information needed to promote their child’s optimal growth and development. Unlike the more prevalently studied high-risk families, Welcome Baby serves first-time parents of low-risk infants that are not currently participating in other community or government programs such as Medicaid and that live in the geographic catchment area of Utah County.

The transportability, flexibility, and self-guided approach of Marriage Moments offers the benefit of requiring minimal explanation and additional training for home visitors and was easily added to the Welcome Baby curriculum for the families receiving the program. During their three-month visit in which both fathers and mothers were required to attend, the home visitor introduced the couple to the Marriage Moments curriculum by asking the couple about how their relationship had changed since the arrival of their baby and how their expectations differed or corresponded with reality. The visitor then presented the couple with the Marriage Moments video and guidebook and explained that the program is composed of lessons that emphasize qualities that are the foundation of a lasting, loving marriage. The visitor encouraged the couple to read the lessons and work on the activities included in the guidebook throughout the next month. At the following visit, the home visitor checked up briefly on the couple’s participation. By sharing information with the couple regarding how they can strengthen their relationship during this turbulent period, it is hoped that the couple will be able to make a
smoother transition and experience the birth and growth of their baby as a positive experience.

In summary, *Marriage Moments* is distinct from previous programs due to its low-dosage method in comparison with the high-dosage programs currently being tested and offered to couples. The low-dosage method offers many benefits including a low-cost option for participants and programs, high transportability, and implementation specificity to couple’s interests and needs. It is also hoped that by using a virtues-based approach, couples will be able to apply aspects specifically to the strengths and weaknesses of their marriage. In addition, the delivery mechanism of home visitation programs may provide a useful and personal route for dissemination to interested couples.

**Method**

*Procedures and Sample*

The names of married couples expecting their first child or who had given birth to their first child within one month of contact were obtained from hospital intake records at IHC hospitals in Utah County, booths at Brigham Young University asking for interested participants, and invitations to participate in pre-natal education classes at IHC hospitals. However, this period of transition for families proved to be a difficult time to recruit couples for the *Welcome Baby* program and the study due to their hectic lives, lack of awareness of such types of programs, and the transient nature of many families in Utah County.

Couples who initially indicated some interest in the *Welcome Baby* program were re-contacted within one month of the birth of their child to determine their interest in
receiving a *Welcome Baby* home visitor. Couples who chose to receive a home visitor were invited to participate in the *Marriage Moments* study at their two-month visit. At this time they were told the nature and requirements of the study and were also explained the incentives before signing the consent form. Of those couples involved in *Welcome Baby* who were interested in participating in the *Marriage Moments* study, 40 couples were randomly assigned to the experimental group which involved receiving the *Marriage Moments* workbook and video in addition to the *Welcome Baby* curriculum, while 40 couples were randomly assigned to a comparison group that only received the standard *Welcome Baby* curriculum. The couples in the experimental and comparison groups received the *Welcome Baby* materials in addition to a $20 incentive (gift card to Wal-Mart or Target) with their second and third surveys to compensate them for their time. Furthermore, couples who declined a *Welcome Baby* home visitor when re-contacted were asked if they would be interested in participating in the *Marriage Moments* study. Those who were uninterested in the visitor, but interested in the study, were told the nature, requirements, and incentives of the study and were placed in a control group that did not receive the *Welcome Baby* or *Marriage Moments* materials and services. The group was filled until 40 couples had been self-selected for the control group. Participants in this group received one $20 gift card each time they completed a set of surveys. Hence, the study was not a true experimental design because all participants were volunteers, and the control group was self-selected.

Attrition in the sample occurred over time with five of the couples. Specifically, one family withdrew due to the tragic death of the husband and four families withdrew by failing to return a survey instrument. Final group totals were 39 for the *Marriage
Moments experimental group, 37 couples in the Welcome Baby comparison group, and 39 couples in the control group (N=115).

Pre-assessments (T1) questionnaires were sent via mail to couples in each group and completed when the infant turned approximately 3 months. An immediate post-assessment (T2) questionnaire was completed at roughly 4-6 months postpartum and a follow-up assessment (T3) occurred at roughly 9 months postpartum. Instructions for completing and returning the assessments to the home visitor or via mail were included in each set of mailed surveys. Repeated measures in the questionnaire included self- and spouse-reports of marital virtues, marital communication and problem-solving behavior, marital quality, as well as adjustment to the transition to parenthood, father involvement, the division of domestic labor, depression, and infant adjustment.

The couples in the experimental group received a Marriage Moments guidebook and video at the 3-month home visit and were asked to watch the video and work on the workbook activities throughout the following month before they received and completed their 4-month post-assessment. Home visitors working with the Marriage Moments experimental and Welcome Baby comparison groups were trained by the research team in the protocol for collecting assessments at their 3- and 4-month visits and distributing the Marriage Moments materials to the experimental group at the 3-month visit. Couples in the control group were mailed their surveys at times 1, 2 and 3, and returned them in a self-addressed stamped envelope. The final follow-up assessment was collected via mail for couples in all groups due to their familiarity with the survey instrument and to speed up return rates. In addition, several couples who moved out of the area before receiving their final surveys could continue if the materials were mailed to them. A research
assistant contacted the couples at approximately nine months after the birth of their baby and explained that they would be receiving their final surveys and gift card. The couples in the control and comparison groups were also offered a *Marriage Moments* guidebook which they could utilize after completing and returning the final surveys.

It is possible that the control and comparison group couples may have pursued some other form of relationship enhancement during the time they were involved with the study, such as reading a book, visiting a website or attending counseling sessions. However, we are unaware of other programmatic help that was readily available during the course of the study.

Table 1 (page 20) summarizes the demographics of the sample. The average age for husbands in the sample was 26 with a range from 20 to 38, while the average age for wives in the sample was 24 with a range from 18 to 32. There is little ethnic diversity in the sample with 94% of the sample being Caucasian, 4% being Hispanic and 1% being from the Pacific Islands. Approximately half (48%) of the sample graduated from college, while only a small proportion (3%) indicated having received a professional degree or that they had not received a high school diploma (2%). A large proportion of the sample (44%) was enrolled in school at time-1, with a greater percentage of the husbands (65%) than wives (23%) being students. By time-3, the percentage of individuals enrolled in school had decreased to 40%, with 58% of the men and 22% of the women stating they were students. In addition, 66% of the sample was employed at time-1 and this statistic only decreased slightly to 63% at time-3. Of those working at time-1, men averaged a workweek of 35 hours and women averaged 20 hours per week.
Group equivalence comparisons. Although treatment-group and comparison-group participants were randomly assigned, there was some self-selection in the control group, as they were asked to participate in the study (as control group members) only when they indicated they were not interested in receiving a Welcome Baby home visitor. Some individuals who declined the Welcome Baby program did so due to a lack of time or lack of interest. Therefore, it was important to establish that groups were equivalent at the beginning of the study.

As shown in the last column of Table 1 (page 20), overall, there were no significant demographic differences among groups. One-way ANOVA’s and Chi-square analyses across the treatment, comparison, and control groups revealed no significant differences between groups regarding age, ethnicity, education, employment, and number of work hours per week.

Furthermore, no statistically significant differences were found among groups for men on any outcome measure at time-1 (see Table 2, page 22). Statistically significant differences were found between groups for women at time-1 on the Transition Adjustment Scale and the Marital Virtues Profile (see Table 3, page 23). The comparison (Welcome Baby) group means were significantly lower than the control group means (effect size-TAS=.59, MVP=.48). These differences should be recognized in their ability to affect results. Consistency of responses across groups indicated that, with these two exceptions, groups were similar at time-1. Accordingly, group differences over the course of the study can be confidently attributed to the program intervention and not initial group differences. Due to the small attrition rate of the study (4%, 5 couples lost), no attrition analyses were completed.
### Table 1 - Time-1 Sample Characteristics/Demographics

<table>
<thead>
<tr>
<th>Variable</th>
<th>All Subjects</th>
<th>Marriage Moments n=80</th>
<th>Welcome Baby n=80</th>
<th>Control n=78</th>
<th>ANOVA Chi Square</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men 25.74 (2.96) range: 20-38</td>
<td>25.22 (2.17) range: 22-35</td>
<td>26.10 (3.51) range: 20-38</td>
<td>25.92 (3.09) range: 22-35</td>
<td>F(2,115) = 1.00 p = .37</td>
<td></td>
</tr>
<tr>
<td>Women 23.99 (2.66) range: 18-32</td>
<td>23.88 (2.03) range: 20-28</td>
<td>24.31 (3.54) range: 18-32</td>
<td>23.79 (2.22) range: 20-28</td>
<td>F(2,116) = .42 p = .66</td>
<td></td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caucasian 93.7%</td>
<td>95.1%</td>
<td>89.7%</td>
<td>96.2%</td>
<td>Chi Square(4) = 7.6 n.s.</td>
<td></td>
</tr>
<tr>
<td>Pacific Island .8%</td>
<td>1.2%</td>
<td>1.3%</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic 4.2%</td>
<td>1.2%</td>
<td>9.0%</td>
<td>2.6%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Education</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School 2.1%</td>
<td>0%</td>
<td>5.1%</td>
<td>1.3%</td>
<td>Chi Square(8) = 6.2 n.s.</td>
<td></td>
</tr>
<tr>
<td>H. S. Grad 5.5%</td>
<td>6.1%</td>
<td>3.8%</td>
<td>6.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some College 39.9%</td>
<td>40.2%</td>
<td>39.7%</td>
<td>39.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>College Grad 47.9%</td>
<td>48.8%</td>
<td>47.4%</td>
<td>47.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Professional 3.4%</td>
<td>2.4%</td>
<td>3.8%</td>
<td>3.8%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Current Students</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total 43.7%</td>
<td>50.0%</td>
<td>39.7%</td>
<td>41.0%</td>
<td>Chi Square(2) = 2.5 n.s.</td>
<td></td>
</tr>
<tr>
<td>Men 64.7%</td>
<td>68.3%</td>
<td>56.4%</td>
<td>69.2%</td>
<td>Chi-Sq(2) = 2.3 n.s.</td>
<td></td>
</tr>
<tr>
<td>Women 22.7%</td>
<td>31.7%</td>
<td>23.1%</td>
<td>12.8%</td>
<td>Chi-Sq(2) = 4.3 n.s.</td>
<td></td>
</tr>
<tr>
<td><strong>Employed</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total 65.7%</td>
<td>70.7%</td>
<td>65.4%</td>
<td>59.0%</td>
<td>Chi Square(2) = 2.5 n.s.</td>
<td></td>
</tr>
<tr>
<td>Men 91.6%</td>
<td>90.2%</td>
<td>97.4%</td>
<td>87.2%</td>
<td>Chi-Sq(2) = 4.2 n.s.</td>
<td></td>
</tr>
<tr>
<td>Women 38.7%</td>
<td>51.2%</td>
<td>33.3%</td>
<td>30.8%</td>
<td>Chi-Sq(2) = 2.0 n.s.</td>
<td></td>
</tr>
<tr>
<td><strong>Hours/week employed</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Men 30.61 (15.78) range: 2-80</td>
<td>29.28 (17.45) range: 2-80</td>
<td>31.19 (15.55) range: 2-80</td>
<td>31.63 (13.94) range: 7-40</td>
<td>F(2,154) = .37 p = .72</td>
<td></td>
</tr>
<tr>
<td>Women 35.24 (12.15) range: 0-50</td>
<td>34.68 (16.09) range: 2-80</td>
<td>34.89 (13.77) range: 5-55</td>
<td>36.24 (12.6) range: 10-70</td>
<td>F(2,105) = .12 p = .89</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F(2,46) = .30 p = .75</td>
</tr>
</tbody>
</table>
Hypotheses and plan for analyses. I expect that the *Marriage Moments* treatment group will do better over time on measurements of marital quality than either the *Welcome Baby* comparison group or the control group due to the *Marriage Moments* intervention. I anticipate that *Marriage Moments* will be effective in acting as a buffer to couples’ marital quality and therefore the couples in the *Marriage Moments* treatment group will experience relative stability in marital quality in contrast to moderate declines in the other groups. The *Welcome Baby* comparison group may experience less decline in marital quality compared to the control group due to the presentation of the *Welcome Baby* curriculum by a home visitor. The increased confidence in parenting skills promoted by the program may indirectly affect the marital relationship in positive ways (e.g., reduced stress). Based upon previous research showing the effects of the transition to parenthood outlined earlier, I expect that the control group couples will report
<table>
<thead>
<tr>
<th>Measure</th>
<th>All Subjects (N=119)</th>
<th>Marriage Moments (n = 39)</th>
<th>Welcome Baby (n = 35)</th>
<th>Control (n = 38)</th>
<th>F (df) ANOVA</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVP Total Other Centeredness</td>
<td>4.81 (.57) range: 3.12-5.67</td>
<td>4.81 (.55) range: 3.19-5.64</td>
<td>4.74 (.60) range: 3.12-5.64</td>
<td>4.93 (.56) range: 3.42-5.67</td>
<td>F(2,109) = 1.06 p = .35</td>
</tr>
<tr>
<td>Generosity</td>
<td>4.94 (.76) range: 2.83-6</td>
<td>4.89 (.74) range: 3.17-6</td>
<td>4.89 (.74) range: 3.33-6</td>
<td>5.17 (.70) range: 3.17-6</td>
<td>F(2,112) = 1.91 p = .15</td>
</tr>
<tr>
<td></td>
<td>4.78 (.75) range: 2.29-6</td>
<td>4.77 (.72) range: 2.29-6</td>
<td>4.66 (.82) range: 2.57-6</td>
<td>4.99 (.65) range: 3.57-6</td>
<td>F(2,111) = 1.98 p = .14</td>
</tr>
<tr>
<td>Generosity</td>
<td>4.88 (.94) range: 2.67-6</td>
<td>4.88 (.94) range: 2.67-6</td>
<td>4.78 (.95) range: 2.67-6</td>
<td>5.08 (.85) range: 3-6</td>
<td>F(2,112) = 1.02 p = .36</td>
</tr>
<tr>
<td>Admiration</td>
<td>4.28 (.61) range: 2.67-5</td>
<td>4.27 (.61) range: 2.67-5</td>
<td>4.22 (.67) range: 3-5</td>
<td>4.38 (.53) range: 3.33-5</td>
<td>F(2,111) = .74 p = .48</td>
</tr>
<tr>
<td>Teamwork</td>
<td>4.47 (.61) range: 2-5</td>
<td>4.54 (.52) range: 3-5</td>
<td>4.39 (.64) range: 2-5</td>
<td>4.55 (.56) range: 2.67-5</td>
<td>F(2,112) = .92 p = .40</td>
</tr>
<tr>
<td>Shared Vision</td>
<td>5.57 (.86) range: 2-6</td>
<td>5.50 (.60) range: 3-6</td>
<td>5.28 (.96) range: 2-6</td>
<td>5.43 (.89) range: 2.5-6</td>
<td>F(2,111) = .68 p = .51</td>
</tr>
<tr>
<td>Loyalty</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R-DAS (total score)</td>
<td>53.30 (7.02) range: 15-69</td>
<td>53.15 (5.63) range: 35-63</td>
<td>51.70 (9.16) range: 15-65</td>
<td>54.97 (5.64) range: 41-69</td>
<td>F (2, 113)=2.12 p = .13</td>
</tr>
<tr>
<td>RELATE</td>
<td>4.07 (.63) range: 1.5-5</td>
<td>4.02 (.70) range: 1.5-5</td>
<td>4.03 (.65) range: 2.17-5</td>
<td>4.16 (.54) range: 2.83-5</td>
<td>F (2,115) = .65 p = .52</td>
</tr>
<tr>
<td>Relationship Satisfaction</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transition/Adjustment (mean score)</td>
<td>3.51 (.58) range: 1.38-4.88</td>
<td>3.49 (.59) range: 1.38-4.5</td>
<td>3.52 (.58) range: 2.25-4.63</td>
<td>3.53 (.58) range: 2.38-4.88</td>
<td>F (2,115) = .07 p = .93</td>
</tr>
<tr>
<td>Father Involvement</td>
<td>3.79 (.70) range: 2.06-5.19</td>
<td>3.84 (.69) range: 2.06-5.13</td>
<td>3.86 (.73) range: 2.19-5.19</td>
<td>3.65 (.69) range: 2.38-4.81</td>
<td>F (2, 100) = .88 p = .42</td>
</tr>
<tr>
<td>Measure</td>
<td>All Subjects (N=119)</td>
<td>Marriage Moments (n = 40)</td>
<td>Welcome Baby (n = 40)</td>
<td>Control (n = 39)</td>
<td>F (df) ANOVA</td>
</tr>
<tr>
<td>------------------------</td>
<td>----------------------</td>
<td>--------------------------</td>
<td>-----------------------</td>
<td>------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>MVP Total Other</td>
<td>4.89 (.63) range: 2.35-5.67</td>
<td>4.91 (.50) range: 3.56-5.61</td>
<td>4.70 (.79) range: 2.35-5.56</td>
<td>5.04 (.53) range: 3.25-5.67</td>
<td>F(2,109) = 2.92 p = .06*</td>
</tr>
<tr>
<td>Centeredness</td>
<td>4.65 (.89) range: 1.5-6</td>
<td>4.56 (.79) range: 2.83-5.83</td>
<td>4.52 (1.03) range: 1.5-6</td>
<td>4.86 (.82) range: 2.67-6</td>
<td>F(2,109) = 1.63 p = .20</td>
</tr>
<tr>
<td>Generosity</td>
<td>5.10 (.67) range: 3.29-6</td>
<td>5.02 (.62) range: 3.71-6</td>
<td>4.99 (.68) range: 3.29-6</td>
<td>5.27 (.67) range: 3.57-6</td>
<td>F(2,111) = 2.19 p = .12</td>
</tr>
<tr>
<td>Admiration</td>
<td>4.90 (1.08) range: 2-6</td>
<td>4.99 (1.02) range: 3-6</td>
<td>4.69 (1.25) range: 2-6</td>
<td>5.01 (.98) range: 3-6</td>
<td>F(2,112) = 1.01 p = .37</td>
</tr>
<tr>
<td>Teamwork</td>
<td>4.42 (.69) range: 1-5</td>
<td>4.50 (.51) range: 3.33-5</td>
<td>4.13 (.89) range: 1-5</td>
<td>4.62 (.53) range: 2.33-5</td>
<td>F(2,112) = 5.80 p = .004*</td>
</tr>
<tr>
<td>Shared Vision</td>
<td>4.59 (.63) range: 1.33-5</td>
<td>4.66 (.46) range: 3.33-5</td>
<td>4.43 (.84) range: 1.33-5</td>
<td>4.66 (.53) range: 2.67-5</td>
<td>F(2,112) = 1.64 p = .20</td>
</tr>
<tr>
<td>Loyalty</td>
<td>5.64 (.71) range: 1-6</td>
<td>5.71 (.48) range: 4-6</td>
<td>5.41 (1.04) range: 4-6</td>
<td>5.81 (.39) range: 4.5-6</td>
<td>F(2,112) = 3.45 p = .04*</td>
</tr>
<tr>
<td>R-DAS (total score)</td>
<td>53.90 (6.29) range: 34-67</td>
<td>53.15 (5.83) range: 39-63</td>
<td>52.84 (7.9) range: 34-67</td>
<td>55.28 (5.31) range: 39-65</td>
<td>F(2,112)=1.55 p = .22</td>
</tr>
<tr>
<td>RELATE</td>
<td>4.06 (.68) range: 1.67-5</td>
<td>4.03 (.65) range: 2.5-5</td>
<td>3.91 (.79) range: 1.67-4.83</td>
<td>4.25 (.55) range: 2.33-5</td>
<td>F(2,114) = 2.50 p = .09</td>
</tr>
<tr>
<td>Relationship Satisfaction</td>
<td>3.38 (.63) range: 1.5-4.75</td>
<td>3.28 (.596 range: 1.88-4.25</td>
<td>3.27 (.67 range: 1.5-4.75</td>
<td>3.61 (.63 range: 2-4.75</td>
<td>F(2,115) = 3.91 p = .02*</td>
</tr>
<tr>
<td>Transition/Adjustment (mean score)</td>
<td>9.94 (7.68 range: 0-43)</td>
<td>10.82 (8.42 range: 1-43</td>
<td>11.06 (7.29 range: 0-29</td>
<td>7.89 (6.99 range: 0-27</td>
<td>F (2, 107) = 1.95 p = .15</td>
</tr>
</tbody>
</table>
decreased marital quality over the transition to parenthood and less satisfaction overall at time-3 than the treatment and comparison group couples.

I performed a series of 3(group)-by-3(time) repeated measures ANOVAs using the various relationship outcome measures as dependent variables, and tested for group-by-time interactions. Significant group-by-time interactions would indicate program effects. In addition to group differences, I explored possible sub-group differences. That is, I explored whether specific sub-groups benefit greater from the intervention. Previous research suggests that sub-group differences based on education and involvement in the program would be important to explore. I expected that the program would be more helpful to those who were more involved and more educated. I tested for sub-group differences in education by introducing education as a covariate in the models tested. I tested for sub-group differences in program involvement among treatment-group participants by including involvement as a factor in the models tested. This test only occurred with the *Marriage Moments* treatment group, as they were the only subjects to receive the marriage intervention.

Measures

The assessment booklets included multiple measures used to help identify the impact of *Marriage Moments* on the marital relationship and individual behavior and well-being during the transition to parenthood. The Marital Virtues Profile (MVP) assessed the extent of partner virtues and marital partnership. Marital quality, composed of satisfaction, stability and cohesion, was assessed by the Revised Dyadic Adjustment Scale (R-DAS) and the RELATE Satisfaction scale. The R-DAS is commonly used as a measure of relationship satisfaction or distress. The Transition Adjustment Scale (TAS)
was included in order to appraise individual adjustment to the changes and stresses during the transition to parenthood. Maternal depression was measured using the Center for Epidemiologic Studies Depression Scale (CES-D). In addition, a Father Involvement scale was used to determine to what extent fathers were participating in the daily tasks of childcare. Finally, the Household Labor Scale was used to determine fairness in the division of domestic labor. Further explanation of the use of each of these measures follows.

Marital Virtues. As previously mentioned, the Marriage Moments program was designed from Fowers’ (2000) marital virtues model of marital quality. Friendship, generosity, fairness, and loyalty are the four virtues that Fowers suggests nurture marital partnership. The Marital Virtues Profile (MVP) (Carroll, Hawkins, & Gilliland, 2001) was created specifically for this study because no existing measure adequately captured these dimensions of a marriage. The MVP is composed of brief scales assessing each of these virtues on self, partner, and 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 agree). The MVP can be used as an overall measure or broken down into subscales. For the purposes of this research, it was used as an overall measure due to a lack of consistency in patterns of subscales. Partner and relationship reports were used for this study because they are likely to be more objective than self-report measures. Substantial psychometric analyses completed previously on this measure using a similar sample showed that the measure works similarly for both husbands and wives. More complete details of these analyses are presented elsewhere (Hawkins, Fowers, Yang & Carroll, 2003). Cronbach's alpha coefficients were computed
for this study as an estimate of internal consistency reliability for a global relational virtues scale comprised of 24 items; alphas ranged from .84 to .89 for husbands and from .83 to .89 for wives across the three assessments (see Table B-1). The MVP overall scale appears to have good internal consistency.

Marital quality and distress. The study included a shorter, validated version of the original Spanier Dyadic Adjustment Scale (DAS: Spanier, 1976). The 15-item Revised Dyadic Adjustment Scale (Busby, Crane, Larson & Christensen, 1995) is a measure of marital distress versus satisfaction. All items were combined into a one-factor solution because the R-DAS is used as a total scale in clinical settings. Total scale reliability at time-1 was .89 for men and .84 for women. At time-3 total scale reliability was .90 for men and .88 for women (see Table B-2). The mean total scores at time-1 were 53.3 for men and 53.9 for women. Scores ranged from 15-69. The clinical 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 231 individuals who completed this portion of the survey, 31 (13%) scored in the distressed range at time-1, almost equally divided between husbands and wives. There were five couples in which both partners indicated distress (4% of all couples). There were twenty-one marriages in which just one partner was distressed (18% of all couples). Of the 227 individuals who completed this portion of the survey at time-3, 32 (14%) scored in the distressed range, again almost equally divided between men and women. There were six couples in which both partners indicated distress (5% of all couples). The number of marriages in which only one partner was distressed was twenty (18% of all couples).

The RELATE (Holman, Busby, Doxey, Klein & Loyer-Carlson, 1997) relationship inventory was used as a measure of marital satisfaction. 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. In this study, average relationship satisfaction for men and women on the RELATE measure were 4.07 (SD = .63) and 4.06 (SD = .68) 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 the *Marriage Moments* sample for men were .88 at time-1 and .84 at time-3 and, for women, were .88 at time-1 and .87 at time-3 (see Table B-3).

*Adjustment to parenthood.* To evaluate couples’ expectations concerning challenges associated with the transition to parenthood, such as housework and childcare, leisure, and relationship with spouse, study designers constructed an eight-item Transition Adjustment Scale (TAS) on a 4-point Likert scale. Higher scores indicate better adjustment. Participants were asked to what extent these issues had actually been problems for them as they became parents. All items loaded onto one factor in a factor analysis with strength of .47 or better. Chronbach’s alpha for the scale ranged from .78 to .86 for men and .80 to .84 for women (see Table B-4). Total averages for men and women at time-1 were 3.5 (SD = .58) and 3.4 (SD = .63) respectively. No significant group differences existed between men and women on this question at time-1 (t(236) = -.83, p=.41) or time-3 (t(228) = -.75, p=.45). At time-1, 30% of subjects reported that they adjusted to the changes “very well”; 50% reported adjusting “pretty well”; 19% adjusted “fairly well”. Only one person reported adjusting “not too well” to the changes associated with becoming a parent. At time-3 similar reports of adjustment were made with 36% reporting that they had adjusted to the changes “very well”; 48% reported having
adjusted “pretty well”; 15% adjusted “fairly well”. Again, only one person, though not
the same individual as in time-1, reported adjusting “not too well” to the changes
associated with becoming a parent at time-3.

*Father involvement.* The Father Involvement Scale was used to measure the
amount of father involvement in the child’s life. Greater father involvement in the lives
of their infants should increase the sense of fairness and partnership in the couple
relationship, which were targets of the intervention. This scale has been used previously
with multiple family types and varying ages of children. Exploratory factor analyses
revealed differences in the factor loadings for items at time-1 and time-3. This presented
challenges for planned repeated measures analyses. I employed a one-factor solution for
repeated measures analyses. Then I followed these analyses with a simple group analysis
of involvement at time-3 using the two-factor solution at time-3.

Many of the questions did not relate to the fathers in our study at time-1 whose
infants were three months old (e.g., prepared meals or bottles for child because most of
the mothers were still nursing at this time). In addition, the winter climate may have
played a factor in questions such as taking child on a walk or to the playground, so
seasonal questions were eliminated. The remaining items included in the 1-factor solution
were as follows: looked after child while mother did other things; change child’s diaper;
play peek-a-boo; hold child; tickle child and be playful; sing songs; take child shopping;
put child to sleep; bathe child; dress child; get up with child in the middle of the night;
and soothe child when upset. Total Chronbach’s alphas for the one-factor model ranged
from .80 to .83.

At time-3 there was more of a distinct loading onto two factors, which were
labeled as prosaic tasks and nurturing tasks. The prosaic tasks (e.g., change child’s
diaper) loaded together with an alpha of .86 while the nurturing tasks (e.g., tickle child and be playful) loaded together with an alpha of .63 (see Table B-5). This two-factor solution was analyzed using a MANOVA procedure.

*Household labor.* The Household Labor scale (Hawkins, Marshall, & Allen, 1998) was used to measure processes related to the division of household and childcare tasks. Individuals were asked to indicate on a scale from 1 to 4 how well they felt the statements represented how things had been for them over the last month (1-Not at all like me; 2-A little like me; 3-Like me; 4-Very much like me). The scale included seven items measuring communication about and feelings toward domestic labor (e.g., I feel appreciated by my spouse for the housework I do; My spouse listens to me when I talk (complain) about household matters). The Household Labor items loaded strongly onto one factor as expected. Chronbach’s alpha for the scale ranged from .84 to .86 for men and .84 to .90 for women (see Table B-6).

*Maternal depression.* Giving birth and the constant involvement implicated in caring for a child can often lead to depression in mothers, especially if there are stresses in the marriage. Therefore, as a part of the analysis, maternal depression was included, even though it was not a direct target of intervention. Nevertheless, strengthening the marital relationship should contribute to less maternal depression. The CES-D is a 20-item questionnaire that assesses the frequency/duration of symptoms associated with depression. For each item, respondents indicate the frequency or duration with which they have experienced a specific symptom during the past week (0=rarely or none of the time (less than one day); 1=some or little of the time (1-2 days); 2=occasionally or a moderate amount of time (3-4 days); 3=most or all of the time (5-7 days)). Scoring is as follows: total score of 0-15 indicates the individual is “not depressed”, scores of 16-20
indicate “mild depression”, scores of 21-30 indicate “moderate depression” and scores of 31 or higher indicate “severe depression”. Confirmatory factor analyses revealed the CES-D items loaded onto one factor with an alpha of .87 at time-1, .91 at time-2, and .88 at time-3 (see Table B-7). Levels of maternal depression were low, and the number of women who were not depressed increased across times (T1-75.5%, T2-79%, T3-84%).

Program involvement and evaluation. Due to the self-guided nature of the Marriage Moments study, it was important to measure actual participation in the program. 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. Program participation was measured by asking couples in the Marriage Moments treatment group about the number of video segments watched, lessons read (in the guidebook), activities completed, and use made of additional information in the guidebook. Program activities were given the most weight because of their importance in the intervention. The couple and individual activities were the venue in which couples could integrate the information from the program into their own marriage. The "Additional Information" chapters were also included to enhance the learning experience.

The formula for program involvement was taken from work completed previously on the IHC Marriage Moments project. According to reports given at time-2 of the number of activities completed, lessons read or video segments watched, and amount of additional information read, a score was computed by multiplying the number of activities completed by subject exposure to the program content and then adding the score for additional information read. Scores for program involvement could range from zero to ten. Individuals’ reaction to their involvement in the program was assessed 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=4.31, SD=.68); the weakest—though still positive—response was for fun, with a mean of 3.43 (SD=.89). These responses collapsed into a strong, composite scale that assessed participants' overall evaluation of the program. All seven items loaded strongly onto one factor; with loadings ranging from .71 (important) to .87 (useful). This scale generated a Cronbach's alpha reliability coefficient of .90. Overall scale reliability was .92 for the men. Overall scale reliability for the women was .88. The mean evaluation score for this composite measure for all participants, then, was 3.87 (SD=.63) showing a positive overall reaction to the program.

There were no major differences due to gender.

Table 4 - Program involvement and evaluation of Marriage Moments of subjects in treatment group

<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th>Men</th>
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<tr>
<td>Activities</td>
<td>Mean=2.53</td>
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<tr>
<td></td>
<td>SD=.69</td>
<td>SD=.69</td>
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<tr>
<td>Additional information</td>
<td>Mean=.68</td>
<td>Mean=.92</td>
</tr>
<tr>
<td></td>
<td>SD=.78</td>
<td>SD=.83</td>
</tr>
<tr>
<td>Program involvement total</td>
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<td>Mean=5.46</td>
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<tr>
<td></td>
<td>SD=1.67</td>
<td>SD=2.231</td>
</tr>
<tr>
<td>Program evaluation</td>
<td>Mean=3.97</td>
<td>Mean=3.78</td>
</tr>
<tr>
<td></td>
<td>SD=.56</td>
<td>SD=.70</td>
</tr>
<tr>
<td>Strengthen relationship</td>
<td>Mean=2.68</td>
<td>Mean=2.54</td>
</tr>
<tr>
<td></td>
<td>SD=.70</td>
<td>SD=.61</td>
</tr>
</tbody>
</table>

Results

In order to determine how effective Marriage Moments was at helping to ease the transition to parenthood, I looked at both the formative program evaluation data and the statistical outcome analyses. I examined these outcome results by looking at effects which are significant at the .10 level because it was an initial study of an intervention administered at a low-dosage, minimizing the potential for a Type-II error.
Formative Program Evaluation

Due to the self-guided nature of the *Marriage Moments* program, the amount of treatment individuals received varied. The mean program involvement score for the treatment group was 5.48 (SD=1.96) (see Table 4). A majority of the scores (87%) fell within the range of four to eight. Only one individual reported having an involvement score of zero and just two individuals reported an involvement score of nine or ten. The modal score was 4 (25%). There was not a significant difference in program involvement between husbands and wives (t(73)=.09, p=.93). However, participants did receive modest incentives to participate in the study and to do the "homework" associated with the program ($40). 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.

In addition, treatment-group participants were asked 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 2.61 (SD=.66). I was also interested in comparing responses to this question from wives and husbands. A simple comparison of the means revealed that there was no difference in men’s and women’s responses to whether *Marriage Moments* was helpful in strengthening their relationship with their spouse (t(73)=.95, p=.35)

Finally, subjects responded 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. Seventy-four individuals responded to this first question; 79% were positive about the program overall. Of the positive comments, 25% thought that the program was good, but they did not find it
useful in their own marriage because they felt that their relationship was strong enough. Specific comments were made about the insightful information available in the program, the opportunity it gave the spouses to interact, discuss and participate in activities together, and the validation the program gave to their own thoughts and feelings.

According to comments about what they liked best about participating in the *Marriage Moments* program, participants felt that it allowed them to put things in perspective and see things from their spouse’s point of view. The self-guided nature of the program was developed to enable couples to cater the program to their own needs and based upon the wide variety of responses about what was liked best (e.g., “myths of marriage”, video interviews, loyalty check-up, 20 questions), the program appears to reach this goal.

Twenty-seven percent of the respondents who provided written comments said they would not change anything about the program when asked what they disliked or found least helpful about *Marriage Moments*. Twenty-three percent of the respondents felt that the video was either “cheesy” or not helpful and 5% felt that it was boring. A few individuals found that the program took too much time, the booklet was too long, had too much information or not enough information. Multiple individuals commented on the inability to make time to complete the program and suggested that it would have been more helpful before the birth of their baby.

The formative evaluation results presented above indicate that there was adequate involvement and positive reaction to *Marriage Moments* such that intervention effects on outcome measures were possible.

*Outcome Analyses*

Men and women were tested separately on each of the measures.
Marital virtues were examined by exploring group-by-time interactions for the Marital Virtues Profile (MVP). There were significant linear group-by-time interactions for both wives’ ratings of their husbands’ virtues and husbands’ ratings of their wives’ virtues [husbands F(2,103)=3.648 p=0.03; wives F(2,105)=2.808, p= .07] (see figures 1 and 2). (The graphs tend to exaggerate differences that would not be visible using the entire scale. Group 1 = Marriage Moments treatment, Group 2 = Welcome Baby comparison, Group 3 = control). For husbands’ ratings of their wives’ virtues, the treatment and control group means decreased over time while the comparison group means increased slightly.

**Figure 1** – Husband’s rating wives MVP means at 3 times

For wives’ ratings of their husbands’ virtues, the control group means decreased slightly over time, treatment group means stayed relatively stable and comparison group means increased slightly. The hypothesized effects that the treatment group would show less decline and more improvement in the enactment of virtues over time were not realized. The comparison group was the only group that showed improvements over time.
Figure 2 – Wife’s rating husbands MVP means at 3 times

RDAS and RS. In addition, I compared the levels of marital quality within the treatment, comparison, and control groups by examining the Revised Dyadic Adjustment Scale (R-DAS), Transition Adjustment Scale (TAS) and RELATE Satisfaction Scale (RS) scores. I performed a series of 3-(group) by 3-(time) analyses of variance using these relationship outcome measures as dependent variables. There were no significant group-by-time interactions for men or women on the R-DAS and no significant group-by-time interactions for the men on the TAS or RS scales. However, analyses revealed a significant linear effect for the group-by-time interaction for women on the marital satisfaction scale \[F(2,108)=3.43, p=0.04\]. From T1 to T3 the treatment group mean stayed the same (T1=4.18; T2=4.17; T3=4.18), while the control group mean decreased slightly (T1=4.39; T2=4.28; T3=4.29), and the comparison group mean increased slightly (T1=3.95; T2=4.04; T3=4.19) (see figure 3, page 36). At first it appears that the results follow the hypothesis with the treatment group mean staying the same over time. However, the control group mean at time-1 is higher than the other two groups and...
remains higher at time-3. The results do not show the treatment group improving over time, but instead the comparison group that received a home visitor increased in satisfaction. It was not expected that receiving a home visitor alone would produce an increase in relationship satisfaction.

**Figure 3** - Women RELATE Satisfaction Means at 3 times

![Figure 3](image)

TAS. A significant group-by-time interaction was also found for women on the TAS with both linear and quadratic components [linear F(2,111)=2.88, p=.06; quadratic F(2,111)=2.60, p=.08]. From T1 to T3 the treatment group means showed a significant quadratic change with TAS means for their respective times (T1=3.27; T2=3.39; T3=3.21). From T1 to T3 the comparison group showed a linear increase (T1=3.24; T2=3.41; T3=3.45) and the control group mean staying the same (T1=3.61; T2=3.54; T3=3.60) (see figure 4, page 37). These results do not follow the hypothesized effects that the treatment group will remain relatively stable over time with the other groups showing declines in their ability to adjust during the transition. Instead, the treatment
group and comparison group improved from time-1 to time-2 and then the treatment group mean declined from time-2 to time-3 while the comparison group mean improved.

**Figure 4** - Women TAS Means at 3 times

![Graph showing estimated marginal means over time for different groups.](image)

*Father involvement.* There were no significant results when running the MANOVA for the two-factor solution of father involvement at time-3. However, there were significant effects for both the linear (F(2,111)=.24 , p=.004) and quadratic (F(2,111)=2.72 , p=.05) group-by-time interactions of the one-factor repeated measures model of father involvement. Father involvement for the treatment group was relatively stable at all three times, while father involvement for the comparison group increased slightly over time. The control-group father involvement score increased from time-1 to time-2 and then decreased from time-2 to time-3 (see figure 5, page 38). Reported father involvement in the comparison group increased and father involvement in the treatment group remained the same over time.
Figure 5 – Father Involvement at 3 times

Household labor. A significant linear group-by-time interaction was found for women on the Household Labor Scale \( F(2,109)=3.02, p=.05 \). From T1 to T3 the treatment group and comparison group means showed a linear increase (treatment: T1=3.01; T2=3.02; T3=3.09; comparison: T1=2.89; T2=3.15; T3=3.09) while the control group means decreased (T1=3.18; T2=3.06; T3=3.12) (see figure 6, page 39). These results also appear to follow hypothesized effects at first, with the treatment and comparison group means increasing over time and the control group showing decline. However, the control group scores still remain above the treatment group scores at time-3.

Maternal depression. Analyses of maternal depression showed no significant group-by-time interactions for mothers.
In a final step, sub-group analyses were completed for education and participation, but there were no substantive findings. These results show no dramatic changes or differences in the treatment group over time. In summary, there were few significant findings in the analyses completed. Of the findings that were significant, most were not in the direction hypothesized.

**Figure 6 – Women Household Labor Scale Mean at 3 times**

![Chart showing women household labor scale mean at 3 times]

**Discussion**

The goal of the *Marriage Moments* program was to have a small but significant, positive effect on couples making the transition to parenthood. However, we did not achieve the hypothesized effects. Treatment-group couples generally reported that they enjoyed the program and found it worthwhile. In fact, treatment group couples rated the program’s importance as a 4.31 (SD=.68) on a scale from 1-5. Nevertheless, their
positive evaluation did not translate into hypothesized outcomes. In this section, I will attempt to explain the results and several possible reasons for the lack of significant results.

There are many possible reasons for the 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. However, due to the positive reaction from the participants, it appears that they viewed the program as important and useful. There may have been small effects that occurred with the program, but the method of assessing program effects with self- and partner-reports may have not picked up on these changes. Behavioral observations might pick up more subtle effects. More likely, however, the intervention may have had too low of a dosage to make a difference. Because of the self-guided nature of the program, couples had to plan time to complete the partner activities. Committing to participate in a class may provide more incentive for couples to invest more energy in working on their relationship, which would produce positive outcomes. Unfortunately, the demands on new parents may discourage couples from engaging in such a class.

In a handful of analyses, the treatment group actually showed declines in relation to the other groups. The possibility exists that the program had a sensitization effect for the treatment group, making them more aware of problems that occur during the transition, but the program dosage did not do enough to ameliorate the effects of these problems. While these negative effects of the *Marriage Moments* program were observed only a few times, it was interesting that the comparison group (*Welcome Baby*) couples showed some small (though not consistent) gains, possibly from participating in the a
new-parent home-visitor program. The parenting intervention may have helped to increase competency in the parents and reduce some common stresses. Enhancing the Welcome Baby curriculum with the Marriage Moments module may only serve to make couples more aware of their relationship struggles, at a time when most of their energies are focused on their infant and not their relationship.

Nevertheless, the dominant pattern in the study was non-significant effects. Similar trends among the groups may be the result of low-risk, high functioning groups, specifically, the control group that often started out with slightly higher scores (though not significantly greater than the other groups). At the three times of testing, the average R-DAS score for the entire sample did not fall below the clinical cut-off for marital distress at 48 (T1 = 53.6, T2 = 53.4, T3 = 53.8) and the average RS score was greater than four (on a scale from 1 to 5) at all three time periods. Even though these couples were in a stage of transition, their relationship satisfaction ratings were strong and stable. When significant results did occur, it was usually the comparison group’s trajectory that improved, not the hypothesized treatment group. If our sample is unique, then our design was inadequate in that it did not include an additional group that was experiencing more distress during the transition to parenthood. It may be valuable to repeat this study with a different, lower functioning sample.

Our sample is also unique in its preparation for parenthood. Nearly seventy-seven percent of our sample reported that they planned the pregnancy (85% of the treatment group, 70% of the comparison group, and 80% of the control group). Fourteen percent of the comparison group, only 4% of the control group, and none of the treatment group reported that the pregnancy was unplanned. (A one-way ANOVA revealed no difference
between these groups on this measure (F(2,227)=.87, p=.42). It is estimated that half of all pregnancies among U.S. women are unintended (Henshaw, 1998). Perhaps we encountered more planned pregnancies with this sample because a large majority of our sample came from a marriage-and-family-centered culture which may also reduce the stresses of the transition to parenthood.

While education is an emerging influential factor in the transition to parenthood literature (Twenge et al., 2003), it appeared to have no effect as a covariate in this study. The majority of individuals in our sample were educated. The sample was largely comprised (93%) of individuals with some college education, a college degree or a graduate degree, so perhaps there was not enough variation in this measure to reveal any effects. While Twenge et al. suggest that education may set couples up for problems when they have children, perhaps the combination of a family-centered culture with higher education is an ideal situation for new parents.

This study was unable to provide evidence that a marital virtues model of intervention was effective, although this could be due to other factors I have discussed rather than the model itself. There still exists a need for a low-dosage intervention, requiring no paid facilitators that can reach larger populations. While this study did not show hypothesized effects, the public health model of intervention employed with the Marriage Moments program is still a viable option that needs to be explored. However, more research is needed before we can draw reliable conclusions about the use of a marital virtues model, as well as the potential for lower-dosage interventions.

In conclusion, the application of program concepts in this study did not yield expected significant group differences. Further experimentation is needed to determine
how low-dosage interventions can be effective, especially with populations composed of different characteristics than the present sample.
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## Appendix A: Description of *Marriage Moments* Curriculum

<table>
<thead>
<tr>
<th>Video &amp; Workbook Topic</th>
<th>Basic Content</th>
<th>Sample Personal Activity</th>
<th>Sample Partner Activity</th>
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</thead>
<tbody>
<tr>
<td>Introduction to Marital Virtues/Myth of Marital Happiness</td>
<td>Love is more than a personal feeling of happiness. A strong marriage is based on teamwork.</td>
<td>Assume words like “personal happiness” and “emotional gratification” were never invented. List five other reasons why your marriage is important.</td>
<td>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.</td>
</tr>
<tr>
<td>Friendship</td>
<td>A strong marital friendship is developed by sharing goals and knowing each other. It emphasizes partnership rather than just having fun.</td>
<td>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.</td>
<td>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.</td>
</tr>
<tr>
<td>Generosity</td>
<td>Generosity means focusing on your partner’s strengths and forgiving their mistakes.</td>
<td>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.</td>
<td>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.</td>
</tr>
<tr>
<td>Fairness</td>
<td>Fairness means trusting your partner and working together to share the work instead of keeping track that you only do your equal share.</td>
<td>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.</td>
<td>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.</td>
</tr>
<tr>
<td>Loyalty</td>
<td>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.</td>
<td>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 is doesn’t detract from your marriage: leisure and hobbies, work, friends, extended family.</td>
<td>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.</td>
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Appendix B : Factor Analyses Factor Loadings Tables

*Table B-1 - Confirmatory Factor Analysis of the Marital Virtues Profile across measurement times (Times 1-3)*

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<th>Time 1 Husbands</th>
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<td>.845</td>
<td>.861</td>
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<td></td>
</tr>
<tr>
<td>Generosity</td>
<td>.852</td>
<td>.817</td>
<td>.832</td>
<td>.844</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Admiration</td>
<td>.733</td>
<td>.840</td>
<td>.751</td>
<td>.841</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teamwork</td>
<td>.845</td>
<td>.810</td>
<td>.761</td>
<td>.874</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Shared Vision</td>
<td>.821</td>
<td>.783</td>
<td>.772</td>
<td>.824</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loyalty/Backbiting</td>
<td>.723</td>
<td>.685</td>
<td>.736</td>
<td>.425</td>
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</tbody>
</table>
Table B-2 Revised Dyadic Adjustment Scale Confirmatory Factor Analyses across Measurement Times for Men and Women (Times 1-3)

<table>
<thead>
<tr>
<th>Item</th>
<th>T1 (n=119)</th>
<th>T2 (n=117)</th>
<th>T3 (n=115)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Alpha</td>
<td>.89</td>
<td>.91</td>
<td>.90</td>
</tr>
<tr>
<td>Religious matters</td>
<td>.536</td>
<td>.616</td>
<td>.626</td>
</tr>
<tr>
<td>Demonstrations of affection</td>
<td>.776</td>
<td>.563</td>
<td>.690</td>
</tr>
<tr>
<td>Making major decisions</td>
<td>.552</td>
<td>.661</td>
<td>.739</td>
</tr>
<tr>
<td>Sex relations</td>
<td>.567</td>
<td>.437</td>
<td>.682</td>
</tr>
<tr>
<td>Conventionality (correct or proper behavior)</td>
<td>.668</td>
<td>.775</td>
<td>.740</td>
</tr>
<tr>
<td>Career decisions</td>
<td>.597</td>
<td>.806</td>
<td>.743</td>
</tr>
<tr>
<td>How often do you discuss or have you considered divorce, separation or terminating your relationship?</td>
<td>.700</td>
<td>.764</td>
<td>.704</td>
</tr>
<tr>
<td>How often do you and your partner quarrel?</td>
<td>.665</td>
<td>.781</td>
<td>.653</td>
</tr>
<tr>
<td>Do you ever regret that you married?</td>
<td>.718</td>
<td>.749</td>
<td>.668</td>
</tr>
<tr>
<td>How often do you and your mate “get on each other’s nerves”?</td>
<td>.767</td>
<td>.744</td>
<td>.612</td>
</tr>
<tr>
<td>Do you and your mate engage in outside interests together?</td>
<td>.469</td>
<td>.559</td>
<td>.472</td>
</tr>
<tr>
<td>Have a stimulating exchange of ideas</td>
<td>.720</td>
<td>.735</td>
<td>.643</td>
</tr>
<tr>
<td>Work together on a project</td>
<td>.554</td>
<td>.495</td>
<td>.588</td>
</tr>
<tr>
<td>Calmly discuss something</td>
<td>.718</td>
<td>.778</td>
<td>.791</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Item</th>
<th>T1 (n=119)</th>
<th>T2 (n=117)</th>
<th>T3 (n=115)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Alpha</td>
<td>.84</td>
<td>.86</td>
<td>.88</td>
</tr>
<tr>
<td>Religious matters</td>
<td>.364</td>
<td>.552</td>
<td>.426</td>
</tr>
<tr>
<td>Demonstrations of affection</td>
<td>.704</td>
<td>.630</td>
<td>.573</td>
</tr>
<tr>
<td>Making major decisions</td>
<td>.434</td>
<td>.448</td>
<td>.619</td>
</tr>
<tr>
<td>Sex relations</td>
<td>.511</td>
<td>.486</td>
<td>.667</td>
</tr>
<tr>
<td>Conventionality (correct or proper behavior)</td>
<td>.557</td>
<td>.701</td>
<td>.743</td>
</tr>
<tr>
<td>Career decisions</td>
<td>.631</td>
<td>.682</td>
<td>.654</td>
</tr>
<tr>
<td>How often do you discuss or have you considered divorce, separation or terminating your relationship?</td>
<td>.641</td>
<td>.738</td>
<td>.642</td>
</tr>
<tr>
<td>How often do you and your partner quarrel?</td>
<td>.587</td>
<td>.528</td>
<td>.701</td>
</tr>
<tr>
<td>Do you ever regret that you married?</td>
<td>.631</td>
<td>.675</td>
<td>.668</td>
</tr>
<tr>
<td>How often do you and your mate “get on each other’s nerves”?</td>
<td>.488</td>
<td>.724</td>
<td>.646</td>
</tr>
<tr>
<td>Do you and your mate engage in outside interests together?</td>
<td>.542</td>
<td>.464</td>
<td>.406</td>
</tr>
<tr>
<td>Have a stimulating exchange of ideas</td>
<td>.606</td>
<td>.538</td>
<td>.671</td>
</tr>
<tr>
<td>Work together on a project</td>
<td>.555</td>
<td>.573</td>
<td>.517</td>
</tr>
<tr>
<td>Calmly discuss something</td>
<td>.656</td>
<td>.645</td>
<td>.722</td>
</tr>
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</table>
Table B-3 RELATE Marital Satisfaction and Stability Exploratory Factor Analyses across Measurement Times for Men and Women (Times 1-3)

<table>
<thead>
<tr>
<th>Relate Marital Satisfaction and Stability -- Men</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>T1 (n=119)</td>
</tr>
<tr>
<td>Relationship Stability Alpha</td>
<td>.78</td>
</tr>
<tr>
<td>How often have you thought your relationship might be in trouble</td>
<td>.907</td>
</tr>
<tr>
<td>How often have you and your partner discussed ending your relationship</td>
<td>.907</td>
</tr>
<tr>
<td>Relationship Satisfaction Alpha</td>
<td>.88</td>
</tr>
<tr>
<td>The physical intimacy you experience</td>
<td>.741</td>
</tr>
<tr>
<td>The love you experience</td>
<td>.822</td>
</tr>
<tr>
<td>How conflicts are resolved</td>
<td>.847</td>
</tr>
<tr>
<td>The amount of relationship equality you experience</td>
<td>.734</td>
</tr>
<tr>
<td>The quality of your communication</td>
<td>.812</td>
</tr>
<tr>
<td>Your overall relationship with your partner</td>
<td>.814</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Relate Marital Satisfaction and Stability -- Women</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>T1 (n=119)</td>
</tr>
<tr>
<td>Relationship Stability Alpha</td>
<td>.75</td>
</tr>
<tr>
<td>How often have you thought your relationship might be in trouble</td>
<td>.894</td>
</tr>
<tr>
<td>How often have you and your partner discussed ending your relationship</td>
<td>.894</td>
</tr>
<tr>
<td>Relationship Satisfaction Alpha</td>
<td>.88</td>
</tr>
<tr>
<td>The physical intimacy you experience</td>
<td>.654</td>
</tr>
<tr>
<td>The love you experience</td>
<td>.856</td>
</tr>
<tr>
<td>How conflicts are resolved</td>
<td>.734</td>
</tr>
<tr>
<td>The amount of relationship equality you experience</td>
<td>.785</td>
</tr>
<tr>
<td>The quality of your communication</td>
<td>.821</td>
</tr>
<tr>
<td>Your overall relationship with your partner</td>
<td>.875</td>
</tr>
</tbody>
</table>
Table B-4 - Transition Adjustment Scale Factor Analyses across Measurement Times for Men and Women (Times 1-3)

<table>
<thead>
<tr>
<th>Transition Adjustment Scale -- Men</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>T1 (n=119)</td>
</tr>
<tr>
<td>Total Scale Alpha</td>
<td>.78</td>
</tr>
<tr>
<td>Sharing housework</td>
<td>.710</td>
</tr>
<tr>
<td>Sharing childcare</td>
<td>.679</td>
</tr>
<tr>
<td>Finding time for personal leisure</td>
<td>.564</td>
</tr>
<tr>
<td>Maintaining an enjoyable sexual relationship</td>
<td>.518</td>
</tr>
<tr>
<td>Finding time to be with just your spouse</td>
<td>.670</td>
</tr>
<tr>
<td>Feeling more distant from your spouse</td>
<td>.658</td>
</tr>
<tr>
<td>Balancing work, school, and family responsibilities</td>
<td>.591</td>
</tr>
<tr>
<td>Overall, how well do you feel you have been able to adjust to the changes with becoming a parent</td>
<td>.710</td>
</tr>
</tbody>
</table>

| Intentionality Scale Alpha        | .84             | .86        | .82        |
| How much conscious effort are you giving now to protecting your relationship with your partner | .929            | .938       | .920       |
| How much conscious effort is your spouse giving now to protecting your relationship | .929            | .938       | .920       |

<table>
<thead>
<tr>
<th>Transition Adjustment Scale -- Women</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>T1 (n=119)</td>
</tr>
<tr>
<td>Total Scale Alpha</td>
<td>.82</td>
</tr>
<tr>
<td>Sharing housework</td>
<td>.516</td>
</tr>
<tr>
<td>Sharing childcare</td>
<td>.539</td>
</tr>
<tr>
<td>Finding time for personal leisure</td>
<td>.729</td>
</tr>
<tr>
<td>Maintaining an enjoyable sexual relationship</td>
<td>.742</td>
</tr>
<tr>
<td>Finding time to be with just your spouse</td>
<td>.712</td>
</tr>
<tr>
<td>Feeling more distant from your spouse</td>
<td>.814</td>
</tr>
<tr>
<td>Balancing work, school, and family responsibilities</td>
<td>.545</td>
</tr>
<tr>
<td>Overall, how well do you feel you have been able to adjust to the changes with becoming a parent</td>
<td>.736</td>
</tr>
</tbody>
</table>

| Intentionality Scale Alpha         | .88             | .82        | .92        |
| How much conscious effort are you giving now to protecting your relationship with your partner | .946            | .920       | .961       |
| How much conscious effort is your spouse giving now to protecting your relationship | .946            | .920       | .961       |
Table B-5 – Father Involvement Scale Exploratory Factor Analyses

### One Factor Solution for Father Involvement

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Scale Alpha</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Looked after child while mother did other things</td>
<td>.82</td>
<td>.80</td>
</tr>
<tr>
<td>Change child's diaper</td>
<td>.468</td>
<td>.496</td>
</tr>
<tr>
<td>Play peek-a-boo</td>
<td>.767</td>
<td>.678</td>
</tr>
<tr>
<td>Hold child</td>
<td>.497</td>
<td>.445</td>
</tr>
<tr>
<td>Tickle child and be playful</td>
<td>.606</td>
<td>.584</td>
</tr>
<tr>
<td>Sing songs</td>
<td>.546</td>
<td>.557</td>
</tr>
<tr>
<td>Take child shopping</td>
<td>.704</td>
<td>.607</td>
</tr>
<tr>
<td>Put child to sleep</td>
<td>.718</td>
<td>.704</td>
</tr>
<tr>
<td>Bathe child</td>
<td>.538</td>
<td>.380</td>
</tr>
<tr>
<td>Dress child</td>
<td>.768</td>
<td>.682</td>
</tr>
<tr>
<td>Get up with child when they wake up at night</td>
<td>.504</td>
<td>.623</td>
</tr>
<tr>
<td>Soothe child when they are upset</td>
<td>.695</td>
<td>.693</td>
</tr>
</tbody>
</table>

### Time 3 – Two Factor Solution for Father Involvement

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prosaic Scale Alpha</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watched child while mother did other things</td>
<td>.86</td>
<td></td>
</tr>
<tr>
<td>Change child's diaper</td>
<td>.589</td>
<td></td>
</tr>
<tr>
<td>Prepare meals or bottles for child</td>
<td>.721</td>
<td></td>
</tr>
<tr>
<td>Feed child</td>
<td>.764</td>
<td></td>
</tr>
<tr>
<td>Take child shopping</td>
<td>.734</td>
<td></td>
</tr>
<tr>
<td>Put child to sleep</td>
<td>.725</td>
<td></td>
</tr>
<tr>
<td>Bathe child</td>
<td>.786</td>
<td></td>
</tr>
<tr>
<td>Dress child</td>
<td>.484</td>
<td></td>
</tr>
<tr>
<td>Get up with child in the middle of the night</td>
<td>.605</td>
<td></td>
</tr>
<tr>
<td>Soothe child when they are upset</td>
<td>.670</td>
<td></td>
</tr>
<tr>
<td><strong>Nurturing Scale Alpha</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Play peek-a-boo</td>
<td>.63</td>
<td></td>
</tr>
<tr>
<td>Read to child</td>
<td>.716</td>
<td></td>
</tr>
<tr>
<td>Hold child</td>
<td>.391</td>
<td></td>
</tr>
<tr>
<td>Tickle child and be playful</td>
<td>.769</td>
<td></td>
</tr>
<tr>
<td>Sing songs</td>
<td>.795</td>
<td></td>
</tr>
</tbody>
</table>

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Table B-6 - Exploratory Factor Analysis of the Household Labor Scale across measurement times (Times 1-3)

<table>
<thead>
<tr>
<th>Household Labor Scale -- Men</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>T1 n = 119</td>
</tr>
<tr>
<td>Total Scale Alpha</td>
<td>.84</td>
</tr>
<tr>
<td>I feel appreciated by my partner for the childcare tasks I perform</td>
<td>.748</td>
</tr>
<tr>
<td>I feel appreciated by my partner for the housework I do</td>
<td>.826</td>
</tr>
<tr>
<td>My partner notices the household tasks I do for him/her</td>
<td>.818</td>
</tr>
<tr>
<td>My partner listens to me when I talk/complain about household matters</td>
<td>.803</td>
</tr>
<tr>
<td>My partner and I try to negotiate things together as a couple, including things like household chores</td>
<td>.649</td>
</tr>
<tr>
<td>My partner is a good listener</td>
<td>.617</td>
</tr>
<tr>
<td>How household work and childcare tasks are divided is an arrangement we decided on together</td>
<td>.519</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Household Labor Scale -- Women</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item</td>
<td>T1 n = 119</td>
</tr>
<tr>
<td>Total Scale Alpha</td>
<td>.84</td>
</tr>
<tr>
<td>I feel appreciated by my partner for the childcare tasks I perform</td>
<td>.712</td>
</tr>
<tr>
<td>I feel appreciated by my partner for the housework I do</td>
<td>.787</td>
</tr>
<tr>
<td>My partner notices the household tasks I do for him/her</td>
<td>.746</td>
</tr>
<tr>
<td>My partner listens to me when I talk/complain about household matters</td>
<td>.754</td>
</tr>
<tr>
<td>My partner and I try to negotiate things together as a couple, including things like household chores</td>
<td>.649</td>
</tr>
<tr>
<td>My partner is a good listener</td>
<td>.612</td>
</tr>
<tr>
<td>How household work and childcare tasks are divided is an arrangement we decided on together</td>
<td>.707</td>
</tr>
</tbody>
</table>
Table B-7 CES-D Confirmatory Factor Analysis Across Times for Women

<table>
<thead>
<tr>
<th>Item</th>
<th>T1 n = 113</th>
<th>T2 n = 114</th>
<th>T3 n = 114</th>
</tr>
</thead>
<tbody>
<tr>
<td>I was bothered by things that usually don't bother me</td>
<td>.87</td>
<td>.357</td>
<td>.515</td>
</tr>
<tr>
<td>I did not feel like eating</td>
<td>.300</td>
<td>.689</td>
<td>.433</td>
</tr>
<tr>
<td>I could not shake off the blues</td>
<td>.695</td>
<td>.578</td>
<td>.532</td>
</tr>
<tr>
<td>I felt as good as other people</td>
<td>.319</td>
<td>.91</td>
<td>.357</td>
</tr>
<tr>
<td>I had trouble keeping mind on what I was doing</td>
<td>.779</td>
<td>.615</td>
<td>.578</td>
</tr>
<tr>
<td>I felt depressed</td>
<td>.558</td>
<td>.300</td>
<td>.569</td>
</tr>
<tr>
<td>I felt everything I did was an effort</td>
<td>.438</td>
<td>.572</td>
<td>.798</td>
</tr>
<tr>
<td>I felt hopeful about the future</td>
<td>.561</td>
<td>.481</td>
<td>.569</td>
</tr>
<tr>
<td>I thought my life had been a failure</td>
<td>.572</td>
<td>.759</td>
<td>.528</td>
</tr>
<tr>
<td>I felt fearful</td>
<td>.403</td>
<td>.717</td>
<td>.609</td>
</tr>
<tr>
<td>My sleep was restless</td>
<td>.642</td>
<td>.402</td>
<td>.466</td>
</tr>
<tr>
<td>I was happy</td>
<td>.515</td>
<td>.724</td>
<td>.480</td>
</tr>
<tr>
<td>I talked less than usual</td>
<td>.738</td>
<td>.408</td>
<td>.561</td>
</tr>
<tr>
<td>I felt lonely</td>
<td>.498</td>
<td>.700</td>
<td>.451</td>
</tr>
<tr>
<td>People were unfriendly</td>
<td>.584</td>
<td>.736</td>
<td>.661</td>
</tr>
<tr>
<td>I enjoyed life</td>
<td>.658</td>
<td>.743</td>
<td>.527</td>
</tr>
<tr>
<td>I had crying spells</td>
<td>.763</td>
<td>.519</td>
<td>.721</td>
</tr>
<tr>
<td>I felt sad</td>
<td>.555</td>
<td>.467</td>
<td>.446</td>
</tr>
<tr>
<td>I could not get &quot;going&quot;</td>
<td>.533</td>
<td>.555</td>
<td>.566</td>
</tr>
</tbody>
</table>
## Appendix C - Program Outcomes

### Table C-1 - ANOVA Results of Hypothesized Program Effects on Relationship Outcome

**Measures for Men and Women in Treatment, Comparison and Control Groups**

<table>
<thead>
<tr>
<th>Scale</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Trend</td>
<td>F</td>
</tr>
<tr>
<td>R-DAS</td>
<td>Linear Quadratic</td>
<td>.746 (2, 108)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.025 (2, 108)</td>
</tr>
<tr>
<td>RELATE</td>
<td>Linear Quadratic</td>
<td>.516 (2, 110)</td>
</tr>
<tr>
<td>Satisfaction</td>
<td></td>
<td>.779 (2, 110)</td>
</tr>
<tr>
<td>MVP Total Scale</td>
<td>Linear Quadratic</td>
<td>3.65 (2, 103)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.174 (2, 103)</td>
</tr>
<tr>
<td>TAS</td>
<td>Linear Quadratic</td>
<td>1.41 (2, 110)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>.470 (2, 110)</td>
</tr>
</tbody>
</table>

### Table C-2 - Subgroup Means and Standard Deviations of Program Outcome

**Measures For Men and Women in Treatment, Comparison and Control**

**Groups at Three Times**

<table>
<thead>
<tr>
<th>Outcome Measures</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>T1</td>
<td>T2</td>
</tr>
<tr>
<td>R-DAS</td>
<td>Treatment</td>
<td>53.28(5.64)</td>
</tr>
<tr>
<td></td>
<td>Comparison</td>
<td>4.16(.67)</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>4.85(.49)</td>
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