

## Differences in Relational Outcomes for Marriage Education by Sex and Ethnicity

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Research has documented program effects of individual programs (e.g., Butler and Wampler, 1999; Cowan & Cowan, 2002), as well as meta-analytic program effects across MRE programs (e.g., Reardon-Anderson, Stagner, Macomber, & Murray, 2005). Reviews of the literature on MRE effectiveness indicate that participation results in short-term benefits for relationship quality and communication skills among premarital couples (Carroll & Doherty, 2003). While this evidence is encouraging, most studies have utilized samples of higher-income, European American premarital and married couples (Halford, Markman, & Stanley). Though useful, this exclusive look at a fraction of the population has been at the expense of a more detailed examination of the effect of MRE with diverse couples. The needs of diverse couples in MRE have been documented to some extent (Fein et al., 2003), but there is virtually no published empirical evidence of program effects among a more diverse sample of adults. This is unfortunate because it is possible, indeed probable, that varying ethnic groups differ from one another in multiple facets of relationship quality. Differences may be present at the outset of MRE, but they may also exist in how different groups respond to MRE. Therefore, investigating program effects among a diverse sample is a relatively uncharted territory but highly warranted. To this end, the current study seeks to examine potential relational differences between groups by sex and ethnicity. It further seeks to examine potential patterns of change after MRE participation based on these factors.

### Methods

**Participants.** Participants were recruited from MRE classes being held in 8 different communities in a moderately-sized Southern state. Classes were taught by male/female team of marriage/relationship educators. Participants participated in one of four possible curricula which included six sessions covering core relational skills identified by The National Extension Relationship and Marriage Education Network (see <http://www.nermen.org>). (The four curricula utilized were Mastering the Mysteries of Love, Smart Steps for Stepfamilies, Basic Training for Black Couples, and Together We Can.) Participants completed a pre-program questionnaire prior to beginning the course and a post-program questionnaire after completing it. Pre- and post-program data were matched by confidential participant number. To date, 678 adult participants have returned pre-program and post-program data. The current sample consists of 30.7% male; 69.3% female. The modal age was 36. 51.7 percent are married; 48.3 percent are single. The majority of participants are African American (56.9%); 40.3% are Caucasian; 1.2% are Hispanic; and 1.6% selected Asian-American, Native American, or "other" when asked ethnic background.

**Measures.** In addition to demographics and family structure questions, the questionnaires included multi-item measures of individual and couple functioning. (note: previous pilot data and the use of psychometric analyses informed the reduction of items in each scale). Scales were used to measure relationship knowledge, attitudes, skills, and behaviours, as well as selected dimensions of individual functioning. A global *Positivity* item and a global *Negativity* were used (taken from Fincham & Litchfield, 1997). *Trust* is a 3-item measure (adapted from Rempel, Holmes, & Zanna, 1985). *Dedication* comes from Stanley & Markman (1992) and assesses the degree to which participants feel committed or believe their partners to be committed to the relationship. *Likelihood of Stability* is a 2-item scale (adapted from Booth, Johnson, & Edwards, 1983). *Dyadic Adjustment* is a 6-items measure (adapted from Spanier, 1976). *Positive Interaction* is an 8-item scale (adapted from Huston & Vangelisti, 1991). *Negative Interaction* is a 7-item scale (adapted from Huston & Vangelisti, 1991). *Negative Interaction* was also assessed using 8 items (taken from Stanley, Markman, & Whitton, 2002). Three measures of *Interpersonal Competence* are utilized (taken from Burhmeister et al., 1988): *Conflict Management*, *Assertiveness*, and *Emotional Support*. *Conflict Management* is a 6-item scale. *Assertiveness* is a 2-item scale. *Emotional Support* is also a 2-item scale. *Family Harmony* is a 3-item scale. *Individual Empowerment* is a 6-item scale (Shirer & Adler-

Baeder, 2005). *Depression/Distress* level is assessed using 3 items from the Center for Epidemiological Studies- Depression Scale. All alpha coefficients were acceptable, ranging from .62 to .90.

### Results

To test for significant differences in changes from pre-test to post-test, we utilized repeated measures mixed between-within subjects analyses of variance (RMANOVAs) to determine whether there were main effects for time and whether there were interaction effects for Time X Sex and Time X Race (1=European American; 2=African American). Because participants attended MRE classes with their partners, the data are dependent; therefore, Dependence (or the presence of a partner-matched survey) in the dataset was treated as a covariate and controlled. In cases of between-group effects, one-way ANOVAs were used to explore differences between groups at Time 1 and Time 2.

**Changes by Sex.** For Sex, significant differences were found on multiple dimensions between pre- and post-test. For *Likelihood of Stability*, there was a main effect for Time [ $F(1, 477) = 12.939$ ,  $p < .001$ , partial eta squared .027] but no interaction effect, indicating that men and women's sense of stability increases equally after participation in MRE. For *Dyadic Adjustment*, there was a main effect for Time [ $F(1, 457) = 12.095$ ,  $p = .001$ , partial eta squared .026] but no interaction effect, meaning that men and women equally report increased adjustment from Time 1 to Time 2. There was also, however, a between-subjects effect [ $F(1, 457) = 5.351$ ,  $p = .021$ , partial eta squared .012], indicating a mean difference between men and women at at least one time-point. A one-way ANOVA indicated that men had statistically significantly higher mean scores than women did at Time 1 [ $F(1, 598) = 7.507$ ,  $p = .006$ ] and at Time 2 [ $F(1, 495) = 7.186$ ,  $p = .008$ ]. This indicates that men begin MRE programs with higher levels of dyadic adjustment than women, and that the difference was maintained post-program. For *Negative Interaction*, there was a main effect for Time [ $F(1, 483) = 12.452$ ,  $p < .001$ , partial eta squared .025] but no interaction effect, indicating that men and women equally report decreased negative interaction after participation in MRE. Additionally, a between-subjects effect was found [ $F(1, 483) = 3.886$ ,  $p = .049$ , partial eta squared .008], indicating a difference between men and women's mean scores at minimally one time-point. A one-way ANOVA revealed that women had statistically significant higher mean scores than men did at Time 1 [ $F(1, 594) = 6.470$ ,  $p = .011$ ], but not at Time 2. Thus, women begin MRE reporting higher negative interaction than men, but this difference disappears by post-program. For the second measure of *Negative Interaction* (Huston & Vangelisti, 1991), there was a main effect for Time [ $F(1, 484) = 8.606$ ,  $p = .004$ , partial eta squared .018] but no interaction effect, mirroring the finding of the Stanley et al. (2002) scale. For *Positive Interaction*, there was a main effect for Time [ $F(1, 486) = 4.847$ ,  $p = .028$ , partial eta squared .010] but no interaction or between-subjects effect, indicating that men and women's level of positive interaction does not differ from each other at either time-point and increases equally after participation in MRE. For *Conflict Management*, there was a main effect for Time [ $F(1, 523) = 4.261$ ,  $p = .039$ , partial eta squared .008] but no interaction or between-subjects effect, indicating that men and women do not differ at Time 1 or Time 2 in this domain, and their conflict management skills improve equally after participation in MRE. For *Family Harmony*, there was no main effect for Time, but there is an Interaction effect for Time X Sex [ $F(1, 314) = 5.030$ ,  $p = .026$ , partial eta squared .016], reflecting a statistically significant change in mean scores for women from Time 1 to Time 2, while men remain stable. There was also no statistically significant difference between men and women at Time 1 or at Time 2, indicating that although women's course in MRE results in statistically significant changes, these changes do not result in a post-program mean that is statistically significantly different from men. For *Individual Empowerment*, there was a main effect for Time [ $F(1, 517) = 5.625$ ,  $p = .018$ , partial eta squared .011] but no interaction effect, indicating that men and women's levels of individual functioning improve equally after participation

in MRE. However, there was a between-subjects effect [ $F(1, 517) = 9.853, p = .002, \text{partial } \eta^2 = .019$ ], indicating a statistically significant difference between men and women at one or the other time-point. A follow-up one-way ANOVA indicated that women's mean scores were statistically significantly higher than men's mean scores at Time 1 [ $F(1, 634) = 4.94, p = .027$ ] and at Time 2 [ $F(1, 554) = 17.913, p < .001$ ]. Thus, women begin MRE programs reporting higher levels of functioning than men do, and they complete MRE programs still reporting higher levels of functioning than men.

**Changes by Ethnicity.** For the global measure of *Positive Feelings*, there is a main effect for Time [ $F(1, 477) = 5.147, p = .024, \text{partial } \eta^2 = .011$ ], however this is interpreted with caution as one group may be driving the effect given than an interaction effect for Time X Ethnicity was found [ $F(1, 477) = 6.972, p = .009, \text{partial } \eta^2 = .014$ ]. Follow-up analyses indicated a statistically significant difference from Time 1 to Time 2 for EA participants, while AA participants' scores remained stable. In other words, EA participants' positive feelings increase after participation in MRE, while AA participants' do not. There was no statistically significant difference between EA and AA participants at Time 1 or Time 2. For *Trust*, there was a main effect for Time [ $F(1, 501) = 13.088, p < .001, \text{partial } \eta^2 = .026$ ] but no interaction effect, indicating that EA and AA participants respond to MRE similarly in their trust level. There was also a between-subjects effect for [ $F(1, 501) = 19.316, p < .001, \text{partial } \eta^2 = .037$ ], indicating that EA participants' mean scores were statistically significantly higher than AA participants' mean scores at Time 1 [ $F(1, 634) = 8.858, p = .003$ ] and at Time 2 [ $F(1, 540) = 19.221, p < .001$ ]. Thus, EA participants begin and end MRE programs with higher levels of trust than AA participants, although both groups improve after participation. For *Dedication*, there was a main effect for Time [ $F(1, 527) = 5.030, p = .025, \text{partial } \eta^2 = .010$ ] but no interaction effect, indicating that both EA and AA participants' dedication increases equally after participation in MRE. For *Dyadic Adjustment*, there was a main effect for Time [ $F(1, 504) = 22.623, p < .001, \text{partial } \eta^2 = .043$ ] but no interaction effect, indicating that EA and AA participants' dyadic adjustment increase equally after participation in MRE. For both *Negative Interaction* measures, there was a main effect for Time [ $F(1, 532) = 32.497, p < .001, \text{partial } \eta^2 = .058$ ] (Stanley et al., 2002) and [ $F(1, 533) = 12.848, p < .001, \text{partial } \eta^2 = .024$ ] (Huston & Vangelisti, 1991) but no interaction effect, indicating that EA and AA participants benefit equally in this domain after participation in MRE. For *Assertiveness*, there was no main effect for Time, but there was an interaction effect for Time X Ethnicity [ $F(1, 569) = 4.632, p = .032, \text{partial } \eta^2 = .008$ ]. The statistically significant difference between Time 1 and Time 2 was for EA participants, indicating that EA participants' assertiveness increases after participation in MRE, while AA participants' assertiveness does not. There was also a between-subjects effect for Ethnicity [ $F(1, 569) = 70.659, p < .001, \text{partial } \eta^2 = .068$ ], indicating a difference between EA and AA participants at Time 1 or Time 2. A one-way ANOVA indicated that mean scores for AA participants were statistically significantly higher than mean scores for EA participants at Time 1 [ $F(1, 681) = 42.268, p < .001$ ] and at Time 2 [ $F(1, 605) = 21.129, p < .001$ ]. These between-subjects effects suggest that AA participants' assertiveness scores did not change from Time 1 to Time 2 because they are already much higher than EA participants' scores, reflecting a ceiling effect. For *Emotional Support*, there was no main effect, but there was an interaction effect for Time X Ethnicity [ $F(1, 571) = 4.369, p = .037, \text{partial } \eta^2 = .008$ ], such that EA participants' scores changed statistically significantly from Time 1 to Time 2, while AA participants' scores remained stable. Additionally a between-subjects effect was found [ $F(1, 571) = 10.094, p = .002, \text{partial } \eta^2 = .017$ ], indicating that AA participants' mean scores were statistically significantly higher than EA participants' mean scores at Time 1 [ $F(1, 684) = 10.367, p = .001$ ]. This may also indicate a ceiling effect among AA participants. For *Individual Functioning*, there was a main effect for Time [ $F(1, 569) = 12.724, p < .001, \text{partial } \eta^2 = .022$ ]; however, this effect should be interpreted with caution given that an interaction effect for Time x Ethnicity was found [ $F(1, 569) = 4.217, p = .040, \text{partial } \eta^2 = .007$ ]. For *Depression*, there was a main effect for Time [ $F(1, 572) = 27.844, p < .001, \text{partial } \eta^2 = .047$ ] but no interaction effect,

indicating that EA and AA participants' level of depression is equally decreased after participation in MRE.

## Discussion

Like past studies, this research documents the effects of MRE programs on relationship knowledge and skills. Main effects were found in almost all measured constructs. However, while MRE programs have documented effects, there is virtually no mention of program effects among a diverse sample. Equally little attention has been given to the role of demographic variables such as sex and race in MRE. This research adds to the body of literature on program effects by addressing sex and ethnicity as moderators of program impact. When examining the differences between groups of participants, certain "masked" effects are unveiled. Interestingly, these "masked" effects were more common when examining program effects by ethnicity than by sex. Men and women only differed in their responses to the program on one dimension, Family Harmony. This suggests that men and women tend to respond to MRE more similarly than differently. Differences between EA and AA participants' responses to MRE were slightly more common. Interaction effects were found in the dimensions Positive Feelings, Assertiveness, and Emotional Support, where EA participants' mean scores increased while AA participants' scores remained stable. As noted earlier, AA participants reported high scores in Assertiveness and Emotional Support, thus limiting the potential for improvement over time. This highlights the need for further research to investigate the specific needs of African American samples and emphasizes the importance of sensitivity to differences among diverse participants of MRE. Specifically, despite relatively few dimensions reflecting interaction effects, several dimensions revealed statistically significant between-group effects which suggest that participants of various subgroups may benefit from a more directed, focused program highlighting relational dimensions with which they seem less satisfied. To this end, it would be helpful to consider additional moderators, such as income or SES when studying ethnically diverse samples due to potential differences based on these variables. This underscores the assertion that ethnic minorities also vary within group and should be examined in more depth (Hawkins et al., 2004). Conversely, high mean scores at pre-test can act as a guide for a strengths-based approach where educators highlight and use strengths to facilitate growth in other areas. As has been addressed, other potential moderators should be addressed. For example, to date, there are only a few published empirical studies which examine potential moderating effects of SES (e.g., Stanley et al., 2005; Stanley et al., 2006). These studies did not find that SES served as a moderator, which is incongruent with other surveys, which have indicated that lower income couples report lower marital quality (in Ooms & Wilson, 2004). Thus, current research should give special consideration to couples considered low-income in order to more fully understand the role of SES in program effects. Income or SES may serve as a within-group variance among ethnic minorities, and could potentially explain some of the interaction and between-group effects. Furthermore, while these between-group differences by sex and ethnicity highlight areas of further study and sensitivity in program implementation, it will also be important in the future to address within-dyad differences. Examining differences by dyads will allow research to explore congruence and/or incongruence among couples. Future work should address how attendance status moderates program effects, overall, and by sex, and by ethnicity. Future work should also sample a control group. Because this demonstration project is in its infancy, control data were unavailable; however, using controls will help ascertain whether effects are directly related to program participation or some other variable. Furthermore, there is a need to follow program participants across time to examine potential trajectories of change. This research provides an introduction to examining change after participation in MRE among a diverse population. It only "scratches the surface" of the work that can and should be done; however because it does so, it provides a beginning for similar, and more in-depth work. In addition, it informs intervention on potential areas of focus at program start, dependent upon demographic variables. Expansion of this work can act as a practical guide for practitioners working with a diverse population.

**Information about measures and references is available upon request.**