Descriptive Evaluation of Supporting Healthy Relationships in The Bronx, NY: Final Descriptive Evaluation Report for Montefiore Medical Center

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Structured Abstract: A Descriptive Evaluation of Supporting Healthy Relationships in The Bronx, NY

Since 2007, Montefiore Medical Center's Supporting Healthy Relationships program has served thousands of couples in the Bronx, NY. There is a high need for relationship education in this community. With a population of 1.4 million people, the Bronx is one of the poorest urban counties in the nation with below average labor force participation, educational attainment, income, and unemployment rates. There is a clear relationship between poverty and family instability, as low-income couples' relationships are more unstable than their higher-income counterparts'.1 Therefore, it is not surprising that there is a strong demand for relationship education programs like ours in the Bronx community. The objective of Montefiore's program is to empower low-income couples to achieve family success by improving their communication skills, learning how to reduce destructive conflict, and gaining financial stability. We provide a supportive, safe community where they can obtain the skills and resources to develop strong and committed relationships and overcome barriers to achieving financial health—through psychoeducational workshops, employment services, and case management.

The overall goal of our exploratory analyses was to examine those factors and sub-groups that account for the observed association between healthy marriage and relationship education (HMRE) services and relationship quality. In particular we were interested in examining the following: (1) whether clients are showing increased relationship satisfaction after receiving the relationship education intervention; (2) whether clients learn and retain the knowledge and skills that are taught in the relationship education intervention; (3) whether clients are becoming more emotionally intelligent after the relationship education intervention; (4) whether dosage is related to improvements in relationship outcomes, particularly (a) relationship satisfaction, (b) relationship knowledge and skill acquisition, and (c) emotional intelligence; (5) who is most likely to benefit from relationship education, and why they benefit; (6) whether clients that are more committed are more likely to (a) attend more workshops, (b) learn more relationship skills, and/or (c) show increased relationship satisfaction; and (7) whether clients that are more hopeful are more likely to (a) attend more workshops, (b) learn more relationship skills, and/or (c) show increased relationship satisfaction. Our study included 1,856 clients, 1,029 of which provided complete data for the outcomes study. Our study found that: (1) six months later, clients showed a significant increase in relationship satisfaction, emotional intelligence, and relationship knowledge and skills; (2) dosage is not related to improvements in relationship satisfaction, relationship knowledge and skills, and emotional intelligence; (3) clients most likely to benefit from relationship education are Hispanic, have higher relationship longevity, have more children, and have more education; (4) clients that are less committed initially are more likely to show increased relationship satisfaction; and (5) clients that are less hopeful are more likely to show increased relationship satisfaction. Key lessons include: 1) relationship education is related to improvements in relationship satisfaction, 2) relationship education is related to improvements in both relationship knowledge/skills and

[1] Fein, D. J. (2004). *Married and poor: Basic characteristics of economically disadvantaged married couples in the US*. Working Paper SHM-01, Supporting Healthy Marriage Project, New York: MDRC. Retrieved from http://www.mdrc.org/publications/393/workpaper.html

emotional intelligence, 3) relationship education is a high-demand service, but may need to be delivered flexibly dosage-wise in order to meet demand, 4) clients who are less committed and/or less hopeful are more likely to attend more workshops and/or show gains in relationship satisfaction, and 5) certain subgroups of clients tend to benefit the most from relationship education, depending on the outcome. Study limitations include: 1) narrow research focus; 2) heterogeneity of intervention delivery, and 3) significant baseline differences between the analytic and attrited samples suggest results may not generalize to the enrolled population.

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A. Introduction and study overview

As Alan Hawkins recently commented in his review of federally-supported relationship education programs,[2] "a stable, healthy romantic relationship is a crucial human need … as much as food, housing, childcare, and a job…" Thus, the overarching objective for Montefiore's Supporting Healthy Relationships program is to create and sustain families in the Bronx by improving relationship skills (and understanding the benefits of marriage and commitment), improving parenting skills, and improving parental financial support for children. This topic has been a focus of governmental policy ever since Daniel Patrick Moynihan addressed the impact of family dissolution in the 1960s. Stable families confer many benefits on all members—economic, health, academic, and general wellbeing.[3] Married couples live longer, report less illness and disability, have less depression and suicidality, are less likely to live in poverty and are less likely to break up than unmarried couples.[4,5] Similarly, children from two-parent families are healthier, have fewer behavioral problems, and receive higher grades than children from single-parent households. Because these are correlational findings, the benefits associated with marriage may not be due to the state of marriage per se, but to the characteristics of people who make the commitment to marry. But there is a clear relationship between poverty and family instability. Low-income couples' relationships are more unstable than their higher-income counterparts'.[6] Living in a poor neighborhood puts a couple at twice the risk of break-up,[7] and the use of public assistance services has been shown to be associated with divorce. The fragility of family life among low-income couples does not appear to be due to any difference in values since they report the same normative belief in marriage as high-income couples[8] and express

[2] Hawkins, A. (2019). Are federally-supported relationship education programs for lower-income individuals and couples working? A review of evaluation research. *American Enterprise Institute.*
[3] Haskins, R. & Sawhill, I. (2003). Work and marriage: The way to end poverty and welfare. *The Brookings Institution Policy Brief: Welfare Reform and Beyond #28*, 1-8.
[4] Acs, G. & Nelson, S. (2004). What do 'I do's do? Potential benefits of marriage for cohabiting couples with children." *Assessing the New Federalism* Policy Brief B-59. Washington, DC: The Urban Institute.
[5] Kiecolt-Glaser, J. & Newton, T. (2001). Marriage and health: His and hers, *Psychological Bulletin*, *127,* 472-503.
[6] Fein, D. J. (2004). *Married and poor: Basic characteristics of economically disadvantaged married couples in the US*. Working Paper SHM-01, Supporting Healthy Marriage Project, New York: MDRC. Retrieved from http://www.mdrc.org/publications/393/workpaper.html
[7] Bramlett, M. & Mosher, W. (2002). *Cohabitation, marriage, divorce, and remarriage in the United States*. National Center for Health Statistics. Vital Health Statistics, 23 (22).
[8] McLanahan, S., Garfinkel, I., Reichman, N. et al. (2003). *The Fragile Families and Child Wellbeing Study: Baseline National Report*. Princeton, NJ: Center for Research on Child Wellbeing, Princeton University.

considerable interest in relationship education services.[9] Despite this apparent belief in marriage, the rate of marriage is lower among low-income communities (especially apparent in the Bronx), and many more low-income couples have children outside of a marital commitment.[10] Children raised in non-married households face a higher risk of poverty throughout childhood.[11,12] Children raised by single or unmarried parents are also at elevated risk for developing social, health, behavioral, and academic problems when compared to children raised in married-parent households, including increased aggression and disruptive behaviors among children, leading to peer rejection and academic failure.[13,14,15,16,17] While unmarried couples may have more unstable relationships than married couples, most unmarried parents have a close relationship at the time of the child's birth.[18] Since these relationships tend to deteriorate over time (i.e., only 35% of unmarried couples are together by the time the child is five years old), there may be a critical window of opportunity for solidifying these relationships. But regardless of marital status, the quality of the relationship between the parents is related to the degree of paternal engagement with the child.[19]

The fragility of relationships among low-income families may be related to the amount of stress they face (as well as a high prevalence of childhood trauma among the parents) and the lack of resources or external support for dealing with it. Low-income couples have a host of ancillary stresses (e.g., substance abuse, chronic medical disorders, unstable housing, multiple partner fertility leading to stepchildren in the home) in addition to significantly lower levels of education and employment than their higher-income counterparts rendering economic stability and self-sufficiency a more difficult goal to attain.[20] This level of stress, especially financial stress, creates pressure on relationships, leading to relationship dissatisfaction and relationship

[9] Ooms, T. & Wilson, P. (2004) The challenges of offering relationship and marriage education to low-income populations, *Family Relations*, *53*, 440-447.
[10] Carlson, M., McLanahan,S. England, P., & Devaney, B. (2005, January). What We Know About Unmarried Parents: Implications for Building Strong Families Programs. Building Strong Families In Brief, No. 3. Mathematica Policy Research, Inc. Retrieved from http://www.mathematica-mpr.com/publications/pdfs/bsfisbr3.pdf
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[12] Licter, D., Roempke, D., Brown, B. (2003). Is marriage a panacea? Union formation among economically disadvantaged unwed mothers. *Social Problems*, *50*, 60-86.
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[17] Institute for American Values (2002). Why marriage matters: Twenty-one conclusions from the social sciences.
[18] McLanahan, S., Garfinkel, I., Reichman, N. et al. (2003). *The Fragile Families and Child Wellbeing Study: Baseline National Report*. Princeton, NJ: Center for Research on Child Wellbeing, Princeton University.
[19] Carlson, M., McLanahan, S., & Brooks-Gunn, J. (2008). Coparenting and nonresident fathers' involvement with young children after a nonmarital birth. *Demography*, *45*, 461–488.
[20] Hawkins, A. J., & Fackrell, T. A. (2010). Does couple education for lower-income couples work? A meta-analytic study of emerging research. *Journal of Couple & Relationship Therapy: Innovations in Clinical and Educational Interventions*, *9*(2), 181-191.

conflict.[21] There is reason to believe that problems may be different among low-income couples since these stresses may be more intense, and since there exists a great deal of cynicism about relationships.[22]

In addition to stress, lack of communication skills has been identified as accounting for fragility in relationships. Longitudinal investigations of relationship stability have consistently shown that quality of communication (not the expression of anger) predicts future distress, and has a negative impact on children.[23] Problematic communication patterns include: contempt, criticism, defensiveness, withdrawal, stonewalling, negative escalation, invalidation, and mindreading.[24,25] Anger expressed without contempt or criticism does not appear to threaten stability.[26] These patterns of communication generate fixed, global, negative attributions that lead to relationship distress and dissolution.[27] For this reason, relationship education programs, like ours, focus intensively on anger management and communication.

Montefiore Medical Center has operated a Supporting Healthy Marriage and Relationships program since 2007, been federally funded three times through the Healthy Marriage Initiative, and served over 4,000 couples during this time. Based on our experience, our participation in two prior federal evaluations, and our review of the relevant literature which was widely disseminated in a column in *The Atlantic*,[28] we have no doubt that relationship education programs can and do have a significant impact on relationship quality and economic stability. We participated in the Supporting Healthy Marriage (SHM) evaluation,[29,30] which found a

[21] Hawkins, A. J., & Fackrell, T. A. (2010). Does couple education for lower-income couples work? A meta-analytic study of emerging research. *Journal of Couple & Relationship Therapy: Innovations in Clinical and Educational Interventions*, *9*(2), 181-191.
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[29] Hsueh, J., Alderson, D. P., Lundquist, E., Michalopoulos, C., Gubits, D., Fein, D., & Knox, V. (2012). *The Supporting Healthy Marriage evaluation: Early impacts on low-income families* (OPRE Report No. 2012-11). Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research and Evaluation.
[30] Lundquist, E., Hsueh, J., Lowenstein, A., Faucetta, K., Gubits, D., Michalopoulos, C., & Knox, V. (2014). *A family-strengthening program for low-income families: Final impacts from the Supporting Healthy Marriage evaluation*. OPRE Report 2013-49A. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U. S. Department of Health and Human Services.

consistent pattern of "modest" impacts on relationship quality, relationship satisfaction, reduction in conflict, and positive communication, both at 12-month[31] and 30-month[32] follow-up across numerous measures. We also participated in the Parents and Children Together (PACT) evaluation (recruiting 2/3 of the couples for this study),[33],[34] which found even clearer impacts on a range of relationship quality variables, including commitment, marital stability, co-parenting (our site only), and reduction in destructive conflict. The impact on marital stability is especially striking, and it shows that our program truly does promote marriage and family stability by teaching relationship skills.

While there is definitive evidence of the positive impact of relationship education, we do think it is important to understand if it is preferentially impactful in certain sub-groups. First of all, as Hawkins noted in his review, relationship education appears to have a bigger impact among "distressed couples" than among less distressed couples. So, "healthier" couples do not have much room for improvement, which might explain why there was less of an impact of marital stability in certain sub-populations. Therefore, it makes sense for our relationship education program to continue to recruit lower-income, unemployed, more distressed couples. With a population of 1.4 million people, the Bronx has a very high number of minorities (56% Hispanic, 36% African American, and only 9% non-Hispanic white in 2018[35]), the Bronx is one of the poorest urban counties in the nation with below average labor force participation, educational attainment, income, and unemployment rates. In 2018, median income was $38,467 (as compared with $67,844 for NYS as a whole), one of the lowest for large counties in the U.S.[36] The Bronx has among the largest share of people (27.4%) living below the poverty level. The most recent data from 2018 indicate that the unemployment rate in the Bronx was 10.9% as compared to the national unemployment rate of 4.9%.[37] There are 67,600 unemployed workers, out of a labor force of 667,000, representing the second highest unemployment rate in NYS.[38] Even among employed individuals in the Bronx, the average weekly salary is only $881, which is below the national average. The high rate of unemployment and underemployment in the

[31] Hsueh, J., Alderson, D. P., Lundquist, E., Michalopoulos, C., Gubits, D., Fein, D., & Knox, V. (2012). *The Supporting Healthy Marriage evaluation: Early impacts on low-income families* (OPRE Report No. 2012-11). Washington, DC: U.S. Department of Health and Human Services, Administration for Children and Families, Office of Planning, Research and Evaluation.

[32] Lundquist, E., Hsueh, J., Lowenstein, A., Faucetta, K., Gubits, D., Michalopoulos, C., & Knox, V. (2014). *A family-strengthening program for low-income families: Final impacts from the Supporting Healthy Marriage evaluation*. OPRE Report 2013-49A. Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U. S. Department of Health and Human Services.

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[34] Patnaik, A., Vigil, A., Page, J. et al. (2019) Parents and Children Together: Documentation report for PACT healthy marriage restricted use data files, OPRE Report 2019-103. https://www.acf.hhs.gov/sites/default/files/opre/pact_hm_ruf_b508_3ds.pdf

[35] US Census Bureau, American Community Survey, 2018.

[36] US Census Bureau, American Community Survey, 2018.

[37] Although we do not have updated statistics from the last few months, the Bronx was especially hard hit by the COVID-19 pandemic, and unemployment has increased drastically.

[38] US Census Bureau, American Community Survey, 2018.

Bronx is due to many factors, including lack of skills and education (i.e. in 2018, 34% of Bronx adults had not completed high school); limited language (in 2018, 19% were not proficient in English vs. 8% for NYC); lack of childcare; and the presence of medical, psychiatric, or substance use disorders. The high level of poverty leads to high rates of food insecurity (in 2018, 37% for Bronx vs. 19% for NYC), and housing instability (in 2018, 39% had "severe housing problems" and a disproportionate number living in shelters).[39] In addition to being one of the poorest counties in the nation, the Bronx is also one of the unhealthiest (ranked as the most unhealthy county in NYS), which was very apparent during the recent COVID-19 pandemic where the Bronx had the highest mortality rate of any county in the nation![40] The Bronx has high rates of premature death and chronic disease (i.e. diabetes, cardiovascular disease, asthma, obesity). Finally, the Bronx has a very high crime rate, with 47,000 arrests per year.[41]

In the Bronx, 38%[42] of children live below the poverty level (as compared with 15% nationally, and 24% throughout NYC).[43] In fact, in 2019, 75% of single mothers in the Bronx lived in poverty. Considering the literature on the association of fragile families and poverty, it is not surprising to learn that in the Bronx only 39% of children live in a married-couple family and 61% reside with a single parent, which is the highest rate of all New York City boroughs. Since there are 351,000 children under 18 in the Bronx, this means that 214,000 of them live without their father in the home.[44] The rate of teenage pregnancy is much higher for the Bronx than the rest of NYC (30 per 1000 teenage girls vs. 14 per 1000 teenage girls).[45] These figures underscore the significant need for services that provide relationship education to the vastly impoverished and underserved Bronx community. While the above statistics demonstrate the need for relationship education services in the Bronx community as a whole, our experience serving thousands of couples over the past 14 years confirm the need as well.

Research suggests that relationship education is only effective when delivered in higher dosages.[46],[47],[48],[49] Couples in our program have consistently averaged 20-25 hours of services. Of note, in SHM, 83% of the couples included in the analyses actually attended at least one

[39] US Census Bureau, American Community Survey, 2018.
[40] NY County Health Rankings 2019.
[41] NY Criminal Justice Arrests 2019.
[42] According to the Kids Count data center, 56% of Bronx children live in areas of concentrated poverty, which is nearly double the rate for the rest of NYC.
[43] NYS Office of Temporary and Disability Assistance, Small Area Income and Poverty Estimates Program (SAIPE): U.S. Bureau of the Census, 2019.
[44] NYS Office of Temporary and Disability Assistance, Small Area Income and Poverty Estimates Program (SAIPE): U.S. Bureau of the Census, 2019.
[45] New York City Department of Health and Mental Hygiene. Epiquery: NYC Interactive Health Data System – Birth Data (2000-2016)
[46] Cowan, P. & Cowan, C. (2014). Controversies in couple relationship education: Overlooked evidence and implications for research and policy. *Psychology, Public Policy, and Law, 20*, 361-383.
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[49] Pinquart, M., & Teubert, D. (2010). A meta-analytic study of couple interventions during the transition to parenthood. *Family Relations, 59,* 221–231.

workshop, and the majority of couples completed the full cycle of workshops. In contrast, in the Building Strong Families (BSF) evaluation of relationship education, only 17% received a sufficient dosage (and 45% of program couples did not attend a single workshop).[50] Interestingly, the BSF study site in Oklahoma City, 80% of the couples received a hefty dose of relationship education (24 hours), and the researchers found a statistically significant impact on relationship quality, romantic involvement, co-parenting, and father involvement after 15 months.

The overall goal of our exploratory analyses was to examine those factors and sub-groups that account for the observed association between healthy marriage and relationship education (HMRE) services and relationship quality. Although the SHM and PACT studies demonstrated consistent positive impacts on relationship quality, we were interested not only in relationship satisfaction, but also in previously unexplored constructs related to relationship quality: relationship knowledge and skill acquisition, emotional intelligence, relationship commitment, and relationship hope. In particular, we were interested in examining whether, after the relationship education intervention, our clients are showing increased relationship satisfaction. Additionally, we assessed how much clients actually learned during the course of the relationship education program. Many studies have examined the impact of relationship education workshops on many different relationship quality outcomes, but studies to date have not directly assessed the amount of learning achieved. Since we have not identified any existing tests of relationship knowledge, we have devised our own relationship knowledge test. Given that relationship knowledge and skills are related to emotional intelligence, we also examined whether clients who received our intervention also showed increased emotional intelligence six months later.

Additionally, since we strongly believe that dosage in relationship education matters, we examined whether dosage of services is associated with relationship quality, in other words whether receiving a higher dosage of services is related to improvements in relationship satisfaction, relationship knowledge and skills, and emotional intelligence. We also sought to explore who is most likely to benefit from HMRE, and why they benefit. More specifically, no prior HMRE study has examined relationship commitment as a critical variable, either as a characteristic of the participating couples or as an outcome measure. Therefore, we examined whether clients that are more committed at intake (measured in terms of relationship status, duration of relationship, or relationship commitment scale scores) are more likely to attend more workshops, learn more relationship knowledge and skills, become more emotionally intelligent, and/or show increased relationship satisfaction. We also examined a related, but independent, construct: hopefulness about the relationship. Based on our clinical experience with thousands of couples, we have observed that many low-income couples under stress are extremely cynical and hopeless about the prospect of getting their needs met in their relationship, and that there are extremely high levels of infidelity among this population. Given this cynicism and hopelessness, we examined whether clients that are more hopeful at intake (measured in terms relationship

[50] Wood, R., McConnell, S., Quinn, M., Clarkwest, A., & Hsueh, J. (2010). *Strengthening Unmarried parents' relationships: The early impacts of building strong families*. Washington DC: Mathematic Policy Research.

hopefulness scale scores) are more likely to attend more workshops, learn more relationship knowledge and skills, become more emotionally intelligent, and/or show increased relationship satisfaction.

The following report provides a summary of Montefiore's descriptive evaluation of Supporting Healthy Relationships in the Bronx, NY. The report includes: (a) description of the intended intervention, (b) research questions, (c) study design, (d) findings and analysis approach, and (e) discussion and conclusions.

B. Description of the intended intervention

This section describes the intervention condition as it was intended to be, and includes: (a) intervention components, (b) intervention content, (c) intervention dosage and implementation schedule, (d) intervention delivery, (e) education and training of staff, and (f) target population.

Intervention components: This is a multi-component intervention in which parenting, or soon-to-be parenting, couples receive psychoeducational core workshops in relationship skills, extended activities (supplemental workshops and social events) to supplement the core curriculum, workshops and job clubs on economic stability topics, case management, and booster sessions as needed.

Intervention content: The core relationship education workshop curriculum is based on Gottman's Bringing Baby Home curriculum, modified to include the Speaker-Listener Technique from Stanley & Markman's PREP. Topics are outlined below:

1. **Mistakes Couples Make: The 4 Train Wrecks:** Couples learn to identify warning signs that they need to get their relationship back on track, and learn how an atmosphere of appreciation can strengthen their relationship.
2. **Understanding Anger: Taking a Break:** Couples learn how to protect their relationship from destructive arguments by taking a break when they are at their boiling point.
3. **Communication: The Gentle Start-Up:** Couples learn to practice respectful communication to reduce criticism and defensiveness, and increase their chances of being heard.
4. **Communication: Speaker-Listener Skills:** Couples learn effective communication techniques to help them listen to each other's perspectives.
5. **Joining Forces: Negotiation & Compromise/Money Talk:** Couples practice skills to help them compromise and solve problems effectively, and discuss the importance of communicating about money to ensure financial health.
6. **Sore Spots: Understanding Our Issues:** Couples understand how past hardships may impact their interactions with each other.
7. **Commitment & Relationship Repair: Recovering After an Argument:** Couples learn how to repair and reconnect after a fight, and how commitment is essential to a healthy relationship.

8. **Destructive Dialogues: Breaking Stuck Patterns:** Couples understand how defensive patterns mask underlying emotions, and prevent them from feeling close.
9. **Deepening Our Connection: Enhancing Vulnerability & Trust:** Couples learn new dialogues that involve expressing their underlying emotions and needs, thereby enhancing vulnerability and trust.
10. **Focusing on Intimacy: Talking About Sex:** Couples understand the relationship between sex and affection, and the importance of talking about and making time for intimacy.
11. **Parenting: Being a Coach To Your Children:** Couples learn how to use the skills already learned to communicate effectively with their children.
12. **Review & Graduation:** Couples review the important skills learned and celebrate their accomplishments.

Extended activities included social events (e.g., paint night, sushi night, karaoke night, movie night, ice cream social) and supplemental workshops on topics such as social media and trust, parenting, infidelity, anger management, and stress management. Supplemental economic stability workshops and job clubs include communicating about money and careers, job search strategies, resume preparation, interview skills, networking, career advancement, planning for the future, and financial literacy.

Intervention dosage and implementation schedule. The original core curriculum is a 12-week workshop, with sessions occurring once a week for 3 hours per session, for a total of 36 hours. However, we also provided more condensed versions of the curriculum to accommodate the varying needs of our clients. Extended activities were delivered monthly or bi-monthly and are 3 hours long. Individualized booster sessions, employment appointments, and case management appointments were an hour long and were provided on an as-needed basis. Booster sessions were provided specifically to reinforce the skills and knowledge learned in the workshops. Employment appointments were conducted by our employment specialist to assist clients with financial stability and job placement. Case management appointments were provided to connect clients with community resources. In addition to the 36 hours of workshops, we expected that couples would receive 5 hours of these supplemental services, totaling 41 hours, and anticipated that the average dosage would be 21 hours. Because of the unique combination of external stressors faced by the Bronx population, especially under- or unemployment, trauma history, housing difficulties, and complications due to blended family dynamics, there were challenges related to delivering the curriculum as intended. SHR's core curriculum was intended to be delivered over 36 hours (12 3-hour sessions) on weeknights. However, to meet the varying needs of our participants, we needed to be more flexible in offering condensed or intensive versions of the curriculum, delivered over one weekend day (8 hours), 2 weekend days (16 hours), or 9 weeknights (27 hours). Offering weekend intensives and a shorter weeknight program allowed us to recruit a larger number of participants who were unable to commit to the 12-week program (i.e., due to work schedules).

Intervention delivery. Core relationship skills workshops, economic stability workshops and job clubs, and extended activities were provided in a group format by at least two trained facilitators in every session. Booster sessions, employment appointments, and case management appointments were provided by a trained clinician or employment specialist. Majority of our services were delivered on-site at our South Bronx headquarters; however, we also delivered our services at our 10 partner sites, including community-based organizations, other Montefiore clinics (such as Obstetrics or Women Infant Children clinics), and churches located within the Bronx and the New York City Metropolitan area. Our services were available in both English and Spanish.

Target population. All components of the intervention were intended to be delivered to low-income parenting or soon-to-be parenting couples that were located mostly in the South Bronx and other New York City Metropolitan locations. Majority of enrolled couples had a reportable income of below 200% of poverty level. Economic stability workshops, job clubs, and employment appointments were often delivered to individual members of the couple who need job search assistance.

Table I.1. Description of intended intervention components and target populations

Component	Curriculum and content	Dosage and schedule	Delivery	Target population
Relationship skills workshops	CORE curriculum (based on Bringing Baby Home, with Speaker-Listener from PREP)	12 weeks, 3 hours each	Group lessons provided at the intervention's facilities by two trained facilitators in every session	Low-income parenting or soon-to-be parenting couples
Economic stability workshops & job clubs	Communicating about money & careers, job search strategies, resume preparation; interview skills; networking, career advancement, planning for the future, financial literacy	Monthly 3-hour workshops	Workshops are provided by two trained facilitators	Individual members of the couple who need job search assistance
Extended Activities (supplemental workshops & social nights)	Social events (paint night, sushi night, karaoke night, movie night, ice cream social) & supplemental workshops on topics such as social media and trust, parenting, infidelity, anger management, and stress	Monthly or bi-monthly 3-hour workshops or social events	Workshops are provided by two trained facilitators	Low-income parenting or soon-to-be parenting couples
Individualized employment and case management services and individualized relationship education booster sessions	Depending on couple's/individual's needs	As needed	These individual appointments are provided by trained clinicians	Low-income parenting or soon-to-be parenting couples and/or individual members of the couple

Education and training of staff. We welcome facilitators and clinicians of all genders and cultural backgrounds. Facilitators and clinicians are required to either hold a master's or doctorate degree in social work, counseling, psychology, or a related field, or be currently pursuing one of these degrees. All facilitators must attend a one-day intensive training in the curriculum twice-annually, as well as attend a weekly 1.5-hour group supervision/didactic training (led by staff psychologists) and receive one hour of individual supervision (provided by staff psychologists). All workshops are co-facilitated and/or observed by staff psychologists.

Table I.2. Staff training and development to support intervention components

Component	Education and initial training of staff	Ongoing training of staff
Relationship skills workshops	Staff are diverse in terms of gender and cultural background Master's or doctorate degree in social work, counseling, psychology They must attend a one-day intensive training in the curriculum twice-annually.	Weekly 1.5-hour group supervision/didactic training led by staff psychologists 1 hour of individual supervision provided by staff psychologists All workshops are co-facilitated and/or observed by staff psychologists
Economic stability workshops and job clubs	Same as above	Same as above
Extended Activities (supplemental workshops & social nights)	Same as above	Same as above
Employment appointments, booster sessions, case management appointments	Same as above	Same as above

II. OUTCOMES STUDY

A. Research questions

The overall goal of our exploratory analyses was to examine those factors and sub-groups that account for the observed association between healthy marriage and relationship education (HMRE) services and relationship quality. In particular, we were interested in examining whether, after receiving HMRE, clients showed increased relationship satisfaction. Additionally, we assessed how much clients learned during the relationship education program. Given that relationship knowledge and skill acquisition is related to emotional intelligence, we also examined whether clients who received our intervention also showed increased emotional intelligence six months later. We also examined whether dosage of services is associated with relationship quality, in other words, whether attendance at a greater number of workshops is related to improvements in: relationship satisfaction, relationship knowledge/skills, and emotional intelligence. We also sought to explore who is most likely to benefit from HMRE, and why they benefit. More specifically, we examined whether clients that are more committed at the outset of the program are more likely to attend more workshops, learn more relationship knowledge and skills, and/or show improvement in their relationship satisfaction. Finally, we examined whether clients that are more hopeful at the outset are more likely to attend more workshops, learn more relationship knowledge and skills, and/or show improvement in their relationship satisfaction.

In sum, we were interested in answering the following research questions:

1. Do clients show increased relationship satisfaction after the relationship education intervention?
2. Do clients learn and retain the knowledge and skills that are taught in the relationship education intervention?
3. Do clients become more emotionally intelligent after the relationship education intervention?
4. Is dosage related to improvements in relationship outcomes?
    a. Relationship satisfaction
    b. Relationship knowledge/skills
    c. Emotional intelligence
5. Who is most likely to benefit from relationship education, and why do they benefit?
6. Are clients that are more committed more likely to:
    a. Attend more workshops (receive more dosage)
    b. Learn more relationship knowledge/skills
    c. Become more emotionally intelligent
    d. Show increased relationship satisfaction

7. Are clients that are more hopeful more likely to:
    a. Attend more workshops (receive more dosage)
    b. Learn more relationship knowledge/skills
    c. Become more emotionally intelligent

Our hypothesis is that the relationship education intervention is related to significant improvement in the quality of relationships regarding the following constructs: relationship satisfaction, knowledge/skills, and emotional intelligence. We also hypothesized that a higher dosage of relationship education would be correlated with improvements in all relationship outcomes. We also hypothesized that clients most likely to benefit from relationship education are initially more hopeful about their relationships and more committed in their relationships. Finally, we hypothesized that clients that are more committed initially and/or more hopeful initially are more likely to attend more workshops, learn more relationship skills, and become more emotionally intelligent.

B. Study design

We aimed to recruit 1,200 couples over the course of 4 years and collected data at intake and 6 months later.

1. Sample formation

The Institutional Review Board from the Albert Einstein College of Medicine serves as the IRB of record for this study and approved the study and data collection plans on February 7, 2016. To be eligible for our study, participants needed to be 18 years or older, in a committed relationship, and be expecting a child (biological, foster, or adopted), or have a child who is under 18 (biological, foster, or adopted).

Sample enrollment began on July 1, 2016, and continued until December 31, 2019. Our primary source of recruitment was from three high-volume ambulatory medical clinics at Montefiore Medical Center (serving 65,000 patients) as well as nineteen other Montefiore medical clinics throughout the Bronx (serving 300,000 patients). There was a more than adequate pool of potential participants attending appointments at these clinics, including couples, expectant parents or couples in transition to parenthood. The couples were approached in the waiting rooms of the medical clinics and Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) programs attached to these clinics. We also recruited and accepted referrals from partner community-based organizations (CBOs), local churches, and alumni couples.

After recruitment, couples were enrolled in the program during an intake appointment, which was conducted by one of our qualified relationship educators. When couples arrived, they were welcomed and given some preliminary written information about the program in order to develop questions for their meeting with the intake clinician. The intake lasted around 2 hours, and was comprised of an introduction, couple interview, and domestic violence screen (45 minutes), completion of measurement instruments (45 minutes), and service planning and scheduling (30 minutes). During the introduction, the intake clinician oriented the couples to the

program and its aims and objectives, including the local evaluation. Couples had the opportunity to ask any and all questions. The intake clinician also determined if the couple was in distress, and if either member of the couple had a significant mental health and/or substance use disorder. Couples were also informed about the various assessment measures to be completed throughout the program, and the schedule of activities that are expected. If the couple was interested in the program, then they were given informed consent forms regarding their participation in the local and federal evaluations. After they read these forms, they could ask any follow-up questions to the intake clinician. Incentives for participation were also discussed with the couple at this time. When they had a clear understanding of the processes and procedures and were ready to sign, both partners signed the form along with the intake clinician. Couples were reminded that the program is voluntary and that they can discontinue at any time without consequence. All couples that consented became a part of the evaluation.

During the domestic violence screen and completion of measurement instruments, the couple was separated from each other. The intake clinician first met with the female partner to screen for active and severe domestic violence in the relationship over the past year, and then with the male partner. (Although we did have same-sex couples enrolled in our program, they constituted less than 3% of our overall sample and were excluded from the evaluation.) Couples who were indicated through our domestic violence protocol were screened out of the program. Then, each member of the couple completed several survey instruments using an iPad.

The couple was then brought back together with the intake clinician to develop a service plan and schedule of workshops. The service plan identified any case management referrals that are needed based on the intake clinician's eligibility for various benefits and services. Couples who were interested in receiving employment services were given an appointment for an employment assessment with the employment specialist. Couples who were identified as distressed were given an appointment to meet with the relationship educator for individualized crisis services. The intake concluded with the couple being assigned a cohort for the core relationship education workshops, and the couple receiving a $50 incentive and two roundtrip MetroCards for their participation in the intake process.

2. Data collection

The intake clinicians were responsible for all data collection at intake and the data analyst was responsible at 6-month follow-up. Intake clinicians met with couples on-site for a clinical interview first, to discuss their relationship dynamics, discuss the program, and verify demographic information after couples have completed their demographic surveys on-site. Couples then completed the remaining surveys on iPads via Survey Monkey. Any missing information was collected verbally and documented. Six-month follow-up data was completed either on-site or online via Survey Monkey. We budgeted incentives of $100 to couples for data collection; $50 was provided to the couples at intake and $50 was provided at 6-month follow-up. The data analyst provided all data in de-identified form to Metis Associates, our local evaluator, who was responsible for conducting the statistical analyses. Data collected from intervention participants and administrative data collected via nFORM, the online recordkeeping

database for our program, were exported and combined into a spreadsheet. nFORM is a web-based management information system that we use to collect data (e.g. program operations, services, client characteristics and outcomes) and report information to the Office of Family Assistance (OFA) within Administration for Children and Families (ACF) Our data analyst was responsible for maintaining and cleaning the data in preparation for analysis. nFORM data was pulled from nFORM's Data Export spreadsheet. Client demographic information collected at intake and local evaluation survey information collected at both intake and at 6 months post-intake were inputted into three additional spreadsheets. Relevant data were pulled from these various spreadsheets and merged into one final spreadsheet, using client unique identifiers and couple identifiers in order to match each participant with the participant's data. Further details regarding data cleaning can be found in Appendix B.

Table II.1. Sources of data used to address outcomes study research questions

Data source	Timing of data collection	Mode of data collection	Start and end date of data collection
Intervention participants	At enrollment	In-person online survey In-person/phone interviews (including Couple Satisfaction, Hope, Commitment, Emotional Intelligence)	July 2016 through December 2019
Administrative data	At enrollment	nForm (including Demographics)	July 2016 through December 2019
Intervention participants	At 1st workshop 1-4 weeks after enrollment	In-person online survey (including measures of Knowledge/Skills)	July 2016 through January 2020
Intervention participants	At 6th workshop	In-person paper survey (including Adverse Childhood Experiences measure)	July 2016 through March 2020
Intervention participants	At follow-up 6 months after intake	In-person online survey In-person/phone interviews (including measures of Couple Satisfaction, Hope, Commitment, Emotional Intelligence, Knowledge/Skills, Usefulness of Program Services & Skills)	July 2016 through June 2020
Administrative data	At follow-up 6 months after intake	nForm (including Dosage)	July 2016 through June 2020

3. Analytic sample, outcomes, and descriptive statistics

This section will describe (1) the construction of the analytic sample used for the outcomes analysis, (2) the characteristics of the analytic sample, and (3) the outcome measures.

Participants who completed both intake and 6-month follow-up surveys were included in the analytic sample, totaling 1,029 individuals (representing at least one member of 547 couples). To

answer the first research question regarding improvements in outcomes with regard to five constructs, analytic samples were as follows: 959 individuals (522 couples) for relationship satisfaction as measured by the Couples Satisfaction Index; 893 individuals (481 couples) for relationship hope as measured by the Relationship Hope Scale; 909 individuals (488 couples) for relationship commitment as measure by the Maybe I Do scale; 837 individuals (454 couples) for emotional intelligence as measured by the Assessing Emotions Scale; and 549 individuals (292 couples) as measured by the Skills/Knowledge Assessment. These sample numbers vary due to item non-response.

Table II.2. Outcomes study analytic sample

	Number of individuals
Completed only baseline surveys	1,856
Completed a baseline (pre) survey and at least one 6-month follow-up survey*	
Couples Satisfaction Index	1,029
Relationship Hope Scale	1,027
Maybe I Do	1,027
Assessing Emotions Scale	1,027
Knowledge/Skills Assessment	911
Completed a pre-program survey and post-program survey (6 months)*	**Matched (pre and post)**
Couples Satisfaction Index	959
Relationship Hope Scale	893
Maybe I Do	909
Assessing Emotions Scale	837
Skills/Knowledge Assessment	549
Accounts for item non-response and any other analysis restrictions	
Final analytic sample	1,029
Attrition rate (%)	45%

* Only includes individuals recorded as completing a 6-month follow-up.

To maximize participation in follow-up data collection, couples were provided with incentives for survey completion, and program staff kept couples engaged during the 6-month time span by inviting them to monthly supplemental workshops, social events, and booster sessions. The below table summarizes the characteristics of participants in the outcomes study at baseline. Of note, the analytic sample mostly included individuals who lived together before marriage (74%), were married (61%), and English-speaking (67%). About half of the participants were in blended families (48%) and received public benefits (50%). Key differences between the analytic sample and the attrited sample that may affect the generalizability of the results to the enrolled population are as follows: The analytic sample included significantly more individuals who spoke English as a primary language than the attrited sample (8% difference). It also included significantly more females (7% difference), non-Hispanic Black individuals (8% difference), and married individuals (7% difference). Conversely, the analytic sample included significantly fewer Hispanic individuals (4% difference). Also notable is that the mean for number of children between both partners in the analytic sample was significantly higher than that of the attrited

sample (by 0.19), as was the mean age of the oldest child (by 1.02). Finally, the analytic sample included significantly fewer individuals who did not have a high school diploma than the attrited sample (5% difference), and significantly more individuals who had an associate's degree (4% difference). For more details regarding how the analytic sample differs from the sample that does not have follow-up data, see Table D.1 in Appendix C.

Table II.3. Characteristics of participants in the outcomes study at baseline

Characteristic	Final analytic sample
Age N = 982	**Mean = 38.00, SD = 9.49**
English as primary language N = 1,029	**67%**
Female N = 1,029 (%)	**54%**
Pregnant female N = 557 (%)	**8%**
Race/ethnicity N = 1,029 (%)	
Black (Hispanic)	8%
Black (non-Hispanic)	32%
White (Hispanic)	9%
White (non-Hispanic)	5%
Other (Hispanic)	40%
Other (non-Hispanic)	5%
Relationship status N = 1,029 (%)	
Married	61%
Years partners have been together N = 947	Mean = 10.18, SD = 7.92
Years partners living together N = 927	Mean = 8.78, SD = 7.87
Among married clients, lived together before marriage N = 489	72%
Children between both partners regardless of biology N = 1,027	Mean = 2.34, SD = 1.35
Age of oldest child N = 1,027	Mean = 10.02, SD = 7.58
Age of youngest child N = 1,027	Mean = 5.61, SD = 5.31
Monthly income at baseline N = 1,029	
Less than $500	25%
$500-$1,000	19%
$1,001-$2,000	21%
$2,001-$3,000	15%
$3,001-$4,000	8%
$4,001-$5,000	6%
More than $5,000	6%
Employment status at baseline N = 1,029	
Full-time	53%
Part-time	13%
Employed, but number of hours changes from week to week	3%
Temporary	4%
Not currently employed	28%

Characteristic	Final analytic sample
Education: Highest degree at baseline N = 1,029	
No degree or diploma earned	18%
HS GED	14%
HS diploma	15%
Vocational/technical certification	4%
Some college	17%
Associate's degree	9%
Bachelor's degree	14%
Master's/advanced degree	11%
Blended family N = 1,027	**48%**
Adverse childhood experience total score N = 720	**Mean = 2.88, SD = 2.59**
Received public benefit (N = 1,029)	**50%**
Total sample size	**1,029**

Note: Race/ethnicity: Race consists of Black or African American, White, and Other (including Native American, Asian, and Pacific Islander). Ethnicity consists of Hispanic or non-Hispanic. Blended Family is defined as any participant who has at least one child from a previous relationship. Due to no response to some questions, base Ns may smaller than 1,029

The below table summarizes the measures used to answer the outcomes study research questions. These include domains related to outcome (commitment, hope, relationship satisfaction, knowledge/skill acquisition, and emotional intelligence); process (dosage, usefulness of program services and skills; and demographics (age, gender, marital status, longevity of relationship, family composition, stressors, childhood trauma). Since a measure of relationship knowledge or skills doesn't already exist, we developed our own measure that includes various scenarios of couples in conflict. Participants choose from several possible responses by each partner in the scenario. Aside from observing couple interactions, we believe this is the most accurate way of determining whether an individual knows how to interact with their partner in a healthy way—in other words, has acquired relationship knowledge and skills. To ensure the integrity of the metrics, cases with missing data were excluded from all analyses. In other words, scales were not constructed for individuals who did not respond to all items required for calculation.

Table II.4. Measures used to answer the outcomes study research questions

Domain	Description of measure	Source of measure	Timing of measure
Outcome			
Commitment	Commitment is assessed using **Maybe I Do**[a]. This outcome measure is a 4-item measure of commitment that uses a Likert scale of measurement (value 1 – 5, ranging from strongly disagree to strongly agree), calculated by summing the responses across all items. Higher scores indicate higher levels of commitment and scores below 12 indicate a deficit in commitment. ***Cronbach's alpha: [0.592]****	Local evaluation survey	At enrollment and at 6-month follow-up

Domain	Description of measure	Source of measure	Timing of measure
Hope	Hope is assessed using the **Relationship Hope Scale**[b]. This outcome measure is a newly developed 5-item scale that uses a Likert scale of measurement (value 1 – 7, ranging from strongly disagree to strongly agree), calculated by taking the average of all response items. Higher scores indicate higher levels of hope and averaged scores below 5 indicate significantly low hope. ***Cronbach's alpha: [0.925]***	Local evaluation survey	At enrollment and at 6-month follow-up
Relationship satisfaction	Relationship satisfaction is assessed using the **Couples Satisfaction Index-32**[c]: Considered the gold standard, this measure detects differences in relationship satisfaction with great precision. This outcome measure is a scale (value 0 to 5 and 6 for one item, ranging from never; extremely bad; extremely unhappy; not at all true; always disagree, to more often; extremely good; perfect; completely true; always agree), calculated by summing the responses across all of the items. Scores can range from 0 to 161. Higher scores indicate higher levels of relationship satisfaction and scores falling below 104.5 suggest notable relationship dissatisfaction. ***Cronbach's alpha: [0.969]***	Local evaluation survey	At enrollment and at 6-month follow-up
Knowledge/skill acquisition	Knowledge/skill acquisition is assessed using the **Knowledge/Skills Assessment**. Two versions of this 14-item outcome measure were developed by program staff. The measure is a multiple-choice assessment using scenarios describing couples in conflict to determine whether couples learned skills and techniques taught at workshops. This measure is calculated by obtaining the percentage of correctly-scored items. Higher scores indicate great skill acquisition. ***Pearson Correlation Coefficient: [0.573]*****	Local evaluation survey	At 1st workshop and at 6-month follow-up
Emotional intelligence	Emotional intelligence is assessed using the **Assessing Emotions Scale**.[d] This outcome measure is a 33-item measure of emotional intelligence that uses a Likert scale of measurement (value 1 – 5, ranging from strongly disagree to strongly agree), calculated by summing the responses across all items. Higher scores indicate higher levels of emotional intelligence. For men, scores below 109 indicate low emotional intelligence; scores between 109 and 131 indicate average emotional intelligence; and scores above 131 indicate high emotional intelligence. For women, scores below 116 indicate low emotional intelligence; scores between 116 and 145 indicate average emotional intelligence; and scores above 145 indicate high emotional intelligence. ***Cronbach's alpha: [0.914]***	Local evaluation survey	At enrollment and at 6-month follow-up

Domain	Description of measure	Source of measure	Timing of measure
Process			
Dosage	Hours of workshops, employment services, and booster sessions attended. For every hour that a client participated in a service, they were assigned a respective 1 for dosage. e.g., A client who attended 12 workshops (3 hours each), 3 employment sessions (1 hour each), and 2 booster sessions (1 hour each) would be assigned 41 dosage hours	nFORM	At 6-month follow-up
Usefulness of program services and skills	Feedback survey includes questions regarding the usefulness of the program components and the skills learned in the workshops. Three of these questions focus specifically on relationship and communication skill usefulness (value 1 – 5, ranging from not very useful to very useful), difficulty level of relationship and communication skill usage (value 1 – 5, ranging from not difficult to very difficult), and frequency of relationship and communication skill usage (value 1 – 5, ranging from never to very often). These are the questions that will be utilized in the analysis. Since these questions ask about each skill that was taught at the workshops, composite scores are created for each question, and then the total mean of the sample is calculated for each question. These composite scores are compared with the Skills Assessment percentage scores to identify possible correlations.	Local evaluation follow-up survey	At 6-month follow-up
DEMOGRAPHICS			
Age, gender, marital status, longevity of relationship, family composition, stressors, childhood trauma	Demographic information is obtained via self-report: age, gender, race, marital status, longevity of relationship, family composition, identified stressors; and childhood trauma using the **Adverse Childhood Experiences Questionnaire**.[e] The ACE is a 10-item outcome measure of childhood trauma that uses a binary scale of measurement (yes=1, no=0), calculated by summing the responses across all items. Higher scores indicate a greater amount of adverse childhood experiences. Scores greater than 3 are considered to indicate significant childhood trauma.	nFORM applicant characteristics Intake interview	At enrollment and at 6th workshop (ACE)

[a]Stanley, S. M., Whitton, S. W., & Markman, H. J. (2004). Maybe I do: Interpersonal commitment and premarital or nonmarital cohabitation. Journal of family Issues, 25(4), 496-519.

[b]Erikson, S. (2015). Got hope? Measuring the construct of relationship hope with a nationally representative sample of married individuals. Masters thesis, Brigham Young University, Provo, UT.

[c]Funk, J. L., & Rogge, R. D. (2007). Testing the ruler with item response theory: increasing precision of measurement for relationship satisfaction with the Couples Satisfaction Index. Journal of Family Psychology, 21(4), 572.

[d]Schutte, N. S., Malouff, J. M., & Bhullar, N. (2009). The assessing emotions scale. In Assessing emotional intelligence (pp. 119-134). Springer, Boston, MA.

[e]Felitti, V. J. (2009). Adverse childhood experiences and adult health. *Academic Pediatrics*, *9*(3), 131-132.

* We were unable to utilize this measure for analysis due to its low score of internal consistency for this sample.

** Cronbach's alpha is not meaningful for this measure since it is measuring a series of knowledge items and not a unique construct. Correlations between the two versions of this measure were assessed instead to determine whether the versions were compatible with each other.

C. Findings and analysis approach

Consistent with our hypotheses, at six-month follow-up, we found that clients show a significant increase in relationship satisfaction, emotional intelligence, and relationship knowledge and skills. We also found that, inconsistent with our hypothesis, dosage is not related to improvements in relationship satisfaction, emotional intelligence, or relationship knowledge/skills. Clients who may benefit most from attending the workshops include those of Hispanic ethnicity (relationship satisfaction), individuals in relationships for longer periods of time (emotional intelligence), and clients with more total children and more education (relationship knowledge and skills). Finally, we found that, inconsistent with our hypotheses, clients who are less hopeful are more likely to attend more workshops and become more satisfied in their relationships.

Research Questions: Changes in Relationship Outcomes:

A. **Do clients show increased relationship satisfaction after the relationship education intervention?**

B. **Do clients learn and retain the knowledge and skills that are taught in the relationship education intervention?**

C. **Do clients become more emotionally intelligent after the relationship education intervention?**

Key Findings:

- Couples show *a significant increase* in **relationship satisfaction** 6 months later.
- Couples show *a significant increase* in **relationship knowledge and skills** 6 months later.
- Couples show *a significant increase* in **emotional intelligence** 6 months later.

Analysis approach. To answer our first research question, paired sample t-tests were conducted to compare pre and post data measuring the following constructs: relationship satisfaction, relationship knowledge and skills, and emotional intelligence. Individual baseline scores were compared to subsequent post scores to determine whether the difference that occurred over the course of treatment was statistically significant ($p < 0.05$). All analyses were conducted with IBM SPSS software.

Key findings. Consistent with our hypotheses, three of the comparisons showed statistically significant positive findings from pre to post. Statistically significant growth with an average increase in score of 5.79 was observed for the Couple's Satisfaction Index ($p < 0.001$). A statistically significant increase was noted for the Skills/Knowledge Assessment at 6-month follow-up (an average 8% gain; $p < 0.001$). Likewise, a statistically significant increase (5.04) between baseline and 6-month follow-up was observed for the Emotional Intelligence Scale ($p < 0.001$).

Table II.5. Changes in outcome measures from baseline to follow-up

Outcome	Sample size	Mean outcome at baseline	Mean outcome at follow-up	Difference in means	*p*-value of the difference
Couple's Satisfaction Index	959	98.81	104.60	5.79	0.000***
Skills/Knowledge Assessment	549	52%	60%	8%	0.000***
Emotional Intelligence Scale	837	125.15	130.18	5.04	0.000***

*** Significantly different from zero at the .01 level, two-tailed test.

Research Question: Is dosage related to improvements in relationship outcomes:

A. Relationship satisfaction;

B. Relationship knowledge/skills; and/or

C. Emotional intelligence?

Key Findings:

- Dosage is *not associated with* improvements in relationship satisfaction, relationship knowledge and skills, or emotional intelligence.

Analysis approach. To answer our fourth research question, we used Pearson product-moment correlations to determine the strength of the relationship between dosage and observed change in outcomes. Dosage was measured by the hours of workshops, employment services, and booster sessions attended. For every hour that a client participated in a service, they were assigned a respective 1 for dosage. For example, a client who attended 12 workshops (3 hours each), 3 employment sessions (1 hour each), and 2 booster sessions (1 hour each) would be assigned 41 dosage hours. Change in outcome for each client was measured as the client's pre-score subtracted from his/her 6-month follow-up score. An observed positive change therefore denoted growth or improvement from pre- to follow-up measurement. All analyses were conducted with IBM SPSS software.

Key findings. All three of the computed correlations failed to show a significant relationship between dosage and changes in observed outcomes. The observed correlation coefficients ranged from -0.042 (emotional intelligence) to 0.064 (relationship skills), with 0.035 observed for couple satisfaction.

Table II.6. Correlations determining the relationship between dosage and outcomes

	N	Pearson *r*	*p*-value (2-tailed)
Dosage x Change in Couple Satisfaction	958	0.035	0.273
Dosage x Change in Emotional Intelligence	836	-0.042	0.226
Dosage x Change in Skills Assessment	549	0.064	0.133

Research Question: Who is most likely to benefit from relationship education, and why do they benefit?

Key Findings:

- Clients whose *primary language is Spanish* are significantly associated with increased **relationship satisfaction**.
- Clients who have *older children* are significantly associated with improved **emotional intelligence**.
- Clients who are in a *blended family* are significantly associated with improved **relationship knowledge and skills**.

Analysis approach. To determine who is most likely to benefit from relationship education, we developed multiple linear (for continuous outcomes) or logistic (for binary outcomes) regression models to determine whether membership in specific subgroups predicted outcomes while controlling for possible confounding variables. Using the demographic and pre/post data collected, we developed a set of predictive models to assess the relationship between couple characteristics, relationship measures, treatment dosage, and skills/knowledge attainment (i.e. covariates). We conducted a series of analyses with the intent of creating, for each outcome, the best possible model to explain the variation in outcomes through a pre-selected set of predictors. However, as listwise deletion was used to generate models, the process was empirical and iterative, with the elimination of items from models as necessary to bolster Ns and thereby increase the representativeness and power of the analyses. Bidirectional stepwise selection was used to ensure that final models only contained variables that had significant predictive value to observed outcomes. Predictors were considered statistically significant based on F-tests that achieve statistical significance at $p < 0.05$. A list of the starting variables for all predictive models is provided below in Table II.7A. All analyses were conducted with IBM SPSS software.

Key findings. All three regression models showed that membership in subgroups were significant predictors of improvements in outcomes. For relationship satisfaction, clients whose primary language was Spanish were significantly associated with greater gains. Clients with older children (as measured by the age of the youngest child) were associated with greater gains in emotional intelligence. Finally, clients in blended families were associated with greater gains in relationship skills. It should be noted, however, that the amount of variance in the predicted outcome for all three regression models was extremely low even though the range of outcome scores appeared appropriate for the analysis (see Table II.7C). As expressed by R^2, a measure that estimates the predictive power of a regression model, models ranged from 0.010 to 0.016, suggesting that most of the variance in the observed outcomes was unexplained by the final models.

Table II.7A. Variables included in the regression analyses

Age	Black	Hispanic	Primary language	Marital status	Total dosage hours	Blended family	Highest education	Monthly income
Received public assistance	Number of years together	Number of years living together	Total number of children	Age of oldest child	Age of youngest child			

Table II.7B. Summary statistics of key variables in the regression analyses

Characteristic	N	Mean	SD	Min	Max	Range
Dosage	1,028	23.63	13.48	0	75	75
Change in Relationship Satisfaction	959	5.79	33.65	-133	118	251
Change in Emotional Intelligence	837	5.03	23.05	-95	108	203
Change in Skills Assessment	549	8.01	19.69	-50	71.43	121.43

Table II.7C. Regression models of the relationship between client characteristics and changes in outcomes

Characteristic				
Change in Relationship Satisfaction				
Regression model R^2 = 0.010, N = 789	**Change in R^2**	**Beta**	**Standard error**	***p*-value**
Primary language	0.010	7.136	2.583	0.006
Change in Emotional Intelligence				
Regression model R^2 = 0.014, N = 670	**Change in R^2**	**Beta**	**Standard error**	***p*-value**
Age of youngest child	0.014	0.531	0.171	0.002
Change in Skills Assessment				
Regression model R^2 = 0.016, N = 483	**Change in R^2**	**Beta**	**Standard error**	***p*-value**
Blended family	0.016	4.864	1.754	0.006

Research Questions: Are couples that are more committed and/or more hopeful more likely to:

A. Attend more workshops (receive more dosage)?

B. Learn more relationship knowledge and skills?

C. Become more emotionally intelligent?

D. Show increased relationship satisfaction?

Key Findings:

- Initial hope is *negatively correlated* with **dosage**.
- Initial hope is *not related* to changes in **relationship knowledge/skills** or changes in **emotional intelligence**.
- Initial hope is *negatively correlated* with increased **relationship satisfaction**.

Analysis approach. The commitment scale for our sample yielded a low score of internal reliability (Cronbach's alpha: 0.592), and we were therefore unable to utilize this scale in our analysis. To respond to the research question regarding hope, we used Pearson product-moment correlations to determine the relationship between client hope and increased dosage, relationship skills, emotional intelligence, and relationship satisfaction. Bivariate correlations were computed using baseline client hope scores along with changes in the selected outcomes. Change in outcome for each client was measured as the client's pre-score subtracted from his/her 6-month follow-up score. An observed positive change therefore denoted growth or improvement from pre- to follow-up measurement. Dosage was measured in the same fashion as described in the approach for research question "Is dosage related to improvements in relationship outcomes?" All analyses were conducted with IBM SPSS software.

Key findings. The computed correlations showed that lower starting relationship hope was associated with greater workshop attendance and greater gains in couple satisfaction. The observed coefficient was -0.114 for dosage and -0.113 for satisfaction. The computed correlations also failed to show a significant relationship between hope and relationship skills or emotional intelligence gains. The observed correlation coefficient for relationship skills was 0.005 and -0.020 for emotional intelligence.

Table II.8. Summarizing correlations

Characteristic	N	Pearson r	Sig. (2-tailed)
Baseline Hope x Total Dosage Hours	1,026	-0.114	0.000***
Baseline Hope x Skills Gain	548	0.005	0.914
Baseline Hope x Emotional Intelligence Gain	837	-0.02	0.569
Baseline Hope x Couple Satisfaction Gain	957	-0.113	0.000***

*** Significantly different from zero at the .01 level, two-tailed test.

III. DISCUSSION AND CONCLUSIONS

The current study's findings highlight several key lessons that could inform other relationship education programs serving low-income couples like those in the Bronx.

Relationship education is related to improvements in relationship satisfaction. This finding is consistent with our hypotheses, as well as findings in our two prior iterations. Because this has been such a consistent finding, we intentionally measured relationship satisfaction more generally using the Couples Satisfaction Index, a gold standard in evaluating relationship quality. Rather than further examining the different components of relationship quality, such as what the Dyadic Adjustment Scale might have shown (e.g., consensus, satisfaction, cohesion, affective expression), we instead examined other constructs related to relationship quality (see discussion below). This finding regarding relationship satisfaction confirms what previous research has already found—that relationship education can work![51]

Relationship education is related to improvements in both relationship knowledge and skills and emotional intelligence. Relationship knowledge and skills and emotional intelligence showed a significant improvement at six months, suggesting that not only are clients more satisfied in their relationships, they are also more knowledgeable about and skillful within them, and this new knowledge is sustained in the long term. No prior study has examined whether clients learn and retain the knowledge and skills that are taught. Emotional intelligence is related to relationship knowledge and skills, and arguably is an important foundation for healthy relationships, as it requires the ability to understand and manage your own emotions, and those of the people around you. It involves self-awareness, self-regulation, motivation, empathy, and social skills, and is particularly essential in maintaining healthy family relationships.[52] If clients are becoming more satisfied, in what way might relationship education help facilitate this gain? It makes sense that it might do so by giving clients the knowledge and skills necessary to navigate their relationships more effectively.

Relationship education is a high-demand service, but may need to be delivered flexibly in order to meet demand. The large number of participants we were able to recruit for our study (N = 1,029) suggests that there is interest in relationship education programming among low income populations. However, meeting the needs of our clients required modifying service delivery by offering condensed or intensive versions of the curriculum. Although our participants received an average of 24 hours of curriculum, many participants received a much lower dosage, and overall the range in dosage was wide, from as low as 8 hours to as many as 40 hours. We regret the heterogeneity of delivery without random assignment, as it prevented us from examining the association between dosage and relationship outcomes. Dosage was confounded by type of participant; it is possible that psychologically healthier and employed couples took the

[51] Hawkins, A. (2019). Are federally-supported relationship education programs for lower-income individuals and couples working? A review of evaluation research. *American Enterprise Institute.*
[52] Goleman, D. (1996). Emotional intelligence: Why it can matter more than IQ. *Learning, 24(6),* 49-50.

intensive workshops and therefore had lower dosage. We regret that we couldn't eliminate these confounds in order to better answer the dosage question.

Clients who less hopeful are more likely to attend more workshops and/or show gains in relationship satisfaction. Although initially perplexing, and inconsistent with our hypotheses, this finding is possibly due to a "ceiling effect" for more hopeful clients. They are already hopeful, and therefore cannot get any more so. Conversely, less hopeful clients are particularly distressed in their relationships. These clients often come to SHR on the verge of break-up, separation, or divorce, and see the 12-week workshop as a last chance to save their relationship. These clients are feeling hopeless in their relationships at this point; they are willing to let go if this last effort does not pay off. As such, they not only take full advantage of the workshop programming in order to maximize their efforts, but they also see the highest gains, given how distressed they were to begin with.

Certain subgroups of clients saw bigger improvements in outcomes after relationship education, on average. These subgroups include clients whose primary language is Spanish, clients with older children, and clients in blended families.

Clients whose *primary language is Spanish* are more likely to show gains in **relationship satisfaction**. Many of the families we serve in the Bronx only speak Spanish, and therefore find it rare to be able to access free programming such as ours because of the language barrier. The gains in relationship satisfaction (but not in other outcomes), may be a byproduct of getting much-needed family support.

Clients in a *blended family* are more likely to show gains in **relationship knowledge and skills**. Of note, 48% of participants are in blended families, in which at least one partner has a child from a previous relationship that may or may not live with them. Having to navigate the challenges of blended family dynamics, they may have more at stake when it comes to learning and applying healthy communication skills. It is therefore possible that these clients are having greater opportunity to utilize relationship knowledge and communication skills not only with their partners, but also with their children.

Clients who have *older children* (as measured by the age of their youngest child) are more likely to show gains in **emotional intelligence**. Emotional intelligence involves being attuned to one's own emotions as well as to the emotions of others. Individuals who have older children typically have been together with their partners longer, and therefore know their partners' emotional worlds well. They also have more experience in childrearing and responding to the changing emotional needs of a growing child, even though they may not have the language to label and express these emotions. Relationship education may help them identify these emotions and learn how to express them appropriately, hence their being able to make these gains.

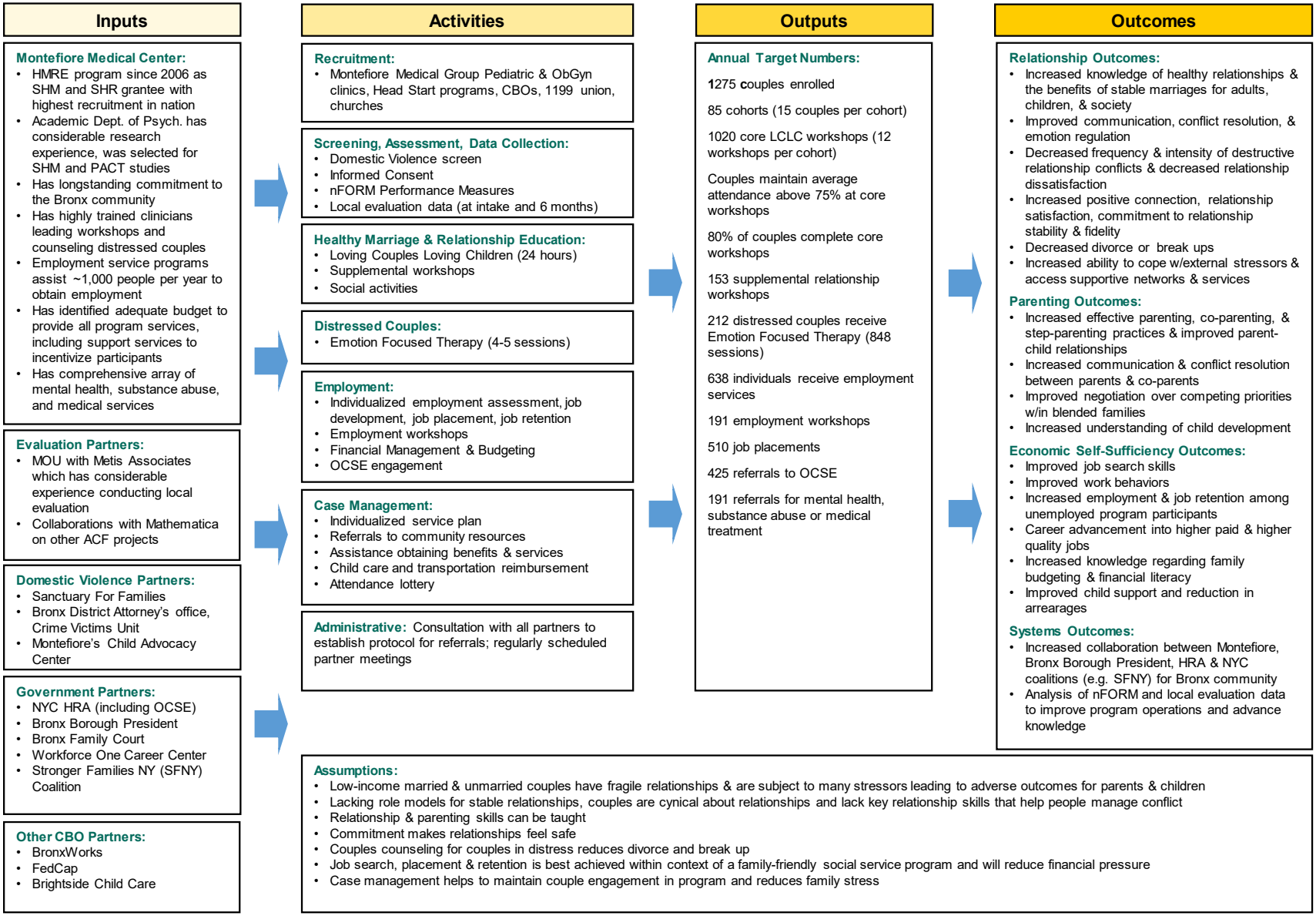
In conclusion, relationship education is related to improvements in relationship satisfaction, relationship knowledge and skills, and emotional intelligence. Although dosage may not be related to improvements in outcomes, it is difficult to make a definitive conclusion, given that dosage was confounded by type of participant. Several subgroups see especially large gains

following relationship education, but most notable are clients who are less committed and less hopeful. These particularly distressed couples are more likely to both attend more workshops and show improvements in relationship satisfaction.

Limitations and implications for further research. The current study had several notable limitations. First, our research questions were narrow in focus. We were interested specifically in emotional intelligence and relationship knowledge. Although we were able to answer our original research question, we did not further examine whether these factors were associated with other important outcomes, such as relationship stability, marital status, employment, and income, which have been addressed in previous federal evaluations. Second, we only looked at relationship satisfaction as measured by the CSI, given that prior studies had already examined many other facets of relationship quality, such as reduction in destructive conflict, increased marital stability, increased positive communication, and increased commitment. We also did not study other important outcomes, such as second-generation effects. Third, notable differences between the attrited sample and the analytic sample may hinder the generalizability of results to the populations served. For example, the subgroups that saw bigger improvements in outcomes—Hispanic clients, more educated clients, and clients with more children—were differentially represented. The analytic sample included a lower proportion of Hispanic clients, a lower proportion of clients who received a high school diploma, a higher proportion of clients who received an associate's degree, and a lower total number of children. Finally, the intended intervention was delivered in a heterogenous way, leading to confounds, which prevented us from effectively determining whether dosage of relationship education was related to relationship outcomes. Further research should build on our current findings by examining the link between relationship knowledge and emotional intelligence and other variables, such as employment, income, marital stability, and second-generation effects.

IV. APPENDICES

A. Logic model for program



B. Outcomes study data cleaning and preparation

The data analyst ensured and monitored high quality data collection and organization. The data analyst met weekly with the Project Director to discuss updates on data collection and procedures and to troubleshoot any challenges. Submitted data was monitored on a daily and weekly basis by reviewing the reports, query tools, and Data Export provided by nFORM. nFORM is a web-based management information system that each HMRF grantee uses to collect data (e.g. program operations, services, client characteristics and outcomes) and report information to the Office of Family Assistance (OFA) within ACF. Any nFORM issues were addressed immediately, in consultation with the Project Director.

To maximize participation in follow-up data collection, program staff kept couples engaged in the program by inviting them to monthly supplemental workshops and social events, as well as additional booster sessions. Couples received incentives for participating in these additional activities, such as $50 for attending 3 booster sessions or extended activities. This continual engagement increased response rates at 6-month follow-up. Couples were offered various means of completing follow-up data collection, including over the phone and online. Couples received $50 for their participation in follow-up data collection. In addition, for non-responsive couples, staff made 9 outreach attempts (3 phone, 3 text, 3 email) before ceasing outreach directly to the couple. At that point, additional contacts were also contacted, and provided an incentive.

Overall and differential attrition rates were monitored by generating progress reports every two weeks to assess participant progress and determine whether outreach was needed. The data analyst outreached participants when lapses are noticed or when surveys were due. In addition to providing incentives for completing surveys, these processes allowed for high rates of data collection and program completion.

Before data was transferred to Metis Associates, the data analyst cleaned, organized, and aggregated the data and then deidentified all participant information to ensure privacy of study participants. Metis Associates, our local evaluator, were provided secure access to a secure server and given permissions to download the local evaluation and performance data in the de-identified form alone.

C. Attrition analyses and tables

Descriptive statistics were provided for all baseline participants, which include sample size, demographics, relationship variables (commitment, hope, relationship satisfaction, and emotional intelligence). Separate sets of descriptive statistics were also provided for participants who completed both baseline and 6-month follow-up measures and for those who only completed baseline measures. The baseline means of the two groups' variables and measures were compared to each other to provide a clearer picture of the subsample not included in the analyses and possible attrition bias.

Several differences in key baseline measures between the analytic sample and attrited sample are worth noting. The analytic sample included significantly more individuals who spoke English as a primary language than the attrited sample (8% difference). It also included significantly more females (7% difference), non-Hispanic Black individuals (8% difference), and married individuals (7% difference). Conversely, the analytic sample included significantly fewer Hispanic individuals (4% difference). Also notable is that the mean for number of children between both partners in the analytic sample was significantly higher than that of the attrited sample (by 0.19), as was the mean age of the oldest child (by 1.02). Finally, the analytic sample included significantly fewer individuals who did not have a high school diploma than the attrited sample (5%), and significantly more individuals who had an associate's degree (4%).

Table C.1. Summary statistics of key baseline measures and baseline differences for the analytic sample compared with enrollees who did not complete follow-up data collection, for individuals 6 months later

Baseline measure	Mean for the analytic sample (standard deviation)	Mean for individuals enrolled in the study but not in the analytic sample (standard deviation)	Difference ([p]-value of difference)
Age	N = 982, Mean = 38.00, SD = 9.45	N = 770, Mean = 38.14, SD = 9.53, SE = 0.34	0.14 (0.768)
English as primary language (Ns = 1,029; Na = 827)	67%	59%	-8% (0.002***)
Female (%) (Ns = 1,029; Na = 827)	54%	47%	-7% (0.002***)
Pregnant (%) (Ns = 557; Na = 388)	8%	10%	2% (0.324)
Race/ethnicity (%) (Ns = 1,029; Na = 827)			
Black (Hispanic)	8%	8%	0% (0.736)
Black (non-Hispanic)	32%	24%	-8% (0.000***)
White (Hispanic)	9%	10%	1% (0.502)
White (non-Hispanic)	5%	8%	3% (0.058)
Other (Hispanic)	40%	45%	5% (0.027***)
Other (non-Hispanic)	5%	5%	0% (0.500)
Relationship status (%) (Ns = 1,029; Na = 827)			
Married	61%	54%	-7% (0.002***)
Years partners have been together	N = 947, Mean = 10.18, SD = 7.92, SE = 0.26	N = 745, Mean = 9.77, SD = 7.75, SE = 0.28	-0.42 (0.275)
Years partners living together	N = 927, Mean = 8.78, SD = 7.88, SE = 0.26	N = 734, Mean = 8.09, SD = 7.70, SE = 0.28	-0.69 (0.073)
Live together before marriage for the married (Ns = 489; Na = 329)	72%	68%	-4% (0.242)
Children between both partners regardless of biology	N = 1,027, Mean = 2.34, SD = 1.35, SE = 0.04	N = 825, Mean = 2.14, SD = 1.16, SE = 0.04	-0.19 (0.001***)
Age of oldest child	N = 993, Mean = 10.40, SD = 7.42, SE = 0.24	N = 798, Mean = 9.38, SD = 6.53, SE = 0.23	-1.02 (0.002***)
Age of youngest child	N = 993, Mean = 5.92, SD = 5.24, SE = 0.17	N = 798, Mean = 5.72, SD = 5.13, SE = 0.18	-0.20 (0.428)
Monthly income at baseline (Ns = 1,029; Na = 827)			
Less than $500	25%	23%	-2% (0.301)
$500–$1,000	19%	17%	-2% (0.235)
$1,001–$2,000	21%	24%	3% (0.180)
$2,001–$3,000	15%	16%	1% (0.363)
$3,001–$4,000	8%	8%	0% (0.638)
$4,001–$5,000	6%	6%	0% (0.515)
More than $5,000	6%	8%	2% (0.237)
Employment status at baseline (Ns = 1,029; Na = 827)			
Full-time	53%	55%	2% (0.309)
Part-time	13%	12%	-1% (0.634)
Employed, but number of hours changes from week to week	3%	3%	0% (0.944)

Baseline measure	Mean for the analytic sample (standard deviation)	Mean for individuals enrolled in the study but not in the analytic sample (standard deviation)	Difference (p-value of difference)
Temporary	4%	3%	-1% (0.895)
Not currently employed	28%	25%	-3% (0.137)
Education: Highest degree at baseline (Ns = 1,029; Na = 827)			
No degree or diploma earned	18%	23%	5% (0.018***)
HS GED	14%	11%	-3% (0.141)
HS diploma	15%	18%	3% (0.135)
Vocational/technical certification	4%	4%	0% (0.777)
Some college	17%	17%	0% (0.927)
Associate's degree	9%	5%	-4% (0.007***)
Bachelor's degree	14%	13%	-1% (0.492)
Master's/advanced degree	11%	10%	-1% (0.586)
Blended family (Ns = 1,027; Na = 825)	48%	51%	3% (0.192)
Adverse childhood experience total score	N = 720, Mean = 2.88, SD = 2.59, SE = 0.10	N = 282, Mean = 2.80, SD = 2.52, SE = 0.15	-0.08 (0.667)
Received public benefit (Ns = 1,029; Na = 827)	50%	46%	-4% (0.074)
Couple's Satisfaction Index baseline	N = 1,029, Mean = 98.94, SD = 34.35, SE = 1.07	N = 827, Mean = 97.54, SD = 32.49, SE = 1.13	-1.40 (0.368)
Hope average baseline	N = 1,027, Mean = 5.24, SD = 1.47, SE = 0.05	N = 824, Mean = 5.18, SD = 1.52, SE = 0.05	-0.06 (0.410)
Commitment baseline	N = 1,027, Mean = 15.31, SD = 3.02, SE = 0.09	N = 824, Mean = 15.09, SD = 3.03, SE = 0.11	-0.22 (0.111)
Emotional Intelligence baseline	N = 1,027, Mean = 125.01 SD = 18.24, SE = 0.57	N = 820, Mean = 124.81, SD = 17.91, SE = 0.63	-0.20 (0.814)
Skills Assessment baseline (% correct)	N = 911, Mean = 55.47 SD = 18.24, SE = 0.65	N = 593, Mean = 54.48, SD = 20.35, SE = 0.84	-0.99 (0.348)
Sample size	1,029	827	

Note: *p*-values are included in parentheses. The analytic sample includes participants completed 6-month follow-up. Ns = number of participants in analytic sample; Na = number of participants not in the analytic sample.

*** Significantly different at the .05 level, two-tailed test.

D. Measures

Couples Satisfaction Index (CSI-32)

Please indicate the degree of happiness, all things considered, of your relationship.

Extremely Unhappy	Fairly Unhappy	A Little Unhappy	Happy	Very Happy	Extremely Happy	Perfect
0	1	2	3	4	5	6

Most people have disagreements in their relationships. Please indicate below the approximate extent of agreement or disagreement between you and your partner for each item on the following list.

	Always Agree	Almost Always Agree	Occasionally Disagree	Frequently Disagree	Almost Always Disagree	Always Disagree
Amount of time spent together	5	4	3	2	1	0
Making major decisions	5	4	3	2	1	0
Demonstrations of affection	5	4	3	2	1	0

	All the time	Most of the time	More often than not	Occasionally	Rarely	Never
In general, how often do you think that things between you and your partner are going well?	5	4	3	2	1	0
How often do you wish you hadn't gotten into this relationship?	0	1	2	3	4	5

	Not at all TRUE	A little TRUE	Some-what TRUE	Mostly TRUE	Almost Completely TRUE	Completely TRUE
I still feel a strong connection with my partner	0	1	2	3	4	5
If I had my life to live over, I would marry (or live with / date) the same person	0	1	2	3	4	5
Our relationship is strong	0	1	2	3	4	5
I sometimes wonder if there is someone else out there for me	5	4	3	2	1	0
My relationship with my partner makes me happy	0	1	2	3	4	5
I have a warm and comfortable relationship with my partner	0	1	2	3	4	5
I can't imagine ending my relationship with my partner	0	1	2	3	4	5
I feel that I can confide in my partner about virtually anything	0	1	2	3	4	5

	Not at all TRUE	A little TRUE	Some-what TRUE	Mostly TRUE	Almost Completely TRUE	Completely TRUE
I have had second thoughts about this relationship recently	5	4	3	2	1	0
For me, my partner is the perfect romantic partner	0	1	2	3	4	5
I really feel like **part of a team** with my partner	0	1	2	3	4	5
I cannot imagine another person making me as happy as my partner does	0	1	2	3	4	5

	Not at all	A little	Some-what	Mostly	Almost Completely	Completely
How rewarding is your relationship with your partner?	0	1	2	3	4	5
How well does your partner meet your needs?	0	1	2	3	4	5
To what extent has your relationship met your original expectations?	0	1	2	3	4	5
In general, how satisfied are you with your relationship?	0	1	2	3	4	5

	Worse than all others (Extremely bad)					Better than all others (Extremely good)
How good is your relationship compared to most?	0	1	2	3	4	5

	Never	Less than once a month	Once or twice a month	Once or twice a week	Once a day	More often
Do you enjoy your partner's company?	0	1	2	3	4	5
How often do you and your partner have fun together?	0	1	2	3	4	5

For each of the following items, select the answer that best describes *how you feel about your relationship*. Base your responses on your first impressions and immediate feelings about the item.

INTERESTING	**5**	**4**	**3**	**2**	**1**	**0**	**BORING**
BAD	**0**	**1**	**2**	**3**	**4**	**5**	**GOOD**
FULL	**5**	**4**	**3**	**2**	**1**	**0**	**EMPTY**
LONELY	**0**	**1**	**2**	**3**	**4**	**5**	**FRIENDLY**
STURDY	**5**	**4**	**3**	**2**	**1**	**0**	**FRAGILE**
DISCOURAGING	**0**	**1**	**2**	**3**	**4**	**5**	**HOPEFUL**
ENJOYABLE	**5**	**4**	**3**	**2**	**1**	**0**	**MISERABLE**

PERMISSION FOR USE: We developed the CSI scales to be freely available for research and clinical use. No further permission is required beyond this form and the authors will not generate study-specific permission letters.

SCORING: To score the CSI-32, you simply sum the responses across all of the items. The point values of each response of each item are shown above. NOTE – When we present the scale to participants, we do not show them those point values. We just give them circles to fill in (on pen-and-paper versions) or radio buttons to click (in online surveys) in place of those point values.

INTERPRETATION: CSI-32 scores can range from 0 to 161. Higher scores indicate higher levels of relationship satisfaction. CSI-32 scores falling below 104.5 suggest notable relationship dissatisfaction.

CITATION: If you are using this scale, then you should cite the research article validating it as follows:

Funk, J.L., & Rogge, R.D. (2007). Testing the Ruler with Item Response Theory: Increasing Precision of Measurement for Relationship Satisfaction with the Couples Satisfaction Index. *Journal of Family Psychology, 21*, 572-583.

Skills/Knowledge Assessment A

* 1. **First Name**

* 2. Last Name

* 3. When you are feeling emotionally overwhelmed in an argument, what is the **BEST** response?

- Keep talking with your partner until the issue is resolved, letting your emotions guide your discussion.
- Focus on trying to clarify your point of view to your partner until he/she truly understands where you are coming from.
- Agree with your partner to take a break from the argument and discuss it later when you and your partner are less emotional.
- Take it upon yourself to leave the room immediately, before you say or do anything you regret.

* 4. What is the main difference between a fight that is *fair,* and a fight that is *destructive*?

- In a fair fight, both partners are able to find areas of agreement, while in a destructive fight, both partners continue to have areas of disagreement.
- A fair fight involves calm and respectful communication, while a destructive fight involves disrespectful words and actions like insults and leaving the room.
- A fair fight involves discussing only the facts, while a destructive fight focuses on saying what you feel.
- A fair fight leads to a solution, while a destructive fight does not.

* 5. When talking about important issues with your partner, which of the following is **MOST IMPORTANT** for effective communication?

- Making sure that both partners' perspectives are heard and understood.
- Coming away from the discussion with a clear compromise, and implementing it.
- Focusing only on areas of agreement, because highlighting differences leads to unnecessary conflict.
- Not allowing emotions to get involved in the discussion, so that you can put the energy toward coming up with a compromise you can agree with.

* 6. According to research, what is the ratio of positive to negative comments for couples in healthy relationships?

- 10:1
- 5:1
- 2:1
- 1:1

* 7. What is **MOST IMPORTANT** to know about sex in relationships?

- Couples should have sex at least twice a week in order to be satisfied.
- When sex is not going well, it can be the number one source of tension in relationships.
- It's not important at all: couples who don't have sex can be happy as long as they're committed to each other.
- It's the most important thing in relationships: couples who don't have satisfying sex are rarely happy.

* 8. What is the **MOST EFFECTIVE** way to repair a relationship after an argument"?

- Time heals all wounds, so the best repair is not to discuss what happened.
- Both should communicate and understand each other's points of view, acknowledge hurt feelings, and take responsibility for their own actions.
- Whoever initiated the argument should apologize for doing so and the other partner should accept apology immediately.
- A repair needs to happen right away, while the argument is occurring, so that it doesn't fester.

* 9. What is **MOST IMPORTANT** to know about vulnerability in relationships?

- Vulnerability is a sign of individual weakness, and can be destructive to maintaining a strong relationship.
- When partners are more vulnerable with each other, they lose trust in each other.
- Couples are afraid to be vulnerable in relationships, and protect themselves by getting stuck in defensive patterns of interaction.
- Vulnerability requires taking an emotional risk that might weaken the emotional bond between partners.

* 10. **SCENARIO 1:** Darrell has just come home from working the night shift, hungry, wanting to make himself breakfast. He gets irritated when he sees a pile of dishes in the sink, as he has been constantly nagging his wife Jasmine to wash the dishes. He stomps upstairs to find Jasmine in the bathroom, and yells, "You are such a lazy slob! Who do you think is going to clean that pile of dishes in the sink?" Stunned and angry, Jasmine says nothing and slams the door in his face.

What is **MOST PROBLEMATIC** about the interaction between Darrell and Jasmine?

- Jasmine should have washed the dishes, since Darrell has been nagging her about it.
- Darrell yelled insults at Jasmine, which made her not want to talk with him, let alone do the dishes.
- Jasmine was rude to slam the door in Darrell's face, as he had every right to be upset.
- Darrell should know that nagging won't get him anywhere, and instead should suggest that they take turns doing dishes each night, to keep things fair.

* 11. What would have been the **MOST EFFECTIVE** way for Darrell to communicate with Jasmine about the dishes?

- "I feel that you are being insensitive to me when you don't do what I ask you to do."
- "I don't like coming home to dirty dishes after a long night's work. Will you please wash them after you're done getting ready for work?"
- "I did the laundry yesterday, so it's only fair that you do the dishes."
- "You never wash the dishes. Is it too much to ask that you just do this once?"

* 12. What would have been a **MORE EFFECTIVE** way for Jasmine to respond to Darrell?

- Suggest to Darrell that they both take a break to calm down so that they can talk about it respectfully rather than yelling insults and slamming doors.
- Tell him he's a "rude son-of-a-bitch", so he understands what it feels like to be insulted.
- Realize he had a right to be angry, apologize for not washing the dishes, and wash them immediately.
- Counter his insults by pointing out ways she is clean, and that she had spent the morning getting the kids ready for school.

* 13. What might be the **MOST EFFECTIVE** way for Jasmine and Darrell to later repair their relationship after this argument?

- They should make sure not to discuss what happened, in order to avoid re-fighting the fight and damaging the relationship.
- Since Jasmine initiated the argument by not doing the dishes, she should apologize and promise to do so from now on.
- Since Darrell initiated the argument by insulting Jasmine, he should apologize for insulting her and promise to speak to her respectfully from now on.
- Since both of them were in the wrong, they both need to take responsibility, acknowledge that they hurt the other person, and understand each other's point of view.

* 14. **SCENARIO 2:** Every night, Vivian comes home from work, exhausted, feeling like she just isn't doing anything right at her demanding job. Her husband Craig is sitting on the couch watching TV, tired and unwinding from work stress. He already ate take-out and left some food out for her on the kitchen table. They barely acknowledge one another. Assuming that Craig is disinterested in and unhelpful about her work stress, Vivian brings a plate of food to the bedroom and eats while complaining to her sister on the phone about how unhappy she is.

What is **MOST PROBLEMATIC** about this repeated pattern of interaction between them?

- ◯ They are both stuck in work situations that cause undue stress, which leads to their repeated pulling away from each other.
- ◯ Vivian should be at such a demanding job, because her stress is a burden on Craig.
- ◯ Craig shouldn't unwind in front of the TV, as it means he won't interact with Vivian.
- ◯ They are both stuck in a defensive pattern of withdrawing, causing emotional distance between them.

* 15. What is the **MOST EFFECTIVE** way for Vivian to improve this scenario?

- ◯ She should find a more fulfilling job, so that she will not come home from work feeling so down.
- ◯ Even though Craig is exhausted himself, Vivian needs to tell Craig (and not her sister) about her work problems so they don't feel so disconnected from each other.
- ◯ She should get home from work sooner so that they can have dinner together.
- ◯ None of the above, as she was being thoughtful of Craig by sparing him her complaints, and letting him unwind.

* 16. What is the **MOST EFFECTIVE** way for Craig to improve this scenario?

- ◯ He should ask Vivian how her day was when she gets home to let her know he is interested in how she is feeling.
- ◯ He shouldn't watch so much TV, so that he can be more available to Vivian when she needs him.
- ◯ He should wait until Vivian gets home so they can eat dinner and watch TV together.
- ◯ None of the above, as he was thoughtful in leaving dinner out for her, and deserved to unwind alone, so that he wouldn't take out his own work stress on her.

Skills/Knowledge Assessment B

* 1. First Name

* 2. Last Name

* 3. You are annoyed when your partner comes home a little drunk from partying with friends, and you find out his/her ex was there at the party. What would be the **MOST EFFECTIVE** way to discuss this with your partner so he/she would listen?

- "I can never trust you, especially when your around your ex."
- "If I hear you were with your ex again, we're through."
- "You're always leaving me at home with the kids. I bet you didn't invite me because you knew your ex would be there."
- "I know you like to party with your friends, but I'm angry that your ex was there. I would prefer that you didn't hang out with your ex."

* 4. According to research, what are the 4 predictors of divorce?

- Infidelity, new baby, job loss, death of parent
- Arguments, hurt feelings, different interests, parental divorce
- Differences in culture/religion, life goals, values, and parenting style
- Criticism, defensiveness, contempt, and stonewalling

* 5. When is a compromise **MOST EFFECTIVE** in healthy relationships?

- When it solves the problem at hand, regardless of whether both partners agree on the solution - because solving the problem is the priority.
- When it is win-win, such that it feels fair to both partners - because win-lose is really lose-lose.
- When both partners take turns making sacrifices for the other - because compromise is all about sacrifice.
- When it is carefully and thoughtfully planned out and executed by both partners - because a compromise means nothing if it isn't executed well.

* 6. What is **MOST IMPORTANT** to know about emotions in healthy relationships?

- You should always tell your partner how you are feeling as soon as you are feeling it.
- When you are feeling negative emotions, you should deal with them on your own so as not to burden your partner.
- You should feel safe in expressing your feelings, no matter what they are, to your partner.
- As long as you are being honest about your feelings, it doesn't matter how you express them.

* 7. What is MOST IMPORTANT to know about commitment in relationships?

- Relationships feel safe when both partners are committed.
- When someone has been betrayed by their partner, it is impossible to trust again.
- Men are hardwired not to be committed in a monogamous relationship.
- Given today's divorce rate, people would be crazy to commit to a relationship.

* 8. What is the main difference between effective communication with our children and effective communication with our partners?

- You can dismiss your child's perspective as being unreasonable, but you must respect your partners perspective no matter what.
- Communication with our partners emphasizes respect, whereas communication with our children emphasizes authority.
- Both require setting limits, but children require a more controlling approach.
- Both require respectful communication and being attuned to the other's perspective but children need coaching on how to deal with their feelings.

* 9. How do each partner's past experiences impact the couple relationship, if at all?

- In a healthy relationship, each partner's past, does not impact the couple relationship.
- Each partner's past experiences create sensitive areas that can get triggered during relationship conflict, causing strong emotional reactions.
- Each partner's experiences in past relationships, if shared, inevitably cause jealousy and insecurity in the current couple relationship.
- Each partner's significant past experiences will only have an impact on the couples relationship if each partner is made aware of them.

* 10. **SCENARIO 1:** Jackie would like to talk to her husband Adam about how to discipline their 6-year old son, who has been throwing tantrums lately. She feels that Adam is too easy on him, while he disagrees with Jackie's strict punishments.

What would be the **MOST EFFECTIVE** way for Jackie to talk with Adam about it?

- Try to anticipate what Adam might say and focus on how to debate his points, so he doesn't bother to try to make them.
- Start the discussion with possible ways of handling their son's temper tantrums, because this is the goal of the conversation anyway.
- Express her thoughts, concerns, and feelings in small chunks, stopping to make sure Adam understands, and focusing only on articulating her own perspective.
- Be direct and thorough, explaining her perspective without interruption until she has said all she needs to say.

* 11. What would be the MOST EFFECTIVE way for Adam to interact with Jackie?

- Listen to what she has to say without interrupting her until she has said all she needs to say, no matter how long it takes.
- Listen to what she has to say, and then offer a range of solutions to the problem so they can choose one to try.
- Listen to what she has to say, and only interrupt to give his point of view on each point she makes.
- Listen to what she has to say, and only interrupt to ask questions or summarize to make sure he understands.

* 12. What would be the **MOST EFFECTIVE** way for Jackie and Adam to come up with a solution to this problem?

- Since they disagree on a disciplinary approach, get an outside opinion from someone they trust, like a family friend, on how they should discipline their child.
- Agree to disagree, and take turns making final decisions on disciplining their child each time he misbehaves, to keep things fair and to avoid conflict.
- Find areas of agreement, be creative about coming up with possible solutions, and be open-minded when deciding together which to try out.
- Agree that Adam will be in charge of disciplining their son, and Jackie will be in charge of monitoring his schoolwork, and they won't step on each other's toes.

* 13. How might Jackie and Adam be **MOST EFFECTIVE** in dealing with their son's temper tantrums?

- As Jackie proposes, they should focus on setting and implementing clear rules for how their son should behave, and punishments for when he is not following the rules.
- They should try understanding the emotions and needs that are underlying their son's tantrums, while still setting limits on his behavior.
- As Adam says, since temper tantrums are a developmentally appropriate way for a 6-year old to express himself, they should not discipline him, and instead offer comfort.
- They should consider putting him in a time-out when he throws a tantrum, as this is a developmentally appropriate and effective punishment for a 6-year old child.

* 14. **SCENARIO 2:** Camila comes home from work to hear from the kids that Eric was an hour late picking them up from school. "You are so damn unreliable it really pisses me off", Camila screams at him, angry. Eric yells back, "I'M unreliable? You forgot to pay the electric bill last month! Why do you have to be such a control freak?" In their ten years of marriage, this kind of interaction has become a frequent occurrence.

What is the **BEST POSSIBLE** explanation for this problematic interaction?

- Camila prefers to be in control, while Eric prefers to be more easygoing.
- In Camila's culture, punctuality is important, while in Eric's culture, lateness is expected.
- There was a misunderstanding or miscommunication about the pick-up time.
- Camila is sensitive to Eric's unreliability because she felt abandoned by her unreliable father, and Erica is predisposed to feeling controlled because he felt suffocated by his controlling mother.

* 15. What is the **MOST EFFECTIVE** way to prevent this from happening again?

- Camila should be less controlling, and Eric should be more reliable.
- They should learn more about each other's cultural backgrounds, so they can understand each other's behaviors.
- They should try to understand how both of their personal histories cause them to react to each other in certain ways.
- Given there was a misunderstanding, they should discuss ways to communicate more clearly to prevent future misunderstandings.

* 16. What was the **MOST PROBLEMATIC** about Eric's reaction to Camila?

- It was an accusation criticizing her as a person ("control freak"), rather than a specific behavior.
- It was defensive in that he brought up the electric bill after she accused him of being unreliable.
- It was disrespectful in that it involved yelling insults at her.
- All of the above.

NAME:_____ DATE:_____

Emotional Intelligence Scale

Instructions: Indicate the extent to which each item applies to you using the following scale:

1 = strongly disagree
2 = disagree
3 = neither disagree nor agree
4 = agree
5 = strongly agree

_____ 1. I know when to speak about my personal problems to others.
_____ 2. When I am faced with obstacles, I remember times I faced similar obstacles and overcame them.
_____ 3. I expect that I will do well on most things I try.
_____ 4. Other people find it easy to confide in me.
_____ 5. I find it hard to understand the nonverbal messages of other people.
_____ 6. Some of the major events of my life have led me to re-evaluate what is important and not important.
_____ 7. When my mood changes, I see new possibilities.
_____ 8. Emotions are some of the things that make my life worth living.
_____ 9. I am aware of my emotions as I experience them.
_____ 10. I expect good things to happen.
_____ 11. I like to share my emotions with others.
_____ 12. When I experience a positive emotion, I know how to make it last.
_____ 13. I arrange events others enjoy.
_____ 14. I seek out activities that make me happy.
_____ 15. I am aware of the nonverbal messages I send to others.
_____ 16. I present myself in a way that makes a good impression on others.
_____ 17. When I am in a positive mood, solving problems is easy for me.
_____ 18. By looking at their facial expressions, I recognize the emotions people are experiencing.
_____ 19. I know why my emotions change.
_____ 20. When I am in a positive mood, I am able to come up with new ideas.
_____ 21. I have control over my emotions.
_____ 22. I easily recognize my emotions as I experience them.
_____ 23. I motivate myself by imagining a good outcome to tasks I take on.
_____ 24. I compliment others when they have done something well.
_____ 25. I am aware of the nonverbal messages other people send.
_____ 26. When another person tells me about an important event in his or her life, I almost feel as though I have experienced this event myself.
_____ 27. When I feel a change in emotions, I tend to come up with new ideas.
_____ 28. When I am faced with a challenge, I give up because I believe I will fail.
_____ 29. I know what other people are feeling just by looking at them.
_____ 30. I help other people feel better when they are down.
_____ 31. I use good moods to help myself keep trying in the face of obstacles.
_____ 32. I can tell how people are feeling by listening to the tone of their voice.
_____ 33. It is difficult for me to understand why people feel the way they do.

Source: Schutte, N. S., Malouff, J. M., Hall, L. E., Haggerty, D. J., Cooper, J. T., Golden, C. J., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. Personality and Individual Differences, 25, 167–177.

Relationship Hope Scale*:

Please answer each question below by indicating how strongly you agree or disagree with the idea expressed related to your relationship.

1 = Strongly Disagree
2
3
4 = Neither Agree Nor Disagree
5
6
7 = Strongly Agree

✓1 2 3 4 5 6 7 I believe we can handle whatever conflicts will arise in the future.

✓1 2 3 4 5 6 7 I am very confident when I think of our future together.

1 2 3 4 5 6 7 I'm hopeful that we can make our relationship work.

✓1 2 3 4 5 6 7 I'm hopeful that we have the tools we need to fix problems in our relationship now and in the future

1 2 3 4 5 6 7 I feel like our relationship can survive what life throws at us.

Total Average

*Erickson, S. E. (2015). Got hope? Measuring the construct of relationship hope with a nationally representative sample of married individuals. Masters thesis, Brigham Young University, Provo, UT.

Relationship Commitment*:

1 = Strongly Disagree; 2 = Disagree; 3 = Neither Agree nor Disagree; 4 = Agree; 5 = Strongly Agree

1 2 3 4 5 My relationship with my partner is more important to me than almost anything else in my life.

1 2 3 4 5 I may not want to be with my partner a few years from now. (reverse scored)

1 2 3 4 5 I like to think of my partner and me more in terms of "us" and "we" than "me" and "him/her."

1 2 3 4 5 I want this relationship to stay strong no matter what rough times we may encounter.

*Stanley, S. M., Whitton, S. M., & Markman, H. J. (2004). Maybe I do: Interpersonal commitment and premarital ornonmarital cohabitation. *Journal of Family Issues, 25*, 496-519.

Average
Total /5