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Final Evaluation Report: Considering Contextual Influences on Fatherhood Program Participants' Experiences in Alabama

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The Alabama Department of Child Abuse and Neglect Prevention (ADCANP) serves participants through 20 fatherhood programs in the state with funding from the Department of Human Resources (DHR), utilizing Temporary Assistance to Needy Families (TANF) dollars.

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Contents

Executive Summary

Currently, hundreds of fatherhood programs are active across the nation and evaluations of these have increased in number. Few studies, however, have considered diversity of experiences and explored factors that may influence change among participants and their families. The purpose of our study of a large group of fathers participating in fatherhood programs was to assess the average change trajectory in multiple target outcomes over a one-year period and to explore variations in retention and in outcomes within the group, based on geographic setting of the programs (rural or urban), sequencing of services (case management and classes), and race of the father.

In partnership with the Alabama Department of Child Abuse and Neglect Prevention (ADCANP) and the Alabama Department of Human Resources (DHR), we recruited 630 nonincarcerated and noncustodial fathers in fatherhood programs across 20 sites to participate in the study. Our sample included a majority of Black fathers (60%), with an average age of 36.5 years. The majority of the fathers were not currently married (72%) and were unemployed at program start.

Our assessment of fatherhood program participants' improvements yielded encouraging findings that suggest the longer-term influence of program participation on multiple, key indicators of individual and family well-being. Fathers reported significant growth over one-year in 14 distinct measures in the areas of (1) relationship skills and functioning (couple and coparenting); (2) hope for ensuring a positive future; (3) father involvement, positive parenting practices, and parent-child relationship quality; (4) child academic adjustment; and (5) monthly income, job status, and commitments to cooperate with child support staff and meet financial obligations. Because of our partnership with the ADCANP and DHR, we frame the enhancements as protective factors for children using the 5-Factor Strengthening Families Protective Factor Framework (Browne, 2014).

While the positive and sustained benefits experienced by the average participant over time in multiple areas related to individual and family strength remains the key takeaway, some information is provided on greater vulnerability and benefit, depending on demographics. Specifically, we find more economic vulnerability of urban fathers at program start and for Black and minority fathers at program start and across time. White fathers report more individual (e.g., drug issues) and work-related challenges at program start. We also find evidence of greater benefit in several areas over time for urban and White participants, particularly in economic stability improvements, compared to rural and Black fathers. Rural fathers demonstrated greater improvement in coparenting relationships compared to urban fathers, who report higher interpersonal competence at the start. It also appears that receiving case management

first enhanced fathers' attendance and completion rates in parenting/coparenting classes, as well as their initial improvements in parent-child relationship quality, financial responsibility, and hope for the future, while receiving case management after classes was associated with greater long-term growth in financial responsibility.

The current study supports previous findings that fatherhood programs positively influence fathers' individual and relational skills and knowledge and their economic stability. This study also advances the literature by attending to and discovering some variations at program start and in fatherhood program outcomes based on several key contextual factors. This serves to alert practitioners to attend to characteristics that may enhance or impede program effectiveness.

Background and Overview of the Study

In 2013, the U.S. Census Bureau indicated that approximately one in three children in the United States live in homes without their biological father (Dion, Zaveri, & Holcomb, 2015). Unfortunately, barriers such as expanding poverty and shrinking resources often keep fathers from participating in their children's lives (Pruett, Cowan, Cowan, & Pruett, 2009). There has been a strong push in recent years for fathers to become more actively and positively involved in their children's lives, as it is understood that fathers play a significant role in children's development (Fagan, Day, Lamb, & Cabrera, 2014; Lamb, 2000), and father absences are marked by detriments to child development (Pruett et al., 2009). Additionally, fathers' involvement lowers the probability of child neglect and serves a protective function against other forms of child maltreatment (Pruett et al., 2009). Currently, hundreds of fatherhood programs are active across the nation (Dion et al., 2015). Overall, implementers of fatherhood initiatives and programs are hopeful that participation fosters an increased amount of time fathers spend with their children, improved parenting behaviors, increased economic security for their children, and healthier partner and coparenting relationships (Holcomb et al., 2015; Fagan & Kaufman, 2015).

Despite the prevalence of fatherhood programs, evaluation of these programs is still in the early stages. There are some recently published studies of the efficacy of these programs in regards to improved economic stability and individual well-being of fathers, as well as more father involvement with their children and better coparenting relationship quality (e.g., Holmes, Galovan, Yoshida, & Hawkins, 2010; Kim & Jang, 2018; Qian, De Loney, & Caldwell, 2018). In addition, a report on the Parents and Children Together evaluation (Avellar et al., 2018) provides results of an efficacy study of four Responsible Fatherhood programs which were funded by the Office of Family Assistance after fathers for low-income fathers and found some promising results. Participants in the four programs reported more nurturing behaviors and engagement with their children than control participants one year after program completion, and comparatively more time continuously employed. Program participants, however, did not differ from control participants on reports one year later on time spent with child, financial supports for their children, coparenting relationships, earnings, or social-emotional and mental well-being.

These mixed results can be expected, given the diversity of participants and program design across the country. In fact, PACT's assessment of outcomes by site finds variation in program effectiveness in distinct areas (Avellar et al., 2018). Expansion of evaluation studies serve to inform efforts to develop models of practice. Specifically, both formative and summative evaluations will help to create more effective and successful program designs in the future. While efficacy studies can provide evidence of program impact by using random control assignment and determining trajectories of change for the average participant in comparison to nonparticipants, process evaluations provide information on factors that influence change among participants and their families. They also can provide more nuanced information useful for program directors and facilitators, particularly since a diverse group of fathers in various settings participate in programs with different designs.

The purpose of our study of a large group of fathers participating in Temporary Assistance for Needy Families (TANF)-funded fatherhood programs across the state was to assess the average changes in target outcomes over a one-year

period, as well as to explore variations in retention and in outcomes within the group based on geographic setting of the programs (rural or urban), sequencing of services (case management and parenting classes), and race of the father. We also consider these in combination. The existing literature on fatherhood programs has not considered these contextual factors in previous studies.

Contextual Influences on Fatherhood Program Outcomes

One of the major goals of existing fatherhood initiatives is to improve participants' economic circumstances (Bloom et al., 2014); however, conditions may differ geographically. Rural fatherhood programs have received little empirical attention and scholars have noted the need for studies that assess program outcomes across a variety of environmental contexts (Osborne et al., 2014). Rural areas contain a markedly different array of both individual challenges and available job opportunities compared to urban areas. Economic barriers such as underemployment and unemployment may be more prevalent in rural areas. One study found that job lock (inability of an employee to leave a job because doing so would result in loss of employee benefits, usually healthcare or retirement) is more than twice as prevalent in rural areas (Mushinski, Bernasek, & Weiler, 2015) than in urban areas. Problems with employment predict greater difficulty in fathers' ability to provide adequate support to their children (Threlfall & Kohl, 2015). Although prior basic research suggests that economic differences between urban and rural areas may influence program outcomes (United States Department of Agriculture, 2018), no published studies of fatherhood programs compare outcomes of rural and urban participants when their sample contains both (e.g., Bloomer & Sipe, 2003).

Beyond economic distinctions from urban areas, the social fabric of rural areas has implications for participants' receptivity to program messages. Research finds differences in social support between urban and rural communities (Lemke et al., 1992). The findings suggest that rural residents have fewer interpersonal contacts but greater involvement with their support systems than urban samples. This may be due to the collectivist lifestyle prevalent in many rural areas of the United States (Elder & Conger, 2000; Gore, Wilburn, Treadway, & Plaut, 2011). Within collectivist communities, visibility of community members' reputations is elevated. In such communities, if a father is labeled as a "deadbeat dad"—which is a common complaint among fatherhood program participants (Threlfall & Kohl, 2015)—he may face elevated difficulty in re-establishing a working relationship with his child's mother and accessing social support to manage stress. These are both critical targeted outcomes of fatherhood curricula. Thus, rural participants' motivation to participate in and complete programs, receptivity to such elements, and propensity to report post-program change may be different from urban participants.

Finally, existing evidence suggests that rural participants face a different array of emotional challenges compared to urban samples. In a 2005 study on fathers residing in rural areas, Anderson and colleagues assessed a fatherhood program in which 56% of participants reported depressive symptoms (Anderson, Kohler, & Letiecq, 2005). Rural residency predicted a substantial amount of variance in the occurrence of depressive symptoms. This suggests fathers in rural areas may face unique challenges that add to their experience of depression. Given that emotional difficulties are associated with unemployment in adulthood (Kokko & Pulkkinen, 2000) and more distant parenting (Spector, 2006), rural fatherhood program participants may be at additional risk of employment and parenting difficulties.

Taken together, literature addressing general urban/rural differences provide an empirical rationale for expecting that rural and urban fatherhood program participants may begin their programs with distinct sets of challenges. This is further supported by an eco-cultural theoretical perspective (Phenice, Griffore, Hakoyama, & Silvey, 2009) that assumes culture and context influence relational dynamics and individual behaviors and outcomes. Thus, we expected that differences in the social and economic fabric of rural and urban areas may influence post- program outcomes.

We also assumed that individual culture may influence program participation rates and outcomes. Thus, we explored variations in outcomes by race, as well as the intersectionality of individual and community culture. To our knowledge, no study has explored differences in individual outcomes after fatherhood program participation by race, although there have been a handful of studies that have assessed individual outcomes within specific racial subgroups (e.g., Latino fathers, Concha, Villar, Tafur-Salgado, Ibanez, & Azevedo, 2016; Black fathers, Roy & Dyson, 2010). Additionally, a qualitative evaluation of mostly Black (84%) fatherhood program participants indicates that men in the PACT evaluation experienced childhoods marked by financial and family instability suggesting Black fathers may be especially prone to enter fatherhood programs with economic challenges (Holcomb et al., 2015). Assessing racial differences, especially in regard to Black and other minority fathers, is important because there is evidence to suggest father involvement differs by race (e.g., Perry & Bright, 2012; Shears, 2007). Some studies suggest more active engagement in caregiving and social skills activities by African American fathers compared to other ethnicities (e.g., Shears, 2007while other studies document less father involvement of African American fathers due to institutionalized barriers, such as higher rates of incarceration (e.g., Perry & Bright, 2012).

Further, fatherhood programs vary greatly in design (Dion, Zaveri, & Holcomb, 2015; Pearson, 2018). In Alabama, we noted that programs varied in their sequencing of the main services offered to fathers—the 24/7 Dad® and Together We Can program curriculum classes that focus mainly on parenting and coparenting and case management (one-on-one needs assessment and plan development for other services needed and oversight of those services). The somewhat arbitrary factors that typically determined order of classes first or case management first (e.g., the start date of next series of classes relative to father's enrollment in the program) allowed us to explore comparative benefit of one plan over another. This implementation design question was also of interest to community agencies offering the programs. Thus, this exploratory study also focused on program implementation variations that may contribute to their effectiveness.

Given that fatherhood programs are often comprehensive and involve a range of services including case management, job training, and curricula-based instruction, it is important for practitioners to understand if and how program sequencing affects retention and participant outcomes. Past research is scarce in this domain. Pruett and colleagues' (2009) study of the Supporting Father Involvement initiative found that those who had access to case management demonstrated a higher likelihood of remaining in the program. Although not specific to fatherhood programs, research on strengths-based case management indicates supportive case management-client relationships improve program retention, suggesting that case manager-client relationship can be a factor in program effectiveness (Rapp, Siegal, Li, & Saha, 1998). Case management services that support job and relationship skills taught in a classroom environment may bolster fathers' sense of autonomy and mastery. A large body of developmental research, mostly conducted with youth, finds that a sense of mastery is associated with improvements

in classroom learning outcomes (e.g., Ames & Archer, 1988). However, it is yet unknown whether the benefit that case management services can provide is best suited to take place at the start of program services or at the end (as a consolidation of program experiences).

Given the demands of the population they serve, the fatherhood programs evaluated in this study allowed participants to enter their programs at any time in the cycle of program services. Thus, some participants received case management services first. Others received curricula-based parenting classes first. We used a naturally occurring random process and took advantage of these circumstances in order to explore whether program sequencing affects participants' retention/completion and whether the sequencing of services affects participants' outcomes. Results from answering these questions will be a first step in establishing a foundation of optimal sequencing models that can be replicated by other programs.

Study Aims

In the current study, we focused on an exploration of fatherhood program participants' trajectories of change in target outcome areas over a one-year period and previously unexplored moderators of change patterns. Specifically, our goals were:

Aim 1: Examine whether participants report similar functioning and challenges upon program entry based on geographic location, race, and the interaction of geographic location and race.

Aim 2: Test whether participants report improvements in the desirable direction in multiple target outcomes related to enhanced child and family well-being, parenting practices, relationships, and family strengths immediately following program participation, six months later, and one year later.

Aim 3: Examine the influence of geographic location, race, and the interaction of geographic location and race on levels of improvements in target outcomes immediately following program participation, six months later, and one year later.

Aim 4: Explore the influence of geographic location, race, the interaction of geographic location and race, and sequencing of program services on participants' retention and completion.

Aim 5: Explore the influence of sequencing of program services on levels of improvements in target outcomes immediately following program participation, six months later, and one year later.

Aim 6: Understand whether and how stigma associated with fatherhood program participation influences levels at program entry and improvements in target outcomes.

Aim 7: Qualitatively explore the experiences of fatherhood program participants to gain insightinto their perception of the role of the father, benefits of the program, and how their geographic location influences program participation and being a father.

Based on previous research, we hypothesized that rural fathers would report comparatively greater challenges and lower levels of baseline functioning (Aim 1). We also expect positive growth in the target outcome areas, on average (Aim 2). The remaining questions we examined are largely exploratory; therefore, hypotheses were not specified.

Methods

Setting and Description of the Fatherhood Program

The Alabama Department of Child Abuse and Neglect Prevention (ADCANP) is a state agency that obtains and provides resources to fund programs in the community committed to preventing the maltreatment of children. Sources of funding vary (e.g., federal, state, competitive grants) and prevention programs vary in type: parenting/home visitation, respite care, youth mentoring, school-based youth programs, community awareness presentations, and fatherhood programs. Recognizing that supporting fathers, particularly noncustodial fathers, and enhancing their economic stability, child development and parenting knowledge, and support systems not only enhances child well-being and strengthens families but also reduces the risks of child maltreatment, ADCANP became a natural partner with the Alabama Department of Human Resources that administers the state Temporary Assistance for Needy Families (TANF) funds and currently earmarks TANF funds for fatherhood programs in Alabama. This interagency recognition of the joint goal of family strengthening, particularly for more vulnerable fathers and families, is an excellent example of pooling resources to further shared mission and goals.

Theoretically, the Strengthening Families framework for Protective Factors (SFPF) (Browne, 2014; CSSP, 2018) used by child abuse prevention agencies aligns well with target outcomes for fatherhood programs (Fagan & Kaufman, 2015; James Bell Associates, 2010). The SFPF emphasizes five critical protective factors: *parent/family resilience, social connections, knowledge of parenting and child development, social and emotional competence of children,* and *concrete support in times of need*. Using the TANF funds received from DHR through an interagency collaboration, ADCANP provides grants to well-established community agencies that have a portfolio of funding sources and provide a menu of programs, along with support services, and are linked to other complementary programs and services through many formal partnerships (e.g. local DHR, United Way, Children's Policy Councils, etc.). Across Alabama, the 20 geographically diverse partnering sites for the fatherhood programs in the current study have a history of reliable funding by DHR through ADCANP, a solid presence in the communities they serve, and strong program attendance records.

The fatherhood programs in this study offered multiple services addressing fathers' involvement with their children and economic security. To address these areas, fathers enrolled in four- to eight-week class cycles encompassing approximately 150 hours of total contact that involved curricula-based instruction on parenting, coparenting and employability-related skills, and case management. Specifically, topics included fathering, child development, healthy relationship skills, job search assistance, resume preparation, money management, and budgeting. To address issues related to positive father engagement and coparenting relationships, curriculum-based parenting education using the 24/7 Dad® and Together We Can curricula were a part of each class cycle. These curricula address a variety of relevant topics including defining the role of the father, addressing gender role issues, managing stress and anger, positive parenting techniques, understanding child development, and healthy coparenting and couple relationship skills. Both curricula include a variety of experiential activities as well as

basic instruction. Case management also was offered to fathers and included assessment of individual needs and connection to services related to employment, education, credentialing, managing money, and overcoming barriers to success. Fathers were also connected to other services and programs as needed (e.g., housing assistance, food security, drug/alcohol use).

Recruitment into the Study

Fathers were invited to participate in the study if they were not currently incarcerated and were a noncustodial father participating in a fatherhood program. While some fathers participate in programs due to court mandates, other fatherhood participants attend voluntarily. Exact numbers of each were not included in the data provided. Fathers were recruited into programs through broad strategies including information displays and staff attendance at community affairs and events; brochure and flyer distribution; social media and website exposure; print, radio, and broadcast media; orientation with local service agencies; and word-of-mouth client referrals. Sites also utilized ADCANP's marketing video that explains the goals of the fatherhood program, shows actual classes, and includes participant testimonies (see www.ctf.alabama.gov). Efforts targeted both potential program participants, as well as staff of community partner organizations/agencies at regularly scheduled meetings/conferences to boost referrals. Direct recruitment also occurred through local partnerships/referral partners that include child support offices, family court judges, child welfare workers, family assistance workers, housing programs, and mental health agencies. In addition, many participants were internally referred and recruited to fatherhood programs through other programs offered by the implementation partner sites (e.g., GED classes). Former participants of the fatherhood programs (i.e., friends and family), particularly in the smaller, rural communities, also recruited participants.

The research team at Auburn University provided training on guidelines for ethical data collection procedures to the partner agencies' staff based on the approved Institutional Review Board (IRB) protocol. Trained agency staff were responsible for inviting fatherhood participants to be involved in the study and collected retrospective pre/post surveys at program completion. Data were sent to the research team at Auburn University for processing. Follow-up data collection at the six-month and one-year mark was conducted by AU research team staff. Options for follow-up surveys included online survey completion, hard copy mail in survey, and phone interview.

Although we did not initially propose to conduct father interviews, we determined that some qualitative feedback from fathers could be informative, particularly for our interpretation of the exploratory research questions. Facilitators invited a group of fathers at four sites who had completed the fatherhood program and who were participants in the follow-up study to participate in focus groups. Focus group sites were specifically selected based on geographic location (two rural and two urban).

Data Collection

Per the approved IRB protocol, all participants read and signed an informed consent letter explaining the data collection procedures. The data collection plan involved an intake survey at program start for the collection of demographic information and challenge areas, a retrospective pre/post survey given after program completion assessing target outcomes, and six-month and one-year follow-up surveys assessing target outcomes. The retrospective pre- and post-program survey given after program completion prompted fathers to reflect and report their level of knowledge or skill for each item before participation and then provide a score for their current level of knowledge or skill in that area after program participation. This method has been validated as an effective and efficient strategy for assessing perceived change among program participants (Pratt et al., 2000). Because it allows for simultaneous assessment of pre- and post-program levels, it is less susceptible to response bias shift and socially desirable responses at true baseline; thus, it may provide a more valid assessment of change (Pratt et al., 2000).

The research team utilized contact information provided by the partnering agencies to gather six-month and one-year follow-up surveys. Fathers were contacted via telephone calls, traditional mail, and emails. Contact attempts to obtain follow-up surveys ranged between four to eight times per participant. Auburn University evaluation staff managed data collection tracking, data entry, and payment at each phase of the study and provided technical assistance to agency partner staff as needed. IRB-approved protocols were adhered to, ensuring participant data confidentiality and ethical treatment. Participants received payment for completion of surveys at each phase of the study. Each participant had the opportunity to earn up to $90 upon completion of the one-year exploratory study: $15 for completion of the intake survey, $20 for completion of the retrospective pre/post assessment, $25 for completion of the six-month follow-up survey, and $30 for completion of the one-year follow-up survey. This graduated incentive plan is suggested for higher study retention rates over time (Dillman, Smyth, & Christian, 2014).

Semi-structured focus group interviews were conducted at four of the sites implementing fatherhood programs in partnership with ADCANP. A trained male interviewer from the research team led the discussion, while at least two trained field note-takers consolidated information provided by respondents in the focus group (Clandinin & Connelly, 2000). Fathers were compensated $20 for participating in the one-hour focus group session.

Sample

Participants in the study were recruited from 20 community-based fatherhood programs conducted at family resource centers and community agencies in Alabama. The total study sample includes 630 male noncustodial fatherhood program participants who were not incarcerated during program participation. The sample was mostly urban (note: this category includes suburban and urban) (81%), with approximately 19% of participants located in rural areas. The mean age of participants was 36.5 years (*SD* = 10.9). Participants reported having, on average, 2.5 biological children (*SD* = 1.7), and 95% of fathers reported they had at least one biological child. Additionally, 77% reported they had at least one stepchild and 25% reported they had at least one foster or adopted child. The majority of fatherhood participants in this sample were African-American (60%), whereas approximately another third (34%) were White/European American, and 6% reported "other" (e.g., biracial, American Indian/Alaskan American or Asian). The majority of fatherhood participants were currently unmarried. More specifically, 39% were single and never married, 19% were in a committed relationship (but not married), 19% reported being currently married, 9% were separated, 12% were divorced, and 2% were widowed. The majority of participants had received a high school diploma or GED (55.3%), whereas 28.8% had not finished high school, and approximately 15.9% had attended some form of post-secondary education. About one-fourth (27.3%) reported receiving federal aid such as SNAP (food stamps) and TANF (Temporary Assistance for Needy Families). Participants were mostly low income, with over half (52%) reporting no monthly income as they were unemployed at baseline, another 30% reported making between $100 and $1,599 per month, 16% reported making between $1,600 and $4,099 per month, and 2% reported making $4,100 or more per month.

The focus group sample included 19 adult, male fatherhood participants, 52% of whom were located in rural areas and 48% of whom were located in urban (suburban and urban) areas. There were approximately five fathers at each focus group meeting. The mean age of focus group participants was 43 years (*SD* = 10.9). These fathers reported three biological children on average (*SD* = 2.1), with 100% of them reporting they had at least one biological child, 16% had at least one stepchild, and 11% had at least one foster or adopted child. The racial makeup of the focus group participants was 89% African American and 11% European American. The majority of focus group participants were currently unmarried. More specifically, 39% were single and never married, 39% were in a committed relationship (but not married), 11% were married, and 11% were divorced. Half of the focus group participants had received a high school diploma (50%), whereas 28% did not finish high school, and approximately 22% had attended some form of post-secondary education. Participants were mostly low income, with half (50%) reported making between $100 and $1,599 per month, 32% reported no monthly income at all as they were unemployed, and only 15% reported making more than $1,599 per month.

Measures

Each of the 14 outcomes of interest in the current study are linked with individual, relational, and family well-being for fathers and children and consistent with assessments in other fatherhood program evaluations (e.g., Avellar, et al., 2018; Fagan & Kaufman, 2015). They also can be conceptually framed by the Protective Factors model developed by the Strengthening Families™ program (Browne, 2014; CSSP, 2018) and thus can be considered as important deterrents to child maltreatment: social connections, parent/family resilience, concrete support in times of need, knowledge of parenting and child development, and social and emotional competence of children (Child Welfare Information Gateway, 2014).

Protective Factor: Social Connections

Relationship stability. Commitment to current romantic relationship was measured using three items used in previous studies of couples education. Examples include, "How likely is it that your current romantic relationship will be permanent?" and "How likely is it that you and your partner will be together in six months?" Response anchors range from 1 indicating "Very unlikely" to 7 indicating "Very likely." Mean scores were created and the Cronbach's alpha for internal consistency was excellent ($\alpha = 0.86$) at baseline.

Conflict management skills. Conflict management was measured using three items from the Interpersonal Competence Scale (Burhmeister, Furman, Wittenberg, & Reis, 1988) to assess conflict management skills in participants' relationships with other adults. An example item is, "When angry, I am able to accept that the other person has their own point of view even if I don't agree with that view." Response anchors range from 1 indicating "Not at all" and 7 indicating "Very much." Mean scores were created and the Cronbach's alpha for internal consistency was good ($\alpha = 0.80$) at baseline.

Communication skills. Participant's communication skills were measured using three items from the Huston and Vangelisti (1991) Positive Interactions Scale, including, "I am a good and sensitive listener" and "I tell my partner things I appreciate about her/him and how much I care about her/him." Response anchors range from 1 indicating "Not at all" to 7 indicating "Very much." Mean scores were created and the Cronbach's alpha coefficient for internal consistency was good ($\alpha = 0.81$) at baseline.

Coparenting conflict. The level of conflict with the biological mother was measured with two items from an existing coparenting quality measure (Ahrons & Wallisch, 1987): "How often do you and your child(ren)'s other parent argue about child rearing" and "How often do you and your child(ren)'s other parent argue about time spent with child(ren)." Response anchors range from 1 indicating "Not at all" to 7 indicating "Very much." Mean scores were created and the Cronbach's alpha for internal consistency was acceptable ($\alpha = 0.74$) at baseline.

Dating abuse prevention skills. Skills related to dating abuse prevention were assessed using a single item: "I am able to identify an abusive/unhealthy relationship." Response anchors range from 1 indicating "Not at all" to 7 indicating "Very much."

Protective Factor: Parent/Family Resilience

Hope. Participants' hopefulness about the future was measured using three items from the State Hope Scale (Snyder et al., 1996). An example item is, "I can think of many ways to reach my current goals." Response anchors range from 1 indicating "Not at all" to 7 indicating "Very much." Mean scores were created and the Cronbach's alpha coefficient for internal consistency was good ($\alpha = 0.81$) at baseline.

Protective Factor: Knowledge of Parenting and Child Development

Positive parenting behaviors. Positive parenting behaviors were measured using three items related to supportive parenting developed for the study. An example item: "When you are with your child(ren), how often do you give praise?" Response anchors range from 1 indicating "Almost never" to 7 indicating "Very often." Mean scores were created and the Cronbach's alpha coefficient for internal consistency was acceptable (α = 0.77) at baseline.

Father involvement. Father's level of involvement was measured using two items from the Life Role Salience Scale (LRSS; Bosch et al., 2012). An example includes, "I expect to devote a significant amount of my time and energy to raising my children." Response anchors range from 1 indicating "Not at all" to 7 indicating "Very much." Mean scores were created and the Cronbach's alpha coefficient for internal consistency was good (α = 0.83) at baseline.

Parent-child relationship quality. Parent-child relationship quality was measured using two items from the child-parent relationship scale (Pianta, 1992). An example includes, "I share an affectionate, warm relationship with my child." Response anchors range from 1 indicating "Not at all" to 7 indicating "Very much." Mean scores were created and the Cronbach's alpha coefficient for internal consistency was acceptable (α = 0.72) at baseline.

Protective Factor: Social and Emotional Competence of Children

Child academic adjustment. The child's academic adjustment was measured using one global item: "My child(ren) is/are performing well in school." Response anchors range from 1 indicating "Not at all" to 7 indicating "Very much." Fathers could select N/A and were dropped from analyses if the question was not applicable to their experience.

Protective Factor: Concrete Support in Times of Need

Financial responsibility. Financial responsibility was measured using two items from the Assets for Financial Independence initiative (Mills & McKernan, 2016) assessing participants' beliefs about saving money and tracking spending habits. An example item includes, "I believe that it is important to save money from every paycheck." Response anchors range from 1 indicating "Not at all" to 7 indicating "Very much." Mean scores were created and the Cronbach's alpha coefficient for internal consistency was good (α = 0.85) at baseline.

Economic stability. Economic stability was measured using one item: "I rarely worry about being able to meet normal monthly living expenses." Response anchors range from 1 indicating "Strongly disagree" to 7 indicating "Strongly agree."

Commitment to cooperate with child support personnel. Cooperation with child support enforcement personnel was measured also using one global item: "I am committed to maintaining civil interactions with child support enforcement personnel." Response anchors range from 1 indicating "Strongly disagree" to 7 indicating "Strongly agree."

Commitment to pay full child support. Commitment to paying full child support was measured using one global item: "I am committed to making full child support payment each month." Response anchors range from 1 indicating "Strongly disagree" to 7 indicating "Strongly agree."

Fathers also reported their monthly income and job status at each timepoint.

Challenges

In addition to the target outcomes, we assessed information collected at intake on challenges. A list of 29 common challenges were given and fathers selected the degree to which each was a challenge. Response anchors range from 1 indicating "no, not at all" to 4 "yes, a lot." Example items include "not having a steady place to live," "living too

far from your child(ren)," and "having car problems or lack of transportation." A full list of the challenges can be seen in Table 5, 7, and 9. Items were treated as individual measures at baseline.

Qualitative Interviews

Questions ranged from broad to specific:

1. *What do you think is the role of a father in a child's life?*
2. *In your opinion, what are some challenges facing fathers in this [rural/urban] area?*
3. *What have you enjoyed the most/least about the program?*
4. *Why are you a part of this fatherhood program? Did you have a choice?*
5. *What do people in this community think about someone who is in this program?*
6. *Do your family or friends know that you are a part of this program? What do you think they think about your participation in the program?*
7. *Do you think this is an important program to have in this [rural/urban] community? Why or why not?*
8. *Is being a father more challenging in this community than in other communities? If so, how? Have you thought about moving to a different type of community? How would this affect you as a father?*
9. *What are some benefits of being a father in this [rural/urban] area?*

Data Analysis Plan

To address Aim 1, whether there were differences in level of target outcomes and challenges at the retrospective-baseline assessment based on fathers' geographic location (urban or rural), race (White or Black or other minority), or the interaction of geographic location and race, MANCOVAs were conducted while controlling for income level, age, race, and relationship status. Because of the number of variables and the reduction in sample size due to listwise deletion in the MANCOVAs, a series of one-way ANCOVAs were utilized to test group differences in baseline mean levels of target outcomes and challenges.

To address Aim 2, whether participants report improvements in the desired direction in multiple target outcomes, we utilized RMANCOVAs and growth curve modeling. To assess improvements from retrospective pre- to immediate post-program, a series of repeated measures analysis of covariance (RMANCOVA) were conducted on all continuous outcome variables controlling for race, age, income, and relationship status. To assess growth over six months and one year for each of the 14 outcomes and reports of income, we utilized longitudinal growth models (using observed scores) in MPlus Version 8. Scores in each area were regressed on the intercept and slope at six months and one year, controlling for race, age, income, and relationship status.

To address Aim 3, examining the influence of geographic location, race, and the interaction of geographic location and race on levels of improvements in target outcomes, mixed-between-within repeated measures analysis of variance (RMANCOVAs) (T1-T2) and growth curve modeling (T1-T3; T1-T4), controlling for race (only in the geographic location model), income, age, and relationship status, were used.

To address Aim 4, which focused on whether geographic location, race, the interaction of geographic location and race, and sequencing of program services influenced retention and completion rates, various comparison tests were conducted. Independent *t*-tests or a one-way ANCOVA (for the interaction of geographic location and race) were conducted to determine whether the number of sessions attended differed between groups. Additionally, crosstabs were conducted to assess differences in proportion of participants completing the program (i.e., attended six or more of the 12-session curriculum) based on the moderators.

To address Aim 5, examining the influence of sequencing of program on amount of improvements in target outcomes, mixed-between-within repeated measures analysis of variance (RMANCOVAs) (T1-T2) and growth curve modeling (T1-T3; T1-T4) controlling for race, income, age, and relationship status were conducted using reported scores in each area at each timepoint.

To address Aim 6, understanding whether and how stigma associated with fatherhood program participation influences levels at program entry and improvements in target outcomes, we planned to conduct MANCOVAs, RMANCOVAs, and growth models; however, the measure was extremely skewed with limited variability. Thus, descriptive and correlational analyses were conducted. Details are provided in the results section.

Finally, to address Aim 7, qualitatively exploring the experiences of fatherhood program participants, we utilized qualitative thematic coding and methods for cross-coder reliability.

Results

Preliminary Analysis

Descriptive statistics of the outcome variables at each data collection time point are presented in Table 1. At retrospective pre-assessment, the outcomes of interest were normally distributed (George & Mallery, 2010). We also assessed correlations among variables of interest. Results are presented in Table 2 and indicate multiple significant correlations among outcome variables. In addition, the results indicate several statistically significant associations between moderators of interest and outcome measures. Specifically, geographic location is associated with reports of *conflict management skills* and *coparenting conflict* at retrospective pre-assessment. Race is correlated with reports of *communication skills, hope,* and *financial responsibility* at retrospective pre-assessment.

Missing Data

Because we utilized retrospective pre/post surveys that assess baseline and immediate post-program reports at the same data collection time, all fathers (n = 630) included in the study provided retrospective reports of baseline

functioning (T1) and functioning immediately post program (T2). Of those, 268 participants (42.5%) of the sample provided data at the six-month follow-up (T3) and 268 participants (42.5%) provided one-year follow-up data (T4). Over half (52.9%), or 333 individuals, of fatherhood participants in the study provided retrospective pre-, post-program, and six-month, and/or one-year follow-up data. Analyses utilizing the six-month and one-year follow-up were conducted in MPlus Version 8 (Muthen & Muthen, 2013), which uses full-information maximum likelihood (FIML). FIML enables the use of all available information from responses in order to limit the deletion of cases due to missingness. Indications are that FIML can be used to complete later timepoint data when 10% or more of the original sample provide data (Little, 2013). Thus, our collection of follow-up data from over 50% exceeds this threshold considerably and increases the confidence we can have in the results.

Additionally, we tested for systematic differences between those who completed follow-up surveys compared to those who did not, using one-way ANOVAS to assess differences in retrospective reports of baseline levels of all the target outcomes. There were no statistically significant differences between the groups. Further, chi-square tests were used to assess for demographic differences between groups (i.e., geographic setting, race, sequencing of program, and relationship status [married and nonmarried]). All but one were non-significant. Findings indicated that rural fathers were slightly overrepresented in follow-up data collection group. That is, proportionally more rural fathers completed a six-month and/or one-year follow-up survey (55%) compared to rural fathers who completed just the retrospective pre- and immediate post-program follow-up (45%). In turn, urban fathers were slightly underrepresented in the follow-up group: 44% completed six-month and/or one-year follow-up surveys, compared to 56% who completed only retrospective pre- and immediate post-program follow-up.

Aim 1: Examine whether participants report similar functioning and challenges upon program entry based on geographic location, race, and the interaction of geographic location and race.

Geographic Location. Initial results of between group comparisons of retrospective pre-program levels on the target outcome measures using MANCOVA indicated no statistically significant mean level differences based on geographic location [$F(1, 103) = .576$, $p = .887$]. Because of the number of variables assessed and the use of listwise deletion in MANCOVA (and thus a significant reduction in the sample used for the MANCOVA analyses), we proceeded with post-hoc individual one-way ANCOVAs (see Table 3). We found several significant mean level differences based on setting. Rural fathers retrospectively reported higher levels of *conflict management skills* [$F(1, 633) = 4.999$, $p = .026$] but also greater *coparenting conflict* [$F(1, 268) = 4.794$, $p = .029$] compared to urban fathers at program start.

Results of the MANCOVA for the 29 fathers' challenges indicated no statistically significant mean level differences based on geographic location [$F(1, 428) = 1.005$, $p = .461$]. Because of the distinction between areas of challenge, we proceeded with testing post-hoc individual one-way ANCOVAs (see Table 4). Findings indicate urban fathers retrospectively reported significantly more difficulty compared to rural fathers at program start in several areas: *not having a steady place to live* [$F(1, 559) = 9.904$, $p = .002$], *incarceration* [$F(1, 541) = 6.669$, $p = .010$], *living situation prevents bringing child(ren) home* [$F(1, 630) = 6.023$, $p = .014$], and *living too far from child(ren)* [$F(1, 614) = 4.979$, $p = .026$].

Race. Initial results of between group comparisons of retrospective pre-program levels on the 14 target outcome measures using MANCOVA indicated no statistically significant mean level differences based on race [$F(1, 104) = 1.605$, $p = .085$]. Results from a series of post-hoc one-way ANCOVAs, however, revealed several differences between groups (see Table 5). Black and other minority fathers retrospectively reported a higher mean level of *communication skills* [$F(1, 619) = 9.935$, $p = .002$], *hope* [$F(1, 567) = 8.674$, $p = .003$], *financial responsibility* [$F(1, 566) = 12.815$, $p < .001$], and *positive parenting behaviors* [$F(1, 581) = 4.443$, $p = .035$] compared to White fathers at program start.

Results of the MANCOVA for the 29 fathers' challenges indicated statistically significant mean level differences based on race [$F(1, 413) = 3.769$, $p < .001$]. Follow-up individual one-way ANCOVAs (see Table 6) indicate Black and other minority fathers retrospectively reported significantly more difficulty compared to White fathers at program start in several areas: *unemployment* [$F(1, 553) = 12.844$, $p < .001$], *being unable to pay child support* [$F(1, 546) = 20.758$, $p < .001$], *being unable to pay other bills* [$F(1, 552) = 14.283$, $p < .001$], *not having enough money to buy things for child(ren)* [$F(1, 550) = 15.914$, $p < .001$], *transportation* [$F(1, 548) = 4.536$, $p = .034$], and *not having enough money for food* [$F(1, 551) = 10.573$, $p = .001$]. White fathers retrospectively reported significantly more difficulty compared to Black and other minority fathers at program start in several areas: *drug/alcohol use* [$F(1, 548) = 7.603$, $p = .006$], *incarceration* [$F(1, 541) = 4.495$, $p = .034$], and *working too many hours* [$F(1, 551) = 3.883$, $p = .049$].

The Interaction of Geographic Location and Race. Initial results of between group comparisons of retrospective pre-program levels on the 14 target outcome measures using MANCOVA indicated no statistically significant mean level differences based on the interaction of geographic location and race [$F(1, 312) = 1.363$, $p = .069$]. Results from a series of individual two-way ANCOVAs, however, indicated one difference between the four groups (see Table 7). White rural fathers retrospectively report higher levels of *commitment to pay full child support* [$F(1, 409) = 4.105$, $p = .043$] compared to Black and other minority rural fathers at program start, but did not differ from the other two groups.

Results of the MANCOVA for the 29 fathers' challenges indicated statistically significant mean level differences based on the interaction of geographic location and race [$F(1, 413) = 3.769$, $p < .001$]. Follow-up two-way ANCOVAs (see Table 8) indicated White rural fathers retrospectively reported more difficulty compared to White urban fathers at program start in *trouble with child(ren)'s mother* [$F(1, 544) = 6.141$, $p = .014$], but did not differ from the other two groups. Black and other minority urban and rural fathers and White rural fathers reported more difficulty compared to White urban fathers in *being unable to pay child support* [$F(1, 546) = 4.643$, $p = .032$].

Aim 2: Test whether participants report improvements in the desirable direction in multiple target outcomes related to enhanced child and family well-being, parenting practices, relationships, and family strengths immediately following program participation, six months later, and one year later.

Immediate Post-Assessment. Results revealed that for 14 of the 15 outcomes, the mean level scores reported by participants after program completion were significantly different from their retrospective reports of pre-program scores; changes were in the desirable direction (see Table 9). That is, there were statistically significant improvements reported by fathers completing a fatherhood program in *relationship stability, conflict management skills, communication skills, dating abuse prevention skills, hope, financial responsibility, economic stability, commitment to cooperative relationships with child support personnel, commitment to pay full child support, monthly income, positive parenting behaviors, father involvement, parent-child relationship quality,* and *child academic adjustment*. *Coparenting conflict* did not statistically significantly improve from pre-test to post-test assessment, on average. We calculated effect sizes using an appropriate formula for paired samples. The Cohen's *d* effect sizes ranged from .10 to .61 ($M = .41$), with most effect sizes in the small to moderate range (i.e., .20 – small, .50 – moderate, and .80 – large; Cohen, 1977).

To assess changes in *job status* from baseline to after program participation, cross-tabs were conducted. Results indicate participants had a small but significant shift towards more part- or full-time employment immediately after participation (Pearson Chi-Square = 548.909, $p < .001$). Specifically, 10% of fathers retrospectively reported they were in part-time work and 32% in full-time work, compared to 12% in part-time work and 37% in full-time work immediately post-program (see Figure 1).

Six-Month Follow-Up. Statistically significant growth was evident in all but one of the outcomes. That is, fathers, on average, demonstrated significant growth over a six-month period after participation in a fatherhood program in *relationship stability, conflict management skills, communication skills, coparenting conflict*, *dating abuse prevention skills, hope, financial responsibility, commitment to cooperative with child support personnel, commitment to pay full child support, monthly income, positive parenting behaviors, father involvement, parent-child relationship quality,* and *child academic adjustment*. On average, reported *economic stability* demonstrated marginally significant growth over the six-month period (*B* = .031, *SE* = .016, *p* = .052). The statistically significant changes were in the desired direction and at least the p < .05 significance level (see Table 10).

Model fit was assessed for all growth models; however, the Comparative Fit Index (CFI) and Tucker-Lewis Index (TLI) are not emphasized because they are sensitive to missing data (Zhang & Savalei, 2018). The Root Mean Square Error of Approximation (RMSEA) was consulted to assess overall model fit. Hu and Bentler (2009) suggest a RMSEA value of < .08 indicates acceptable model fit. The goodness of fit indices for the six-month follow-up growth models indicated poor fit (RMSEAs ranged from .132 to .322). This is somewhat unsurprising, given the time variance (i.e., nonequal distance between timepoints) and the large sample size. In a large sample, when fit statistics are poor but a significant global growth is evident, it is most likely that the poor model fit reflects unobserved heterogeneity in the positive growth trajectories (Jung &Wickrama, 2008). For example, one subgroup may have a steeper slope from T1 to T2 and less growth between the other timepoints, while another subgroup may have more linear growth over time. This can be tested using post-hoc growth mixture modeling (GMM). Conducting these post-hoc analyses using GMM serves to validate the statistically significant growth finding and its interpretation for the average participant in the sample when fit statistics are below the generally accepted threshold. Therefore, we fit a post-hoc growth mixture model (GMM) for each growth model tested in the study; results validated a predominant experience of positive growth for the average participant.

To assess changes in *job status* six-months after program participation, cross-tabs were conducted. Results indicate participants had a significant shift to more part-time or full-time employment six months after participation (Pearson Chi-Square = 231.982, *p* < .001). Specifically, 10% were in part-time work and 32% in full-time work at the retrospective-baseline assessment, compared to 13% in part-time work and 40% in full-time work at six months (see Figure 1).

One-Year Follow-Up. Similar to the six-month results, statistically significant growth was evident in all but one of the outcomes. Specifically, fathers demonstrated significant growth over a one-year period after participation in a fatherhood program in *relationship stability, conflict management skills, communication skills, coparenting conflict, dating abuse prevention skills, hope, financial responsibility, commitment to cooperative with child support personnel, commitment to pay full child support, monthly income positive parenting behaviors, father involvement, parent-child relationship quality,* and *child academic adjustment*. On average, *economic stability* did not demonstrate significant growth over the one-year period post-program (*B* = -. 014, *SE* = .010, *p* = .145). The statistically significant changes are in the desired direction and at the *p* < .001 significance level (See Table 11).

The goodness of fit indices for the one-year follow-up growth models indicated poor fit (RMSEAs ranged from .110 to .226); however, growth mixture modeling results revealed unobserved heterogeneity in growth trajectories and validated the interpretation of a predominant experience of positive growth for the average participant.

To assess changes in job status one-year after program participation, a cross-tabs was conducted. Results indicate participants had significant movement to more part- or full-time employment one year after the retrospective-baseline assessment (Pearson Chi-Square = 246.396, *p* < .001). Specifically, 10% were in part-time work and 32% were in full-time work at the retrospective-baseline assessment; 9% were in part-time work and 52% in full-time work at the one-year follow-up (see Figure 1).

Aim 3: Examine the influence of geographic location, race, and the interaction of geographic location and race on levels of improvements in target outcomes immediately following program participation, six months later, and one year later.

Immediate Post-Program.

Geographic Location. Results indicated differences in change based on geographic location for only 2 of the 14 outcomes: *hope* [$F(1, 602) = 5.178$, $p = .023$; see Figure 2], and *economic stability* [$F(1, 589) = 4.234$, $p = .040$; see Figure 3]. See results in Table 12. Post-hoc paired sample *t*-tests indicate urban fathers report greater improvements in *hope* ($t = -13.422$, $p < .001$) compared to rural fathers ($t = -6.479$, $p < .001$) who experience less statistically significant improvements. Further, urban fathers experienced statistically significant improvements in *economic stability* ($t = -6.054$, $p < .001$), whereas rural fathers did not experience improvements ($t = -1.618$, $p = .109$). These *t* statistics are not included in the table.

Race. Results indicated differences in change based on race for only 2 of the 14 outcomes: *communication skills* [$F(1, 599) = 6.533$, $p = .011$; see Figure 4] and *commitment to cooperate with child support personnel* [$F(1, 418) = 4.499$, $p = .034$; see Figure 5]. See results in Table 13 post-hoc paired sample *t*-tests indicate Black and other minority fathers report greater improvements ($t = -7.242$, $p < .001$; $t = -10.055$, $p < .001$) compared to White fathers who experience less change ($t = -4.762$, $p < .001$; $t = -8.425$, $p < .001$) in *communication skills* and *commitment to cooperate with child support personnel,* respectively. These *t* statistics are not included in the table.

The Interaction of Geographic Location and Race. Results indicated differences in change based on the interaction of geographic location and race in 1 of the 14 outcomes: *commitment to pay full child support* [$F(1, 422) = 4.051$, $p = .045$; see Figure 6]. See results in Table 14. Post-hoc paired sample *t*-tests indicate all subgroups experienced significant change except for rural White fathers who did not experience change ($t = -1.971$, $p = .060$). These *t* statistics are not included in the table.

Six-Month Follow-Up. Utilizing growth modeling we tested whether the slopes from baseline to six-month follow-up differed by geographic location, race, and the interaction of geographic location and race controlling for race (only in the geographic location model), income, age, and relationship status. A summary of results is provided in Table 15.

Geographic Location. Results indicate growth significantly differed based on geographic location for improvements in *conflict management skills* ($B = -.103$, $p = .016$; see Figure 7), *communication skills* ($B = -.102$, $p = .007$; see Figure 8), *positive parenting behaviors* ($B = -.068$, $p = .029$; see Figure 9), and *coparenting conflict* ($B = -.132$, $p = .036$; see Figure 10) over six months. post-hoc growth models were used to assess differences in slope trajectories. Urban fathers experienced greater statistically significant growth in *conflict management skills* ($B = .170$, $p < .001$) and *positive parenting behaviors* ($B = .129$, $p < .001$) compared to rural fathers who experienced less statistically significant growth in each (i.e., *conflict management skills* ($B = .087$, $p = .039$) and *positive parenting behaviors* ($B = .074$, $p = .005$). Additionally, urban fathers experienced statistically significant growth in *communication skills* ($B = .137$, $p < .001$), while rural fathers did not experience statistically significant growth ($B = .062$, $p = .092$). Rural fathers experienced more statistically significant decreases in *coparenting conflict* ($B = -.237$, $p < .001$) compared to urban fathers who experienced less statistically significant reductions ($B = -.099$, $p < .001$).

While the goodness of fit indices for the six-month follow-up growth models considering geographic location were slightly improved from the growth models for the full sample due to accounting for potential observed heterogeneity in growth trajectories, poor fit was still evident (RMSEAs ranged from .115 to .283). From the post-hoc growth mixture

modeling conducted, we can conclude that the patterns of unobserved hetereogeneity explain the reduced fit and allow for the interpretation of the results.

Race. Results indicate growth significantly differed based on race for improvements in *communication skills* (B = .125, p < .001; see Figure 11), *hope* (B = .112, p = .001; see Figure 12), *financial responsibility* (B = .094, p = .006; see Figure 13), *economic stability* (B = .092, p = .007; see Figure 14), *positive parenting behaviors* (B = .070, p = .011; see Figure 15), and *dating abuse prevention skills* (B = .123, p = .005; see Figure 16) over six months. Post-hoc growth models were used to assess differences in slope trajectories. White fathers experienced greater statistically significant growth in *communication skills* (B = .186, p < .001), *hope* (B = .165, p < .001), *financial responsibility* (B = .144, p < .001), *positive parenting behaviors* (B = .166, p < .001), and *dating abuse prevention skills* (B = .164, p < .001) compared to Black and other minority fathers who experienced less statistically significant growth in *communication skills* (B = .088, p = .008), *hope* (B = .070, p < .001), *financial responsibility* (B = .076, p < .001), *positive parenting behaviors* (B = .094, p < .001), and *dating abuse prevention skills* (B = .079, p = .003). White fathers experienced statistically significant growth in *economic stability* (B= .078, p = .005) compared to Black and other minority fathers who did not experience statistically significant growth (B = -.003, p = .899) over the six-month period.

While the goodness of fit indices for the six-month follow-up growth models considering race were slightly improved from the growth models for the full sample due to accounting for potential observed heterogeneity in growth trajectories, poor fit was still evident (RMSEAs ranged from .118 to .28). From the post-hoc growth mixture modeling conducted we can conclude that the patterns of unobserved hetereogeneity explain the reduced fit and allow for the interpretation of the results.

The Interaction of Geographic Location and Race. Results indicate growth significantly differed based on the interaction of geographic location and race for improvements in *communication skills* (B = .216, p = .037; see Figure 17). Post-hoc growth models were used to assess differences in slope trajectories. White rural fathers (B = .245, p < .001), White urban fathers (B = .180, p < .001), and Black and other minority fathers (B = .112, p < .001) experienced statistically significant growth in *communication skills* compared to Black rural fathers who did not experience statistically significant growth (B = .015, p = .716) over six months.

While the goodness of fit indices for the six-month follow-up growth models considering geographic location and race were slightly improved from the growth models for the full sample due to accounting for potential observed heterogeneity in growth trajectories, poor fit was still evident (RMSEAs ranged from .099 to .232). From the post-hoc growth mixture modeling conducted, we can conclude that the patterns of unobserved hetereogeneity explain the reduced fit and allow for the interpretation of the results.

One-Year Follow-Up. Utilizing growth modeling we tested whether the slopes from baseline to one-year follow-up differed by geographic location, race, and the interaction of geographic location and race controlling for race (only in the geographic location model), income, age, and relationship status. A summary of results is provided in Table 16.

Geographic Location. Results indicate growth significantly differed based on geographic location for improvements in *coparenting conflict* (B = -.105, p = .002; see Figure 18) and *child academic adjustment* (B = .043, p = .035; see Figure 19) over one year. Post-hoc growth models were used to assess differences in slope trajectories. Rural fathers experienced statistically significant decreases in *coparenting conflict* (B = -.126, p < .001) compared to urban fathers who did not experience statistically significant decreases (B = -.030, p = .064). Rural fathers experienced greater statistically significant growth in *child academic adjustment* (B = .094, p < .001) compared to urban fathers who experienced less statistically significant growth (B = .047, p < .001).

While the goodness of fit indices for the one-year follow-up growth models considering geographic location were slightly improved from the growth models for the full sample due to accounting for potential observed heterogeneity

in growth trajectories, poor fit was still evident (RMSEAs ranged from .101 to .202). From the post-hoc growth mixture modeling conducted, we can conclude that the patterns of unobserved hetereogeneity explain the reduced fit and allow for the interpretation of the results.

Race. Results indicate growth significantly differed based on race for improvements in two outcomes: *communication skills* (B = .045, p = .007; see Figure 20) and *hope* (B = .037, p = .032; see Figure 21) over one year. Post-hoc growth models were used to assess differences in slope trajectories. White fathers experienced greater statistically significant growth in *communication skills* (B = .055, p < .001) and *hope* (B = .090, p < .001) compared to Black and other minority fathers who experienced less statistically significant growth in *communication skills* (B = .046, p < .001) and *hope* (B = .025, p = .014).

While the goodness of fit indices for the one-year follow-up growth models considering race were slightly improved from the growth models for the full sample due to accounting for potential observed heterogeneity in growth trajectories, poor fit was still evident (RMSEAs ranged from .096 to .204). From the post-hoc growth mixture modeling conducted, we can conclude that the patterns of unobserved hetereogeneity explain the reduced fit and allow for the interpretation of the results.

The Interaction of Geographic Location and Race. Results indicated no differences in the amount of growth over one year based on the interaction of geographic location and race.

While the goodness of fit indices for the one-year follow-up growth models considering geographic location and race were slightly improved from the growth models for the full sample due to accounting for potential observed heterogeneity in growth trajectories, poor fit was still mostly evident (RMSEAs ranged from .084 to .172). From the post-hoc growth mixture modeling conducted, we can conclude that the patterns of unobserved hetereogeneity explain the reduced fit and allow for the interpretation of the results.

Aim 4: Explore the influence of geographic location, race, the interaction of geographic location and race, and sequencing of program services on participants' retention and completion.

Participants in the study were originally invited to participate in curriculum instruction focused on parenting and coparenting that spanned over 12 sessions. Overall, 59% of fathers attended half or more (six sessions or more) curriculum sessions, and 41% attended less than six curriculum sessions. The average number of sessions participants attended was approximately seven (M = 6.81, SD = 3.247), with six sessions attended occurring most frequently in the sample.

Geographic location. Independent samples t-tests indicate, on average, that rural fathers attended more class sessions (M = 7.84), compared to non-rural fathers (M = 6.84; t = -2.755, p =.006). Results from crosstabs were not statistically significant (Pearson Chi-Square = .124, p = .724), indicating no differences in program completion based on geographic location.

Race. Independent samples t-tests indicated, on average, that White fathers attended more class sessions (M = 7.72, compared to non-White fathers (M = 6.29; t = -5.277, p < .001). Results from cross-tabs indicated that, on average, White participants were overrepresented in the completer group (70%) compared to Black and other minority participants (53%; Pearson Chi-Square = 14.810, p < .001).

Interaction of geographic location and race. Results from a one-way ANOVA indicated a significant difference between the groups based on the interaction of geographic location and race (F(3, 601) = 13.044, p < .001). Tukey's

post-hoc test indicated Black and other minority rural participants (M = 7.28; p < .001) and White urban participants (M = 7.78; p = .008) attended more sessions compared to Black and other minority urban participants (M = 6.03). Results from crosstabs indicated that, on average, White urban fathers were overrepresented in the completer group (70%; Pearson Chi-Square = 15.360, p = .002) compared to Black and other minority urban (53%; p < .001) and Black and other minority rural (56%; p = .028) fathers.

Program Sequencing. Independent samples t-tests indicated, on average, those who completed case management first attended more class sessions (M = 7.55) compared to those who received class content first (M = 6.64; t = 2.94, p = .003). Results from cross-tabs indicated that, on average, those who received case management first were overrepresented in the completer group (64%) compared to those who received class content first (56%; Pearson Chi-Square = 4.239, p = .040).

Aim 5: Explore the influence of sequencing of program services on levels of improvements in target outcomes immediately following program participation, six months later, and one year.

Immediate Post-Program. Results indicated differences in change based on the sequencing of services in four outcomes: *relationship stability* [F (1, 472) = 5.564, p = .019], *hope* [F (1, 550) = 8.722, p = .003], *financial responsibility* [F (1, 545) = 11.995, p = .001], and *parent-child relationship quality* [F (1, 520) = 6.604, p = .010]. A summary of results is provided in Table 17. Post-hoc paired sample t-tests indicate those who received class content first experienced greater statistically significant change in *relationship stability* (t = -3.958, p < .001) compared to those who received case management first (t = -3.774, p < .001) who experienced less statistically significant change. In contrast, those who received case management first experienced greater statistically significant improvements in *hope* (t = -11.788, p < .001), *financial responsibility* (t = -7.326, p < .001), and *parent-child relationship quality* (t = -6.998, p < .001) compared to those who received class content first who experienced less statistically significant improvements in *hope* (t = -8.260, p < .001), *financial responsibility* (t = -7.134, p < .001), and *parent-child relationship quality* (t = -5.751, p < .001). These t statistics are not included in the table.

Six-Month Follow-Up. Results indicate growth significantly differed based on sequencing of services for improvements in *financial responsibility* (B = -.085, p = .010). Post-hoc growth models were used to assess differences in slope trajectories. Fathers who received class content first experienced a greater amount of statistically significant growth (B = .150, p < .001) compared to fathers who received case management first (B = .082, p < .001) who experienced less statistically significant growth. A summary of results is provided in Table 18.

While the goodness of fit indices for the six-month follow-up growth models considering sequencing were slightly improved from the growth models for the full sample due to accounting for potential observed heterogeneity in growth trajectories, poor fit was still evident (RMSEAs ranged from .099 to .293). From the post-hoc growth mixture modeling conducted, we can conclude that the patterns of unobserved hetereogeneity explain the reduced fit and allow for the interpretation of the results.

One-Year Follow-Up. Results indicate growth significantly differed based on sequencing of services for improvements in *financial responsibility* (B = -.045, p = .001). Post-hoc growth models were used to assess differences in slope trajectories. Fathers who received class content first experienced a greater amount of statistically significant growth (B = .069, p < .001) compared to fathers who received case management first (B = .029, p = .001) who experienced less statistically significant growth. A summary of results is provided in Table 18.

While the goodness of fit indices for the one-year follow-up growth models considering sequencing were slightly improved from the growth models for the full sample due to accounting for potential observed heterogeneity in

growth trajectories, poor fit was still evident (RMSEAs ranged from .088 to .218). From the post-hoc growth mixture modeling conducted we can conclude that the patterns of unobserved hetereogeneity explain the reduced fit and allow for the interpretation of the results.

Aim 6: Understand whether and how stigma associated with fatherhood program participation influences levels at program entry and improvements in participants' outcomes.

Variability in responses to overall stigma, individual stigma, and community stigma were low. For example, 86% of participants reported no experience of stigma directed toward themselves personally (i.e., answered "never" on all 10 questions for a score of 0). Furthermore, 82% of participants reported that their communities would never stigmatize a fatherhood program participant (i.e., answered "never" on all 10 questions for a score of 0). Correlations between overall stigma, individual stigma, community stigma, and all retrospective-pre assessment levels of outcomes of interest indicated no statistically significant associations amongst variables (see Table 2). Given the low variability in responses and bivariate associations, further analyses were not conducted with this variable.

Aim 7: Qualitatively explore the experiences of fatherhood program participants to gain insight into their perception of the role of the father, benefits of the program, and how their geographic location influences program participation and being a father.

Although we did not originally include plans for focus groups in this study, we explored the opportunity to meet with fathers at four sample sites (two in a rural setting and two in an urban setting) to gather some basic feedback on their experiences in the program and in the community. We present this information descriptively for illustrative purposes.

A process of basic thematic coding was utilized to analyze field notes from the focus group discussions. First, focus group field notes were read without assigning any codes or developing any themes. Individual note-takers then used comments options in the document to note themes in each response set. These were sent to the primary coder. After thorough review of all notes and suggested codes, the primary coder used a grouping method to consolidate consistent, broad themes in the responses and select illustrative comments related to the themes.

The Role of a Father

Across all sites, fathers remarked that the role of a father was to *provide moral guidance* to their growing children. Almost all fathers mentioned the importance of imparting values and nurturing children's character development. Some fathers characterized this duty as one that results in a legacy for the child that carries more permanence than a legacy of financial wealth. For example, one urban father stated, "The best legacy we can leave is our character and integrity. Regardless of if you have money or not, you can leave that legacy."

Modeling emerged as a method that these fathers reported using to influence their children's behavior. An urban father stated, "If a child sees you do something, they will do it. You have to show kids." Similarly, a rural father stated, "Most kids watch dads more. Mom will always be there, but dads come and go. That is who they watch." A few fathers commented that this modeling is particularly important for their sons' development, implying that *gender socialization* was a critical piece of fathers' roles for their sons. As one father stated, "Boys need support from dad to learn how to be a man." Although one man in an urban group clearly preferred traditional division of gender roles, it is unclear whether all these men shared that preference. Overall, we did not note differences in descriptions of the father role by geographic setting or by race.

Experiences in the Program

Fathers across all sites commented that individuals in their *social networks were generally supportive*, yet quizzical, regarding program participation. For example, one urban father remarked that people would ask, "Why are you even in the program?" Another remarked that people would tell him, "Man, you've changed!" Nobody perceived a stigma associated with attending the programs, and the question often elicited reinforcement of the benefit that the programs had provided the participants.

Across all areas, program strengths centered on the *environment of inclusivity* created by the facilitators at each site. Each group of participants praised their facilitators for encouraging them to show *empathy toward other participants* and to refrain from passing judgment on others while participating in the program. As one participant stated, "[T]here's no such thing as a non-judgment zone, but the staff here made us feel non-judged. It is comfortable here." There were no noted distinctions in descriptions of the program experience by geographic setting or race.

Challenges and Strengths

Differences emerged in the narratives surrounding the challenges faced by fathers in urban and rural areas. Specifically, participants at both rural sites commented on *maternal gatekeeping behavior*. However, they also highlighted that the program helped them overcome this obstacle. One participant remarked, "I have one baby mama who used to not even look my way. This program taught me how to just smile about it and now we actually communicate."

When asked explicitly about geographic setting (i.e., urban versus rural), participants first commented that they did not see an advantage in one environment over the other. Most participants' comments focused on a theme that struggles are the same, regardless of locale. However, in the rural areas only, some participants emphasized that they felt *comforted by the small-town environment* as being more manageable. When this opinion was offered, the group of men nodded in unison at the sentiment that a bigger (i.e., denser, more populous) community would bring more problems.

Court-ordered versus Voluntary

While limited information emerged regarding geographic setting and its influence on fathers and fatherhood programs, we noted that at two sites fathers attended the program voluntarily (one urban, one rural) and at two sites the fathers attended based on a court mandate associated with a child custody or child support issue (one urban, one rural). Entrance into program may influence the experience since, comparatively, fathers at voluntary participation programs were more engaged in providing positive feedback on the facilitators and the benefits, while those in the court-mandated program were comparatively more reserved in describing the benefits yet were still positive about the experience.

Discussion

Our assessment of fatherhood program participants' improvements yielded encouraging findings that suggest the longer-term influence of program participation on multiple, key indicators of individual and family well-being. Using growth modeling procedures, we determined that fathers reported sustained growth over one-year in nearly all distinct measures in the areas of (1) relationship skills and functioning (couple and coparenting), (2) hope for ensuring a positive future, (3) father involvement, positive parenting practices, and parent-child relationship quality, (4) child academic adjustment, and (5) commitments to cooperate with child support staff and meet financial obligations. Notably, fathers also demonstrated significant growth in monthly income and job status (towards full-time work) over the one-year period. These are key target outcomes for fatherhood programs (Fagan & Kaufman, 2015). These improvements also

can be framed as protective factors for children using the 5-Factor Strengthening Families Protective Factor Framework (Browne, 2014): social connections, parent/family resilience, knowledge of parenting and child development, social and emotional competence of children, and concrete support in times of need.

This study is one of the few evaluations of fatherhood programs to utilize a large diverse sample and to follow fathers over a one-year period. It is also one of the only evaluations to consider the experiences of subgroups of fathers over time, particularly in regard to geographic setting of the program, race of the father, and sequencing of services. While the positive and sustained benefits experienced by the average participant over time in multiple areas related to individual and family strengths remains a key takeaway, some information is provided on greater vulnerability and benefit, depending on social address. Specifically, we find enhanced economic vulnerability of urban fathers and Black and minority fathers at program start, and greater individual (e.g., drug and alcohol issues) and work-related challenges for White fathers at program start. We also find evidence of enhanced benefit of programs in multiple areas over time for urban and White participants, particularly in assessments of economic stability, compared to Black and rural fathers. Rural fathers demonstrated greater improvement in coparenting relationships compared to Urban fathers, who report higher interpersonal competence at the retrospective-baseline assessment. Rural fathers also reported greater child adjustment. It also appears that receiving case management first enhances fathers' attendance and retention in program classes, as well as their initial improvements in parent-child relationship quality, financial responsibility, and hope for the future, while receiving case management after classes is associated with greater long-term growth in financial responsibility. We detail each Aim and provide additional considerations for each area investigated.

Aim 1: Examine whether participants report similar functioning and challenges upon program entry based on geographic location, race, and the interaction of geographic location and race.

Utilizing an ecocultural lens, we explored retrospectively reported baseline differences in subgroups of fathers in order to inform program providers, as well as researchers on the potential for differing needs at baseline and possible differing trajectories of change based on context and culture (Phenice et al., 2009). We find some distinctions worth noting.

Geographic Location. In our sample, rural fathers reported more advanced *conflict management skills* but also more frequent *coparenting conflict* at entry compared to urban fathers, suggesting that although they may have some interpersonal skills, they need skills specific to the coparenting relationship. This finding is consistent with previous research indicating rural fathers may have more social challenges, particularly with their child(ren)'s mother and would benefit from additional resources for enhancing their healthy relationship skills (Anderson, Kohler, & Leticq, 2005; Lemke, Lichtenberg, & Arachtingi, 1992; Threlfall & Kohl, 2015).

Contrary to our hypothesis, our study finds that the urban fathers reported at program start that they were experiencing greater barriers to suitable living arrangements and involvement with children compared to rural fathers. Specifically, they named distance from child, a living situation that prevents bringing child(ren) home, and not having a steady place to live. These areas of challenge seem to represent more practical challenges that could be inherent in living in an urban setting. Our focus group fathers touched on this as well, when rural fathers expressed that they felt the rural setting was more "manageable," while urban fathers mentioned the high cost of housing, shared living arrangements that did not provide "space" for the child(ren), and transportation issues to manage the distance from child(ren). These contextual issues for fathers in urban settings are also noted by several scholars focused on fathers (Hawk, 2013; Jordan-Zachery, 2008). Addressing these broader infrastructure issues may be beyond the scope of what fatherhood programs can influence; however, added attention by program staff to assess for these areas of challenge and connection to other resources that may exist, particularly for urban fathers, appears warranted.

Race. We find a number of retrospectively reported baseline differences between the two racial groups. Specifically, in our sample, Black and other minority fathers reported several areas of enhanced skills, as well a distinct set of greater challenges compared to White fathers. While Black and minority fathers reported comparatively more interpersonal skills and use of positive parenting, and positive attitudes about financial commitments, they also reported at true baseline comparatively more challenges in the area of financial hardship: unemployment, transportation difficulties, and the inability to pay bills, and buy food and other necessities for themselves and their children. These findings are consistent with previous research documenting Black fathers' particular struggles with economic challenges related to child support, housing, and basic needs as barriers to involvement with their children (Jordan-Zachery, 2009).

White fathers' set of challenges, as compared to Black fathers in our sample, were more in the intraindividual (drug issues and incarceration) and work environment areas (overload of hours), while the Black fathers were more focused on practical, economic challenges at program start. Some previous research also notes that White, versus Black, fathers are more likely to name social issues (i.e., poor relationship with child's mother) as the most prominent barrier to contact with their children (Walker, Reid, & Logan, 2010). It may be that Black and minority fathers' emphasis on the economic challenges may reflect continued issues of racial discrimination in employment (Pager & Shepard, 2008). While it is not clear from our results what role ethnicity plays in these distinctions at program start, it may be useful for practitioners to consider that the more prominent challenges of fathers may differ based on cultural/ethnic background.

Interaction of Geographic Location and Race. By considering the intersection of the geographic location and race, we found some pronounced challenges for rural White fathers. That is, rural White fathers reported greater challenges with mothers, as compared to urban White fathers and rural Black or other minority fathers. This intersection of race and context reveals a more nuanced story than the initial finding of more challenge with mothers for rural fathers. Some information from our focus groups indicates Black fathers, regardless of setting, emphasized that involvement and support from other family members aided in more cooperative coparenting relationships. Similar emphasis on extended family support in African American families as a cultural norm is prominent in the family science literature (e.g., Perry, 2009). This was not emphasized among White fathers. The rural setting may further compound the relational challenges for White fathers, given the added disadvantage of very high unemployment rates in the rural communities these fathers were living. Coparenting relationship quality is linked with the economic supports fathers provide (e.g., McHale, Waller, & Pearson, 2012). In addition, our intersectional analyses found White rural fathers, as well as Black and other minority fathers in both rural and urban settings, reported greater challenges with being unable to pay child support compared to urban White fathers. While all fathers in programs can benefit from job

skills training and employment opportunities, comparatively, urban White fathers may have greater access to job opportunities and be less likely to face discrimination in hiring (e.g., Jordan-Zachery, 2008).

Aim 2: Test whether participants report improvements in the desirable direction in multiple target outcomes related to enhanced child and family well-being, parenting practices, relationships, and family strengths immediately following program participation, six months later, and one year later.

In our study, on average, in both the immediate post-program period and over a one-year period, fathers' reported improvements in *relationship stability, communication skills, coparenting conflict, dating abuse prevention skills, hope, positive parenting behaviors, father involvement, parent-child relationship quality, child academic adjustment, financial responsibility, commitment to cooperative with child support staff, commitment to pay full child support, income,* and *job status.* Effect sizes of change in the pre/post program timeframe were in the small to moderate range (post-program mean effect size d = .41; six-month mean effect size d = .28; one-year mean effect size d = .41). These are above the threshold for "meaningful change" following an educational program experience (i.e., > .25; Wolf, 1986) and similar to findings from other fatherhood programs (Holmes et al., 2010; Holmes et al., 2018).

There was a delayed effect in our study of decreases in levels of *coparenting conflict*, as initial improvements were not evident post-program; yet, there was a significant decline in conflict levels over the one-year period. This suggests it may take time for fathers to implement skills gained in the fatherhood program that will help decrease the likelihood of conflict with their child's other parent. A recent efficacy study of four Office of Family Assistance-funded Responsible Fatherhood programs (i.e., PACT) did not find better coparenting relationship quality of program participants compared to controls across sites one year after program completion (Avellar et al., 2018); however, these findings differed by site. The one site that demonstrated positive effects on coparenting relationships is the only site that includes training in healthy adult relationships as part of the core program. In our study, all sites include this element, which may explain our finding of significant improvement across sites in coparenting. This suggests the value of including specific training on healthy coparenting communication and conflict management.

In addition, fathers reported improved *economic stability* (i.e., the sense that they could meet their financial obligations) at immediate post-program but only marginally significant growth at the six-month follow-up and no significant growth at the one-year follow-up, on average. Participants did, however, report significant improvements in both income amount and employment status at both later timepoints, similar to other recent evaluations (e.g., Avellar et al., 2018). It appears that, although objective markers of economic advancement may be evident, lower-resource fathers' subjective feelings of instability regarding "making ends meet" may not be influenced in equal increments. It is likely that subjective feelings of economic stability may be more resistant to change even when actual economic conditions improve (Elder & Conger, 2000).

Aim 3: Examine the influence of geographic location, race, and the interaction of geographic location and race on levels of improvements in target outcomes immediately following program participation, six months later, and one year later.

Our next set of questions addressed the call for more contextually driven program evaluation as suggested by scholars in the field (Osborne et al., 2014). We considered two aspects of individuals' lived experience (setting and race) and how these individually and in combination influence patterns of change after participating in a fatherhood program.

Geographic Location. Urban fathers reported a greater amount of change in hopefulness about their future and their economic stability compared to rural fathers. Similarly, six months after program participation urban fathers reported comparatively more growth compared to rural fathers on reports of skills related to conflict management, communication, and positive parenting; these distinctions dissipated at the one-year mark. These results, combined with previous research that indicates more economic, social, and emotional challenges for individuals living in rural settings (Anderson et al., 2005; Mushinski et al., 2015; Threlfall & Kohl, 2015) suggest that the challenges experienced in rural contexts may hamper growth in some areas related to interpersonal relationships after fatherhood program participation, as rural fathers in our sample improved to a lesser degree compared to urban fathers. Fathers in rural areas may benefit from additional supports to effect comparable improvements. It could be a matter of dosage since fatherhood programs in our study used the 24/7 Dad® curriculum that focuses on relationship skills training; however, this is contained in two modules and represents approximately two to three hours of education and skills training. Meta-analyses of relationship skills education programs find that a "moderate" dose of six to nine hours of relationship skills training best predicts significant improvements in relationship skills and quality (Hawkins, Blanchard, Baldwin, & Fawcett, 2008). It is noteworthy that evidence for greater reductions in coparenting conflict for rural fathers emerged at the six-month mark and were retained at the one-year mark. Rural fathers also reported enhanced improvements in their child's academic adjustment at the one-year mark compared to urban fathers' reports. The reported enhanced benefits to the coparenting relationships of rural fathers is evidence of the value of emphasizing these skills in fatherhood programs, particularly for rural fathers.

Race. A few racial differences were evident at each time point, but especially at the six-month follow-up, with results for 6 of the 14 outcomes indicating White fathers experienced comparatively more positive change compared to Black and other minority fathers. We emphasize that both groups demonstrated significant change in these areas, and that Black fathers reported comparatively higher start points for several of these in the interpersonal realm, thus ensuring that there was less room to change compared to White fathers. The notable finding remains the demonstration of significant advancement in reports of economic stability for White fathers, but not for Black and other minority fathers, at the six-month mark. Additional supports for Black fathers' economic advancement are indicated. As noted previously, there continues to be evidence of institutionalized barriers and discrimination based on race in hiring (e.g., Jordan-Zachery, 2008; Pager & Shepard, 2008). Thus, challenges Black and minority fathers face in the workplace may impede advancement for them compared to other participants in fatherhood program. While it may be outside the realm of influence for fatherhood programs to address institutionalized barriers, additional supports may be provided to minority fathers in fatherhood program for networking opportunities through professional service organizations (e.g., The 100 Black Men of America; https://100blackmen.org/) and additional training in entrepreneurial skills (Jennings, 2014).

Interaction of Geographic Location and Race. We found only one distinction in immediate change and one distinction at six-month follow-up based on the combination of setting and race. All fathers except for rural White fathers reported immediate change in their commitment to pay full child support, and at the six-month timepoint all fathers except rural Black fathers reported improvements in communication skills. At the one-year follow-up, there were no distinctions in change trajectories based on the intersection of race and setting.

Overall, the story remains that a diverse group of men in fatherhood programs experienced benefits in multiple outcome areas over a one-year period. However, we revealed some comparatively enhanced benefits in multiple areas for urban fathers compared to rural fathers. We also discovered comparatively more benefits in areas related to interpersonal competence for White fathers compared to Black fathers. Although, notably, rural fathers reported greater improvements in coparenting conflict compared to urban. These types of analyses can also reveal masked effects. Recall that for the full sample, we found significant growth in economic stability at immediate post-program but no significant growth in economic stability at the six-month and one-year marks. Looking at subgroups, we see

that these findings were driven by urban and by Black fathers. Only urban fathers reported significant improvements in economic stability at immediate post-program, while rural fathers did not; only Black fathers did not report economic stability improvements over time, while White fathers did report significant improvements in economic stability at the six-month mark. This lends support for strengthening and expanding efforts to address economic conditions of Black fathers and rural fathers.

It also suggests that continued efforts to explore the experience of subgroups is warranted. This can be done through observed differences in characteristics, as well as through further exploration of unobserved heterogeneity in growth trajectories. This was found in our study and can be further explored in large samples through advanced procedures to develop profiles or latent classes based on the growth mixture modeling (GMM) classes for each outcome to better identify characteristics of fathers with distinct patterns of change over time.

Aim 4: Explore the influence of geographic location, race, the interaction of geographic location and race, and sequencing of program services on participants' retention and completion.

On average, the majority of fathers in the current study attended half or more of the class offerings; however, understanding who may attend regularly or struggle to attend regularly is important information for practitioners working to keep fatherhood participants engaged in program services. In our study, we find that in general rural fathers, White fathers, and White urban fathers have higher attendance rates compared to their counterparts. These findings suggest there may need to be additional engagement strategies for minority fathers, particularly those in urban settings.

Previous research finds added benefit of case management when included with fatherhood program classes (Pruett et al., 2009). However, no previous research has assessed whether or how the sequencing of receiving case management, either before or after parenting class content, influences program retention and completion and program effectiveness. In our study, we utilized a naturally occurring randomizing of services sequence to test whether there were any benefits based on program sequence experience. There appears to be a slight advantage for offering case management first. In our study, over 50% of fathers in both program sequence groups completed the program: 64% for fathers in the "case management first" group and 56% for fathers in the "class content first" group. Those in the "case management first" group attended, on average, one more class than those in the "class content first" group. It may be that the one-on-one time with a case manager prior to program classes helps to build greater trust in the agency and even more investment on the part of the father to commit to class attendance. It may also be that case managers are able to attend to more pressing practical needs first, such as housing, food, and job security, better enabling fathers to be invested in attending classes focused on their social relationships and parenting. This is in line with adaptations of Maslow's hierarchy of needs (1943) that suggest lower order, basic and physiological needs should be addressed prior to addressing higher order social needs.

Aim 5: Explore the influence of sequencing of program services on levels of improvements in target outcomes immediately following program participation, six months later, and one year.

In general, both "class content first" and "case management first" groups demonstrated significant improvements over time in nearly all outcome areas; however, at immediate post-program there appears to be some advantages for case management first in a few outcome areas (i.e., hope, financial responsibility, and parent-child relationship quality). Case management services that help fathers demonstrate job and relationship skills taught in classes can

bolster their sense of autonomy and mastery, and a sense of mastery is associated with reporting improvements in classroom learning outcomes (Ames & Archer, 1988). This may be why we see these stronger improvements for this group in the short term.

Those who received classes first reported comparatively greater immediate improvements in couple relationship quality and interestingly, at the six-month and one-year marks, there appears to be an advantage for enhanced financial responsibility for the group that received classes, rather than case management, first. It may be that following the classes with case management, that is likely more focused on employability and economic conditions of the fathers, provides a slight advantage for launching fathers in regard to their sense of commitment to meeting their financial obligations.

Overall, we conclude that although there may be slight immediate benefit to attendance and completion rates, as well as some interpersonal competence areas when providing case management first and a slight benefit in the area of financial commitment over time to offering case management last, there is limited evidence to "prescribe" an order for programs. This is likely welcome information for many fatherhood programs that necessarily offer continuous enrollment for fathers and may not be in a position to offer parenting classes versus case management in a specific order, based on timing of classes or availability of a case manager. However, it would appear that an option to offer pre-program case management, if possible, and some post-program case management may be beneficial.

Aim 6: Understand whether and how stigma associated with fatherhood program participation influences levels at program entry and improvements in participants' outcomes.

We had expected that a lower level of social support in rural collectivist areas (Elder & Conger, 2000; Gore et al., 2011) may put rural fathers at risk for feeling stigmatized (Threlfall & Kohl, 2015); however, results indicate that fathers across locations in the current study report little to no stigma associated with participation in a community fatherhood program. This was found for overall stigma, one's own personal discrimination levels, and perception of community-level stigma. Because there was so little variability in stigma associated with participating in a fatherhood program and stigma was not correlated with any of the retrospective-baseline levels of outcomes of interest, further analyses were not conducted in this study.

No previous studies of fatherhood programs have included an assessment of stigma, although some previous research finds negative labels used with fathers experiencing child support payment issues and involvement in fatherhood programs (Threlfall & Kohl, 2015). Our measure was adapted from existing measures developed for use in research on mental illness and sexual minority status. We adapted and included the items anticipating that some fathers may experience a sense of stigma, particularly if their involvement with fatherhood programs was court mandated. Admittedly, we were surprised to find that almost all fathers (i.e., 82%) responded "never" to all questions about stigma associated with fatherhood program involvement. However, we find these results reassuring and informative for practitioners and policymakers. Early on, those involved in the Fatherhood Initiative advocated for taking a strengths-based approach, rather than a punitive approach, to supporting fathers in their efforts to be involved with their children and to demonstrate financial responsibility (ACF, 2012). Program providers and supporters can be encouraged that stigmatization or concern about discrimination or shame because of program participation do not appear to be barriers to attending fatherhood programs in the communities in our study. Our focus group interviews confirmed that fathers felt supported and empowered in the recruitment process and throughout their experiences with programs and their staff.

Aim 7: Qualitatively explore the experiences of fatherhood program participants to gain insight into their perception of the benefits or importance of the program and how their geographic location influences program participation and being a father.

By conducting focus groups, we were able to understand the experience of fathers who participated in the program in greater depth. Overwhelmingly, the fathers in our study expressed positivity related to the program and the program staff. They noted that the program felt inclusive and provided them with a positive learning environment. The fathers in our focus groups also noted there was support in the community, although some in the community wanted to know more about their involvement in the program. When questioned about their involvement, they did not convey any negative connotations; rather, they explained queries were more about the service offerings. These generally positive impressions are consistent with other reports of fathers' experiences in fatherhood programs (Sheppard, Sims-Boykin, Zambrana, & Adams, 2004; Whitton, Sperber, Ludwig, Vissman, & Howard, 2018).

There was consistency among fathers in their emphasis on their role as parent in moral guidance and modeling. They emphasized less their economic contributions and more about their efforts to provide a legacy for their child(ren). This finding is consistent with both developmental studies that note a sense of "generativity," that is a marker of prosocial behaviors (Jones & McAdams, 2013), emerges among midlife adults (McAdams & Guo, 2015), and studies of the evolution of the role of father that find greater emphasis over time on social connections, compared to the provision of resources (Morman & Floyd, 2002; Saracho & Spodek, 2008). This provides support for the balanced emphasis that these fatherhood programs have on both economic advancement and relationship and parenting skills enhancement.

From the focus groups, we determined few differences in the experiences of fathers based on geographic location. Fathers across settings reported similar challenges; however, consistent with the quantitative results, rural fathers more frequently mentioned issues with coparenting and maternal gatekeeping. They also emphasized an appreciation for "small town" connections. Also consistent with the quantitative results, rural fathers reported that the program helped them work through the coparenting issues they initially faced, resulting in more positive coparenting relationships over time, consistent with our assumptions that rural fathers may be especially open to help with coparenting relationships.

There was also an initial finding that entry into the program (e.g., voluntary or court-mandated involvement) may have influenced the experience of the program. Future research can assess whether there are differences in program attendance and completion based on entry into the program, as well as differences in change trajectories based on voluntary or court-mandated involvement.

Strengths and Limitations

There are several strengths of the current study. First, this study assessed reported changes in multiple areas of functioning over a one-year period for a large, diverse group of fatherhood program participants. Secondly, it is the first evaluation of fatherhood programs to consider the moderating role of both contextual and cultural influences on fathers' functioning at program entry and over time. Rather than focusing only on the "average" experience, controlling for demographics and geographic setting, we explored possible differences between subgroups of fathers, paving the way for more nuanced approaches to the study of program effectiveness. We also aggregated data from fathers across multiple sites, providing a broader picture of the experience of fathers in diverse programs across the state.

Although there are several strengths to the current study, there are some limitations to consider, as well. Our assessment of changes over time cannot be definitively ascribed to participation in the fatherhood programs since a comparison group of similar, nonparticipant fathers was not utilized in order to observe normative trajectories in these measures. While we cannot note our findings as evidence of "program impact," we can reasonably emphasize small to moderate effect sizes of the change post-program as indicators of meaningful shifts that are likely due to program experiences (Wolf, 1986). Although challenging to implement in real-world settings, particularly when fathers have court mandates to attend programs, a random assignment design using a waitlist, would more appropriately test program efficacy.

Further, we note the unbalanced number in the two geographic settings groups as a potential factor in the limited evidence we observed for differences between rural and urban fathers. Although we had a large sample of 630 fathers, just 19% of fathers in the study lived in rural communities, whereas the remaining 81% lived in either suburban or urban areas in the state of Alabama. With a more balanced sample, we would have enhanced statistical power for detecting group differences if they exist.

We also note limitations in our measures. For efficiency in collecting data on multiple areas of functioning, some measures were assessed using global items, rather than multi-item composite measures. Also, although self-report measures are the most common form of data collection in program evaluation studies, particularly with large samples, they represent subjective assessments in comparison to more objective observed or administrative data. Previous research indicates that court records (Dykema & Schaeffer, 2000), administrative data maintained by state agencies (including records from child support agencies and quarterly reports by employers to state employment agencies), and other informants (Tein, Roosa, & Michaels, 1994) may provide more accurate points of information, particularly regarding economic measures. These types of measures were used in both the PACT (Avellar et al., 2018) and Child Support Noncustodial Parent Employment Demonstration (CSPED; Cancian, Meyer, & Wood, 2019) evaluation projects and, although not sensitive to changes, likely depict more accurate pictures of fathers' economic challenges. We encourage future research that utilizes both objective and multi-informant subjective assessments of functioning and economic conditions of fathers and families.

Implications for Practice

Throughout this report, we note some practical implications based on our results and experiences and summarize them here. First, we provide validation that a diverse group of fathers served in fatherhood programs in diverse settings experienced changes sustained for up to one year in many target areas related to family strengthening and protection of children from maltreatment. This is quite impressive for an educational program with support services. We also find positive growth in areas, such as coparenting and monthly income, that were not evident in other studies (e.g., Avellar et al., 2018). The emphasis in our sites on healthy relationship skills in the 24/7 Dad® curriculum may help explain this difference, as most sites in other studies provide this information as optional services. We also had a predominant population of unemployed fathers in our sample; therefore, improvement in monthly income was more likely than in other studies with a higher proportion of employed fathers at start. Regarding subpopulations, it appears that rural fathers, particularly White rural fathers, may benefit from added attention to couple, coparenting, and parent-child relationships and that urban fathers and Black fathers may benefit from added attention to practical (e.g., housing support) and economic/employment (e.g., assistance paying bills) challenges at program start, while Black and rural fathers may benefit from added supports related to economic challenges (e.g., child support payments) following program participation. This finding of enhanced economic vulnerability even, after program participation, for Black and for rural fathers was in line with our expectations and calls for added attention to the reduction of institutional barriers to employment and economic self-sufficiency for these fathers.

Our results from examining the influence of sequencing of services suggest that it may positively affect class attendance rates for fathers to receive case management first. While it does not appear to be essential for program effectiveness, it may provide the opportunity to connect better with program staff and to initially address more pressing, practical needs. The additional finding that financial responsibility was greater over time if case management services were provided after classes also suggests that a program design that includes some post-program case management, in addition to pre-program case management, may be the ideal method for service delivery. Future research can explore the comparative effectiveness of this program approach.

Conclusions and Future Directions

Despite financial and community support continuing to grow for fatherhood programs (e.g., Dion et al., 2015), the evaluation of programs is still in its infancy. The current study adds to the growing research base in several ways and provides some useful information to inform models of best practice in the field. Among a large group of diverse fathers participating in fatherhood program across 20 sites in a southern state, we find evidence of significant growth over a one-year period in multiple areas related to family strengths that serve as protective factors for children (Browne, 2014): social connections, parent/family resilience, parenting skills and child development knowledge; child social and emotional competence; and concrete supports in times of need. Further, we acknowledged (Phenice et al., 2009) and explored possible variations in start-points and change patterns based on geographic setting and race and program service sequencing.

We find some evidence at program start of the greater economic vulnerability of urban fathers and of Black fathers, the greater vulnerability in family relationships for rural fathers, and greater intrapersonal issues for White fathers. We also find evidence of enhanced benefit of programs over the first six months for urban fathers' interpersonal competence and White fathers' economic stability, and greater benefit over the one-year period for rural fathers' coparenting and child adjustment and for White fathers' interpersonal competence. Enhanced supports for rural and Black fathers' economic stability is needed to address their comparative vulnerability in this area. It also appears that fathers may benefit from receiving case management both before and after class participation. This information serves to inform practitioners' and policymakers' efforts to better meet the needs of diverse fathers and families through added attention and support in areas of specific vulnerability.

Our hope is that this investigation stimulates further exploration of elements of diversity among fathers, program settings, and context that may serve as modifiers of program outcomes. We also encourage use of a comprehensive family systems framework for addressing and evaluating multiple areas related to family strengthening through fatherhood program services. Fatherhood research and practice are better informed when we recognize the diversity and complexity of fathers' and families' lives and work to meet specific types of fathers' needs. We encourage both process and efficacy evaluations that will help to create more effective and successful program designs in the future and rationale for their continued support.

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Table 1. Descriptive Statistics on Outcome Measures Across Time

	Baseline (Time 1)			Immediate Post-Program (Time 2)			Six-month Follow-Up (Time 3)			One-Year Follow-Up (Time 4)		
Outcome	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Relationship Stability	577	5.12	1.89	547	5.55	1.83	206	5.62	1.81	240	5.71	1.87
Conflict Management Skills	649	4.97	1.70	625	5.99	1.31	244	5.83	1.26	265	5.95	1.40
Communication Skills	657	5.60	1.47	627	6.39	0.94	250	6.25	1.08	250	6.34	1.21
Hope	659	5.21	1.61	631	6.10	1.12	252	5.74	1.11	264	5.77	1.28
Financial Responsibility	657	5.91	1.62	626	6.62	0.96	244	6.47	1.05	266	6.56	0.95
Economic Stability	621	4.53	1.86	595	4.90	1.88	196	5.42	2.03	247	4.38	2.00
Parental Involvement	615	6.06	1.36	588	6.58	0.90	234	6.32	1.12	251	6.38	1.20
Parent Child Relationship Quality	624	5.80	1.47	595	6.23	1.16	244	6.08	1.25	256	6.18	1.23
Positive Parenting Behavior	608	5.67	1.35	582	6.24	1.04	241	6.31	0.88	254	6.30	1.09
Coparenting Conflict	269	3.42	2.04	254	3.20	2.11	231	2.63	1.87	248	2.48	1.57
Dating Abuse Prevention Skills	641	5.71	1.78	610	6.48	1.18	243	6.23	1.46	262	6.32	1.34
Commitment to Pay Full Child Support	471	5.28	2.01	450	6.04	1.67	171	5.78	1.80	199	5.72	1.88
Cooperation with Child Support Enforcement Personnel	466	5.32	1.95	444	6.08	1.55	172	5.85	1.76	198	5.55	2.03
Child Academic Adjustment	507	6.00	1.40	482	6.34	1.13	202	6.43	1.05	211	6.41	1.14

Table 2. Correlations of Baseline Outcome Measures and Predictors of Interest

Outcome Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1. Location	1.00																						
2. Race	.12**	1.00																					
3. Sequence	-.07	.07	1.00																				
4. Age	-.07	.09*	-.03	1.00																			
5. Income	-.04	-.31**	.04	-.02	1.00																		
6. Relationship Status	-.02	-.10*	.06	.10*	.18*	1.00																	
7. Relationship Stability	.01	.02	.12**	-.05	.10*	.23**	1.00																
8. Conflict Manage Skills	.08*	.01	.04	.04	.06	.12**	.33**	1.00															
9. Communication Skills	.05	.12**	.07	-.01	.06	.08**	.35**	.58**	1.00														
10. Hope	-.04	.09*	.08	.01	.07	.07	.30**	.42**	.52**	1.00													
11. Financial Responsibility	.01	.10**	.12**	-.03	.07	.06	.30**	.40**	.55**	54*	1.00												
12. Economic Stability	-.05	.04	.07	-.07	.08	.07	.07	.08	.18*	.24*	.15*	1.00											
13. Parental Involve	-.04	-.01	.04	-.10**	.08	.08	.32**	.33**	.48**	.57*	.44**	.17*	1.00										
14. Parent Child RQ	.04	-.01	.09*	-.14*	.05	.07	.33**	.34**	.42**	.45*	.36**	.16*	.64*	1.00									
15. Positive Parenting	.05	.08	.00	-.12**	.06	.08*	.23**	.29**	.43*	.39*	.44*	.18**	.55*	.55*	1.00								
16. Coparenting Conflict	.13*	.08	.14*	-.09	-.04	-.07	-.14*	-.06	.11	-.08	-.11	-.09	-.08	-.11	-.09	1.00							
17. Dating Abuse Prevention Skills	.02	.03	-.09	.01	.06	.09*	.30*	.47*	.46*	.35*	.45*	.00	.31*	.26*	.30*	-.10	1.00						
18. Commitment to Pay Child Support	.00	-.03	.06	.09*	.14*	.09	.24*	.27*	.30*	.38*	.33*	.17*	.36*	.32*	.39*	.01	.19*	1.00					
19. Cooperate with Child Support Personnel	.05	-.06	.04	.02	.09	.07	.23*	.36*	.41*	.37*	.36*	.12*	.38*	.35*	.45*	.05	.27*	.72*	1.00				
20. Child Academic Adjustment	-.03	.02	.02	.05	.05	.10*	.21*	.16*	.24*	.28*	.19*	.17*	.31*	.36*	.37*	-.10	.12*	.28*	.24*	1.00			
21. Overall Stigma	-.01	-.06	.12*	.00	.07	.00	.03	.07	.05	.04	.05	-.06	.06	.03	.04	.05	.02	.11	.09	.01	1.00		
22. Individual Stigma	.00	-.02	.13*	.03	.03	-.03*	.08	.04	.05	.04	.07	-.03	.07	.02	.04	.02	-.04	.11	.09	-.01	.89*	1.00	
23. Community Stigma	-.03	-.09	.07	-.05	.09	.01	-.03	.09	.03	.04	.02	-.08	.05	.04	.03	.08	.06	.08	.06	.01	.92*	.61*	1.00

*Note: * $p < .05$, ** $p < .01$*

Table 3. Aim 1: Results of one-way ANCOVAs testing baseline functioning differences by geographic location, controlling for significant covariates

	Urban		Rural			
	N	*M (SD)*	*N*	*M (SD)*	*F*	*df*
Relationship Stability	464	5.11 (1.95)	113	5.15 (1.66)	.329	561
Conflict Management Skills	527	4.91 (1.73)	122	5.26 (1.54)	4.999*	633
Communication Skills	533	5.56 (1.50)	124	5.75 (1.30)	.896	619
Hope	535	5.24 (1.63)	124	5.07 (1.50)	1.174	567
Financial Responsibility	532	5.90 (1.63)	125	5.94 (1.58)	.001	566
Economic Stability	501	4.57 (1.85)	120	4.35 (1.88)	.791	554
Parent Involvement	494	6.09 (1.37)	121	5.96 (1.31)	1.134	612
Parent-Child Relationship Quality	505	5.77 (1.53)	119	5.90 (1.20)	.445	621
Positive Parenting Behaviors	490	5.63 (1.38)	118	5.82 (1.23)	1.416	605
Coparenting Conflict	220	3.29 (2.05)	49	3.99 (1.94)	4.794*	268
Dating Abuse Prevention Skills	522	5.70 (1.79)	119	5.77 (1.72)	.189	625
Commitment to Pay Full Child Support	359	5.28 (2.04)	112	5.29 (1.91)	.007	423
Cooperation with Child Support Personnel	354	5.27 (2.01)	112	5.48 (1.74)	.997	465
Child Academic Adjustment	407	6.02 (1.40)	100	5.90 (1.43)	.674	493

*Note: * $p < .05$*

Table 4. Aim 1: Results of one-way ANCOVAs testing differences in challenges by geographic location, controlling for significant covariates

	Urban		Rural			
Challenges	*N*	*M (SD)*	*N*	*M (SD)*	*F*	*df*
Unemployment	518	2.29 (1.23)	114	2.18 (1.18)	2.676	553
Not Having a Steady Place to Live	513	1.79 (1.11)	116	1.48 (.85)	9.904**	559
Drug/Alcohol Abuse	509	1.55 (.95)	117	1.36 (.77)	3.031	548
Incarceration	503	1.61 (1.00)	114	1.35 (.70)	6.669**	541
Problems with the Law	508	1.57 (.89)	116	1.39 (.70)	2.012	547
Physical Health Problems	515	1.58 (.95)	116	1.49 (.85)	1.087	570
Violent Toward Partner	510	1.19 (.58)	115	1.12 (.48)	1.453	624
Abusing Children	510	1.15 (.54)	117	1.07 (.29)	2.851	626
Overcrowded Home	510	1.15 (.51)	119	1.14 (.46)	.002	628
Repairs to Home	518	1.26 (.63)	117	1.21 (.48)	.910	634
Child Support	510	1.95 (1.19)	118	2.19 (1.21)	.987	546
Not Enough Money for Bills	514	2.09 (1.12)	115	2.06 (1.02)	1.513	552
Living Situation	514	1.43 (.91)	117	1.21 (.61)	6.023*	630
Anger	519	1.33 (.66)	118	1.25 (.60)	1.476	636
Foster Care	506	1.25 (.75)	116	1.16 (.60)	1.572	621
Living Too Far from Child	509	1.55 (.99)	117	1.33 (.71)	4.979*	614
Working Too Many Hours	510	1.28 (.68)	119	1.22 (.59)	1.133	551
Not Enough Money for Child	512	2.04 (1.14)	118	2.01 (1.08)	1.246	550
Protective Order	513	1.15 (.57)	114	1.14 (.50)	.010	626
Keeping a Job	511	1.39 (.77)	114	1.40 (.76)	.006	566
Family Court	509	1.46 (.87)	119	1.43 (.83)	.160	627
Court Support	509	1.35 (.86)	115	1.32 (.70)	.099	564
Mom's New Partner	500	1.32 (.81)	116	1.22 (.62)	1.823	615
Transportation	509	1.83 (1.15)	117	1.68 (1.05)	1.486	625
Trouble with Child's Mother	506	1.80 (1.14)	115	1.67 (1.00)	1.855	564
Trouble with Child's Mother's Family	511	1.59 (1.05)	115	1.43 (.86)	2.913	546
Immigration	500	1.06 (.35)	115	1.06 (.31)	.007	614
Money for Food	515	1.62 (.95)	116	1.56 (.88)	.531	551
Health Insurance	512	1.98 (1.21)	116	1.81 (1.11)	2.071	569

*Note: * $p < .05$, ** $p < .01$*

Table 5. Aim 1: Results of one-way ANCOVAs testing baseline functioning differences by race, controlling for significant covariates

	White		Black & other minority			
	N	*M (SD)*	*N*	*M (SD)*	*F*	*df*
Relationship Stability	179	5.06 (2.08)	374	5.14 (1.80)	2.211	540
Conflict Management Skills	209	4.94 (1.72)	416	4.97 (1.69)	.188	612
Communication Skills	211	5.35 (1.61)	421	5.71 (1.37)	9.935**	619
Hope	212	5.02 (1.70)	422	5.32 (1.56)	8.674**	567
Financial Responsibility	210	5.67 (1.83)	422	6.02 (1.50)	12.815**	566
Economic Stability	199	4.42 (1.89)	400	4.58 (1.84)	3.478	536
Parent Involvement	199	6.08 (1.38)	393	6.06 (1.35)	.001	589
Parent-Child Relationship Quality	201	5.81 (1.52)	399	5.79 (1.45)	.039	597
Positive Parenting Behaviors	190	5.53 (1.41)	394	5.74 (1.33)	4.443*	581
Coparenting Conflict	85	3.14 (1.93)	173	3.51 (2.10)	1.840	257
Dating Abuse Prevention Skills	207	5.60 (1.78)	409	5.74 (1.80)	1.218	603
Commitment to Pay Full Child Support	132	5.39 (1.97)	322	5.25 (2.02)	.008	409
Cooperation with Child Support Personnel	128	5.49 (1.94)	321	5.24 (1.97)	1.519	448
Child Academic Adjustment	147	5.95 (1.51)	340	6.02 (1.37)	.580	475

*Note: * $p < .05$, ** $p < .01$*

Table 6. Aim 1: Results of one-way ANCOVAs testing differences in challenges by race, controlling for significant covariates

	White		Black & other minority			
Challenges	*N*	*M (SD)*	*N*	*M (SD)*	*F*	*df*
Unemployment	208	1.81 (1.07)	401	2.52 (1.22)	12.844***	553
Not Having a Steady Place to Live	207	1.61 (.96)	400	1.84 (1.13)	1.539	541
Drug/Alcohol Abuse	205	1.64 (1.03)	397	1.46 (.87)	7.603**	548
Incarceration	207	1.60 (.99)	388	1.53 (.93)	4.495*	541
Problems with the Law	202	1.61 (.90)	399	1.50 (.85)	2.367	600
Physical Health Problems	204	1.50 (.87)	403	1.60 (.96)	.052	549
Violent Toward Partner	201	1.24 (.62)	400	1.15 (.54)	3.265	600
Abusing Children	204	1.13 (.44)	400	1.14 (.53)	.252	603
Overcrowded Home	208	1.11 (.37)	399	1.16 (.56)	1.482	606
Repairs to Home	207	1.19 (.54)	404	1.28 (.64)	2.942	610
Child Support	205	1.57 (.97)	400	2.22 (1.25)	20.758***	546
Not Enough Money for Bills	207	1.71 (.91)	399	2.29 (1.14)	14.283***	552
Living Situation	207	1.33 (.81)	402	1.42 (.89)	1.238	608
Anger	208	1.25 (.57)	405	1.33 (.68)	1.919	612
Foster Care	200	1.23 (.71)	400	1.23 (.74)	.002	599
Living Too Far from Child	206	1.46 (.91)	398	1.53 (.97)	.281	593
Working Too Many Hours	206	1.38 (.74)	401	1.20 (.61)	3.883*	551
Not Enough Money for Child	203	1.66 (.92)	403	2.21 (1.17)	15.914***	550
Protective Order	205	1.12 (.46)	399	1.16 (.59)	.837	603
Keeping a Job	204	1.27 (.64)	398	1.45 (.81)	1.803	546
Family Court	205	1.45 (.86)	401	1.46 (.86)	.001	605
Court Support	206	1.39 (.87)	396	1.32 (.82)	.037	545
Mom's New Partner	200	1.38 (.87)	394	1.28 (.75)	2.280	593
Transportation	203	1.54 (.96)	400	1.94 (1.20)	4.536*	548
Trouble with Child's Mother	203	1.76 (1.12)	395	1.80 (1.12)	2.060	544
Trouble with Child's Mother's Family	203	1.74 (1.12)	400	1.47 (.95)	2.160	546
Immigration	201	1.03 (.27)	391	1.07 (.37)	1.542	591
Money for Food	205	1.34 (.70)	403	1.75 (1.02)	10.573***	551
Health Insurance	204	1.72 (1.05)	400	2.08 (1.25)	2.133	548

*Note: * $p < .05$, ** $p < .01$, *** $p < .001$*

Table 7. Aim 1: Results of one-way ANCOVAs testing baseline functioning differences by the combination of geographic location and race, controlling for significant covariates

	White rural		Black & other minority rural		White urban		Black & other minority urban			
	N	*M (SD)*	*N*	*M (SD)*	*M (SD)*	*N*	*M (SD)*	*M (SD)*	*F*	*df*
Relationship Stability	25	4.72 (2.05)	82	5.31 (1.54)	5.11 (2.09)	292	5.09 (1.87)	5.31 (1.54)	1.522	540
Conflict Management Skills	26	4.96 (1.64)	90	5.37 (1.47)	4.94 (1.74)	326	4.86 (1.73)	5.37 (1.47)	1.206	612
Communication Skills	26	5.28 (1.60)	92	5.85 (1.21)	5.36 (1.61)	329	5.68 (1.41)	5.85 (1.21)	.370	619
Hope	26	4.94 (1.68)	92	5.13 (1.46)	5.03 (1.70)	330	5.37 (1.58)	5.13 (1.46)	.721	567
Financial Responsibility	26	5.52 (1.80)	93	6.01 (1.55)	5.69 (1.84)	329	6.03 (1.49)	6.01 (1.55)	.016	566
Economic Stability	25	4.24 (2.07)	90	4.41 (1.83)	4.45 (1.86)	310	4.63 (1.85)	4.41 (1.83)	.013	536
Parent Involvement	26	6.08 (1.42)	89	5.89 (1.32)	6.08 (1.37)	304	6.11 (1.36)	5.89 (1.32)	.317	589
Parent-Child Relationship Quality	26	5.81 (1.04)	87	5.88 (1.27)	5.81 (1.58)	312	5.77 (1.50)	5.88 (1.27)	.181	597
Positive Parenting Behaviors	26	5.67 (1.26)	86	5.85 (1.22)	5.50 (1.44)	308	5.71 (1.35)	5.85 (1.22)	.001	581
Coparenting Conflict	7	4.29 (1.70)	38	3.91 (1.95)	3.04 (1.93)	135	3.40 (2.13)	3.91 (1.95)	.689	257
Dating Abuse Prevention Skills	26	5.42 (2.02)	87	5.79 (1.66)	5.63 (1.75)	322	5.72 (1.84)	5.79 (1.66)	.288	603
Commitment to Pay Full Child Support	25	6.00 (1.73)	82	5.01 (1.93)	5.25 (2.01)	240	5.34 (2.04)	5.01 (1.93)	4.105*	409
Cooperation with Child Support Personnel	25	5.68 (1.95)	82	5.38 (1.70)	5.45 (1.95)	239	5.19 (2.05)	5.38 (1.70)	.009	448
Child Academic Adjustment	19	6.00 (1.53)	76	5.84 (1.42)	5.94 (1.51)	264	6.07 (1.35)	5.84 (1.42)	.654	475

Table 8. Aim 1: Results of two-way ANCOVAs testing differences in challenges by the interaction of geographic location and race, controlling for covariates

	Rural white		Rural black & other minority		Urban white		Urban black & other minority			
Challenges	*N*	*M (SD)*	*N*	*M (SD)*	*N*	*M (SD)*	*N*	*M (SD)*	*F*	*df*
Unemployment	25	1.60 (.82)	85	2.33 (1.21)	183	1.84 (1.10)	316	2.57 (1.22)	.052	553
Not Having a Steady Place to Live	24	1.50 (.72)	88	1.49 (.90)	183	1.58 (.98)	312	1.93 (1.17)	1.453	541
Drug/Alcohol Abuse	24	1.42 (.88)	89	1.33 (.70)	181	1.67 (1.04)	308	1.50 (.91)	.004	537
Incarceration	24	1.42 (.78)	86	1.30 (.63)	183	1.62 (1.02)	302	1.60 (.99)	.785	529
Problems with the Law	24	1.46 (.72)	88	1.38 (.70)	178	1.63 (.92)	311	1.53 (.88)	.007	600
Physical Health Problems	23	1.04 (.21)	89	1.61 (.91)	181	1.55 (.91)	314	1.60 (.97)	2.911	549
Violent Toward Partner	24	1.13 (.61)	87	1.13 (.45)	177	1.25 (.62)	313	1.16 (.56)	.490	600
Abusing Children	25	1.04 (.20)	88	1.08 (.31)	179	1.15 (.46)	312	1.16 (.58)	.051	603
Overcrowded Home	25	1.20 (.50)	90	1.11 (.44)	183	1.10 (.35)	309	1.18 (.59)	1.880	606
Repairs to Home	24	1.21 (.51)	89	1.20 (.48)	183	1.19 (.55)	315	1.30 (.67)	.632	610
Child Support	25	2.12 (1.13)	89	2.20 (1.25)	180	1.49 (.92)	311	2.23 (1.25)	4.643*	546
Not Enough Money for Bills	24	1.88 (.74)	87	2.08 (1.06)	183	1.68 (.93)	312	2.35 (1.16)	3.377	552
Living Situation	25	1.04 (.20)	88	1.24 (.63)	182	1.37 (.86)	314	1.46 (.94)	.260	608
Anger	25	1.08 (.28)	89	1.29 (.66)	183	1.28 (.60)	316	1.34 (.68)	.896	612
Foster Care	24	1.00 (.00)	88	1.20 (.68)	176	1.26 (.75)	312	1.24 (.75)	1.553	599
Living Too Far from Child	24	1.42 (.72)	89	1.30 (.70)	182	1.47 (.93)	309	1.59 (1.03)	.832	593
Working Too Many Hours	25	1.36 (.70)	90	1.14 (.46)	181	1.38 (.75)	311	1.22 (.64)	1.018	551
Not Enough Money for Child	24	1.63 (.88)	90	2.06 (1.07)	179	1.66 (.93)	313	2.26 (1.20)	.300	550
Protective Order	23	1.13 (.63)	87	1.15 (.47)	182	1.12 (.44)	312	1.16 (.62)	.047	550
Keeping a Job	23	1.26 (.54)	87	1.41 (.79)	181	1.28 (.65)	311	1.46 (.81)	.028	546
Family Court	25	1.52 (.87)	90	1.42 (.83)	180	1.44 (.86)	311	1.47 (.87)	1.000	551
Court Support	24	1.58 (.93)	87	1.26 (.62)	182	1.36 (.86)	309	1.34 (.86)	3.438	545
Mom's New Partner	24	1.33 (.76)	88	1.19 (.58)	176	1.39 (.88)	306	1.30 (.79)	.077	593
Transportation	24	1.46 (.72)	88	1.69 (1.08)	179	1.55 (.98)	312	2.01 (1.22)	.848	548
Trouble with Child's Mother	23	2.09 (1.24)	88	1.59 (.92)	180	1.72 (1.10)	307	1.86 (1.17)	6.141*	544
Trouble with Child's Mother's Family	24	1.79 (1.06)	87	1.31 (.74)	179	1.73 (1.13)	313	1.52 (.99)	1.313	546
Immigration	24	1.00 (.00)	87	1.08 (.35)	177	1.04 (.29)	304	1.07 (.38)	.357	591
Money for Food	24	1.25 (.44)	88	1.67 (.96)	181	1.35 (.73)	315	1.77 (1.03)	.004	551
Health Insurance	24	1.54 (.83)	87	1.90 (1.18)	180	1.74 (1.08)	313	2.12 (1.26)	.345	548

*Note: * $p < .05$, ** $p < .01$*

Table 9. Aim 2: RMANCOVAs results for fathers' functioning, controlling for significant covariates

	T1-T2			
	Pre M	*Post M*	*F*	*d*
Relationship Stability	5.15	5.41	35.03***	0.17
Conflict Management Skills	4.94	5.99	197.82***	0.58
Communication Skills	5.57	6.40	177.43***	0.56
Hope	5.20	6.12	132.41***	0.62
Financial Responsibility	5.88	6.63	48.931***	0.46
Economic Stability	4.52	4.91	38.45***	0.26
Parent Involvement	6.09	6.58	59.91***	0.44
Parent-Child Relationship Quality	5.80	6.23	83.59***	0.40
Positive Parenting Behaviors	5.69	6.28	55.11***	0.52
Coparenting Conflict	3.38	3.21	2.62	0.11
Dating Abuse Prevention Skills	5.69	6.48	115.09***	0.47
Commitment to Pay Full Child Support	5.30	6.04	74.15***	0.41
Cooperation with Child Support Personnel	5.31	6.07	77.43***	0.43
Child Academic Adjustment	6.04	6.35	50.41***	0.33

*Note: * $p < .05$, ** $p < .01$, *** $p < .001$*

Table 10. Aim 2: Six-month follow-up growth model results for fathers' functioning, controlling for significant covariates

	T1-T3					
	Pre M	*T3 M*	*Slope (SE)*	*CFI*	*TLI*	*RMSEA*
Relationship Stability	5.12	5.63	0.09*** (.02)	.90	.90	.13***
Conflict Management Skills	4.97	5.83	0.15*** (.02)	.00	-1.33	.27***
Communication Skills	5.60	6.25	0.12*** (.02)	.00	-3.99	.30***
Hope	5.21	5.74	0.10*** (.02)	.00	-.55	.32***
Financial Responsibility	5.91	6.47	0.10*** (.02)	.00	-5.07	.31***
Economic Stability	4.71	4.69	0.03 (.02)	.67	.67	.31***
Parent Involvement	5.51	6.04	0.09*** (.01)	.90	.90	.14***
Parent-Child Relationship Quality	5.88	6.19	0.07*** (.01)	.80	.80	.20***
Positive Parenting Behaviors	5.67	6.31	0.12*** (.01)	.69	.69	.19***
Coparenting Conflict	3.48	2.76	-0.12*** (.03)	.83	.83	.19***
Dating Abuse Prevention Skills	5.71	6.23	0.11*** (.02)	.00	-.58	.26***
Commitment to Pay Full Child Support	5.29	5.78	0.12*** (.03)	.64	.64	.18***
Cooperation with Child Support Personnel	5.32	5.85	0.12*** (.03)	.57	.57	.19***
Child Academic Adjustment	6.00	6.43	0.08*** (0.02)	.90	.90	.15

*Note: * $p < .05$, ** $p < .01$, *** $p < .001$*

Table 11. Aim 2: One-year follow-up growth model results for fathers' functioning, controlling for significant covariates

	T1-T4					
	Pre M	*T4 M*	*Slope (SE)*	*CFI*	*TLI*	*RMSEA*
Relationship Stability	5.12	5.93	0.06*** (.01)	.81	.86	.11***
Conflict Management Skills	4.97	5.97	0.07*** (.01)	.00	-1.10	.19***
Communication Skills	5.60	6.45	0.06*** (.01)	.00	-2.39	.21***
Hope	5.21	5.81	0.04*** (.01)	.00	-.35	.22***
Financial Responsibility	5.91	6.58	0.04*** (.01)	.00	-3.48	.23***
Economic Stability	4.71	4.55	-0.01 (.01)	.56	.67	.22***
Parent Involvement	5.51	6.49	0.08*** (.01)	.78	.83	.13***
Parent-Child Relationship Quality	5.88	6.27	0.03*** (.01)	.73	.80	.15***
Positive Parenting Behaviors	5.67	6.38	0.06*** (.01)	.36	.52	.17***
Coparenting Conflict	3.48	2.91	-0.05*** (.01)	.58	.69	.18***
Dating Abuse Prevention Skills	5.71	6.35	0.04*** (.01)	.00	-.65	.19***
Commitment to Pay Full Child Support	5.29	6.27	0.07*** (.01)	.53	.65	.13***
Cooperation with Child Support Personnel	5.32	6.14	0.06*** (.01)	.42	.56	.14***
Child Academic Adjustment	6.00	6.67	0.05*** (.01)	.77	.83	.13**

*Note: * $p < .05$, ** $p < .01$, *** $p < .001$*

Table 12. Aim 3: Results of RMANCOVAs testing T1 – T2 differences based on geographical location, controlling for significant covariates

	Urban Time 1		Urban Time 2		Rural Time 1		Rural Time 2		Time	Time x GL
	N	*M (SD)*	*N*	*M (SD)*	*N*	*M (SD)*	*N*	*M (SD)*	*F*	*F*
Relationship Stability	464	5.11 (1.95)	439	5.55 (1.88)	113	5.15 (1.66)	108	5.56 (1.62)	24.651***	.001
Conflict Management Skills	527	4.91 (1.73)	510	5.97 (1.34)	122	5.26 (1.54)	115	6.07 (1.15)	101.918***	3.357
Communication Skills	533	5.56 (1.50)	510	6.38 (.96)	124	5.75 (1.30)	117	6.47 (.87)	99.795***	2.015
Hope	535	5.24 (1.63)	514	6.18 (1.08)	124	5.07 (1.50)	117	5.77 (1.23)	90.107***	5.178*
Financial Responsibility	532	5.90 (1.63)	511	6.61 (.98)	125	5.94 (1.58)	115	6.67 (.88)	47.798***	.305
Economic Stability	501	4.57 (1.85)	482	4.99 (1.87)	120	4.35 (1.88)	113	4.52 (1.89)	16.041***	4.234*
Parent Involvement	494	6.09 (1.37)	475	6.59 (.90)	121	5.96 (1.31)	113	6.51 (.93)	52.317***	1.143
Parent-Child Relationship Quality	505	5.77 (1.53)	483	6.24 (1.19)	119	5.90 (1.20)	112	6.20 (.97)	42.536***	.054
Positive Parenting Behaviors	490	5.63 (1.38)	471	6.26 (1.03)	118	5.82 (1.23)	111	6.15 (1.08)	42.567***	.018
Coparenting Conflict	220	3.29 (2.05)	210	3.13 (2.10)	49	3.99 (1.94)	44	3.56 (2.17)	2.708	2.611
Dating Abuse Prevention Skills	522	5.70 (1.79)	500	6.46 (1.20)	119	5.77 (1.72)	110	6.56 (1.08)	75.452***	.410
Commitment to Pay Full Child Support	359	5.28 (2.04)	344	6.01 (1.73)	112	5.29 (1.91)	106	6.14 (1.47)	59.781***	.102
Cooperation with Child Support Personnel	354	5.27 (2.01)	338	6.04 (1.63)	112	5.48 (1.74)	106	6.19 (1.30)	53.820***	1.287
Child Academic Adjustment	407	6.02 (1.40)	389	6.39 (1.09)	100	5.90 (1.43)	93	6.15 (1.30)	25.839***	.756

*Note: * $p < .05$, ** $p < .01$, *** $p < .001$*

Table 13. Aim 3: Results of RMANCOVAs testing T1 – T2 differences based on race, controlling for significant covariates

	White Time 1		White Time 2		Black & other minority Time 1		Black & other minority Time 2		Time	Time x Race
	N	*M (SD)*	*N*	*M (SD)*	*N*	*M (SD)*	*N*	*M (SD)*	*F*	*F*
Relationship Stability	179	5.06 (2.08)	173	5.39 (2.08)	374	5.14 (1.8)	350	5.63 (1.69)	25.668***	.818
Conflict Management Skills	209	4.94 (1.72)	203	6.07 (1.30)	416	4.97 (1.69)	397	5.94 (1.31)	181.071***	.412
Communication Skills	211	5.35 (1.61)	205	6.34 (1.01)	421	5.71 (1.37)	398	6.43 (0.91)	170.045***	6.533*
Hope	212	5.02 (1.70)	208	6.21 (1.05)	422	5.32 (1.56)	399	6.07 (1.15)	221.543***	.448
Financial Responsibility	210	5.67 (1.83)	206	6.64 (0.91)	422	6.02 (1.50)	397	6.60 (0.99)	111.87***	2.613
Economic Stability	199	4.42 (1.89)	195	4.73 (1.91)	400	4.58 (1.84)	379	4.98 (1.84)	29.693***	1.231
Parent Involvement	199	6.08 (1.38)	194	6.71 (0.74)	393	6.06 (1.35)	371	6.51 (0.98)	96.809***	1.567
Parent-Child Relationship Quality	201	5.81 (1.52)	196	6.35 (1.11)	399	5.79 (1.45)	376	6.16 (1.19)	80.531***	.968
Positive Parenting Behaviors	190	5.53 (1.41)	187	6.28 (1.02)	394	5.74 (1.33)	371	6.24 (1.06)	138.770***	1.160
Coparenting Conflict	85	3.14 (1.93)	85	2.88 (1.96)	173	3.51 (2.10)	158	3.31 (2.17)	3.309	1.974
Dating Abuse Prevention Skills	207	5.60 (1.78)	202	6.50 (1.07)	409	5.74 (1.80)	384	6.45 (1.25)	108.011***	.094
Commitment to Pay Full Child Support	132	5.39 (1.97)	129	6.26 (1.51)	322	5.25 (2.02)	305	5.96 (1.72)	62.282***	1.840
Cooperation with Child Support Personnel	128	5.49 (1.94)	126	6.34 (1.40)	321	5.24 (1.96)	302	5.97 (1.60)	62.537***	4.499*
Child Academic Adjustment	147	5.95 (1.51)	143	6.41 (1.13)	340	6.02 (1.37)	320	6.29 (1.15)	47.091***	.029

*Note: * p < .05, ** p < .01, *** p < .001*

Table 14. Aim 3: Results of RMANCOVAs testing T1-T2 differences based on the interaction of geographical location and race, controlling for significant covariates

	Rural white				Rural black & other minority				Urban white				Urban black & other minority				Time	Time X Inter
	Time1		Time 2		Time1		Time 2		Time 1		Time 2		Time 1		Time 2			
	N	*M (SD)*	*N*	*M (SD)*	*N*	*M (SD)*	*N*	*M (SD)*	*N*	*M (SD)*	*N*	*M (SD)*	*N*	*M (SD)*	*N*	*M (SD)*	*B*	*B*
Relationship Stability	25	4.72 (2.05)	25	4.96 (2.19)	82	5.31 (1.54)	77	5.82 (1.30)	154	5.11 (2.09)	148	5.47 (2.06)	292	5.09 (1.87)	273	5.57 (1.79)	14.774***	2.726
Conflict Management Skills	26	4.96 (1.64)	26	6.05 (1.18)	90	5.37 (1.47)	83	6.12 (1.05)	183	4.94 (1.74)	177	6.07 (1.32)	326	4.86 (1.73)	314	5.89 (1.36)	82.301***	1.636
Communication Skills	26	5.28 (1.60)	26	6.36 (1.06)	92	5.85 (1.21)	85	6.50 (.83)	185	5.36 (1.61)	179	6.34 (1.01)	329	5.68 (1.41)	313	6.41 (.93)	86.126***	.461
Hope	26	4.94 (1.68)	26	5.81 (1.46)	92	5.13 (1.46)	85	5.81 (1.11)	186	5.03 (1.70)	182	6.27 (.97)	330	5.37 (1.58)	314	6.14 (1.15)	92.874***	.001
Financial Responsibility	26	5.52 (1.80)	26	6.60 (.81)	93	6.01 (1.55)	83	6.67 (.94)	184	5.69 (1.84)	180	6.65 (.92)	329	6.03 (1.49)	314	6.58 (1.01)	62.831***	.246
Economic Stability	25	4.24 (2.07)	25	4.32 (1.84)	90	4.41 (1.83)	83	4.65 (1.88)	174	4.45 (1.86)	170	4.79 (1.92)	310	4.63 (1.85)	296	5.07 (1.83)	9.538**	.009
Parent Involvement	26	6.08 (1.42)	26	6.62 (.75)	89	5.89 (1.32)	81	6.49 (1.01)	173	6.08 (1.37)	168	6.73 (.74)	304	6.11 (1.36)	290	6.51 (.98)	53.330***	.047
Parent-Child Relationship Quality	26	5.81 (1.04)	26	6.10 (.91)	87	5.88 (1.27)	80	6.21 (1.01)	175	5.81 (1.58)	170	6.39 (1.13)	312	5.77 (1.50)	296	6.15 (1.23)	32.862***	.505
Positive Parenting Behaviors	26	5.67 (1.26)	26	6.05 (1.07)	86	5.85 (1.22)	79	6.16 (1.11)	164	5.50 (1.44)	161	6.32 (1.01)	308	5.71 (1.35)	292	6.26 (1.04)	51.018***	.031
Coparenting Conflict	7	4.29 (1.70)	7	3.21 (1.95)	38	3.91 (1.95)	33	3.56 (2.22)	78	3.04 (1.93)	78	2.86 (1.97)	135	3.40 (2.13)	125	3.24 (2.17)	4.734*	.305
Dating Abuse Prevention Skills	26	5.42 (2.02)	26	6.35 (1.20)	87	5.79 (1.66)	78	6.60 (1.07)	181	5.63 (1.75)	176	6.52 (1.05)	322	5.72 (1.84)	306	6.41 (1.29)	58.008***	1.161
Commitment to Pay Full Child Support	25	6.00 (1.73)	25	6.68 (.80)	82	5.01 (1.93)	76	5.95 (1.61)	107	5.25 (2.01)	104	6.15 (1.62)	240	5.34 (2.04)	229	5.97 (1.76)	43.442***	4.05*
Cooperation with Child Support Personnel	25	5.68 (1.95)	25	6.48 (.92)	82	5.38 (1.70)	76	6.09 (1.41)	103	5.45 (1.95)	101	6.31 (1.50)	239	5.19 (2.05)	226	5.93 (1.66)	41.492***	.001
Child Academic Adjustment	19	6.00 (1.53)	19	6.00 (1.53)	76	5.84 (1.42)	69	6.13 (1.27)	128	5.94 (1.51)	124	6.48 (1.06)	264	6.07 (1.35)	251	6.34 (1.11)	13.644***	.001

*Note: * p < .05, ** p < .01, *** p < .001*

Table 15. Aim 3: Growth modeling results of six-month follow-up differences by geographic location, race, and the interaction between geographic location and race

	Geographic Location		Race		Geographic Location & Race	
	Slope (SE)	*Slope by GL (SE)*	*Slope (SE)*	*Slope by Race (SE)*	*Slope (SE)*	*Slope by Inter (SE)*
Relationship Stability	.11*** (.02)	-.08 (.06)	.07** (.03)	.05 (.05)	.09** (.03)	-.03 (.16)
Conflict Management Skills	.17*** (.02)	-.10* (.04)	.14*** (.02)	.07 (.04)	.16*** (.02)	.15 (.13)
Communication Skills	.14*** (.02)	-.10** (.04)	.08*** (.02)	.13*** (.03)	.11*** (.02)	.22* (.10)
Hope	.10*** (.02)	.02 (.04)	.07*** (.02)	.11** (.03)	.06** (.02)	.07 (.10)
Financial Responsibility	.10*** (.02)	-.01 (.04)	.07*** (.02)	.09** (.03)	.08** (.02)	.17 (.11)
Economic Stability	.02 (.02)	.06 (.04)	-.01 (.03)	.09** (.03)	-.02 (.02)	.03 (.11)
Parent Involvement	.09*** (.01)	.01 (.03)	.08*** (.02)	.05 (.03)	.07*** (.02)	.00 (.08)
Parent-Child Relationship Quality	.07*** (.02)	-.01 (.03)	.06*** (.02)	.02 (.03)	.06*** (.02)	.06 (.09)
Positive Parenting Behaviors	.13*** (.01)	-.07* (.03)	.09*** (.02)	.07* (.03)	.11*** (.02)	.08 (.09)
Coparenting Conflict	-.10*** (.03)	-.13* (.06)	-.14*** (.03)	.06 (.06)	-.02 (.05)	-.01 (.27)
Dating Abuse Prevention Skills	.12*** (.02)	-.07 (.05)	.07** (.03)	.12** (.04)	.09** (.03)	.12 (.14)
Commitment to Pay Full Child Support	.13*** (.03)	-.05 (.06)	.09** (.03)	.09 (.06)	.08* (.04)	-.06 (.17)
Cooperation with Child Support Personnel	.15*** (.03)	-.11 (.06	.11** (.03)	.06 (.06)	.12** (.04)	-.08 (.16)
Child Academic Adjustment	.07*** (.02)	.05 (.04)	.07*** (.02)	.03 (.04)	.05* (.02)	-.16 (.11)

Table 16. Aim 3: Growth modeling results of one-year follow-up testing the differences based on geographical location, race, and both

	Geographic Location		Race		Geographic Location & Race	
	Slope (SE)	*Slope by GL (SE)*	*Slope (SE)*	*Slope by Race (SE)*	*Slope (SE)*	*Slope by Inter (SE)*
Relationship Stability	.06*** (.01)	.00 (.03)	.05*** (.01)	.04 (.02)	.06*** (.02)	.09 (.07)
Conflict Management Skills	.08*** (.01)	-.03 (.02)	.07*** (.01)	.02 (.02)	.07*** (.01)	.05 (.05)
Communication Skills	.06*** (.01)	-.02 (.02)	.05*** (.01)	.05** (.02)	.05*** (.01)	.03 (.05)
Hope	.03*** (.01)	.02 (.02)	.02* (.01)	.04* (.02)	.02 (.01)	.04 (.05)
Financial Responsibility	.04*** (.01)	.01 (.02)	.04*** (.01)	.00 (.02)	.04*** (.01)	.03 (.04)
Economic Stability	-.02 (.01)	.03 (.02)	-.03* (.01)	.04 (.02)	-.04* (.01)	.01 (.06)
Parent Involvement	.08*** (.01)	.00 (.02)	.08*** (.01)	.00 (.02)	.08*** (.01)	-.01 (.04)
Parent-Child Relationship Quality	.03*** (.01)	.00 (.02)	.04*** (.01)	-.01 (.02)	.04** (.01)	.02 (.05)
Positive Parenting Behaviors	.06*** (.01)	.00 (.02)	.05*** (.01)	.01 (.02)	.05*** (.01)	.00 (.04)
Coparenting Conflict	-.03 (.02)	-.11** (.03)	-.05** (.02)	.02 (.03)	-.03 (.02)	.04 (.09)
Dating Abuse Prevention Skills	.04*** (.01)	.00 (.02)	.03** (.01)	.02 (.02)	.03** (.01)	.01 (.05)
Commitment to Pay Full Child Support	.08*** (.01)	-.02 (.03)	.07*** (.01)	.00 (.03)	.07*** (.02)	-.06 (.07)
Cooperation with Child Support Personnel	.05*** (.01)	.04 (.02)	.07*** (.02)	-.02 (.03)	.08*** (.02)	.01 (.07)
Child Academic Adjustment	.04*** (.01)	.05* (.02)	.06*** (.01)	-.01 (.02)	.05*** (.01)	-.03 (.05)

Table 17. Aim 3: Results of RMANCOVAs testing T1 – T2 differences based on program sequencing, controlling for significant covariates

	Class Time 1		Class Time 2		Case Management Time 1		Case Management Time 2		Time	Time x Sequence
	N	*M (SD)*	*N*	*M (SD)*	*N*	*M (SD)*	*N*	*M (SD)*	*F*	*F*
Relationship Stability	190	4.82 (2.01)	180	5.33 (1.94)	313	5.29 (1.83)	299	5.67 (1.80)	29.567***	5.564*
Conflict Management Skills	220	4.89 (1.69)	214	5.93 (1.44)	346	5.02 (1.69)	333	6.05 (1.21)	171.091***	1.650
Communication Skills	221	5.48 (1.55)	211	6.36 (.97)	352	5.68 (1.44)	339	6.45 (.88)	158.826***	3.788
Hope	224	4.99 (1.68)	214	5.90 (1.29)	352	5.26 (1.62)	340	6.23 (.99)	191.691***	8.722**
Financial Responsibility	222	5.64 (1.78)	213	6.53 (1.14)	352	6.05 (1.54)	337	6.71 (.77)	107.219***	11.995***
Economic Stability	214	4.32 (1.84)	208	4.77 (1.87)	326	4.57 (1.87)	313	4.88 (1.92)	32.000***	1.261
Parent Involvement	195	5.99 (1.35)	187	6.52 (1.01)	342	6.10 (1.38)	332	6.63 (.79)	90.725***	1.713
Parent-Child Relationship Quality	203	5.62 (1.56)	194	6.08 (1.28)	335	5.89 (1.39)	332	6.34 (1.05)	76.997***	6.604**
Positive Parenting Behaviors	203	5.65 (1.39)	193	6.16 (1.11)	334	5.66 (1.36)	323	6.27 (1.03)	109.641***	.263
Coparenting Conflict	94	3.05 (1.92)	92	3.14 (2.06)	145	3.60 (2.04)	137	3.27 (2.12)	1.049	1.916
Dating Abuse Prevention Skills	218	5.87 (1.58)	209	6.44 (1.21)	344	5.56 (1.91)	328	6.49 (1.18)	90.829***	.983
Commitment to Pay Full Child Support	153	5.11 (1.98)	146	5.90 (1.72)	261	5.37 (2.07)	250	6.16 (1.66)	61.312***	1.665
Cooperation with Child Support Personnel	148	5.26 (1.83)	142	5.93 (1.63)	261	5.41 (1.99)	250	6.24 (1.48)	59.067***	1.506
Child Academic Adjustment	168	5.96 (1.42)	160	6.29 (1.12)	276	6.01 (1.42)	264	6.42 (1.10)	43.311***	.751

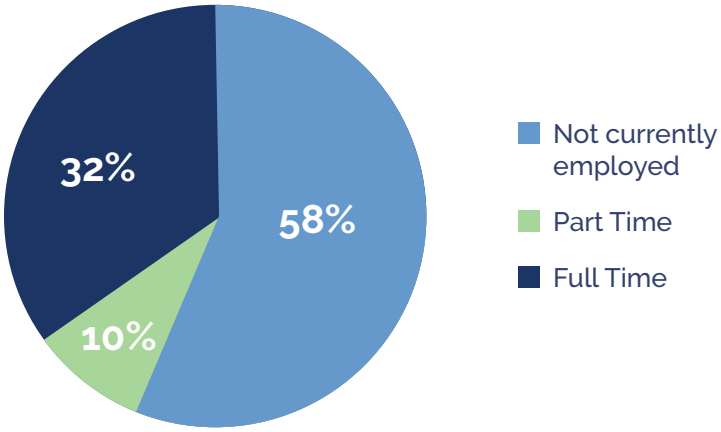
*Note: * p < .05, ** p < .01, *** p < .001*

Table 18. Aim 5: Growth modeling results of one-year follow-up testing the differences based on program sequencing

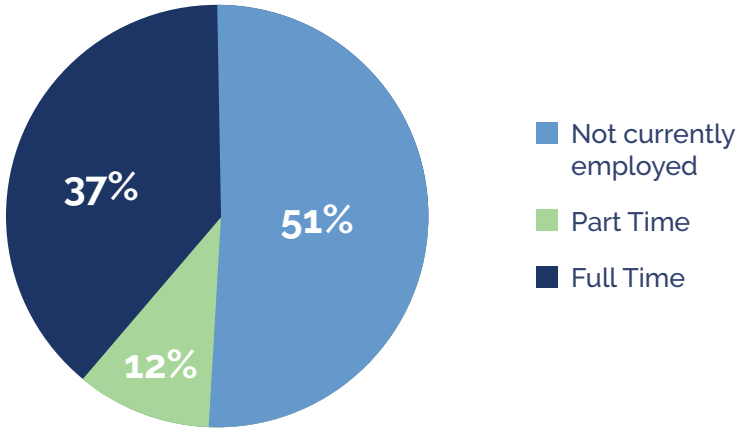
	T1-T3		T1-T4	
	Slope (SE)	*Slope x Sequence (SE)*	*Slope (SE)*	*Slope x Sequence (SE)*
Relationship Stability	.15*** (.04)	-.08 (.05)	.08*** (.02)	-.03 (.03)
Conflict Management Skills	.17*** (.03)	-.02 (.04)	.08*** (.02)	-.02 (.02)
Communication Skills	.16*** (.03)	-.06 (.03)	.07*** (.01)	-.02 (.02)
Hope	.10*** (.03)	.00 (.03)	.06*** (.01)	-.04* (.02)
Financial Responsibility	.16*** (.03)	-.09* (.03)	.07*** (.01)	-.05** (.01)
Economic Stability	.04 (.03)	-.02 (.03)	-.01 (.02)	-.01 (.02)
Parent Involvement	.11*** (.02)	-.03 (.03)	.08*** (.01)	.00 (.02)
Parent-Child Relationship Quality	.08*** (.02)	-.03 (.03)	.04** (.01)	-.01 (.02)
Positive Parenting Behaviors	.12*** (.02)	.00 (.03)	.05*** (.01)	.01 (.02)
Coparenting Conflict	-.05 (.04)	-.09 (.05)	-.04 (.02)	-.01 (.03)
Dating Abuse Prevention Skills	.11** (.04)	.00 (.04)	.05** (.02)	.00 (.02)
Commitment to Pay Full Child Support	.15** (.05)	-.04 (.06)	.07** (.02)	.00 (.03)
Cooperation with Child Support Personnel	.19*** (.05)	-.11 (.06)	.05* (.02)	.01 (.03)
Child Academic Adjustment	.08** (.03)	-.00 (.03)	.07*** (.02)	-.03 (.02)

Figure 1. Job Status.

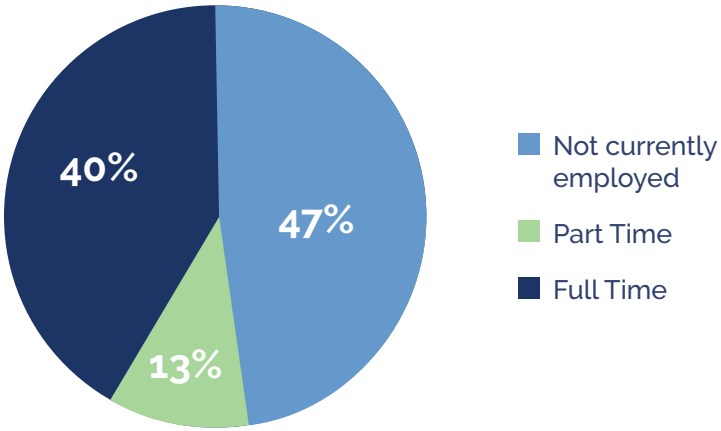
Baseline



Immediate Post-Program



Six-Month Follow-Up



One-Year Follow-Up

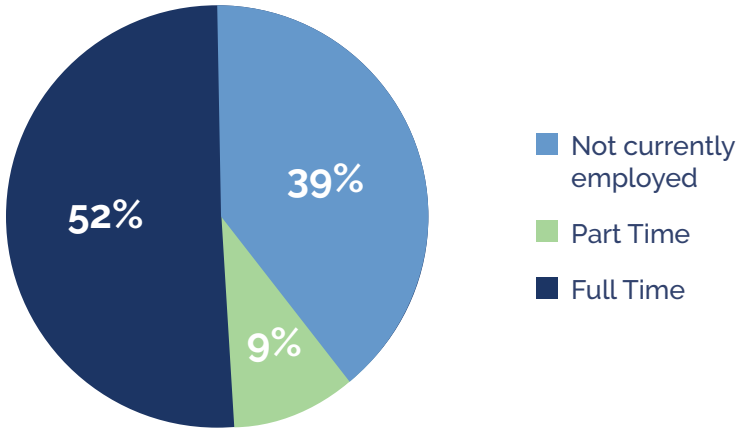


Figure 2. Hope

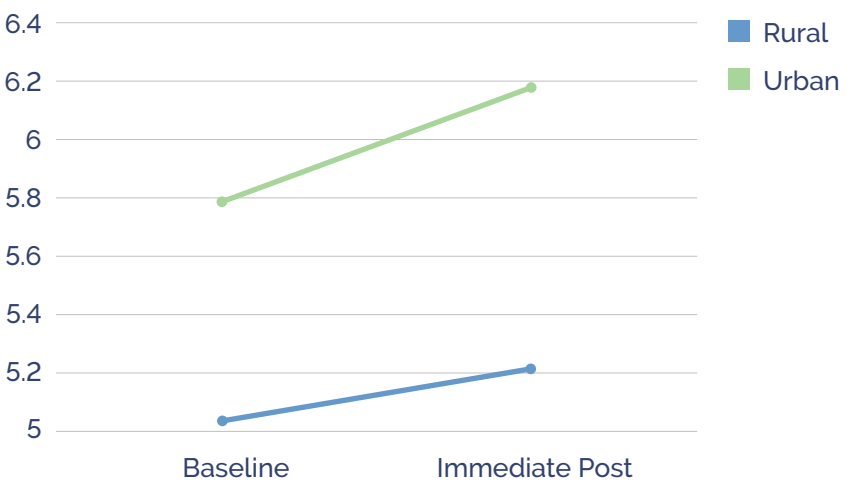


Figure 3. Economic Stability

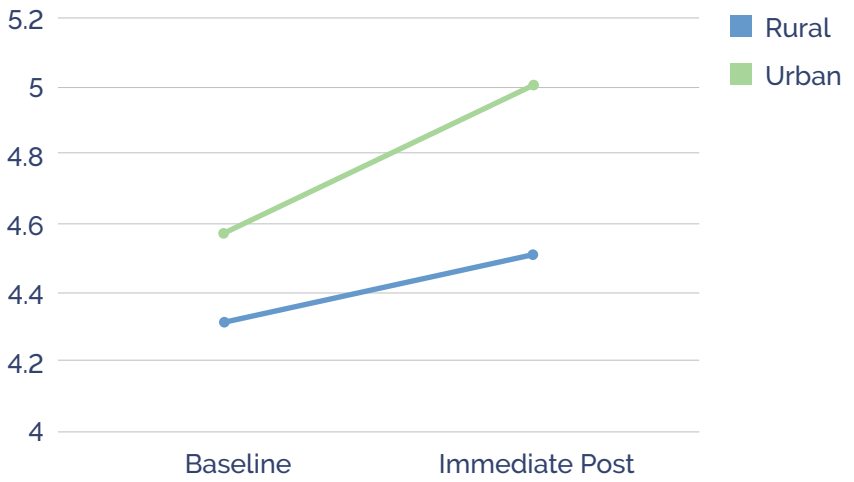


Figure 4. Communication Skills

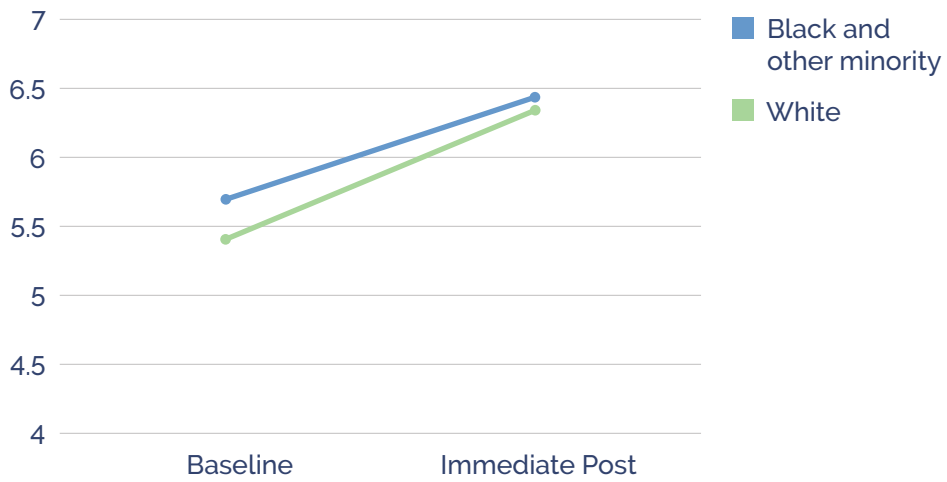


Figure 5. Cooperation with Child Support Enforcement Personnel

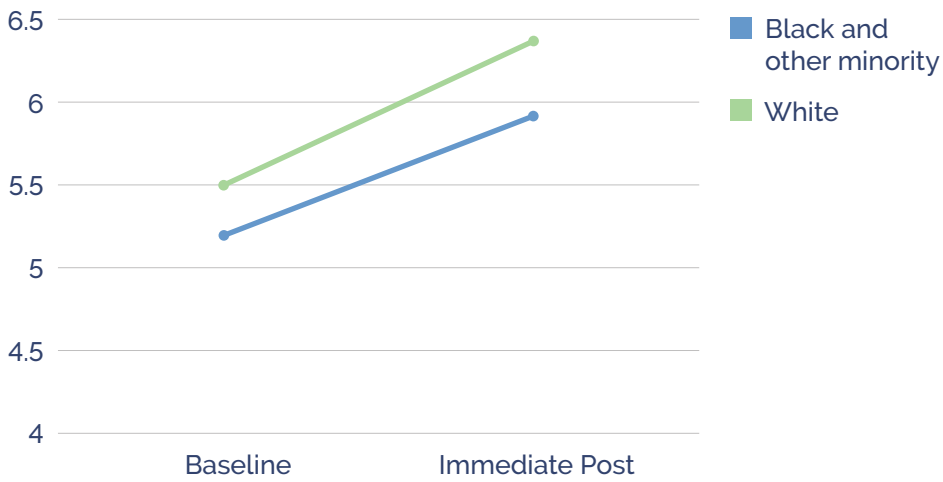


Figure 6. Commitment to Pay Full Child Support

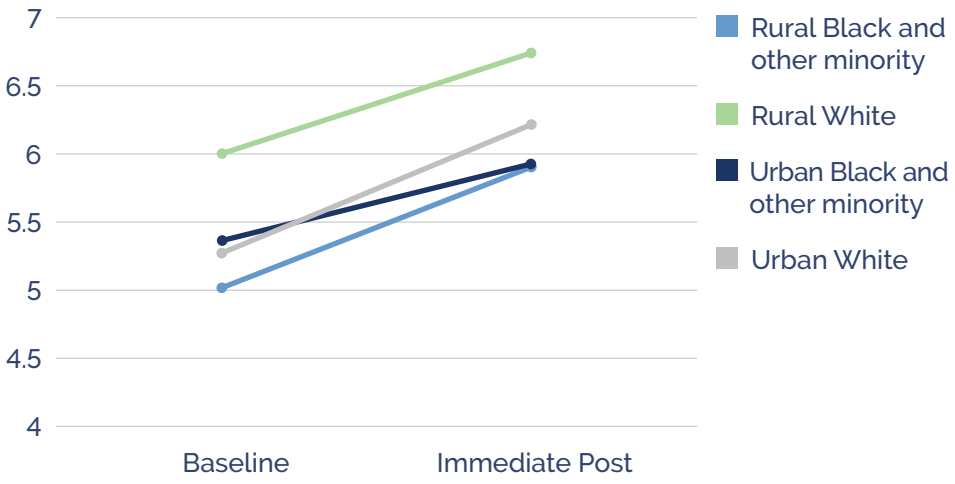


Figure 7. Conflict Management Skills

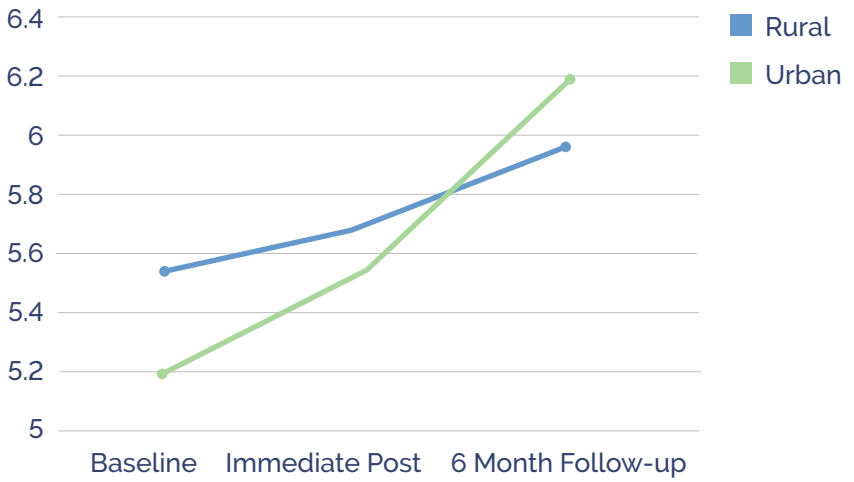


Figure 8. Communication Skills

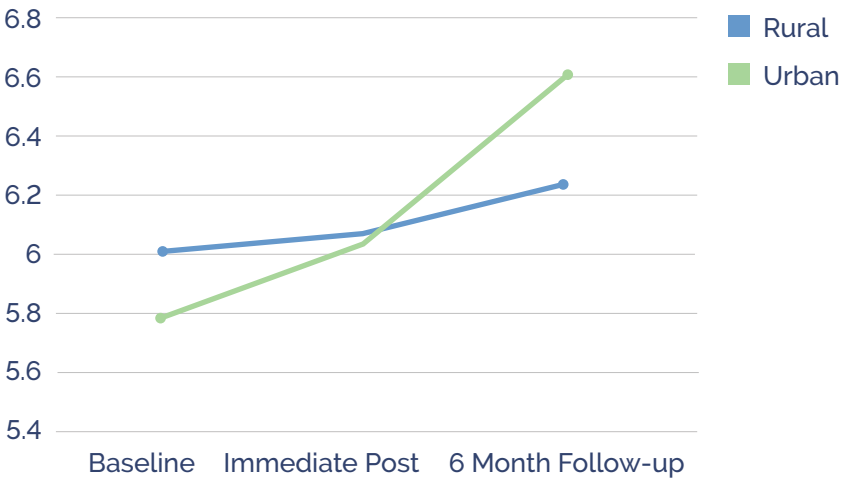


Figure 9. Positive Parenting Behavior

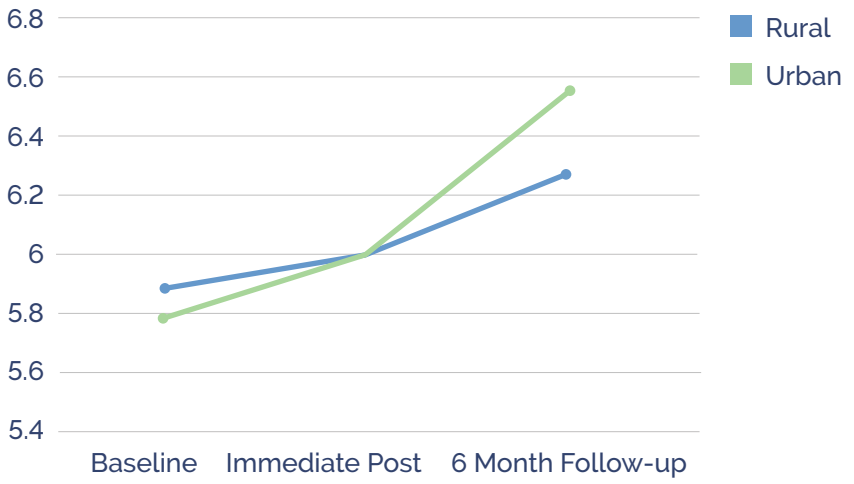


Figure 10. Coparenting Conflict

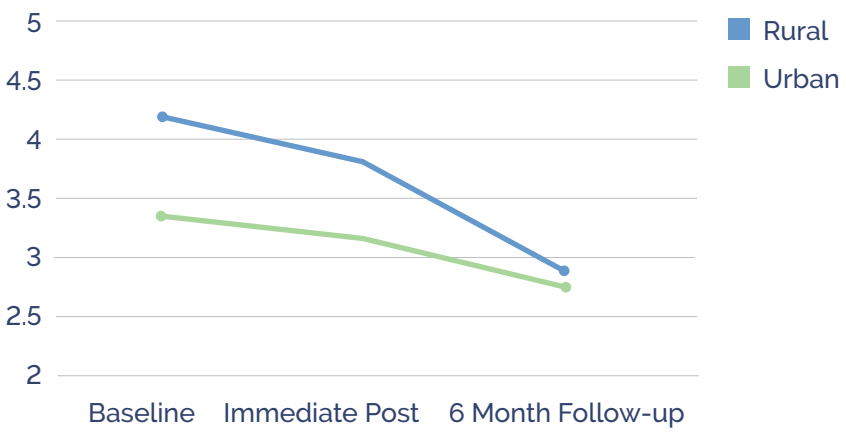


Figure 11. Communication Skills

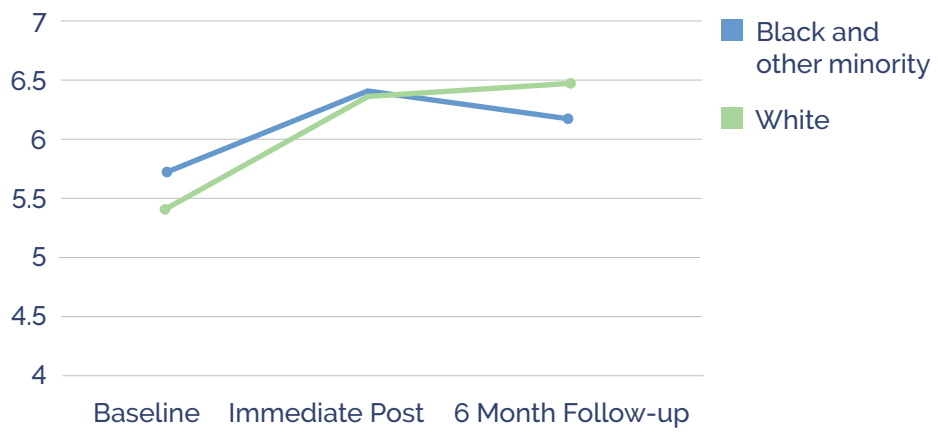


Figure 12. Hope

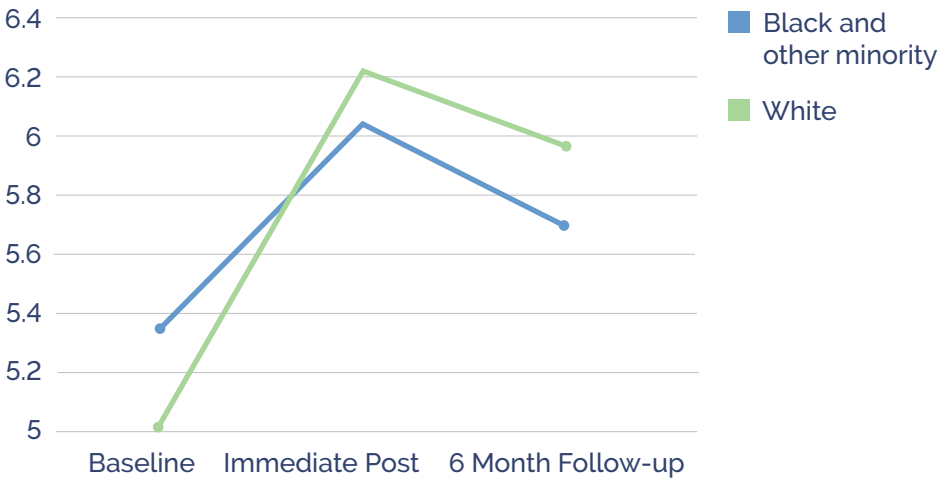


Figure 13. Financial Responsibility

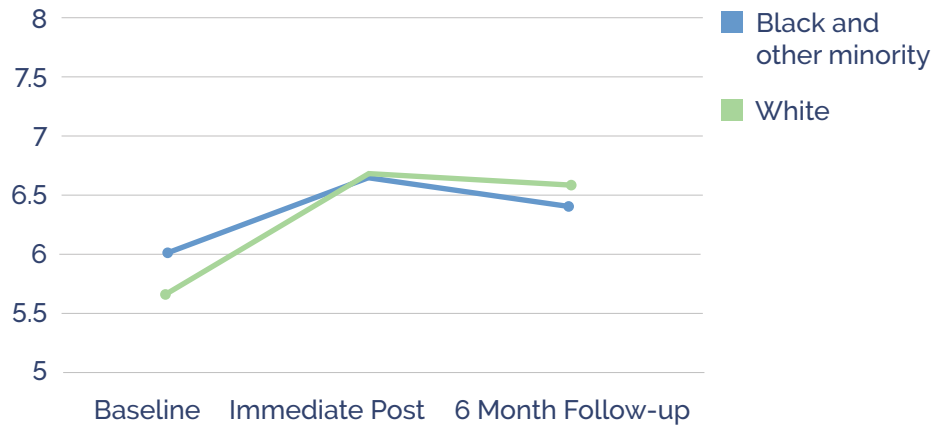


Figure 14. Economic Stability

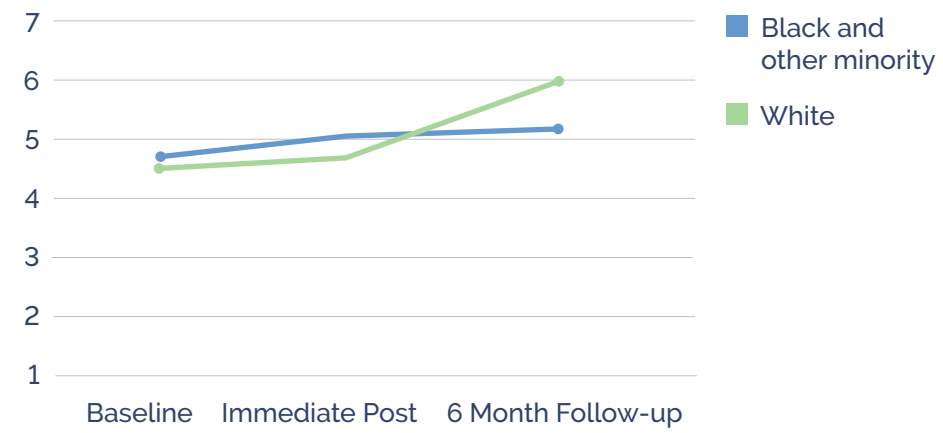


Figure 15. Positive Parenting Behavior

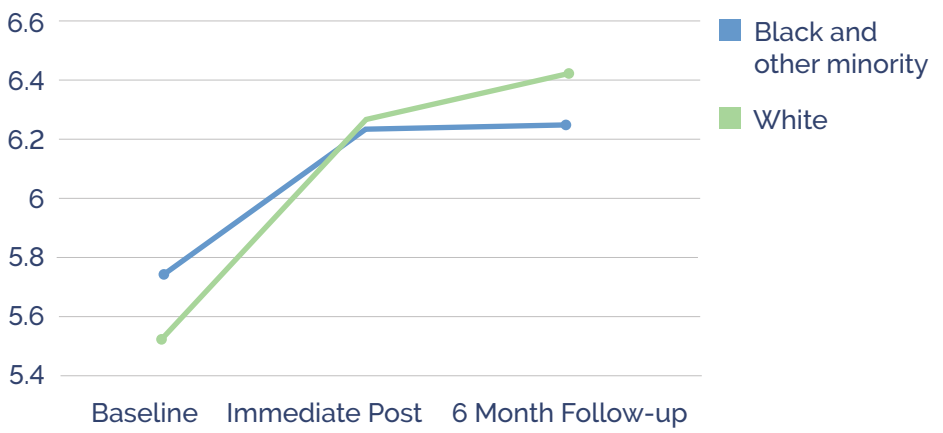


Figure 16. Dating Abuse Prevention Skills

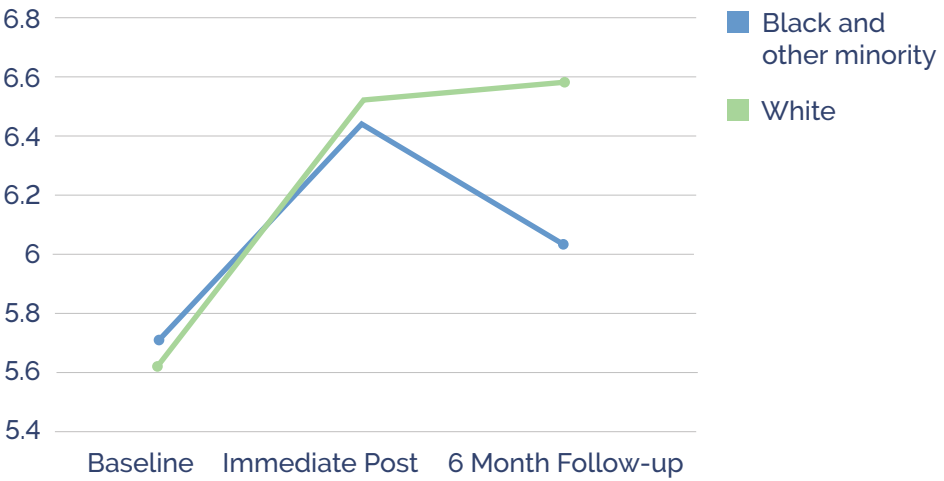


Figure 17. Communication Skills

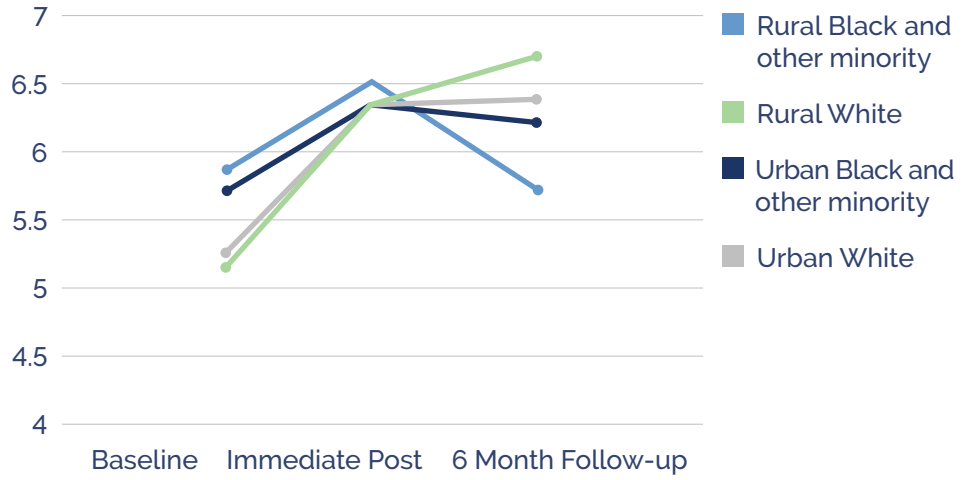


Figure 18. Coparenting Conflict

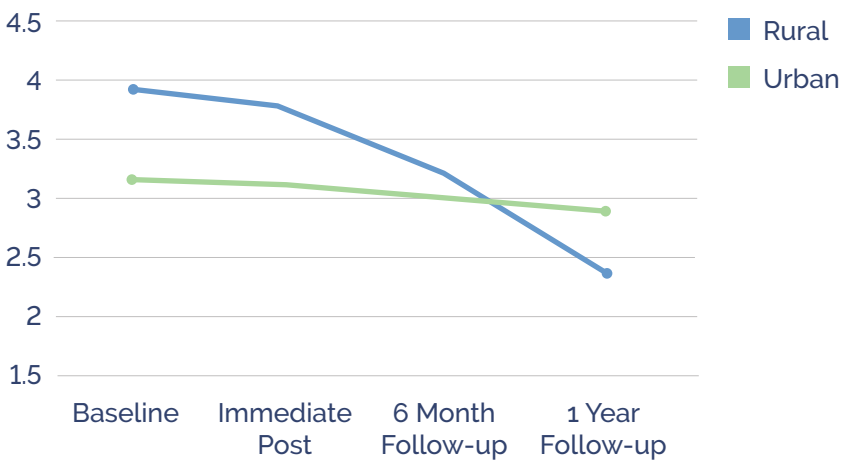


Figure 19. Child Academic Adjustment

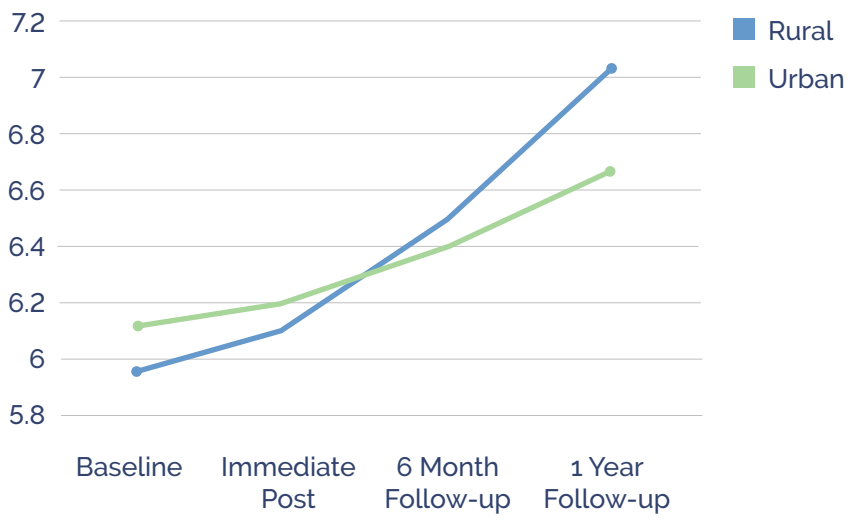


Figure 20. Communication Skills

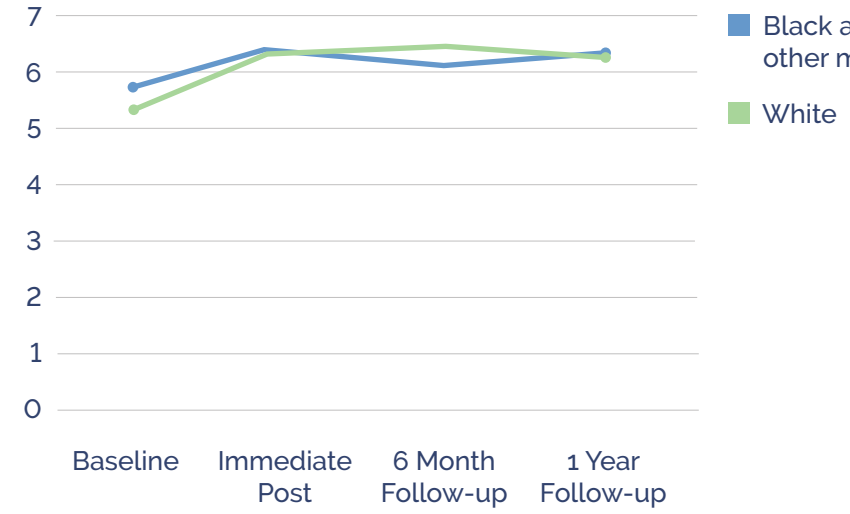


Figure 21. Hope