

February 2018

Fatherhood
Research
& Practice
Network

Final Evaluation Report: The DAD MAP Evaluation: A Randomized Controlled Trial of a Culturally Tailored Parenting and Responsible Fatherhood Program



Bright Sarfo, PhD (Principal Investigator)
MEF Associates

Funding for this study was provided by the Fatherhood Research & Practice Network (FRPN). The FRPN is supported by grant #90PR0006 from the Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

Contents

Acknowledgments.....	3
Executive Summary.....	4
Introduction	5
A. Center for Urban Families	6
A.1. Geography and History.....	6
A.2. CFUF Programs and Services Offered	6
A.3. Baltimore Responsible Fatherhood Program (BRFP).....	7
B. Methods.....	8
B.1. Procedures.....	8
B.2. Research Groups	9
<i>B.2.a. DAD MAP Curriculum</i>	<i>9</i>
<i>B.2.b. Unstructured, Peer-Led, Support Group Workshops</i>	<i>10</i>
B.3. Measures	11
<i>B.3.a. Sociodemographic Characteristics</i>	<i>11</i>
<i>B.3.b. Outcomes</i>	<i>12</i>
B.4. Other Variables.....	13
C. Results.....	14
C.1. Attrition Analysis	14
C.2. Missing Data.....	15
C.3. Descriptive Statistics.....	16
<i>C.3.a. Outcome and Moderator Variable Comparisons</i>	<i>17</i>
<i>C.3.b. Predictors of Attendance</i>	<i>19</i>
D. Hypothesis Testing	19
<i>D.1.a. Research question 1</i>	<i>19</i>
<i>D.1.b. Research question 2</i>	<i>23</i>
E. Discussion and Conclusion	26
E.1. Limitations	28
E.2. Implication for practice.....	29



Acknowledgments

This report was made possible by support from the Fatherhood Research Practice Network (FRPN) and the staff at the Center for Urban Families (CFUF). The CFUF has dedicated their time and resources to ensuring the integrity of the study and fidelity to program implementation procedures. This project would not have been possible without the founder of CFUF, Joseph Jones, and the Baltimore Responsible Fatherhood staff Vernon Wallace, Eddie Pitchford, Eddie White, and George ChinQuee.



Executive Summary

Programs serving fathers have expanded in recent years to provide services including parental workshops, workforce readiness training, and case management. Fatherhood programs typically include several educational and service components to address challenges common among low-income fathers, including unemployment, co-parenting conflicts, delinquent child support cases, and criminal justice involvement. Despite how ubiquitous fatherhood programs have become in addressing these challenges, few fatherhood programs have been rigorously evaluated to identify the effectiveness of program components on key outcomes associated with parental engagement, co-parenting, workforce participation, and child well-being.

The study described in this report aimed to contribute to a growing body of research on effective practices within fatherhood programs by providing a rigorous study of a culturally tailored fatherhood curriculum for low-income fathers residing in Baltimore, Maryland. The Center for Urban Families (CFUF), in collaboration with MEF Associates as its evaluation partner, implemented a randomized, controlled trial testing the efficacy of the “Developing all Dads for Manhood and Parenting” (DAD MAP) parental education curriculum on key fatherhood outcome.

The DAD MAP workshops were designed to assist low-income fathers in four key areas: fatherhood responsibility, parental involvement, employment readiness, and co-parenting cooperation. The DAD MAP workshops include group discussion and activities to reinforce the important role of fathers, connect individual parenting behavior to childhood development, improve interpersonal skills through modeling and roleplaying, and promote ongoing efforts to seek work despite barriers to employment. The DAD MAP curriculum workshops are part of the Baltimore Responsible Fatherhood Project (BRFP) at CFUF, which also includes intensive case management and child support advocacy. One of the core objectives of this evaluation was to identify the value of including a theoretically structured parental skills building curriculum into a fatherhood program service in order to achieve outcomes dealing with parenting, co-parenting relationship quality, child well-being, and workforce participation.

A total of 164 fathers seeking fatherhood services from CFUF provided informed consent and were randomized to participate in either a fatherhood group session using the DAD MAP curriculum or a peer-led unstructured support group. Fathers were asked to complete surveys assessing paternal engagement, co-parenting relationship quality, work seeking or employment, and child well-being at baseline and at three-month and six-month follow-ups.

Results from analysis suggested that the DAD MAP curriculum had significant effects on parental engagement and informal child support contributions at the three-month follow-up. However these impacts did not persist at six-month follow-up assessments. Although parental engagement and co-parenting relationship quality were positively associated, no significant effects of the program were observed on outcomes of co-parenting relationship quality. There were also no impacts reflected in childhood well-being outcomes at three-month or six-month follow-up. Results also suggested stronger impacts for fathers who did not participate in other key CFUF program programs.

The current study is considered one more step in a series of efforts to identify effective fatherhood programs and program components using rigorous evaluations. Future studies may benefit from testing programs using a no-service condition to identify full program impacts and those of other components including case management and employment assistance.



Introduction

The important role fathers play in the well-being of children and families is being increasingly recognized by researchers and policymakers.¹ Studies have indicated that children from households that include fathers benefit in areas of education, mental health, social competence and physical health compared to children raised in households without their father.² For example, having a father in the home is associated with better school readiness among children,³ healthy cognitive development among infants,⁴ and lower levels of poverty, teen pregnancy, substance abuse, and criminal justice involvement.⁵

Although the benefits of fatherhood involvement on children and families have been well documented, some subgroups of men face substantial barriers that compromise their ability to engage in effective parenting behaviors. In particular, low-income fathers are more likely to be single and less likely to live with their children. The combination of being low income and nonresidential has been shown to be correlated with lower levels of fathers' involvement.⁶ Moreover, child support demands disproportionately impact low-income fathers and can compromise their ability to meet their day-to-day financial needs for food, shelter, and clothing.⁷ To avoid the income withholdings that impact the take-home pay from on-the-books employment, fathers may seek alternative, off-the-books sources of work and income.⁸ Failure to make payments and fear of withholdings can place fathers with child support cases at risk of penalties, including license suspensions and incarceration, both of which can further compromise the ability to gain employment.⁹

Conflicts between co-parents can also exacerbate efforts by fathers to engage with their children. Factors including gatekeeping by the child's mother as well as new partners by either co-parent can also compromise a father's ability to see his child. The conflicts that arise between fathers and their co-parents can also compromise a father's access to his child due to legal restrictions arising from violent interpersonal conflict.

Many community-based organizations and agencies around the country have developed fatherhood programs in response to the barriers to effective parenting faced by fathers.¹⁰ Fatherhood programs typically include workshops provided in a group format. Some programs rely on structured curricula, while others use a free-flowing, unstructured support group-like format or some combination of both. Most of these workshops are designed to improve the frequency and quality of parental behavior and build healthy relationship skills among participating fathers. Many programs also incorporate soft-skills training and job placement.

Although organizations have made efforts to address challenges faced by fathers, there are knowledge gaps that remain in the fatherhood field. First, few fatherhood approaches have been rigorously tested, leaving questions about their efficacy in improving outcomes. Second, fatherhood approaches using structured curricula have also not been compared to other fatherhood program approaches that use a free-flowing, open-group format where fathers receive services that are not designed to build skills and knowledge but prioritize peer group relationships. These unstructured programs operate much like a support group, allowing fathers to identify the topics of discussion and express any experiences they wish to share. Although these support group formats can be helpful for getting fathers to engage in group activities, it is unknown if these methods of engaging fathers are any more or less effective at reaching outcomes than fatherhood programs that include a structured component to their approach.



DAD Map participants in a BRFP session.



This report describes and summarizes results from an impact study testing the DAD MAP curriculum, which is used to guide a parenting workshop component of the Baltimore Responsible Fatherhood Program (BRFP) at Center for Urban Families (CFUF). The curriculum was developed by a team of researchers and practitioners to outline procedures for teaching skills, guiding discussion, and facilitating interactive activities to promote responsible parenting and healthy relationships among fathers.

The current study aims to answer the following research questions:

1. To what extent are changes in fatherhood compared to enrollment in an unstructured support group condition among low-income fathers?
2. What is the extent to which impacts vary at different levels of criminal background, co-parenting relationship quality, income, and attendance?

This report will begin with an overview of the context in which the DAD MAP curriculum is implemented as well as its content by describing the CFUF and the BRFP. Second, the report will describe the methods and research procedures used for the current study. Third, the report will summarize results. The report will then conclude with a discussion of results and implications for practice and research.

A. Center for Urban Families

The DAD MAP workshops are one key component of the BRFP, designed to assist fathers. The workshops are delivered as part of an integrated model of services provided by CFUF. Before describing the DAD MAP curriculum and the BRFP, this section will outline the geography and history in which CFUF is embedded, while also describing its main programs and services.

A.1. Geography and History

CFUF is a community-based organization located in Baltimore, Maryland. Baltimore has a population of about 600,000, with approximately 64 percent of the population identifying as African American or black. Baltimore has an unemployment rate of roughly 6 percent and a poverty rate of 23 percent, which is higher than that of the national poverty rate (13.5%).¹¹ According to the U.S. Census Bureau, Baltimore households with children had a poverty rate of 28.8 percent, with female-headed households having a poverty rate of 42 percent.

CFUF was formerly known as the Center for Fathers, Families and Workforce Development and was founded in 1999. In 2007, CFUF changed its name to reflect an inclusive approach that connected both men and women to career paths and stable families.

Central to CFUF's mission is the belief that men who connect with women, their children, and the workplace are key to the restoration of stability and optimism.¹² CFUF serves Baltimore residents by providing an array of services aimed at empowering low-income families by providing case management as well as employment readiness, healthy relationships, and fatherhood workshops. CFUF's programs generally aim to improve families by enhancing the ability of men and women to be strong sources of support for their families.

A.2. CFUF Programs and Services Offered

CFUF offers multiple services and programs to promote family stability and workforce development programs. CFUF's main family stability programs include the Baltimore Responsible Fatherhood Project (BRFP) and Couples Advancing Together (CAT). The BRFP is a three-month program that is implemented in an open-group cohort model and includes DAD MAP curriculum parenting workshops, case management, and opportunities to participate in family activities. CAT is a 12-session program that is designed to help couples improve interpersonal and economic stability within their relationships.



In addition to the family stability programs, CFUF offers programs designed to build work readiness among participants, and connect clients to other supportive services both within the organization and the community. CFUF offers direct pre-employment training through their STRIVE program where participants obtain soft job skills and job placement assistance upon completion.

CFUF's supportive services department assists program recipients by connecting them to services in the community to obtain their GED and acquire drug treatment and mental health services, among others. CFUF addresses other key issues facing low-income individuals trying to build healthy families by providing assistance to achieve economic self-sufficiency by providing expungement services and job placement services.

CFUF participants often enroll in multiple programs, and program staff often take an integrated approach by co-enrolling fathers in multiple programs to meet their needs. Participants often work with a case manager that connects them to supplemental services that can meet their needs. Each program is designed to support the organization's mission to assist individuals in building skills to facilitate healthy relationships and financial stability that will benefit their families and communities.

In addition to providing services to individuals and couples, CFUF also serves as a resource for practitioners and service for other providers in the areas of employment readiness and family services. CFUF provides an array of trainings and professional development seminars around the United States. One of the main vehicles of practitioner skill development initiated by CFUF is the Practitioners Leadership Institute (PLI), whose mission is to provide workforce development and family strengthening professionals with the expertise to help facilitate better outcomes for clients seeking services. CFUF has prioritized taking a leadership role in both developing and disseminating programs that serve vulnerable populations and fragile families.

A.3. Baltimore Responsible Fatherhood Program (BRFP)

CFUF's BRFP is a program designed to strengthen families by empowering fathers with the skills, knowledge, attitudes, and opportunities necessary to becoming better parents by using a combination of case management and parenting workshops using the DAD MAP curriculum. The DAD MAP curriculum was developed in collaboration with a team of child support specialists, behavioral researchers, case managers, and directors who have extensive experience in the field of fatherhood. This interdisciplinary team developed the curriculum to address needs associated with child support, paternal care/contact, co-parenting cooperation, and employment readiness.

The program is designed for fathers with children under the age of 12. The fatherhood group workshops are held twice a week for approximately 90 minutes per session. The workshops are typically co-facilitated by responsible fatherhood specialists who are trained to engage fathers and understand the barriers participants face. Through one-on-one case management, fatherhood specialists:

- Provide child support case management.
- Act as advocates for fathers in family courts.
- Provide mediation assistance to facilitate effective co-parenting.
- Help fathers navigate and remain on track with other programs at CFUF to achieve their fatherhood-related goals.

The DAD MAP curriculum was developed by CFUF to guide group interaction during the BRFP fatherhood workshops. The DAD MAP curriculum includes interactive exercises, activities, and discussion guides to promote responsible fatherhood, enhance parenting skills, improve communication, and promote workforce participation and engagement. The curriculum provides an opportunity for programs to expose low-income men to fatherhood education, information, and skill development. CFUF created the DAD MAP curriculum based on their experience working in low-income African-American communities in Baltimore.



Although unique to CFUF, the DAD MAP curriculum is representative of a common method of implementing best practices for fatherhood group formats.¹³ Specifically, it addresses four key challenging areas for fathers: building systems of accountability for decisions made by fathers in providing support, building knowledge about positive and effective parenting, emphasizing healthy relationship skills building, and including opportunities and discussion around job searching and soft skills. Fatherhood programs provided in groups allow for peer learning and can provide fathers with an opportunity to identify common struggles in a safe environment. This method of program delivery, when provided in an open group format, can also be less expensive than one-on-one parental education interventions, and more convenient for fathers who are juggling multiple demands and finding it difficult to maintain consistent attendance.

B. Methods

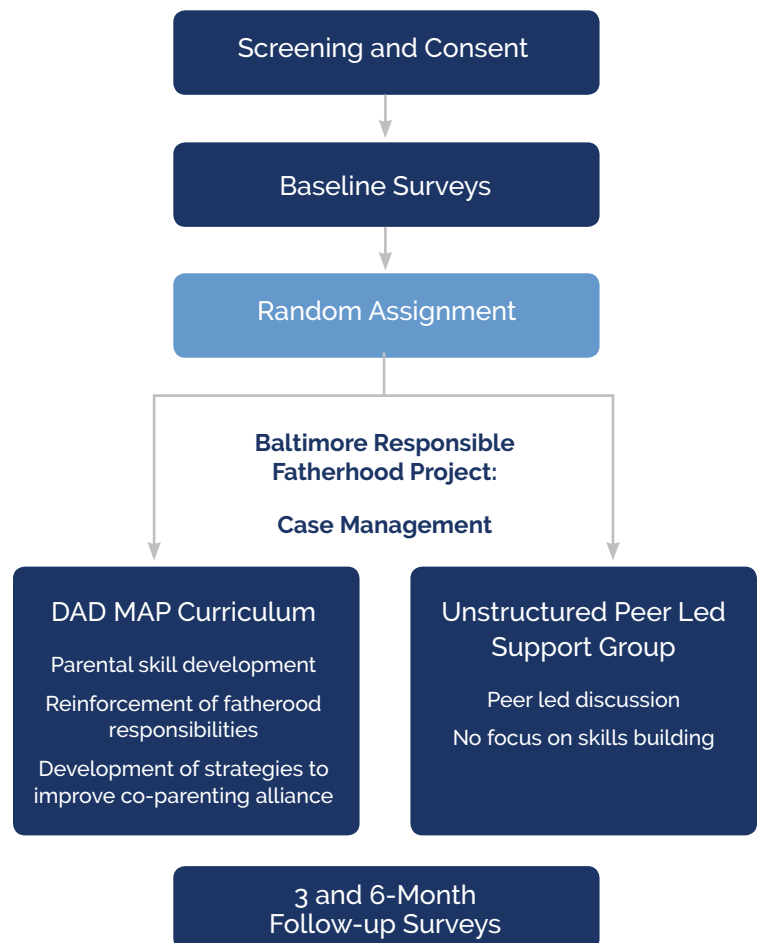
Implementation of the DAD MAP evaluation began in April 2015 with recruitment ending in May 2017. The study was conducted using a randomized experimental design in which fathers were randomized to either (1) the treatment group that enrolled in BFRP DAD MAP curriculum workshops or (2) the control group that received the BRFP with an unstructured, peer-led support group instead of the DAD MAP curriculum. The study design and procedures were approved by the Temple University IRB.

B.1. Procedures

Participants were fathers who enrolled in BRFP during the study period, were at least 18 years old, and reported having children under the age of 12. Fathers who were eligible for the study and expressed interest in participating in the fatherhood program were accepted into the study by a responsible fatherhood specialist. Participants were recruited from external community-based agencies serving men and fathers as well as internal programs at CFUF such as STRIVE. BRFP staff also used street recruitment strategies, such as posting literature describing the program in barbershops, convenience stores, and other local businesses. BRFP staff also recruited fathers from the local child support services office by distributing literature and collecting contact information from walk-in clients.

Fathers who sought services from CFUF were instructed to complete an application form that asked for basic information, including demographics and an indication of which services they were interested in receiving. Fathers who were interested in receiving fatherhood services were directed to a responsible fatherhood specialist, who provided case management and implemented DAD MAP workshops for the BRFP.

Figure 1: DAD MAP evaluation research design and flow chart.



These fatherhood specialists screened applicants to ensure they were fathers 18 years old or older before explaining the study procedures. Fathers were given a research ID number and completed a baseline survey in a one-on-one interview format. To aid random assignment, a password-protected spreadsheet was developed that included ID numbers and pre-determined group assignment codes for each ID number. Group codes were assigned to ID numbers randomly and could not be changed on the spreadsheet. Once the baseline interview was completed, the responsible fatherhood specialist contacted the project director and reported the ID number of the father to receive the group assignment code. Fathers were then told which group they were assigned to and remained in that group for the remainder of their participation in the study.

Fathers were contacted by phone to complete two follow-up surveys three and six months after enrollment. Fathers had the option of completing the survey by phone or by making an appointment to come into the CFUF office and complete the survey in person. The follow-up surveys were conducted by a research assistant and entered in the MIS system by a responsible fatherhood specialist. Fathers in the control group were not permitted a chance to return to CFUF to enroll in the treatment condition until they had either completed their six-month follow-up assessment or after the window to complete the six-month follow-up survey had closed.¹⁴

The lead researcher on the project conducted bi-monthly site visits to monitor fidelity to the research design and conduct informal qualitative interviews with the staff about implementation procedures and challenges. The researcher observed sessions for both the treatment and control groups during these visits.

B.2. Research Groups

B.2.a. DAD MAP Curriculum

The DAD MAP curriculum is informed by concepts of Social Learning Theory¹⁵ (SLT) and adapted to fit the unique experiences of low-income, African-American fathers living in Baltimore. SLT represents a theoretical framework that has been successful in promoting positive behavioral change including those associated with parenting.¹⁶ Two key concepts from SLT, outcome expectancies and self-efficacy, were integrated into the curriculum to guide objectives, activities, and procedures. Self-efficacy represents one's belief in their abilities to successfully engage a specific set of behaviors.¹⁷ The DAD MAP curriculum includes activities designed to provide skills training in parenting and communication in conjunction with feedback by trained facilitators. By engaging fathers in these skill development activities, the DAD MAP is assumed to build self-efficacy in engaging in responsible fatherhood behavior, healthy relationships, and workforce participation. Outcome expectancy is a component of SLT that generally assumes that individual behavior is influenced by the perceived outcome of the individual's action—that is, persons are more likely to change behavior if they perceive that the outcome of the given behavior is desirable. The curriculum includes content designed to help fathers reflect on the positive outcomes associated with responsible fatherhood on themselves as well as their children and families. SLT posits that through understanding the consequences and benefits of fatherhood-related behaviors, fathers will be more likely to maintain contact with their children and put greater effort into meeting their fatherhood responsibilities.

The DAD MAP curriculum contains four modules with each one corresponding to one of four key objectives. Each module contains four curriculum sessions exploring different sub-topics of each of the four main topics. Each session is delivered in 60 to 90 minutes, beginning with a group welcome activity and ending with fathers sharing key concepts they have learned during the session. The curriculum is delivered in an open-group format with rolling enrollment, allowing fathers to join the group at any time during the four modules. Fathers who are enrolled after the beginning of the cohort are expected to continue attending after it has ended to receive material that they missed from the front end of the next cohort. The four modules are described in more detail below.



Module 1: Responsible Fatherhood

Module 1 of the DAD MAP curriculum is designed to meet program objectives of helping fathers fulfill the financial responsibilities associated with fatherhood. Session activities in this module focus on the importance of contributing financially to one's child. Sessions are designed to build knowledge around the child support systems and effective strategies of providing informal and formal child support. Fathers are made aware of the negative outcomes associated with non-payment and facilitators emphasize the importance of providing child support even in small amounts. Fathers are taught that even small contributions may go far in preventing negative outcomes associated with non-payment and helping their children and families.

Module 2: Fatherhood and Parenting

This module includes activities and discussions designed to enhance parenting skills and increase contact between noncustodial fathers and their children. The module begins with a session designed to help fathers understand the impacts of maintaining contact with their children. Sessions in this module also review childhood development and the various parental skills required to meet the changing needs of growing children. Methods of teaching and disciplining children are also emphasized.

Module 3: Healthy Relationships

Module 3 of the DAD MAP curriculum includes topics designed to help fathers improve the relationship they have with their co-parents and other individuals in their lives. Sessions in Module 3 focus on relationship conflict and the prevention of intimate partner violence. Sessions in this module also highlight the importance of communication and allow participants to practice speaking and listening skills designed to enhance the co-parenting relationships that fathers must navigate. The module ends with a review of anger management as a way of preventing unhealthy relationship conflict.

Module 4: Employment Readiness

Module 4 of the DAD MAP curriculum emphasizes methods of establishing and maintaining employment through the use of soft skills or interpersonal skills to be effective in the workplace such as communication, conflict management, and cooperation. The module also includes discussion of the importance of remaining persistent while job seeking, even in the face of opposition. The module begins with a session that emphasizes the importance of making oneself employable, through education, training, and expungement of criminal records. Other sessions in this module focus on job search strategies and interpersonal workplace skills. The module concludes with a session on ethics and values in workplace decision making. Discussion during this module is meant to help fathers increase awareness of some of the communication patterns that compromise one's ability to maintain employment and remain engaged in job searching if he is unemployed.

B.2.b. Unstructured, Peer-Led, Support Group Workshops

The unstructured, peer-led support group, unlike the treatment group, talked about a range of topics outside of the key discussion areas of the DAD MAP curriculum. Rather than include specific topics on parenting, healthy relationships, or employment facilitated by a fatherhood specialist, control-group members chose the topic of discussion, while a part-time staff person guided the group discussion and enforced group rules.

The staff person was instructed to refrain from engaging in any kind of instruction associated with skill development in parenting, communication, anger management, or workforce readiness. Furthermore, the staff member guiding the unstructured support group was not trained in the DAD MAP curriculum. The staff person did not provide guidance on the topic of the day and allowed fathers the freedom to talk in a non-judgmental environment. Although the



groups were open and unstructured, staff took attendance and held fathers to the same attendance standards as fathers enrolled in the treatment group. The staff was instructed to provide a summary of what was discussed in the unstructured, peer-led support groups and reported to researchers how the groups operated.

The topics that fathers discussed varied. Some of the most common areas of discussion included sports, police brutality, women, video games, and music. During one observation, the fathers had a lengthy conversation about the role of race in politics, with discussions focused mainly on what the recent presidential election meant for the black community. Another example included the recent string of recorded police shootings of unarmed black men and the unrest that followed.¹⁸ The staff member stated that he would interject to keep the conversation going when things got quiet, or he would encourage others to share when one participant appeared to dominate the conversation. These groups were described by the staff as similar to a barbershop atmosphere, where men were free to discuss any topics they wanted to without fear of judgment.

There was a general expectation that issues around employment, co-parenting, and parenting would come up in an unstructured group given that BRFP participants have been known to experience struggles in these areas. When support group discussions included any of these topics, the structure of the discussion would mainly consist of fathers sharing a recent experience they had with a co-parent, intimate partner, or child, but would not include substantive content on skill development in these areas. Occasionally, fathers did offer peer advice when a group member brought up specific problems related to co-parenting, employment, or fatherhood. The staff persons guiding these groups indicated that these issues were raised infrequently and became major topics of conversation for less than 10 percent of the sessions.

While both groups received different messaging in their respective research conditions, all fathers enrolled in the BRFP received case management from a fatherhood specialist. In providing case management to fathers, fatherhood specialists worked with participants to identify fatherhood-related goals and connect fathers to other community resources. While some of the content around fatherhood-related goals would come up in DAD MAP sessions, this did not occur in the unstructured support group sessions. Any in-depth, problem-solving actions on these issues occurred during the one-on-one interactions between the responsible fatherhood specialist and the participant during case management appointments.

B.3. Measures

Measures used for this study included a combination of self-report surveys and administrative data. Three self-report surveys were developed to assess participant characteristics and outcomes at baseline and at the three- and six-month follow-up data-collection episodes. All three surveys included questions assessing sociodemographic status, criminal justice history, and scales assessing fatherhood engagement, co-parenting, and work-seeking behaviors. Administrative data were extracted from CFUF's MIS system to assess program attendance and enrollment. These measures are described below.

B.3.a. Sociodemographic Characteristics

Fathers were asked to report their marital status, age, race/ethnicity, education level, housing status, and sources of income. Items assessing family composition asked fathers to report the number of children fathers had, as well as how many children were residential or currently living with the father. Fathers were also asked to identify a focal child (or their youngest child), their focal child's sex as well as the number of co-parents they had, whether they were romantically involved with the focal child's mother, whether any of their partners were currently pregnant, and whether they are currently cohabiting with any of their co-parents.



B.3.b. Outcomes

To assess study outcomes, several survey items and subscales were included in the surveys. They measured father involvement, co-parenting relationship quality and child well-being, and workforce participation/job seeking. For father involvement and child well-being, respondents were asked to consider their youngest child in response to these items. Similarly, fathers were asked to consider the mother of their youngest child in responding to items assessing co-parenting relationship quality. [Table 1](#) lists the outcome variables, their respective scales and the internal consistency assessed from baseline reports. Results from analysis assessing internal consistency indicated high reliability for the scales assessing fatherhood engagement, child well-being, informal child support, and co-parenting quality.

Table 1: Reliability assessment results from baseline reports

Outcomes Variables	Measures	Cronbach's alpha
Father involvement	Fatherhood Engagement scale	.97
	Informal Child Support Scale	.85
Co-parenting relationship quality	Co-parenting Relationship Scale	.92
Child well-being	Brief Infant Toddler Social & Emotional Assessment Scale	.80
	Behavioral Problems Checklist	.88
Informal child support contribution scale	Informal Child Support Contribution Scale	.85

Father Involvement

Fatherhood involvement included any contact the father had with his children, as well as any informal or formal support the father reported providing for his children. One measure was The Father Engagement Scale,¹⁹ which includes two subscales measuring *parental care* and *parental support*. It contains items about parenting behaviors in the last 30 days using a 5-point scale ranging from "never" to "very often." The Father Engagement Subscale items assessing parental care asked fathers to report the frequency with which they engaged in activities such as eating, playing, or talking with their children. The Parental Support Subscale asked fathers to report how frequently they showed affection or offered praise to their children (for example: *how often have you told your child you loved them*). For each subscale, items are summed up for a score, with higher scores indicating greater father engagement. Both the Parental Support and Parental Care subscales demonstrated high reliability and convergent validity.²⁰ Different versions of the scale were developed according to the age group of the child. While there were four versions of the scale created for different age groups of the children, for the current study two versions of the scale were developed for father with children under age three and those with children over age three.

Informal child support provided by the father was assessed with items asking participants to report the degree to which they contributed resources towards the care of their children. Fathers were asked how often they contributed food, clothing, school supplies, and toys for their youngest child in the last 30 days. Fathers indicated the frequency of their contribution on a scale ranging from "0" *never* to "3" *often* for six items. Individual responses from the six items on the informal contribution scale were summed, with greater scores indicating more informal child support contributions.

Fathers were also asked to report the amount of money contributed to any of their children in the last 30 days. These contributions could be from formal child support orders or money that was given informally to the mother and child.

Formal child support provided by fathers was assessed using multiple items. Fathers were asked if they had a child support order, the amount they were obligated to pay each month, and the actual amount they paid in the last 30 days. Child support compliance was assessed by calculating the amount paid over the amount owed in the last 30 days. For the purposes of hypothesis testing the combined amount of formal and informal monetary support provided in the last 30 days was used.

Other indicators of fatherhood involvement include items assessing the degree of contact fathers had with their children by asking all fathers how many nights they spent with any of their children in a typical week in the last 30 days, as well as how many days they spent with their focal child in the last 30 days.

Co-parenting Relationship Quality

Fathers' perceptions of co-parenting cooperation were measured using the co-parenting relationship scale,²¹ with items assessed on a 5-point agree-disagree Likert scale. The co-parenting relationship scale includes three subscales measuring concepts of "alliance," "undermining," and "gatekeeping." The co-parenting undermining subscale includes items that ask fathers the degree to which they agree with statements about the mother of their child undermining them (i.e., *the mother of my child contradicts the decisions I make about my youngest child*). One item measuring gatekeeping (the mother of my youngest child makes it harder for me to spend time with my child) was also used to measure co-parenting relationship quality with higher scores indicating more gatekeeping. The Co-parenting Relationship scale also asks fathers to report how much they agree or disagree with statements indicating co-parental alliance (i.e., *my youngest child's mother and I make joint decisions about our child*). Higher scores indicate greater co-parenting cooperation. The Co-parenting Relationships Scale has demonstrated reliability and validity on fathers sampled from low-income communities.²²

Child Well-Being

Child well-being was measured using the Brief Infant Toddler Social & Emotional Assessment (BITSEA)²³ scale and the Behavioral Problems Checklist (BPC).²⁴ The BITSEA assessed social and emotional behavioral problems among children 12 to 36 months. The BPC assesses behavioral problems among older children and was administered to fathers whose focal child was three years old or older. Fathers were asked to report how often statements describing specific problem behaviors were true about their children in the past 90 days. Fathers whose focal child was younger than three years old were given the BITSEA to complete, which asked fathers to report on observed problem behaviors (i.e., in the past 90 days your youngest child seemed nervous or fearful). Fathers with older children were asked to report on problem behaviors associated with their older children (i.e., in the past 90 days your child broke things deliberately). Responses to each item were added up to create a child well-being score, with high scores indicating more behavioral problems from the focal child.

Workforce Participation

For the current evaluation, workforce participation was considered either engaging in on-the-books or off-the-books employment or specific attempts to pursue employment, such as filling out an application or completing a job interview. Three items were used to assess attempts to pursue employment in the last 90 days. Response options included filling out applications, attending job interviews, or submitting a resume. For each item, fathers indicated whether they had engaged in behaviors to pursue employment "sometimes," "rarely," or "never," with higher scores indicating greater frequency of pursuits.

B.4. Other Variables

Baseline and follow-up surveys and follow-up measures also included measures assessing other characteristics that were assumed to be associated with key outcomes. Covariates also included criminal justice system involvement.



Given that fathers with criminal justice histories have empirically been shown to experience more challenges associated with parenting,²⁵ healthy relationships,²⁶ and workforce participation,²⁷ the current study asked fathers to report experiences and frequency of recent (within the last six months) and lifetime arrest and incarceration.

Program Participation

The study used program engagement data that was routinely tracked by CFUF. As mentioned previously, CFUF implements other programs and provides services that most fathers in the study have access to depending on eligibility and fit. CFUF extracted data on the extent of participation among fathers enrolled in either the CAT or the STRIVE program for this study. The study also collected BRFP attendance data representing the number of sessions (DAD MAP or unstructured, peer-led support group) fathers attended.

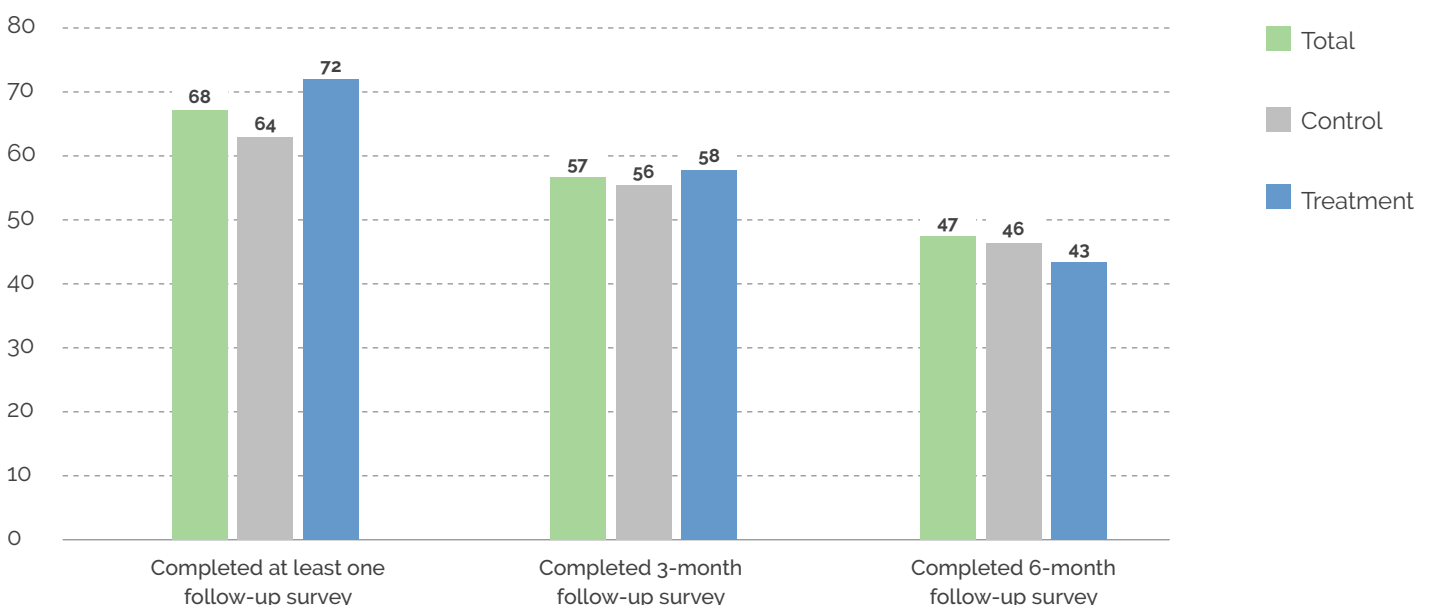
C. Results

The following section summarizes both the analysis and results from the current study. First, a summary of the attrition analysis will be provided, as a high proportion of fathers was lost to follow-up. Second, the report will also briefly discuss remedies for missing data for fathers who completed follow-up surveys. Finally, the findings directly related to the research questions will be presented.

C.1. Attrition Analysis

Figure 2 illustrates the retention rates for each follow-up survey. Of the 164 fathers who were included in the analysis for the study, 68 percent completed at least one follow-up survey. A slightly greater proportion of fathers in the treatment group (72 percent) completed at least one of the follow-up surveys compared to the control group (64 percent); however, these differences were not significant. Fifty-seven percent completed the three-month follow-up. No significant differences were observed between treatment and control group retention rates at the three-month follow-up. While 47 percent of fathers completed the six-month follow-up survey, the survey completion rate for the treatment group (43%) members was slightly smaller than that of the control group (46%).

Figure 2: Retention rates (%) at 3-Month and 6-Month Follow-Up



[Table 2](#) presents results from the attrition analysis using odds ratios (OR) predicting follow-up survey completions with demographic variables. Age, housing, race, and number of children did not predict the completion of follow-up surveys for the sample. The results did suggest that those who had incomes greater than or equal to \$400/month were more than twice as likely to complete the six-month follow-up survey, as compared with participants who had incomes lower than \$400/month (OR = 2.2; 95% [CI, 1.72 to 2.68]). Those with at least a high school diploma were also twice as likely to complete any follow-up surveys (OR = 2.1; 95% [CI, 1.04 to 4.11]) compared to those who did not have at least a high school education.

Table 2: Predictors of follow-up survey completion

Demographics	Any follow-up <i>n</i> = 112 OR(<i>p</i>)	3M Survey <i>n</i> = 94 OR(<i>p</i>)	6M Survey <i>n</i> = 78 OR(<i>p</i>)
Age	.01(.07)	.01(.22)	.001(.14)
African American	.02(.93)	1.35(.71)	.90(.90)
Number of children	.05(.96)	.78(.23)	.01(.78)
Has at least a high school diploma	2.1(.04)	1.39(.32)	1.89(.06)
Housing			
– Own home/apt	-	-	-
– In a relative’s home/apt	1.15(.72)	1.12(.77)	.82(.61)
– Intimate partners home	1.59(.37)	1.14(.78)	.82(.68)
– Other/transitional housing	1.29(.66)	1.24(.70)	1.22(.71)
Economic stability			
– Employed	.64(.26)	.95(.9)	.5(.12)
– > \$400/month	.04(.97)	1.10 (.68)	2.2(.05)

Notes. 3M = three-month. 6M = six-month.

C.2. Missing Data

[Table 3](#) highlights areas of missing data for study variables in which more than 5 percent of the total sample were missing. Four variables were missing data for greater than 5 percent of the total sample of respondents that completed the respective surveys. Thirty-four percent of respondents who completed the baseline survey did not provide information sufficient to estimate father engagement scale scores, which included both the parental support and parental care sub-scales. A larger proportion of fathers were missing data for the child well-being scale scores at baseline at three-month follow-up (40%). Data were imputed for all missing values using multiple imputation separately for treatment and control group data using five iterations.

Table 3: Study variable observations missing for treatment and control groups

Study variables missing data at baseline	Total n = 164	Treatment n = 89	Control n = 75	p
Father engagement scale score	56(34%)	28(31%)	28(37%)	.42
Child well-being scale scores	56(34%)	28(31%)	28(37%)	.42
Study variables missing at three- month follow-up	Total n = 94	Treatment n = 52	Control n = 42	p
Father engagement scale score	33(35%)	16(31%)	17(40%)	.32
Child well-being scale scores at three-month follow-up	38(40%)	28(52%)	18(43%)	.33

C.3. Descriptive Statistics

See [Table 4](#) for the distribution of baseline characteristics for study participants. In total, there were 164 fathers included in the analysis, with 89 fathers in treatment group and 75 in the control group. The average age of the fathers was approximately 35 years old. Fathers identified predominantly as African American/black (96 percent). A majority of fathers had at least a high school education (68 percent), with few fathers having less than (33 percent) or greater than a high school diploma or GED (27 percent). The largest group of fathers reported that they were living in a relative's home or apartment most of the time in the last 30 days (42 percent), while a majority of others either lived in their own apartment or home (26 percent) or in an intimate partner's home or apartment (18 percent). Only about a quarter of fathers reported being employed at baseline, with most (89 percent) working on the books. Over half of fathers reported having no income in the last 30 days (56 percent), with just under a third reporting incomes over \$400 per month from all sources in the past 30 days.²⁸ The average monthly income from all sources was approximately \$450 a month. No significant differences were observed between the control group or the treatment group on the demographic variables assessed for this study.

Most fathers were nonresidential, with just under 40 percent reporting that they lived with at least one child. Fathers tended to have more than one child and when asked how many nights they spent with their children in a typical week, fathers reported spending about four nights per week, on average, with their child. When asked how many days in the last 30 days they spent with their youngest child, fathers reported that they spent 15 days, on average, with the focal child. Bivariate analyses comparing treatment and control group baseline characteristics did not suggest any significant differences on these measures at baseline.

Seventy-six percent of fathers self-reported having a current child support order. Of those who had an order, the average payment required was \$375 per month. A slightly greater percentage of control group members reported having a child support order (77 percent) compared with fathers in the treatment group (75 percent); however, no significant differences were observed between these groups.

Table 4: Baseline survey characteristics for total sample and study groups

Demographics	Total n = 164	Treatment n = 89	Control group n = 75	p
Age mean(SD)	35.2 (8.5)	34.5 (8.2)	36 (9)	.57
Race				.29
– African American	96.3%	97.8%	93.8%	
– Non-African American	3.6%	2.2%	2.5%	
Education				.69
– Less than high school	33%	30.3%	33.3%	
– High school or GED	39%	39.3%	40.7%	
– Some college/tech	23.7%	25.8%	21%	
– Associates or four-year degree	4.2%	4.5%	4.5%	
Housing				.72
– Own home/apt	25.6%	28.09%	23.46%	
– In a relative's home/apt	42%	41.57%	44.44%	
– Intimate partners home	18%	16.85%	20.99%	
– Anyone else's home/apt	5.3%	4.49%	7.41%	
– Transitional housing	5.3%	6.74%	7.41%	
– On the streets or other	1.2%	2.24%	0	
Economic stability				
– Employed	24.4%	23.86%	25.93%	.68
– Income > \$400/month	29.8%	25.84%	35.80	.22
– Any monthly income	44%	40.45%	50.62%	.25
Number of children mean(SD)	2.4(1.72)	2.70(1.72)	2.26(1.63)	.09
Nights spent with any of your children in a typical week mean(SD)	4.28(2.9)	4.24(2.99)	4.44(2.85)	.67
Days spent with focal child in the last 30 days mean(SD)	14.04(12.78)	15.05(13.04)	12.91(12.47)	.32
Lives with any of his children	39.02%	42.69%	34.67%	.29
Lives with the mother of the focal child	18.29%	21.34%	14.66%	.27
Has a current child support order	76.21%	75.28%	77.33%	.89
Average monthly payment required by Child Support Enforcement (CSE) (median, SD)	\$375(370.57)	\$386(367.52)	\$300(375.19)	.42

C.3.a. Outcome and Moderator Variable Comparisons

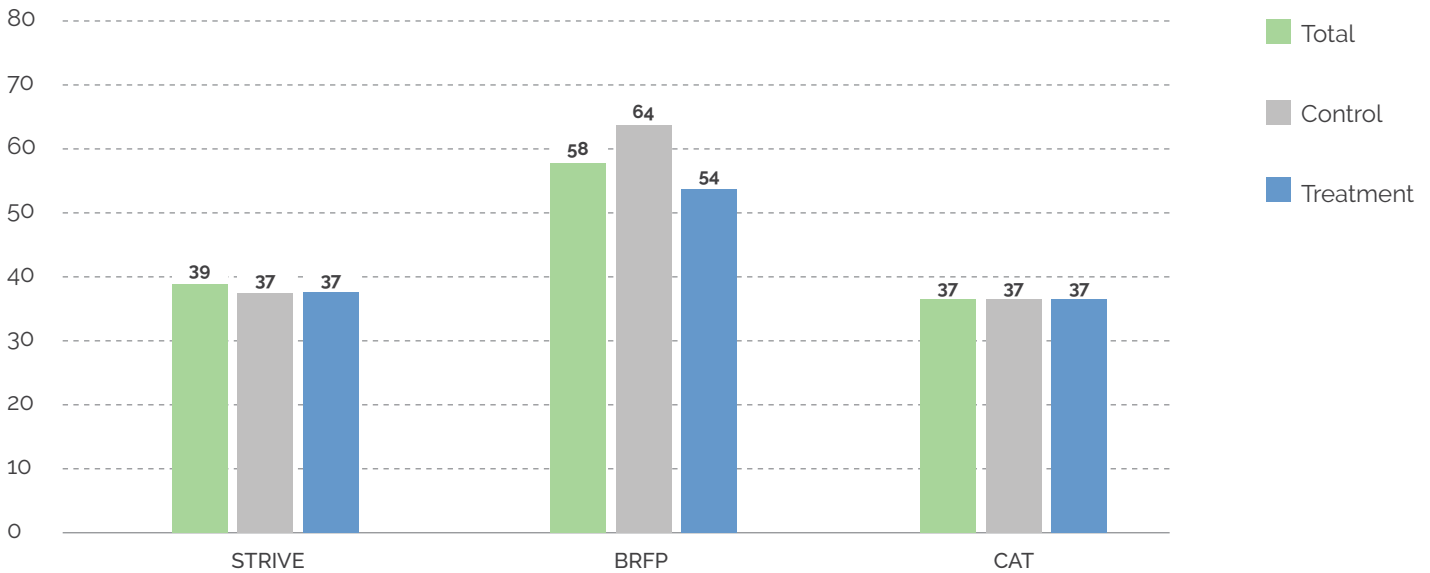
Bivariate analysis was also conducted to examine pretest treatment versus control group differences. See [Table 5](#) for results from treatment versus control baseline differences on key outcome variables. Independent sample t-tests were used to examine group differences on continuous variables (father engagement and co-parenting relationship quality variables) and two-by-two chi-squares were used to examine group differences on dichotomous outcomes (job seeking variables). Results suggested no significant differences on pre-test observations between the treatment and control conditions.

Table 5 also displays program participation²⁹ of the sample, as well as a breakdown of treatment/control differentials between BRFP workshop attendance among participants who received the DAD MAP curriculum workshops and participants who participated in unstructured, peer-led support group workshops. Results indicated that participants had relatively low attendance for the BRFP workshops in general whether they were participating in the peer-led support group or DAD MAP curriculum sessions. Fathers who were randomized to the DAD MAP curriculum condition attended about a quarter of all sessions at roughly three of 16 sessions. Although the DAD MAP curriculum includes 16 sessions, fathers had the option of attending as many sessions as they wanted. Across both groups, approximately 18 percent of fathers attended half of the workshop sessions and 36 percent attended at least a quarter of all workshop sessions. One hundred fathers attended at least one BRFP workshop session. The control group attended about one additional session on average, but these differences were not statistically significant. On average, fathers attended more CAT and STRIVE sessions than they did BRFP sessions, at an average of five and six sessions, respectively. Sixty-one fathers attended at least one CAT session, and the same number of father attended at least one STRIVE session. Although higher attendance rates were observed for the STRIVE and CAT programs compared to the BRFP workshops, the latter program had the highest count of fathers who attended at least one session (see Figure 3).³⁰ There were no significant dosage differences between the treatment or control on any of CFUF programs including the BRFP workshops.

Table 5: Pre-test group differences on key study variables

Baseline outcome variables	Total n = 164	Treatment n = 89	Control group n = 75	p
Father engagement Mean (SD)				
– Reported money spent towards child in last 30 days	\$241(297.35)	\$270(345.78)	\$206(224.42)	.18
– Parental care subscale score	27.86(14.46)	29.05(15.57)	26.44(15.31)	.28
– Parental support subscale score	7.84 (3.94)	7.2(4.09)	8.3(3.74)	.06
Co-parenting relationship quality Mean (SD)				
– Co-parenting alliance	49.7(13.51)	49.20(14.17)	50.29(12.74)	.61
– Co-parenting undermining	8.36(3.23)	8.21(3.26)	8.54(3.21)	.51
– Co-parenting gatekeeping	2.48(1.48)	2.39(1.51)	2.6(1.45)	.37
Job seeking				
– Filled out an application sometimes or often in the past 30 days	139 (85%)	76 (85%)	63 (84%)	.80
– Submitted resume to employer sometimes or often in the past 30 days	122 (74%)	68 (76%)	54 (72%)	.52
– Scheduled job interview sometimes or often in the past 30 days	128 (78%)	73 (82%)	55 (73%)	.18
– Looked for work sometimes or often in the past 30 days	147 (90%)	82 (92%)	65 (86%)	.25
Program attendance				
– BRFP workshops	3.44 (4.79)	3.2(4.6)	3.92(5.1)	.32
– Strive	6.19(8.6)	6.15(8.9)	5.6(8.3)	.70
– CAT	4.58(5.82)	4.37(5.8)	4.4(5.8)	.93
Criminal justice history				
– Ever arrested	154(93%)	84(94%)	70 (93)	.33
– Ever incarcerated	134(82%)	74(83%)	60(80%)	.81

Figure 3: Proportion of fathers who attended at least one session



C.3.b. Predictors of Attendance

Analyses were conducted to identify any characteristics correlated with the number of DAD MAP or support group sessions attended. Table 6 presents bivariate regression results predicting session attendance for the total sample, as well as the treatment and control samples. Bivariate analysis suggested a significant relationship between age and session attendance among treatment group members ($r(87) = .22, p < .05$). Neither housing status nor employment status was significantly associated with session attendance.

Table 6: Associations between DAD MAP and Support group session attendance and demographic characteristics

Demographics	Total sample <i>n</i> = 164	Treatment <i>n</i> = 89	Control group <i>n</i> = 75
Age correlation (<i>r</i>)	.13†	.22*	.03
Has at least a high school diploma <i>t</i> -statistic	-1.77†	-1.23	-1.56
Lives in own home <i>t</i> -statistic	.60	1.34	-.61
Employed <i>t</i> -statistic	-.88	-1.65	.28

† $p < .10$ * $p < .05$

D. Hypothesis Testing

D.1.a. Research question 1: To what extent are changes in fatherhood outcomes associated with participation in the DAD MAP intervention compared to enrollment in an unstructured support group condition among low-income fathers?

To answer research question one, an intent-to-treat analysis was conducted to compare all randomized participants by treatment condition regardless of whether they completed/attended the program. Separate MANCOVA models were used to test four hypotheses associated with each of the core areas the DAD MAP curriculum was designed to address. All MANCOVA models controlled for respective baseline measures.

Hypothesis 1: Fathers randomized to receive the DAD MAP curriculum will show greater improvements in fatherhood engagement measures than fathers randomized to the unstructured support group.



To test hypothesis 1, MANCOVA models were used to test differences in observed fatherhood engagement measures (reported frequency of being in contact with children in a typical week, fatherhood engagement subscale scores, and informal child support contribution scores and total cash provided for childcare expenses in the last 30 days). The analysis followed up with bivariate ANCOVA models comparing group differences on each individual measure.

See [Table 7](#) for a summary of key outcome differences between the treatment and control groups on fatherhood engagement. Results from the MANCOVA model revealed three-month follow-up program effects with fatherhood engagement subscale (parental support and parental care) scores and reported nights spent with children in a typical week, days spent with the focal child at least one hour in the past 30 days, informal child support scale scores, and reported informal support cash contributions in the last 30 days entered as the dependent variables, with enrollment in the treatment condition entered as the independent variable, controlling for baseline measures [$F(5,74) = 4.25, p = .04$]. Closer examination of treatment effects on individual fatherhood engagement/parenting dimensions using ANCOVA to compare group difference suggested treatment effects on parental care subscale scores [$F(1,163) = 4.04, p = .04$], parental support subscales scores [$F(1,163) = 13.44, p < .001$], reported nights spent with children in a typical week [$F(1,163) = 5.13, p < .001$], informal child support subscale scores [$F(1,163) = 9.81, p < .01$] and reported money spent on children in the last 30 days [$F(1,163) = 4.31, p < .001$]. Results were also suggestive for informal child support contribution scores [$F(1,163) = 7.42, p < .01$], with fathers in the treatment group reporting greater informal child support contributions than control group fathers. Although significant differences were observed for parental care subscale scores, parental support subscales scores, and reported nights spent with children in a typical a week and reported cash spent on children in the last 30 days, effect sizes were small ($\omega^2 = .08, .06, .09, .06, \text{ and } .05$, respectively).³¹ The MANCOVA model did not indicate a difference between the treatment and control condition on fatherhood engagement and parenting subscales at six-month follow-up. However, ANCOVA results suggested effects at six-month follow-up for informal child support contribution, with treatment group having higher informal child support scores [$F(1,163) = 8.5, p < .05$] and reporting more money spent on their children in the last 30 days [$F(1,163) = 12.37, p < .01$]. These results remained consistent after controlling for the residential status of fathers (whether fathers lived with any of their children).

An ANOVA was conducted to examine group differences in formal child support payments at three- and six-month follow-up. Results suggested no significant differences in formal child support payments or compliance with support orders between the treatment and control group at either three-month or six-month follow-up assessment points. These data were not included in a table.

Hypothesis 2: Fathers randomized to receive the DADMAP curriculum will show greater improvements in co-parenting relationship quality than fathers randomized to the unstructured support group.

See [Table 8](#) for a summary of results from analyses examining treatment and control differences in self-reported co-parenting relationship quality. Results from a MANCOVA did not suggest difference between the treatment and control groups at three-month nor six-month follow-up using subscales of co-parenting alliance, undermining, or gatekeeping as dependent variables, with research group as the independent variable controlling for respective baseline items. However, further analysis using ANCOVA models controlling for baseline measures did suggest a difference in co-parenting alliance subscale scores at three-month follow-up between the treatment and control conditions [$F(1, 164) = 3.89, p < .05$]. Similar to findings from parental subscale score outcome analyses, the treatment effect size on co-parenting alliance subscales was relatively low ($\omega^2 = .03$).



Table 7: Treatment group effects on fatherhood engagement at three- and six-month follow-up

Three-month follow-up	Treatment Mean (SD)	Control Mean (SD)	Wilkesλ	F	df	P	ANCOVA F	ω²
MANCOVA Model 1 ³²			.25	4.25	5,74	.04		
Parental Care Subscale Score	26.92(16.9)	20.32(14.8)					13.44	.03*
Parental Support Subscale Score	6.50(4.96)	3.89(5.15)					6.81	.06*
Nights spent with children in a typical week	4.8(3.14)	2.77(2.77)					15.48	.09**
Days spent at least one hour with focal child	12.96(12.34)	10(12.29)					.08	-
Informal child support contribution score	12.19(4.83)	9.75(5.26)					9.81	.06**
Total \$ spent on child in last 30 days	\$269.53(247)	\$162(213)					7.42	.05**
Six-month follow-up	Treatment Mean (SD)	Control Mean (SD)	Wilkesλ	F	df	p	ANCOVA F	ω²
MANCOVA			.82	.47	5,74	.78		
Parental Care Subscale Score	18.67(16.17)	18.45(17.17)					.16	0
Parental Support Subscale Score	5.84(4.83)	5.24(4.06)					1.18	0
Nights spent with children in a typical week	5.71(2.4)	5.61(2.52)					.16	0
Informal child support contribution score	12.54(5.18)	10.36(5.33)					8.50	.05*
Total \$ spent on child in last 30 days	364.79(349)	191.26(165.)					12.37	.08**

†p < .10 *p < .05 **p < .01 ***p < .001

Note. Total \$ spent on child in last 30 days refers to total amount of formal and informal support paid.

Table 8: Examination of treatment impacts on co-parenting relationship quality at three- and six-month follow-up

Three-month follow-up	Treatment Mean (SD)	Control Mean (SD)	Wilkesλ	F	df	P	ANCOVA F	ω²
MANCOVA Model			.94	1.72	3,97	.16		
Co-parenting alliance	46.03(14.61)	41.39(16.95)					3.89	.03*
Co-parenting undermining	6.82(4.07)	6.12(3.86)					1.32	0
Co-parenting gatekeeping	2.13(1.42)	1.88(1.51)					1.63	.01
Six-month follow-up	Treatment Mean (SD)	Control Mean (SD)	Wilkesλ	F	df	p	ANCOVA F	ω²
MANCOVA			.98	.52	3,97	.67		
Co-parenting alliance	50(21.2)	44.97(22.04)					2.42	.02
Co-parenting undermining	8.14 (3.71)	7.43(3.63)					.7	.01
Co-parenting gatekeeping	2.7(1.83)	2.6(1.72)					.04	0

†p < .10 *p < .05 **p < .01 ***p < .001



Hypothesis 3: Fathers randomized to receive the DADMAP curriculum will show greater improvements in job seeking measures than fathers randomized to the unstructured support group.

See [Table 9](#) for a summary of results from analysis examining employment and work-seeking behavioral differences between treatment and control group members. Bivariate results using chi-square statistics did suggest that those in the control group were more likely to report filling out a job application [$\chi^2 (1, 163) = 14.86, p < .05$] and looking for work [$\chi^2 (1, 164) = 4.33, p = .03$] in the last 30 days at six-month follow-up. Bivariate analysis examining treatment effects on employment, job application completion, resume submission, or job searching at three-month follow-up did not yield any significant DAD MAP impacts.

Table 9: Treatment effects on job seeking and employment

Three-month follow-up measures	Treatment Count (%)	Control Count (%)	<i>p</i>	χ^2
Job seeking and participation				
Employed	50 (57%)	32 (43%)	.37	.94
Filled out an application	71 (80%)	55 (73%)	.33	.94
Submitted resume to employer	73 (82%)	54 (72%)	.12	2.3
Scheduled job interview	62 (70%)	57 (76%)	.36	.82
Looked for work	76 (85%)	62 (83%)	.63	.22
Six-month follow-up measures	Treatment Count (%)	Control Count (%)	<i>p</i>	χ^2
Job seeking and participation				
Employed	38 (43%)	28 (37%)	.52	.39
Filled out an application	58 (65%)	68 (91%)	< .01	14.86
Submitted resume to employer	63 (70%)	60 (80%)	.17	1.8
Scheduled job interview	60 (67%)	45 (60%)	.32	.97
Looked for work	61 (68%)	62 (83%)	.03	4.3

Hypothesis 4: Fathers randomized to receive the DAD MAP curriculum will report fewer behavioral/emotional problems among their focal children than fathers randomized to the unstructured support group.

See [Table 10](#) for a chart illustrating child well-being scores at three- and six-month follow-up by treatment condition. For the purposes of this analysis, one single score of child behavioral symptoms was developed. First, each child behavioral symptom item from the scales used to measure child behavioral symptoms was recoded into a dichotomous variable represented whether the it was mostly true or true for each symptom. Each item was one of four items that measured a dimension of child well-being symptoms, including internalizing, externalizing dysregulation, and low competence for younger children and anxiety/depression, attention problems, rule-breaking behavior, social problems, and aggressive behavior for older children. A sum was calculated for each of these domains, with scores ranging from 1 to 4. The domain scores were averaged rather than summed since there were more domains for older children than younger children. Results did not indicate any significant differences between the treatment and control on reported childhood problem behavioral or emotional symptoms controlling for pre-tests scores.

Table 10: Treatment effects on child behavior

Three-month follow-up measures	Treatment Count (SD)	Control Count (SD)	ANCOVA F	p
Child behavioral symptom scores	1.7(1.16)	1.6(1.6)	.03	.95
Six-month follow-up measures	Treatment Count (SD)	Control Count (SD)	ANCOVA F	p
Child behavioral symptom scores	1.78(1.52)	1.43(1.2)	.09	.58

D.1.b. Research question 2: What is the extent to which impacts vary at different levels of criminal background, co-parenting relationship quality, income, and attendance?

See [Table 11](#) for results testing whether associations between the treatment and outcome variables depended on different levels of moderator variables. Moderator variables included in models were the reported number of times arrested, BRFP attendance, workforce participation, co-parenting alliance scores, and income. Multiple regression models were used to test whether the effect of treatment and fatherhood engagement variables (parental support subscale scores, informal child support contribution scores, and reported money spent toward children in the last 30 days) and co-parenting subscale scores at three-month follow-up depended on the different levels of the moderators. The results of these analyses are presented below.

Table 11: Results of moderation on impacts³³

	CAT X Treatment b(p)	STRIVE X Treatment b(p)
Informal child support score	-.33(.02)	
Reported money spent toward child in last 30 days	8.04(.17)	
Co-parenting alliance subscale score	.22(.56)	
Co-parenting undermining subscale score	-.08(.41)	

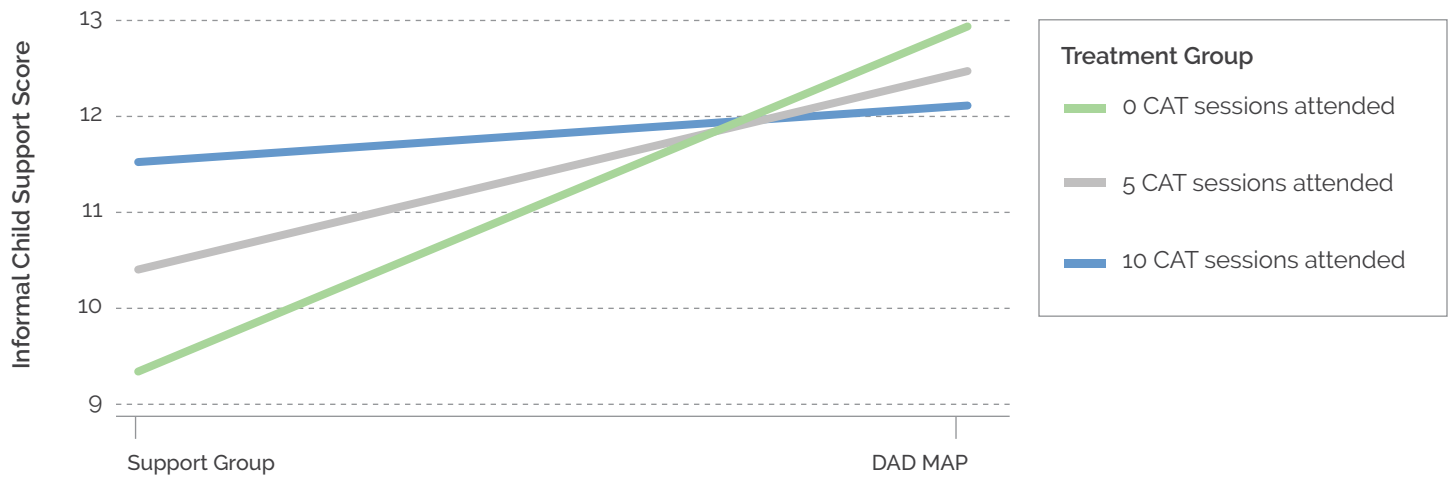
Note. Covariates included baseline reports/scores on parental support subscale, nights spent with children in a typical week, informal child support, and reported money spent towards the child in the last 30 days.

Hypothesis 5: Treatment impacts on co-parenting and father engagement measures among participating fathers will vary at different levels of workshop attendance.

Treatment by attendance interaction terms was created to examine whether the effects of the treatment varied based on how many sessions the father attended. Separate regression models were created for each of the three programs (BRFP, CAT, and STRIVE). Regression models were run using treatment by attendance interaction and two predictors (treatment and attendance) to predict changes in the outcomes listed in [Table 11](#).

The results suggested that treatment impacts varied at different levels of CAT program participation, with greater participation being associated with weaker treatment effects ($b = -.33$, $SE = .13$, $p = .02$) on informal child support scores. Figure 4 illustrates the different impacts on informal child support scores, with predictions plotted for fathers who completed 0, 5, or 10 CAT workshop sessions across the control and treatment groups.

Figure 4: DAD MAP impacts on informal child support scores at three-month follow-up across different levels of CAT participation



Using the interaction term between treatment group status and STRIVE attendance, analyses were run to examine program effects on informal child support at different levels of STRIVE participation. Results suggested that treatment impacts varied at different levels of program participation with greater participation being associated with weaker treatment effects ($b = -.18, SE = .13, p = .04$) on informal child support scores. For illustration purposes, Figure 5 provides a visual depiction of DAD MAP effects on informal child support scores, with predictions compared between fathers who completed zero, five, and 10 sessions. The figure depicts a slope decrease in DAD MAP effects as fathers attended more STRIVE sessions. It should be noted that DAD MAP curriculum impacts on informal child support scores were only observed among fathers who did not attend any STRIVE sessions regardless of the number of sessions.

Figure 5: DAD MAP impacts on informal child support scores at three-month follow-up across different levels of STRIVE participation

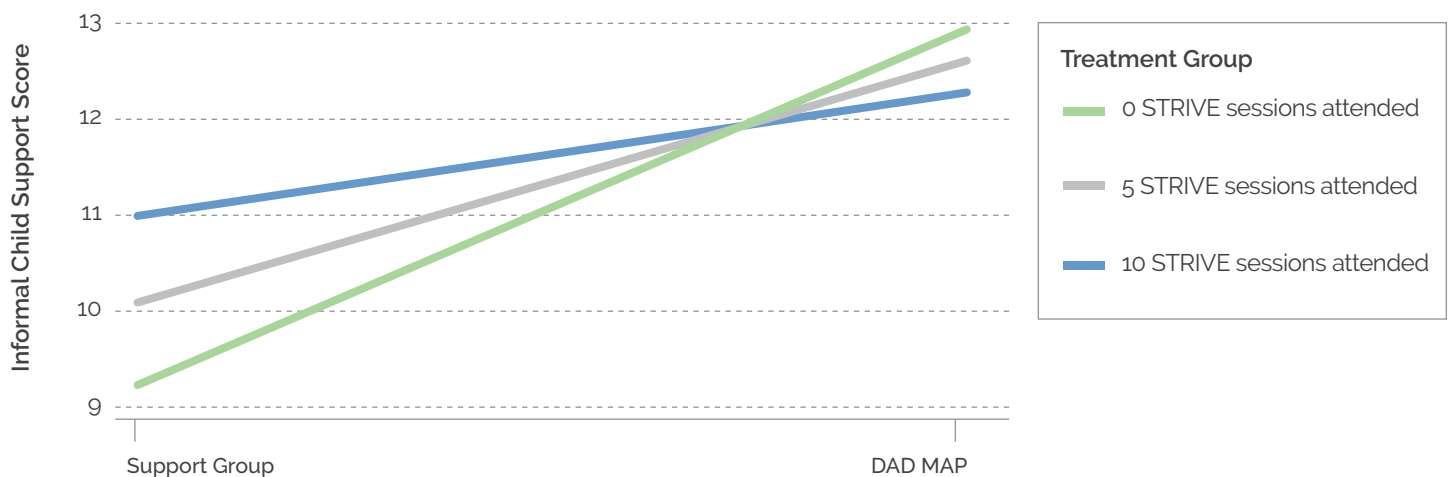
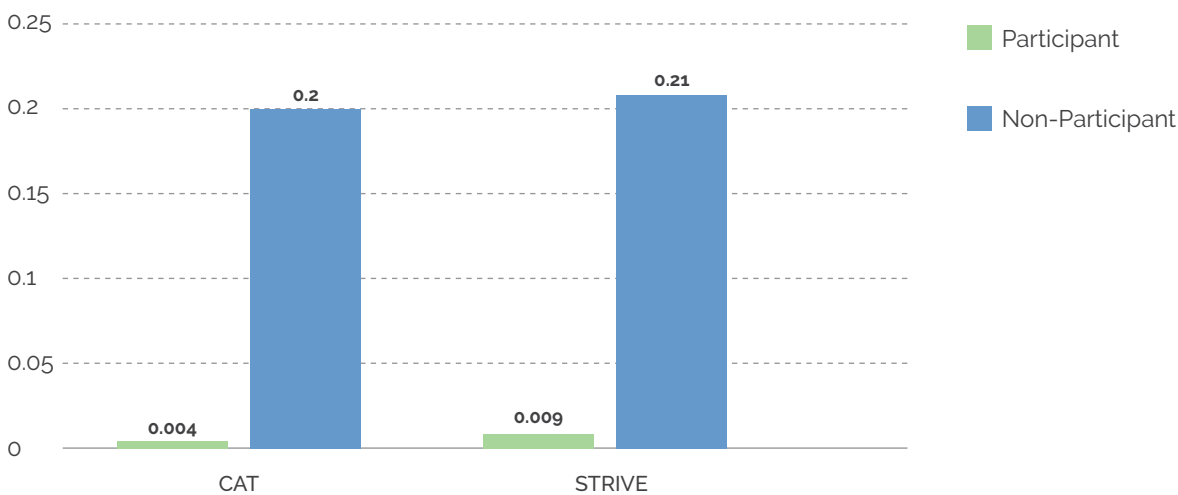


Figure 6 presents effect sizes based on different levels of CAT and STRIVE attendance. ANCOVA models were run separately for fathers who attended at least one CAT session and those who did not complete any sessions. Results revealed significant effects on informal child support scores for fathers who did not attend CAT sessions [$F(1,95) = 16.68, p < .01$]. Treatment impacts were non-significant for fathers who attended at least one CAT session. Treatment effect sizes for fathers attending zero sessions ($\omega^2 = .14$) were relatively high compared to those who attended any CAT sessions ($\omega^2 = .004$). Similar ANCOVA models were run assessing effect sizes on informal child support scores for fathers who participated in the STRIVE program (attended at least one session) and those that did not. Results suggested treatment impacts for fathers who did not participate in STRIVE [$F(1,103) = 20.31, p < .001$]. Effect sizes for these fathers were also larger compared to effect sizes for fathers who attended at least one STRIVE session ($\omega^2 = .2$ and $.005$, respectively).

Impacts on cash contributions, nights spent with children in a typical week, parental support subscale scores, and co-parenting quality subscale scores did not vary based on STRIVE or CAT participation.

Figure 6: Treatment effect sizes (ω^2) on informal child support based on CAT and STRIVE participation.



Hypothesis 6: Treatment impacts on co-parenting and father engagement measures among participating fathers will vary at different levels of criminal justice history.

Treatment by lifetime arrest interaction terms were created to examine whether effects on treatment varied based how many times participants had been arrested in their lifetime. Regression models using the treatment by lifetime arrests interaction did not suggest treatment effects varied by frequency lifetime arrests for any other co-parenting subscale scores nor any fatherhood engagement variables.

Hypothesis 7: Treatment impacts on co-parenting and father engagement measures among participating fathers will vary at different levels of income.

Treatment by income interaction terms were created to examine whether effects on treatment varied based on reported monthly income from all sources including employment. Regression models using the treatment by income interactions did not suggest treatment effects varied by frequency lifetime arrests for any of the study outcomes.

Hypothesis 8: Treatment impacts on father engagement measures among participating fathers will vary at different levels of co-parenting relationship quality.



Three different treatment/co-parenting subscale score interaction terms were created to examine whether effects on treatment varied based on co-parenting subscale scores. One interaction term was created for co-parenting alliance, undermining, and gatekeeping subscale scores. Regression models using the treatment by co-parenting subscale interactions did not suggest treatment effects varied by levels of co-parenting subscale scores.

E. Discussion and Conclusion

The current study examined whether participation in the DAD MAP curriculum was associated with improvements in key outcomes associated with fatherhood involvement, co-parenting relationship quality, and job-seeking behavior. The current evaluation examined whether any observed impacts were moderated by factors associated with criminal justice involvement, co-parenting relationship quality, and income. Findings yielded from this study hold implications for practice and ongoing evaluation and research.

Results from the study found support for hypothesis 1, suggesting that treatment group members on average tended to score higher on fatherhood engagement scores at three-month follow-up. Specifically, fathers who participated in the DAD MAP tended to report spending more time with and provided more support and care for their children. Moreover, fathers who were randomized to the DAD MAP also reported contributing more toward their children. Although the study found significant treatment effects, it should be noted that the effect sizes were fairly small. The small effect size was most likely due to low treatment and control contrast. While the DAD MAP and unstructured support group were quite different, members of both groups had access to a case manager, which is considered one of the main sources of support for fathers participating in the BRFP. If fathers demonstrated a need in any area of fatherhood engagement associated with getting parenting time, parental rights, or mediation services, responsible fatherhood specialists were there to provide assistance. However, it is fair to note that the current study design controlled for any benefits fathers in either group may have received from getting attention from staff during case management sessions or workshops.

Improvements in parental engagement are consistent with the content delivered in Module 2 of the DAD MAP curriculum, which emphasizes the importance of encouragement in the development of children. The module also reviews short- and long-term effects of fathers spending more time with their children, emphasizing that even fathers with few resources can have a strong impact on the lives of their children when they are consistently present. The results support the theoretical approach of DAD MAP, which is informed by Social Learning Theory. Through the curriculum, fathers participated in discussions and activities to reinforce the crucial role they play in their families while also dispelling the perception that they are unable to be good fathers given their limited financial circumstances. In theory, this approach is expected to build self-efficacy among fathers. In addition, the curriculum relies heavily on the assumption that fathers will change their behavior based on the expected positive outcomes to themselves and their children. The results observed in this study lend support to the effectiveness of the theoretical approach to parenting workshops with fathers.

Findings from the current study did not support hypothesis 2, suggesting little evidence of DAD MAP effects on fathers' perceptions of co-parenting relationship quality. This finding was not surprising, given the structure of the curriculum and the method used to improve co-parenting relationship quality. Specifically, the curriculum is designed to improve interpersonal, communication, and anger management skills for the purposes of helping the father manage challenges he is having with his co-parent rather than prioritize improving the relationship. For instance, activities and discussion around healthy relationships may encourage fathers to walk away from conflicts when feelings of anger arise in order to prevent any negative repercussions associated with allowing arguments or fights to escalate. Although this may prevent some severe conflicts from taking place, they may not necessarily improve the quality of the co-parenting relationship. Lowering conflict may improve the relationship in terms of literally reducing



the number of arguments and fights, but it may not facilitate functional and effective co-parenting relationships. For instance, fathers may become withdrawn from the co-parent to minimize conflict, but if this fails to translate into them seeing their child more frequently, fathers may be left feeling increasingly frustrated and hopeless. Co-parents may continue to engage in undermining or gatekeeping behaviors despite the father's attempts at using the interpersonal, communication, and anger management skills learned in DAD MAP sessions. Just one of the four four-week modules included in the DAD MAP focuses almost exclusively on topics related to co-parenting relationship quality. This is in contrast to the two out of four modules that focus on parenting and responsible fatherhood. It is not clear whether fathers attended the sessions presenting skills associated with healthy relationships, although facilitators may have discussed it more frequently if group members expressed it as a major topic in need of discussion for the day. Given the low attendance, it is also reasonable to assume that fewer fathers learned the healthy relationship skills presented in the DAD MAP. With that said, there may be more effective approaches for improving co-parenting relationships that go beyond session-based skills building. For instance, future studies may benefit from assessing whether fathers have actually picked up the skills presented in the curriculum and measure the frequency for which those skills have been attempted with a co-parent or other relevant figure in the dad's life.

Results from the study did not support hypothesis 3, suggesting that participation in the DAD MAP curriculum was not associated with improvements in workforce participation and job-seeking behavior. As discussed, fathers in both the treatment and control group received case management services. Although the DAD MAP curriculum provides content associated with the importance of and methods of obtaining work for fathers, messaging alone may not be effective in leading to behavioral changes. CFUF has made it a priority to move fathers and families into self-sufficiency with employment readiness workshops, job placement assistance, and intensive case management through its other internal programs and services.

Results did not support hypothesis 4, showing no significant impacts on childhood well-being on any of the dimensions measured. The absence of observable impacts on childhood well-being measures may have several explanations. One possibility is that fathers may not be able to recognize the specific behavioral symptoms that the assessments were referring to, specifically when it comes to the focal child. One skill that the curriculum does not emphasize is the ability to notice certain behaviors in one's child, which is a key aim of other parenting programs for fathers working with young children.³⁴ Future studies may benefit from collecting secondary sources of information, perhaps from the co-parent, to assess changes in the child's behavior as a function of the father's participation in fatherhood programs.

Results from analyses testing hypothesis 5 suggested that there were still some crossover interaction effects based on program participation. This was particular for participation in CAT and STRIVE programs. Specifically, results suggested that fathers who participated in STRIVE or CAT did not benefit as much from the DAD MAP curriculum when it came to informal child support contributions as those fathers who did not participate in the two programs. There could be multiple explanations for this observation. First, fathers who are participating in CAT or STRIVE may face greater barriers to making informal child support contributions. STRIVE participants represent a group of fathers that is actively seeking employment. As such, they may have less time and fewer opportunities to make informal support contributions and would consequently register fewer behavioral changes on informal support than their counterparts who sought fatherhood services exclusively and only participated in DAD MAP. A second possible reason for this observation is that fathers who participate in CAT or STRIVE are likely to have received the message about the importance of formal and informal child support in those programs. This would make them less susceptible to additional behavioral changes dealing with informal child support as a result of participating in DAD MAP. Third, fathers who participate in STRIVE are likely to have received a strong message about the importance of making formal child support payments once they become employed. The emphasis on paying formal child



support obligations in the STRIVE program may detract from STRIVE participants making additional informal support contributions after they attend DAD MAP.

It is also worth noting that analysis did not suggest interaction effects of treatment and BRFP attendance. It is not clear why this could be, but one explanation may lie in the fact that attendance did not impact the degree to which fathers could see their case managers. For instance, even though fathers may not have attended sessions, they could have walked in and schedule an appointment for BRFP services. This kind of service contact was not recorded for the current study, but could have limited the degree of variation in treatment effects based on attendance.

Analyses testing hypotheses 6, 7, and 8 did not suggest crossover interaction effects based on criminal justice history, income, or co-parenting relationship quality. This suggests that regardless of where a father stands in regard to income, criminal justice history, or co-parenting, fathers can still benefit from the curriculum. Studies investigating subgroup impacts are scarce when it comes to these key characteristics of fathers, and the field could benefit from future studies examining moderators using a no-treatment control group.

E.1. Limitations

Although the current study used a rigorous randomized control design to assess program impacts, the results from the current study should be interpreted with caution. One factor that may have had an impact on fathers is the case management they received at CFUF. The data from the degree of case management each father received was unknown and accurate methods of capturing this data were not available at the time of the current study. Case managers could have assisted fathers in a variety of ways ranging from expunging criminal records, to connecting fathers to mental health services or contacting the co-parent on the father's behalf in an effort to mediate conflicts. The tasks performed by case managers can be difficult to quantify and are often not collected beyond entering case notes in narrative form. It would be valuable to also get some idea as to the extent to which DAD MAP discussion may have informed how fathers interacted and sought assistance from case managers. For instance, fathers may learn of a variety of child support payment plans or arrear reduction opportunities through their discussions in the DAD MAP groups and in turn inquire about such services from their case managers. Knowledge gained in session may alter service-seeking behavior, which can improve a host of key outcomes among fathers.

Another limitation lies in the treatment/control contrast that was limited only to the curriculum sessions. While fathers in the treatment and control experienced vastly different topics of discussion in their respective groups, all other services received as a part of the BRFP were uniform across research participants. That is, all participating fathers received case management from a trained responsible fatherhood specialist, developed services plans, and may have had opportunities to participate in family events and activities sponsored by CFUF. The current study was unable to fully assess the effectiveness of the BRFP program as a whole. Future studies would greatly benefit from gaining a full understanding of the impacts of other crucial aspects of fatherhood programs that go beyond curriculums and target case management and other methods of engagement and retention.

As with many studies and program initiatives with vulnerable populations, attrition was fairly high and there was a great degree of drop-off between baseline and three-month follow-up survey data collection. Given the length of the DAD MAP curriculum workshops, there are several points at which a father may have been lost to follow-up. The average attendance was relatively low, with 68 out of the 164 failing to attend any curriculum or unstructured support groups at all. The staff report some reasons behind poor attendance, including the multitude of financial, employment, and social barriers participating fathers often face that makes a parenting program like the DAD MAP and its research-related tasks much less of a priority. As the report shows, a large proportion of fathers have had frequent interactions with the criminal justice system and have had virtually no income in the 30 days prior to enrollment. Adverse events like arrest or incarceration not only may discourage fathers from continuing with fatherhood programs, but can be a physical barrier to participating in any social service program. CFUF staff have



attempted to address this problem in a number of ways, including offering incentives for perfect attendance each month and have now moved in an effort to provide such incentives for every four groups attended. CFUF have also engaged in previous efforts to visit the home of fathers when they have failed to show for several sessions in a row. Although attrition was high, the analysis did not suggest any difference in participation rates between the treatment and control condition, which provides evidence against any potential participation bias.

E.2. Implication for practice

Results from the current study suggest that fatherhood programs using a group-based approach, with structured activities and discussion aimed at helping fathers understand the impact of their decision making on their children's lives, can result in changes in behavior. Specifically, changes in parenting behavior associated with praise and encouragement can be gleaned from peer discussion and guided group interaction focusing on the benefits of parental support on children. Fathers, in particular, may have some challenges around this dimension of parenting, as it may be more associated with mothering and less normative among men in general. While providing parental care may seem essential to most adults, providing signals of love and encouragement to children may seem less intuitive. Fatherhood programs that incorporate messages that emphasize the importance of support may observe changes in outcomes in an area where fathers have room for improvement.

Results from the current study also suggest that messaging associated with the importance of providing informal child support can still be effective even for low-income fathers. The DAD MAP curriculum not only emphasizes the importance of providing support but also provides tools and strategies for budgeting and managing funds to make room for contributions to the development of one's child. Although it remains important for programs to avoid viewing fathers as piggy banks, participants and children can benefit from approaches that prioritize financial education along with child support and parenting. Approaching the financial aspects of fatherhood programs in this way can also aid in building trust and sending a message to fathers that their financial health matters. These messages can improve the alliance between fathers and practitioners toward working on goals that benefit fathers and their children.

The absence of any observed impacts at six-month follow-up also has implications for practice. Participating in a program that includes a structured curriculum like the DAD MAP may have some immediate impacts on such vulnerable groups, but effects may not last in the long term for several reasons. First, the fathers in BRFP were facing a plethora of systematic barriers around unemployment, criminal justice involvement, and impersonal issues. These systematic barriers may be consistent and require ongoing engagement to maintain any impacts of the curriculum itself. Second, individuals in general may struggle with recalling the skills and lessons learned from the curriculum. As with any other intervention, the novelty and motivation for behavioral change may wear out over time as well. The program providers may benefit from adding booster sessions or other efforts that provide fathers with curriculum-based content on an ongoing basis. Programs may also consider using social media or mobile device applications that send fathers regular messages and tips regarding their roles as fathers. These efforts could go a long way in maintaining curriculum impacts well beyond enrollment and program completion, although they require the ability to reach fathers over time. It is relevant that some studies are currently examining the effectiveness of mobile device applications as a method of providing consistent messaging, which do not depend on fathers having a working phone number.³⁵ This mobile technology allow communication over Wi-Fi networks that can be accessed in many public and private settings. Practitioners who often struggle with transient populations who frequently change phone numbers and addresses may benefit from this technology over more traditional methods of engaging fathers (i.e., telephone calls, letters).

The lack of program effects on co-parental subscale scores support the need for efficacious approaches to addressing the interpersonal challenges faced by fathers attempting to work with their co-parents to parent their children. Although the DAD MAP curriculum includes topics to help fathers address the conflicts of their co-parenting



relationships and builds skills around anger management and communication, such efforts can rarely work unless the co-parent is able to build skills with the father. Improvement in interpersonal relationships often requires a systems-level intervention that focuses on behavioral changes of both parties involved.³⁶ Fathers may learn skills to communicate effectively with their co-parent, but if their co-parent is not learning the skills to effectively work with the father, then the skills participants pick up may be ineffective in practice. Moreover, facilitators and instructors may not understand the full circumstances associated with co-parenting conflict when the perspective of the co-parent is often absent. Crucial information that may inform effective methods of intervening may often be missing when the facilitator is not able to verify or expand upon any information provided by participating fathers concerning co-parenting challenges. Addressing co-parenting challenges can be especially challenging with co-parents who are romantically involved with new partners as well. Designing and implementing co-parenting interventions will essentially come with challenges, but such programs could fill a deep void in the field of fatherhood, especially when it comes to non-married low-income parental dyads.

In an effort to build a systems-level approach to fatherhood, specifically with interventions aimed at the quality or co-parenting relationship quality, CFUF has brought in a mother engagement specialist to assist with the BRFP initiative. In cases where responsible fatherhood specialists identify that a father is having challenges with his co-parent, they refer the client to the mother engagement specialist, who will assist the father in a multi-stage process towards improving their relationship with the co-parent or at least building a functional relationship between the two. These mother engagement specialists use coaching and feedback and may engage the mother to help communicate on the father's behalf.

The current study should be considered one of many steps in the development of effective fatherhood programs and represents just one approach of countless strategies to promoting fatherhood involvement. Many fatherhood programs follow a model similar to the BRFP in the sense that they include case management, a peer group component, and topic discussions associated with interpersonal relationships, employment, and parenting. These programs may be effective in changing fatherhood behaviors associated with parenting, but getting outcomes associated with child well-being and co-parenting relationships may require an expansion of the group approaches that are somewhat ubiquitous in current fatherhood practices. Fatherhood programs, for example, may benefit from family approaches that include children and co-parents in session. These programs may benefit from opportunities to provide instruction to participants who can practice skills with members of their families in dyads or groups. Facilitators may in turn provide real-time feedback to the father based on observations rather than secondhand reports. For instance, MDRC is currently evaluating a program with fathers with young children that includes a play session component where fathers interact with their child based on lessons learned in an initial parent-training activity.³⁷ Fathers then receive feedback based on observations made during the play session. This approach can expose strengths and or weaknesses in parenting that fathers would otherwise be unable to express or recognize, and can represent a powerful teaching tool for facilitators.

A great deal of work remains in improving the approaches to fatherhood programs. Programs can still benefit from improving areas of retention, recruitment, and implementation. Researchers and practitioners should prioritize rigorous evaluations to identify best practices and approaches to yield benefits for children, fathers, and families.



References

- ¹ "Responsible Fatherhood." Office of Family Assistance | ACF. Accessed June 27, 2017. <https://www.acf.hhs.gov/ofa/programs/healthy-marriage/responsible-fatherhood>.
- ² Allen, Sarah, and Kerry Daly. "The Effects of Father Involvement: An Updated Research Summer of the Evidence." University of Guelph, May 2007. http://www.fira.ca/cms/documents/29/Effects_of_Father_Involvement.pdf. McDowell, David J., Ross D. Parke, and Shirley J. Wang. "Differences Between Mothers' and Fathers' Advice-Giving Style and Content: Relations With Social Competence and Psychological Functioning Behavior in Middle Childhood." *Merrill-Palmer Quarterly* 49, No. 1 (Jan. 24, 2003): 55–76. doi:10.1353/mpq.2003.0004.
- ³ Martin, Anne, Rebecca M. Ryan, and Jeanne Brooks-Gunn. "When Fathers' Supportiveness Matters Most: Maternal and Paternal Parenting and Children's School Readiness." *Journal of Family Psychology* 24, No. 2 (2010): 145–55. doi:10.1037/a0018073.
- ⁴ Bronte-Tinkew, Jacinta, Jennifer Carrano, Allison Horowitz, and Akemi Kinukawa. "Involvement Among Resident Fathers and Links to Infant Cognitive Outcomes." *Journal of Family Issues* 29, No. 9 (Sept. 1, 2008): 1211–44. doi:10.1177/0192513X08318145.
- ⁵ Sarkadi, Anna, Robert Kristiansson, Frank Oberklaid, and Sven Bremberg. "Fathers' Involvement and Children's Developmental Outcomes: A Systematic Review of Longitudinal Studies." *Acta Pædiatrica* 97, No. 2 (Feb. 1, 2008): 153–58. doi:10.1111/j.1651-2227.2007.00572.x.
- ⁶ Astone, Nan Marie, Andrew Karas, and Allison Stolte. "Fathers' Time with Children." Urban Institute, Dec. 2016. http://www.urban.org/sites/default/files/publication/86341/fathers_time_with_children_0.pdf.
- ⁷ "How the Child Support System Affects Low-Income Fathers." Accessed June 27, 2017. <http://www.ncsl.org/research/human-services/how-child-support-affects-low-income-fathers.aspx>.
- ⁸ "Child Support Enforcement Policy and Unmarried Fathers' Participation in the Regular and Underground Economies | Chapin Hall at the University of Chicago." Accessed June 27, 2017. <http://www.chapinhall.org/research/report/child-support-enforcement-policy-and-unmarried-fathers%E2%80%99-participation-regular-and-un>.
- ⁹ Brito, Tonya L. "Fathers Behind Bars: Rethinking Child Support Policy Toward Low-Income Noncustodial Fathers and Their Families." SSRN Scholarly Paper. Rochester, NY: Social Science Research Network, Oct. 9, 2013. <https://papers.ssrn.com/abstract=2338159>.
- ¹⁰ "Healthy Marriage and Responsible Fatherhood Grantees." Office of Family Assistance | ACF. Accessed Sept. 5, 2017. <https://www.acf.hhs.gov/ofa/resource/healthy-marriage-grantees>.
- ¹¹ <https://www.census.gov/quickfacts/table/RHI105210/24510>.
- ¹² "Center for Urban Families | Baltimore, Maryland - Home." Accessed June 20, 2017. <http://www.cfuf.org/>.
- ¹³ "Responsible Fatherhood Toolkit." National Responsible Fatherhood Clearinghouse. Accessed June 29, 2017. <https://www.fatherhood.gov/toolkit/home>.
- ¹⁴ Researchers attempted to contact fathers for their six-month follow-up for approximately two months after their six-month follow-up window opened.
- ¹⁵ "Social Learning Theory Bandura Social Learning Theory." *Learning Theories*, June 19, 2015. <https://www.learning-theories.com/social-learning-theory-bandura.html>.
- ¹⁶ Gribble, Laura Siem, Grace Falciglia, Angela M. Davis, and Sarah C. Couch. "A Curriculum Based on Social Learning Theory Emphasizing Fruit Exposure and Positive Parent Child-Feeding Strategies: A Pilot Study." *Journal of the American Dietetic Association* 103, No. 1 (Jan. 2003): 100–103. doi:10.1053/jada.2003.50011.
- ¹⁷ Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, 84(2), 191–215.
- ¹⁸ "Protest, Reflect, Respond: A Personal Reflection by a Social Worker in Baltimore Following the Death of Freddie Gray - ProQuest." Accessed Sept. 5, 2017. <https://search.proquest.com/openview/5e02026903907dfd968f4a5b4abc834d/1?pq-origsite=gscholar&cbl=2030927>.
- ¹⁹ "FRPN Research Measure: Fathers' Engagement | Fatherhood Research and Practice Network." Accessed June 20, 2017. <http://www.frpn.org/asset/frpn-research-measure-fathers-engagement>.
- ²⁰ Dyer, Justin, Rebecca Kaufman, Jay Fagan, and Natasha Cabrera. "A Measure of Father Engagement for Nonresident Fathers," n.d.
- ²¹ "FRPN Research Measure: Co-parenting Relationship Scale | Fatherhood Research and Practice Network." Accessed June 20, 2017. <http://www.frpn.org/asset/frpn-research-measure-coparenting-relationship-scale>.
- ²² Dyer, W. J., Fagan, J., Kaufman, R., Pearson, J., & Cabrera, N. (in press). Self-perceived co-parenting of nonresident fathers: Scale development and validation. *Family Process*.
- ²³ Briggs-Gowan, Margaret J., Alice S. Carter, Julia R. Irwin, Karen Wachtel, and Domenic V. Cicchetti. "The Brief Infant-Toddler Social and Emotional Assessment: Screening for Social-Emotional Problems and Delays in Competence." *Journal of Pediatric Psychology* 29, No. 2 (Mar. 2004): 143–55.
- ²⁴ "Behavior Problem Checklist." <http://www.apa.org>. Accessed June 29, 2017. <http://www.apa.org/pi/about/publications/caregivers/practice-settings/assessment/tools/behavior-checklist.aspx>.
- ²⁵ Swisher, Raymond R., and Maureen R. Waller. "Confining Fatherhood: Incarceration and Paternal Involvement Among Nonresident White, African American, and Latino Fathers." *Journal of Family Issues* 29, No. 8 (Aug. 1, 2008): 1067–88. doi:10.1177/0192513X08316273.
- ²⁶ Wildeman, Christopher, Jason Schnittker, and Kristin Turney. "Despair by Association? The Mental Health of Mothers with Children by Recently Incarcerated Fathers." *American Sociological Review* 77, No. 2 (Apr. 1, 2012): 216–43. doi:10.1177/0003122411436234.
- ²⁷ Pettit, Becky, and Christopher J. Lyons. "Incarceration and the Legitimate Labor Market: Examining Age-Graded Effects on Employment and Wages." *Law & Society Review* 43, No. 4 (Dec. 1, 2009): 725–56. doi:10.1111/j.1540-5893.2009.00387.x.

- ²⁸ Sources included public benefits, money from friends and relatives, and panhandling.
- ²⁹ Program participation means included zeros.
- ³⁰ Different attendance rates may be due to the flexible attendance expectations associated with the open group format of the BRFP, allowing fathers to attend a first session at any time a workshop occurs. The STRIVE and CAT programs may have more of a cohort structure with fewer options around when to start with high expectations of attendance once enrolled.
- ³¹ Effect sizes of 0.2, 0.5, and 0.8 would be considered small, medium, and large respectively.
- ³² Controls for all respective fatherhood engagement pre-test measures.
- ³³ Several interaction terms were assessed to examine treatment effects at different levels of moderator variables. These analyses included several additional interaction terms that are not included in the table. Interaction terms were all created by multiplying treatment with an explored moderator variable. These variables included reported number of arrests; subscale scores for co-parenting alliance, gatekeeping, and undermining; BRFP workshop attendance; income; and workforce participation. The results of these analyses were not significant.
- ³⁴ "Just Beginning (Incarcerated Teen Parenting Program) | Youth Law Center." Accessed June 6, 2017. <http://www.ylc.org/our-work/action-litigation/juvenile-institutional-conditions-example/incarcerated-teen-parenting-program/>.
- ³⁵ "Building Bridges and Bonds: Study Design Report." OPRE, n.d. https://www.acf.hhs.gov/sites/default/files/opre/b3_studydesignreport_execsummary_508.pdf.
- ³⁶ McHale, James, Maureen R. Waller, and Jessica Pearson. "Coparenting Interventions for Fragile Families: What Do We Know and Where Do We Need To Go Next?" *Family Process* 51, No. 3 (Sept. 1, 2012): 284–306. doi:10.1111/j.1545-5300.2012.01402.x.
- ³⁷ Kruglaya, Inna. "Building Bridges and Bonds (B3) Evaluation." Text. MdrC, Apr. 20, 2015. <http://www.mdrc.org/project/building-bridges-and-bonds-b3-evaluation>.