Impact Evaluation of The TYRO Champion Dads Project in Dallas, Texas

Final Impact Evaluation Report for Anthem Strong Families

October 9, 2020

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Recommended Citation:

Jurkiewicz, T. & Friedman, L. (2020). Impact Evaluation of The TYRO Champion Dads Project in Dallas, Texas: Final Impact Evaluation Report for Anthem Strong Families. Midwest Evaluation and Research.

Acknowledgements:

The Office of Family Assistance (OFA) at the Administration of Children and Families (ACF) made this study possible with funding that supported a partnership between Anthem Strong Families (ASF), Midwest Evaluation and Research (MER), and Mathematica. Thanks go to Jane Choi at Mathematica for providing technical expertise and guidance for statistical analyses and report requirements, Dr. Matthew Shepherd (CEO) at MER for providing conceptual guidance for study design and implications, Charles Dillon (Programs Director) and Cosette Bowles (CEO) at ASF for providing programmatic expertise, Shuntay Ward (CQI Data Manager) and case managers at ASF for study implementation and data management, Kayla Loper at Oklahoma State University for conducting psychometric analyses, and reviewers at MER: Henry Merth, Michelle Brown, Alex Hajek-Jones.

Disclosure:

There is no conflict of interest, financial or otherwise.

This publication was prepared under Grant Number 90FK0085 from the Office of Family Assistance (OFA) within the Administration for Children and Families (ACF), U. S. Department of Health & Human Services (HHS). The views expressed in this report are those of the authors and do not necessarily represent the views or policies of HHS, ACF, or OFA.

Structured Abstract: "The Evaluation of TYRO Champion Dads Program in Dallas, Texas"

Objective. Evaluators estimated the impact of delivering *enhanced services* to mostly fathers and some mothers from different low-income households who also received *standard services* in the TYRO Champion Dads (TCD) Program.

Study design. A randomized control trial (RCT) study design was used to estimate primary and secondary impacts of service enhancements to the TCD Program. Parents who participated in the study (*n*=947) were randomly assigned to treatment (*n*=473) and control (*n*=474) groups after informed consent. Trained facilitators delivered *standard services—TYRO Dads* and *Core Communication*—to both groups under a shared condition. After completing *standard services*, only the treatment group received *enhanced services*—peer group mentoring in person and online activities in a Facebook Group. Evaluators then estimated the impact of group assignment on parenting, co-parenting, and partner relationship behaviors one year after TCD enrollment.

Results. *Enhanced TCD services* had no significant impact on parenting, co-parenting, or partner relationship behaviors for the treatment group compared to the control group.

Conclusion. Implementation challenges made it difficult for treatment group participants to derive benefits from *enhanced services*. Peer group mentoring and online activities in a Facebook Group were implemented at low levels and did not meet fidelity standards and dosage thresholds. Consistent with these implementation findings that suggest TCD program experiences for both study groups were likely shaped by *standard services*, evaluators found no differences in primary outcomes for parenting, co-parenting, and partner relationship behaviors between the treatment and control groups.

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I. INTRODUCTION

A. Introduction and study overview

This report presents results from an impact study of the TYRO Champion Dads (TCD) Program from July 2016 to June 2019. Anthem Strong Families (ASF) started the TCD Program with Healthy Marriage and Responsible Fatherhood (HMRF) funding that was awarded in October of 2015 by the Office of Family Assistance (OFA) at the Administration for Children and Families (ACF). The aim of the report is to inform practitioners in the fatherhood field about how to help mainly fathers and some mothers from predominately low-income households build the skills necessary to engage in healthy behaviors that address HMRF priority areas—strengthening family relationships and stabilizing economic circumstances.

Standard services in the TCD Program included the *TYRO Dads* curriculum and *Core Communication* which is a condensed version of the *Couples Communication I* curriculum. The *TYRO Dads* and *Couples Communication I* curricula were developed by a Christian, non-profit organization in Ohio called The RIDGE Project for delivery in a classroom setting as part of their mission to improve the functioning of families affected by the incarceration of a father (Johnson et. al., 2014). Fathers play key roles in positive family dynamics because they can behave in ways that promote healthy relationships with children and partners, maintain productive employment, and effectively manage household finances (Wildeman, C., 2014; Burn, 2008). However, relationships become weaker and economic circumstances destabilize not only in families suffering from the absence of an incarcerated father, but also in low-income families. Fathers and mothers from low-income households can have difficulty meeting their obligations as parents, partners, and financial providers and managers (Kailil, 2017; DeNavas-Walt, & Proctor, 2015; Karnani, A., 2011). So, *TYRO Dads* and *Core Communication* curricula were delivered as *standard TCD services* mainly to fathers and some mothers who were largely from low-income households to build their skills to better meet familial obligations.

Efficacy of the *TYRO Dads* curriculum is supported by evidence that suggests completing it facilitates positive outcomes for incarcerated fathers and their families. In one study of the *TYRO Dads* curriculum, investigators found that participants reported positive changes in their self-efficacy for parenting, perceptions of co-parenting relationship with the child's mother, and perceived importance of the father's role in parenting. These changes led to positive behavioral changes reported for frequency of father-child activities (Kim & Jang, 2018). In another study, the Ohio Department of Rehabilitation and Corrections (ODRC) found that fathers released in 2012 who also completed the *TYRO Dads* curriculum were 36.5% less likely to return to prison within 3 years compared to non-participants. Participants had a 3-year recidivism rate of 19.6% compared to 30.87% for the general male population of ODRC (Johnson et al., 2014).

However, rigorous impact studies have focused only on delivery of the *TYRO Dads* curriculum to families affected by the incarceration of a father and not on other populations facing similar difficulties that might benefit from them. In addition, previous studies have focused only on the *TYRO Dads* curriculum and did not include the other foundational components in the *TYRO* suite of curricula—*Couples Communication I and 11.* This study used a random control trial (RCT) design like other rigorous studies but differs from them in two ways. First, this study focused on a broader population of participants who were primarily fathers as well as some mothers from different low-income households. Eligible participants were at least 18 years of age and living in the community with no open criminal charges at the time of TCD Program enrollment. Second, this study estimated the impact of a more comprehensive version of *TYRO* services that delivered *TYRO Dads* and *Core Communication* as *standard services* to all participants and then two *enhanced services* only to treatment group participants—peer group mentoring in person and online activities in a Facebook Group.

The TCD Program Director from ASF developed *enhanced services* to increase the likelihood that participants would exhibit improved behavior after they completed *standard services*. Meaningful TCD Program benefits reflect improved parent behaviors for healthy family relationships and economic stability. However, behavioral change may take more time to fully emerge and develop than the 3 months allotted to deliver *standard services*, and it is unclear whether positive impact estimates from previous studies achieved the upper limit for the *TYRO Dads* curriculum. Consequently, *enhanced services* in the TCD Program extended learning opportunities and supports to the treatment group beyond completion of *standard services*.

This study informs practitioner efforts to efficiently provide effective services in the fatherhood field with recommendations based on findings about the implementation and impact of the TCD Program. Findings from implementation analyses inform practitioners about efficiency by assessing the feasibility of delivering education-based services like those in the TCD Program to a broad population of low-income parents from households that are not affected by incarceration at the time of program enrollment. Findings from impact analyses inform practitioners about effectiveness by estimating whether participants derived any added benefits from *enhanced TCD services* as opposed to receiving only *TYRO Dads* and *Core Communication* as *standard TCD services*.

Remaining discussion in this section presents the primary and secondary research questions that guide study activities. In the next section, TCD *standard* and *enhanced services* as well as the procedures used to deliver them are discussed to better understand the experiences intended for parents who agreed to participate in the study. Then, procedures used to form a sample of participants and collect data from them after creating equivalent comparison groups are discussed to document how evaluators and staff implemented a rigorous study design. Next, analytic methods are explained to assess the levels of implementation for TCD services and the outcomes influenced by them. Subsequent discussion considers the approach to estimate findings that describe primary and secondary outcomes. Finally, findings are interpreted to draw conclusions that have implications for delivering services in the fatherhood field.

B. Primary research question(s)

This section presents primary research questions and hypotheses for the study[1]. The questions focus on the differences in behavioral outcomes across study groups. So, primary research questions and hypotheses focused on the extent to which there were differences across study groups for behaviors associated with healthy parenting, co-parenting, and partner relationships. Primary research questions and hypotheses 1-3 are:

1. What was the impact of *standard* and *enhanced services* compared to *standard services* only on **parenting behavior** 1 year after TCD enrollment?
   - *Hypothesis 1*: the treatment group will report healthier parenting behavior than the control group 1 year after TCD enrollment.
2. What was the impact of *standard* and *enhanced services* compared to *standard services* only on **co-parenting behavior** 1 year after TCD enrollment?
   - *Hypothesis 2*: the treatment group will report healthier co-parenting behavior than the control group 1 year after TCD enrollment.
3. What was the impact of *standard* and *enhanced services* compared to *standard services* only on **partner relationship behavior** 1 year after TCD enrollment?
   - *Hypothesis 3*: the treatment group will report healthier partner relationship behavior than the control group 1 year after TCD enrollment.

C. Secondary research question(s)

This section presents the initial and additional secondary research questions that were addressed in this study. To make secondary impact estimates, questions focused on differences between study groups for the attitudes and expectations that are thought to facilitate improved behavior for healthy family relationships and economic stability. Differences were reported by participants on survey measures that were administered shortly after TCD Program enrollment and again one year later, after both study groups completed or would have completed services.

Initial Secondary research questions: Secondary research questions and hypotheses that were aligned with primary research questions focused on the extent to which there were differences reported across study groups for their attitudes and expectations about parent and partner relationships. Healthy parenting likely requires certain attitudes and expectations about the behaviors necessary to raise well-adjusted children. Secondary research questions 4-5 asked:

1. What was the impact of *standard* and *enhanced services* compared to *standard services* only on **healthy parenting attitudes** 1 year after TCD enrollment?
   - *Hypothesis 4*: participants will report healthier parenting attitudes 1 year after TCD enrollment.

[1] This study was registered with clinicaltrials.gov.

2. What was the impact of *standard* and *enhanced services* compared to *standard services* only on **healthy parenting expectations** 1 year after TCD enrollment?
   - *Hypothesis 5*: participants will report healthier parenting expectations 1 year after TCD enrollment.

Healthy partner relationships likely require certain attitudes and expectations about how to interact with partners in ways that strengthen connections between them. Secondary research questions 6-7 ask:

1. What was the impact of *standard* and *enhanced services* compared to *standard services* only on **healthy partner relationship attitudes** 1 year after TCD enrollment?
   - *Hypothesis 6*: participants will report healthier partner relationship attitudes 1 year after TCD enrollment.
2. What was the impact of *standard* and *enhanced services* compared to *standard services* only on **healthy partner relationship expectations** 1 year after TCD enrollment?
   - *Hypothesis 7*: participants will report healthier partner relationship expectations 1 year after TCD enrollment.

Additional secondary research questions: Additional secondary research questions and hypotheses that were not aligned with primary estimates focused on the extent to which differences were reported across study groups for attitudes and expectations about financial and employment behavior. Sound financial practices likely require certain attitudes and expectations about managing household revenues and expenditures, so research questions 8-9 ask:

1. What was the impact of *standard* and *enhanced services* compared to *standard services* only on **healthy financial attitudes** 1 year after TCD enrollment?
   - *Hypothesis 8*: participants will report healthier financial attitudes 1 year after TCD enrollment.
2. What was the impact of *standard* and *enhanced services* compared to *standard services* only on **healthy financial expectations** 1 year after TCD enrollment?
   - *Hypothesis 9*: participants will report healthier financial expectations 1 year after TCD enrollment.

Productive employment practices likely require certain attitudes and expectations about accessing and keeping a job to support a family. So, research questions 10-11 ask:

1. What was the impact of *standard* and *enhanced services* compared to *standard services* only on **healthy employment attitudes** 1 year after TCD enrollment?
   - *Hypothesis 10:* participants will report healthier employment attitudes 1 year after TCD enrollment.

2. What was the impact of *standard* and *enhanced services* compared to *standard services* only on **healthy employment expectations** 1 year after TCD enrollment?

- *Hypothesis 11*: participants will report healthier employment expectations 1 year after TCD enrollment.

II. INTERVENTION AND COUNTERFACTUAL CONDITIONS

This section describes the approach used to determine if *standard services* and *enhanced services* were delivered as intended to study groups under the treatment and shared conditions. The section first covers how delivery procedures for *standard* and *enhanced TCD services* were measured to quantify the intended service amounts that were offered to and received by participants in each study group. Next, *standard services* and *enhanced services* are further described to better understand the learning opportunities and supports that were intended for each study group. Then, the section focuses on how the Continuous Quality Improvement Process (CQI) Team used the CQI process to track monthly and quarterly trends for services outputs to then develop improvement strategies that maximized TCD participation levels. Finally, the section presents the research questions that guided the implementation analyses used to assess the TCD participation levels achieved by the study groups.

A. Description of program as intended

Figure 1 in Appendix A presents a logic model for the theory of change that guides the impact study. The logic model incorporates an RCT design to theorize the impact of delivering *standard services* to both the treatment and control groups under a shared condition and *enhanced services* only to the treatment group on primary and secondary outcomes. Secondary outcomes are the interim changes in attitudes and expectations that likely lead to the long-term changes for primary outcomes—healthier family relationships and more economic stability. However, participant outcomes should be more positive for the treatment group than the control group. Only the treatment group received *standard services* and *enhanced services*, whereas the control group received only *standard services* in the TCD Program.

Table II.1 below presents the procedures used to identify the fidelity standards and dosage thresholds and related outputs for the service conditions associated with each study group. Outputs are the quantifiable results of delivering TCD services to participants, such as the frequency of workshops, number of registered participants, and rates of attendance. Different approaches for delivering *standard* and *enhanced services* have their own dosage, schedule, and method that were used to quantify outputs as described below:

- Shared condition – *TYRO Dads* and *Core Communication* (*standard services*): Participants in both study groups attended workshops for *TYRO Dads* and *Core Communication* that were delivered by case managers trained by The RIDGE Project to facilitate both curricula. Participants were expected to attend weekly sessions of *TYRO Dads* that were offered for approximately 2-hours over 12 weeks (20 hours), and then *Core Communication* for 6 hours (see schedule options in II.1 for *Core Communication*).
- Treatment condition - Facebook Group *(enhanced services):* Case managers proposed activities to treatment group participants who had also completed *standard services* every week in Facebook posts. Case managers were expected to post at least one activity per month in the following areas: parenting relationships, partner relationships, financial literacy, and

employment (4 total). Treatment group parents were expected to react to at least one post per month in each of the specified areas (4 total).

- Treatment condition – Peer Group Mentoring *(enhanced services)*: Treatment group participants were invited to 3 community events for peer group mentoring within 9 months after completing *standard services* and expected to attend at least 1 event for 3-4 hours.

Table II.1. Description of service conditions and target populations by study group

Service Condition	Service Approach	Dosage and Schedule	Delivery Method	Target Population
Shared Condition: Standard Services (received by all study participants)				
TYRO Dads	Evidence-based curriculum (The RIDGE Project, Inc.): cognitive restructuring approach; how to become a role model and be better parents, co-parents, and partners	10 2-hour weekly sessions (20 hours total over 10 weeks)	Classroom instruction: Case Managers trained by The RIDGE Project, Inc. in TYRO Dads facilitation	Low-income parents with no open criminal cases
Core Communication	Evidence-based curriculum (The RIDGE Project, Inc.): communication skills for success across relationship types	Either: 1 6-hour session, 2 3-hour sessions, or 3 2-hour sessions (6 hours total, at once or over 2 weeks)	Classroom instruction: Case Managers trained by The RIDGE Project, Inc. in Core Comm. facilitation	
Treatment Group: Enhanced Services (received by Treatment group only)				
Group Mentorship	Mentoring at community events: Mentors connect with new TYROs at social gatherings to offer guidance/support and reinforce curriculum concepts	Mentoring at 3-4 events/year for after TYRO graduation	Each mentor assigned up to 12 TYROs to interact with at events	Low-income parents with no open criminal cases
Facebook Group ("A Man Worth Following")	Posts and discussions with private group for new TYROs: Case Managers post content across HMRF priority areas to facilitate continued learning	At least 1 post/month in each area: parenting relationships, partner relations, financial literacy, and employment; TYROs interact with at least 1/area/month	Private Facebook group: TCD participants added to Facebook group at TCD enrollment (week 1)	

Notes: Program completers/graduates are referred to as TYROs.

Standard Services: All participants were first offered the *TYRO Dads* curriculum in its standard form and then a condensed version of the *Couples Communication I* curriculum which was renamed *Core Communication*. The *TYRO Dads*, *Couples Communication I,* and *Couples Communication II* curricula are the foundation for a holistic approach developed by The RIDGE Project to promote positive dynamics in families that are negatively affected by incarceration of a father. Incarcerated fathers who are accepted by The RIDGE Project first participate in *TYRO Dads* for 20 hours by themselves and then in *Couples Communication I* and *II* for 16 hours with their partners. Curriculum content for *TYRO Dads* and *Core Communication* that defined the experiences intended for both study groups under the shared condition are described below:

- *TYRO Dads* uses cognitive restructuring to present life lessons with trained facilitators that help participants understand, accept, and implement a healthy model of parenthood by resolving key issues—emotional, employment, financial, relationship, and others—that prevent them from meeting their familial obligations. Participants are encouraged to use the model of healthy parenthood to take responsibility for their actions and do so with honor and integrity. Graduates of the curriculum become TYROs—TYRO means novice or apprentice in Latin—who learn how to overcome destructive generational cycles of poverty, incarceration, and dependency and embrace the role of parent as the highest calling in life. As a result, TYRO graduates become a positive role model and source of support to help others in the TYRO fraternity become better parents.
- *Core Communication* shifts the focus of learning to develop the basic communication, cooperation, and conflict management skills necessary for successful relationships of all types, such as work, family, and others. Trained facilitators demonstrate new skills using a series of communication frameworks and then provide feedback to participants after they practice during role play. Participants learned to utilize their:
  1. S.O.S.™ Network to consider others affected by a relationship issue and recognize the influence of attitudes and behavior on it to make more effective decisions.
  2. Style of Communication® Map to recognize ineffective and effective ways of talking and listening to improve the quality of communication.
  3. Awareness Wheel® Map to better understand themselves to apply 6 talking skills to be clear and congruent participants in their relationships.
  4. Listening Cycle® Map to tune in accurately to another perspective and use 5 listening skills to connect to it — Attentive Listening.
  5. Conflict Patterns Map to gain insight into existing patterns of handling conflict and then change unsatisfactory patterns into satisfactory ones.
  6. Skills Zone Map to respond effectively to challenging situations and then build rapport, manage stress, and stay skilled in difficult conversations.
  7. Special Processes to respond to resistance to turn it into a resource and respond constructively to fight or spite talk.
  8. Map-An-Issue Process™ that combines 11 talking and listening skills to create best-fit, collaborative solutions to complicated issues and then function better as a colleague, coach/counselor, or facilitator/consultant to work out an issue, decision, or conflict in a collaborative way.

Enhanced services: Learning opportunities and supports were extended to the treatment group after completing *standard services* with two enhancements— peer group mentoring and a Facebook group called "A Man Worth Following." *Enhanced services* were developed by ASF for this study to deliver enhanced experiences to the treatment group and are described below:

- *Peer Group Mentoring*: Attendees gathered with peers and mentors to support each other to meet familial obligations. Mentors and treatment group parents assigned to them were all TYROs after completing *standard services*. Mentors were expected to interact with up to 12

parents in their group during community events held at ASF facilities. Mentoring sessions were social gatherings to strengthen bonds among the peer group. Mentors were trained by case managers to maintain boundaries while guiding and supporting members of their group and facilitating relationships among them.

- *Facebook Group*: Case managers facilitated fun, teachable moments online with the following typology of posts—memes, polls, questions of the day, trending internet topics, inspirational words, celebrating successes, publicizing events, words of the day, and health tips. Post types were repeated across HMRF priority areas—parenting, partner relations, employment, and financial literacy—after customizing them, such as Parenting Memes, Polls about Healthy Partner Relationships, Financial Tips, or Trending Internet Topics on Employment.

Table II.2 below describes staff training and development efforts to deliver the shared and treatment conditions to study groups. Delivery of *standard services* and *enhanced services* both required initial training but only the treatment condition required ongoing training. Case managers received initial training to facilitate the *TYRO Dads* and *Core Communication* curricula, but ongoing training was not necessary unless booster sessions were needed or there was staff turnover. Parents who completed *standard services* and agreed to become TYRO mentors all received initial training about how to interact with members of their peer group that had to be repeated due to high turnover. Case managers received initial training by evaluation staff to use MS Excel tools to track posted activities and reactions to them in the Facebook group and ongoing technical support to effectively track and report Facebook Group activities.

Table II.2. Staff training to deliver services to study groups under different conditions.

Condition	Education and initial training of staff	Ongoing training of staff
Shared Condition: *Standard Services* (received by all study participants)		
TYRO Dads	Case Managers are trained by The RIDGE Project, Inc. in TYRO Dads curriculum and facilitation	n.a.
Core Communication	Case Managers are trained by The RIDGE Project, Inc. in Core Communication curriculum and facilitation	
Treatment Group: *Enhanced Services* (received by Treatment group only)		
Group Mentorship	Mentors are trained by Case Managers on how to maintain boundaries while guiding, motivating, and supporting new TYROs.	Initial training is repeated as new mentors are recruited and assigned groups
Facebook Group ("A Man Worth Following")	Treatment Group parents are trained by Case Managers on how to engage in the Facebook Group after random assignment during TCD enrollment in (week 1).	Case Managers trained by local evaluation, Midwest Evaluation and Research (MER), to use tracking tool for Facebook participation.

Notes: Program completers/graduates are referred to as TYROs.

n.a. = not applicable

The CQI Process: The CQI Team repeatedly developed and implemented strategies with staff to reduce the extent to which any participation levels in the TCD Program fell short of fidelity standards and dosage thresholds for *standard services* and *enhanced services*. Fidelity standards were met when the intended amounts offered were: 26 hours to both study groups for *standard services*, and 3-4 invitations to community events for peer group mentoring and at least 1

monthly Facebook post in each HMRF priority area to the treatment group for *enhanced services*. Dosage thresholds were met when the intended amounts received were 26 hours by both study groups for *standard services*, and for *enhanced services* were attendance at least 1 community event for peer group mentoring and 1 response to a monthly Facebook post in each HMRF priority area by the treatment group.

The CQI-Team developed improvement strategies by first reviewing bi-weekly reports that used performance indicators to track monthly and quarterly trends for outputs associated with the *standard services* and *enhanced services* delivered to study groups. Reports were prepared and submitted for discussion with the CQI Team by other members—Senior MER evaluators and the CQI Data Manager. Findings presented in reports were derived using descriptive statistics to analyze data collected with the nFORM system and other tools described later in this report. Next, discussion of findings with evaluators identified any outputs that might fall short of fidelity standards and dosage thresholds by the end of the program year. Then, the CQI Team worked with ASF case managers to implement improvement strategies that addressed any shortfalls.

Membership by the Chief Executive Officer and the Programs Director at ASF gave the CQI Team the authority to make the implementation decisions necessary to improve the TCD Program. Senior evaluators helped other CQI Team members interpret findings in reports to make better decisions that would resolve any performance issues raised by them. Decisions were also informed by qualitative assessments from evaluators after site visits and ASF case managers who also participated as needed in the CQI process.

B. Description of counterfactual condition as intended

Parents assigned to the control group did not receive *enhanced services*. Instead, they only received the same *standard services—TYRO Dads* and *Core Communication*—as treatment group parents under the shared condition. Most importantly, *standard service* experiences for the control group should have been the same as the treatment group. Parents assigned to both groups were offered the same number, schedule, and duration of workshop offerings for *TYRO Dads* and *Core Communication* curricula and attended them together so they could experience the same instructional practices to deliver the same curricula content.

C. Research Questions about the intervention and counterfactual conditions as implemented

Table II.3 below presents research questions that guided implementation analyses of the *standard* and *enhanced services* delivered to study participants. Findings reflect the extent to which service outputs tracked for each condition met fidelity standards and dosage thresholds as described below:

- Fidelity Standards - treatment group: questions 1-3 ask about the extent to which: treatment group participants were *offered* three peer group mentoring sessions within 9 months after becoming a TYRO graduate TYRO (Q1) and at least 1 Facebook Group post per month on average in each HMRF priority area - parenting, partner relations, finances, and employment (Q2); and participants on both study groups were offered 26 hours of *standard services* (Q3).

- Dosage Thresholds - treatment group: questions 4-6 ask about the extent to which participants *received* 26 hours of *standard services* (Q6) and then: 1) *attended* three peer group mentoring sessions within 9 months after becoming a graduated TYRO (Q5); 2) *responded* to at least 1 Facebook Group post per month on average in each priority area - parenting, partner relations, finances, and employment (Q4).
- Fidelity Standards - control group: question 7 asks about the extent to which participants were *offered* 26 hours of *standard services* (Q7).
- Dosage Thresholds - control group: question 8 asks about the extent to which participants *received* 26 hours of *standard services* after completing them (Q8).

Table II.3. Research questions by implementation element for service condition by study group

Implementation element	Service condition	Research question
Treatment Group (TG)		
Fidelity	Group Mentorship	Q1: To what extent were TYROs in the TG offered 3 mentoring sessions within 9 months after completing primary services?
	Facebook Group ("A Man Worth Following")	Q2: To what extent were TYROs in the TG sent at least 1 post in the Facebook Group in each priority area every month?
	Standard (TYRO Dads & Core Communication)	Q3: To what extent was the TG offered 26 hours of primary services in the shared condition?
Dosage	Group Mentorship	Q4: To what extent did TYROs in the TG attend at least 1 mentoring event within 9 months after completing primary services?
	Facebook Group ("A Man Worth Following")	Q5: To what extent did TYROs in the TG react to at least 1 post in the Facebook group in each priority area every month?
	Standard (TYRO Dads & Core Communication)	Q6: To what extent did the TG receive 26 hours of primary services in the shared condition?
Control Group (CG)		
Fidelity	Standard (TYRO Dads & Core Communication)	Q7: To what extent was the CG offered 26 hours of primary services in the shared condition?
Dosage		Q8: To what extent did the CG receive 26 hours of primary services in the shared condition?

Notes: TG=treatment group; CG=control group. Program completers/graduates are referred to as TYROs.

III. STUDY DESIGN

This section explains the procedures used to implement a randomized control trial (RCT) study design with repeated measures under the supervision of the CQI-Data Manager and with support from MER staff. We begin by explaining how ASF case managers recruited participants into the study to form a sample that was comprised of two equivalent groups: treatment and control. Then, we describe how ASF case managers and MER staff collected data from both study groups to measure their participation levels and outcomes after completing the TCD Program (see Table B.1 in Appendix B for a formal timeline of tasks and responsibilities).

A. Sample formation and research design

Sample formation consisted of recruitment, consent, and study group assignment. Recruitment into TCD services and the study relied heavily on referrals from community partners who served eligible parents (see Table B.2 in Appendix B for the partner list). However, referrals also resulted from walk-ins to the ASF mini clinic, the ASF website that presented available programs and services, advertising by ASF about the TCD Program, and word of mouth from TCD participants. Recruitment targeted fathers but also accepted mothers who were: at least 18 years of age with no open criminal cases, largely low-income, interested in TCD services, and willing to be randomly assigned to either study group after informed consent.

Recruitment: Staff presented the purpose and benefits of *standard* and *enhanced TCD services* at orientations held at partner sites and the ASF mini clinic to recruit eligible fathers and mothers. Orientations also discussed the impact study and explained informed consent before soliciting participation. Participant responsibilities were clarified at the orientation, such as providing contact information and responding to surveys.

Group assignment: Orientation attendees who expressed interest in TCD services returned the following week to enroll at their respective recruitment sites. Those who were also willing to participate in the impact study provided signed consent forms before they were assigned to study groups. After consent was documented, parents were randomly sorted into either a treatment or control group. Selections were made and then recorded onto the nFORM data collection system by program staff who organized cards into a stack that equaled the number of attending parents at each orientation who wished to receive TCD services and participate in the impact study. Cards in the stack had equal amounts of even and odd numbers depicted on them and one was drawn for each study participant. Selections into either the treatment or control group depended on whether a participant received an even or odd number.

Consent process: Program staff followed a protocol that was accepted by IRB Solutions, Inc to solicit informed consent from study participants. Candidates were informed about study specifics and afterward could ask questions and seek clarification before documenting their consent. Candidates were made aware of their responsibilities to attend TCD service workshops and fulfill important requests, such as providing contact information and responding to surveys. In return, potential study participants were assured that receiving TCD services did not depend

upon consent to participate in the study, all of their identifying information would be kept confidential, and study results would be reported at the group level to protect their anonymity. Program staff also informed candidates that incentives would be offered for participating in TCD services and the study as follows: 1) $150 Walmart gift card after parents completed *standard services* and nFORM and OLLE Exit Surveys; 2) $25 to TYRO graduates for every parent they referred who completed *standard services* and post/exit surveys; 3) $10 after for every completed OLLE Follow-up survey.

B. Data collection

This section discusses the data collection sources and procedures that supported analyses of TCD Program implementation and participant outcomes for this study. We begin by presenting the sources and procedures to document the intended amounts of *standard services* and *enhanced services* that were offered to and received by participants in both study groups to address specific research questions about their participation levels in the TCD Program. We conclude by presenting the sources and procedures to assess participant outcomes and then estimate the impact of the TCD Program during its implementation from July of 2016 to June of 2019.

1. Implementation Analysis

Implementation analyses relied on the nFORM (Information, Family, Outcomes, Reporting and Management) system to collect and manage data that described *standard services* but not *enhanced services* in the TCD Program. Mathematica developed the nFORM data collection system which is a secure, encrypted online platform, and its use was required by the Office of Family Assistance (OFA) because it served a variety of key programmatic and evaluation purposes. Enrollment into the TCD Program, study group assignment, and levels of participation in *TYRO Dads* and *Core Communication* workshops could be tracked with the nFORM system along with other outputs for *standard TCD services*. However, alternative data collection methods had to be developed to track outputs for *enhanced services*. Midwest Evaluation and Research (MER) used MS Excel to develop a series of tools to track outputs for peer group mentoring and the online Facebook Group, and then trained TCD Program staff to use them.

Standard and *enhanced services* had distinct delivery approaches. Different approaches identified alternate data sources to create outputs that could effectively track progress implementing the TCD Program. Table B.3 in Appendix B profiles the implementation data sources used to assess the extent to which the intended amounts of *standard services* and *enhanced services* were delivered to both study groups (data sources are in boldface below):

- Peer group mentoring enhancement (treatment condition) - the CQI-Data Manager collected data under the supervision of MER. The CQI-Data Manager entered data onto an MS Excel tracking spreadsheet that was compiled from **attendance sheets** for peer group mentoring sessions held at community events logged on the **ASF calendar** (see Q1.1-1.2 and Q4.0).
- Facebook Group enhancement (treatment condition) - case managers collected data under the supervision of the CQI-Data Manager. The CQI-Data Manager downloaded activity data

from the **Facebook platform** and gave it to case managers for entry onto a series of MS Excel tracking sheets developed by MER (see Q2 and Q5).

- Standard services (shared condition) – the CQI-Data Manager collected data under the supervision of MER. The CQI-Data Manager exported **nFORM workshop data for schedule, registration, and attendance** onto an MS Excel spreadsheet to track participation in *TYRO Dads* and *Core Communication* (see Q3.0, Q6.1-6.2, Q7.0, and Q8.1-8.2).

2. Impact analysis

Impact analyses relied primarily on data collected and managed with the OLLE (On-Line Local Evaluation Data Collection System) system and to a lesser extent the nFORM system. Data that described the demographic characteristics and life circumstances—family structure, income sources, employment status—of participants were collected by administering the Applicant Characteristics Survey (ACS) on nFORM. Data describing secondary and primary outcomes were collected with the OLLE system because nFORM did not have the capacity to administer follow-up surveys one year after enrollment. Therefore, MER used Qualtrics to develop a secure, encrypted platform called the OLLE to measure and manage a wider array of secondary and primary outcomes compared to the surveys on nFORM.

Table B.4 in Appendix B profiles survey administration procedures to collect data for impact analyses that were carried out by case managers under supervision by the CQI-Data Manager. Secondary outcomes are the attitudes and expectations that are the interim changes leading to the long-term changes for primary outcomes—parenting, co-parenting, and partner relationship behaviors. Surveys were administered in the following manner:

- Applicant Characteristics Survey (ACS-nFORM): administered at TCD Program enrollment to measure participant demographic characteristics and life circumstances.
- OLLE Pre-survey: administered before the first *TYRO Dads* workshop to measure participant primary and secondary outcomes at baseline.
- OLLE Post-survey: administered after the last *Core Communication* workshop to measure primary and secondary outcomes at exit for TCD *standard services* (NOTE: OLLE post-survey data are not used for this study).
- OLLE Follow-up survey: administered one year after enrollment into the TCD Program to measure primary and secondary outcomes after the treatment group completed *enhanced TCD services*.

Participants were not always able to complete follow-up surveys online because sometimes they lacked internet access. When that happened, MER staff administered the survey over the telephone after updating contact information. Incentives were mailed to participants after they completed their follow-up survey. Multiple attempts were made by MER staff to connect with participants for follow-up surveys by mailing the following:

- A card reminding them about their participation in the study and a $10 incentive to access a link on the Qualtrics platform to respond to the OLLE Follow-up Survey. Reminder cards were sent 2 weeks before the survey due date, which was one year after TCD enrollment, and they explained that a letter would be sent with a link to access the Follow-Up Survey.
- A letter with a link to the OLLE Follow-up Survey, instructions for accessing it, and information to contact technical support in the event respondents experienced difficulties.
- A card reminding them a letter was sent with the promise of a $10 payment if they accessed a link and responded to the OLLE Follow-Up Survey. Contact information was also provided for technical support in the event respondents experienced difficulties

IV. ANALYSIS METHODS

This section describes the procedures used to prepare data collected online for impact analyses. This section begins by describing how the analytic sample for this study was constructed and then its key characteristics to understand the statistical power for impact analyses. Next, outcomes measures administered to participants in online surveys are presented to understand the primary and secondary impact comparisons that will be made between study groups under different service conditions. Finally, this section presents procedures to conduct baseline analyses and results to determine the extent to which random assignment resulted in equivalent study groups.

A. Analytic sample

CONSORT Diagram in Appendix B presents the flow and retention of OLLE survey respondents adjusted for missing data in the treatment and control groups for the final analytic sample. The diagram shows 947 individuals agreed to participate in the study, with 473 randomly assigned to the treatment group and 474 to the control group. At the baseline survey, 440 responded in the treatment group and 445 in the control group. At follow-up, depending on the outcome, between 246 and 272 responded in the treatment group and 249 to 281 in the control group (see Table IV.1, which also presents the response rates). As a result, rates for overall attrition (42% to 48%) and differential attrition (.5% to 2.0%) were low which indicates the treatment and control groups were likely to be similar for baseline characteristics[2].

Table IV.1. Individual sample sizes by service condition

Number of individuals	Treatment sample size	Control sample size	Total sample size	Total response rate (%)	Treatment response rate (%)	Control response rate (%)
Assigned to condition	473	474	947	n.a.	n.a.	n.a.
Contributed a baseline survey	440	445	885	93.5	93.0	93.9
Contributed a post-survey (3 months)	319	323	642	67.8	67.4	68.1
Contributed a follow-up (1 year)	272	281	553	58.4	57.5	59.3
Short-term Outcomes Constructs[1]						
Long-term Outcomes Constructs	271	281	552	58.3	57.3	59.3
[Parenting Behavior, Partner Relations Behavior]						
[Co-parenting Behavior]	246	249	495	52.3	52.0	52.5

Notes: All study participants received *Standard Services* (shared condition). The Treatment Group also received *Enhanced Services*. Post-test data was not analyzed for the Impact Analysis but is included in the table.

[2] Attrition rates for long-term outcomes were 48% overall and 0.5% differential for Parenting Behavior, and 42% overall and 1.8% differential for Parenting Behavior and Partner Relationship Behavior. Attrition rates for short term outcomes were 42% overall and 2% differential for Partner Relationship attitudes and 42% overall and 1.8% differential for Parenting Attitudes, Parenting Expectations, Partner Relationship Attitudes, Partner Relationship Expectations, Financial Attitudes, Financial Expectations, Employment Attitudes, and Employment Expectations.

[1]Short-term Outcomes include: Parenting Attitudes, Parenting Expectations, Partner Relations Expectations, Partner Relations Attitudes, Financial Attitudes, Financial Expectations, Employment Attitudes, Employment Expectations]. N for some short-term outcomes was 1 less (i.e., 271 instead of 272); only the higher n's are reported here for user-friendliness. See CONSORT diagram for full details.

n.a. = not applicable.

The CONSORT diagram also presents the numbers of participants in each group who did not respond to OLLE surveys and the reasons for non-response. At the baseline survey, 33 out of 473 participants did not respond in the treatment group (revoked consent=4, dropped=7, non-responsive=22) and 29 out of 474 in the control group (revoked consent=2, dropped=24, non-responsive=3). At follow-up, 171 out of 473 participants did not respond in the treatment group (revoked consent=10, dropped=67, non-responsive=84, incarcerated=6, moved=4, item non-response=30 to 56) and 172 out of 474 in the control group (revoked consent=4, dropped=71, non-responsive=90, incarcerated=7, item non-response=21 to 53).

B. Outcome measures

To make primary and secondary impact estimates, outcomes were measured with a series of OLLE survey items that were administered to both study groups at TCD Program enrollment and again one year later. Primary outcomes measured were parenting, co-parenting, and partner relationship behaviors. Secondary outcomes measured were the attitudes and expectations related to healthy family relationships—parent and partner—and economic circumstances—financial and employment.

The MER team conducted confirmatory factor analysis (CFA) to develop constructs for secondary and primary outcomes with the OLLE Survey items. CFA results provide evidence that the primary and secondary outcomes are reliable (see Appendix D for a detailed summary of methods, analyses, and findings).

Table IV.2 below profiles each primary outcome construct with an example survey item:

- Parenting Behavior (11 items): Each item asks respondents to rate the frequency they engaged in a series of activities with their child over the past 30 days to support a healthy relationship. Item responses are on a 5-point scale ranging from never '1' to every day or almost every day '5'.
- Co-Parenting Behavior (5 items): Each item asks respondents to rate how well they used a series of co-parenting skills in the past 12 months. Items responses are on a 7-point scale that ranges from very poor '1' to excellent '7'.
- Partner Relationship Behavior (13 items): Each item asks respondents to rate the frequency they engage in a series of healthy activities with partners. Item responses are on a 7-point scale that ranges from never '1' to always '7'.

Table IV.2. Outcome measures used for primary impact analyses research questions

Outcome Construct	Sample Survey Item	Cronbach's alpha	Timing of measure
Parenting Behavior (11 items)	In the past 30 days, how often have you had a meal with your youngest child?	0.91	Pre-survey administered at enrollment (week 2) by CQI Data Managers and Case Managers; Follow-up survey administered 1-year after enrollment by Local Evaluator
Co-parenting Behavior (5 items)	In the last 12 months, how good of a job did you do as a parent letting your youngest child/ren know that their other parent is an important and special person?	0.81	
Partner Relations Behavior (13 items)	How often do you and your partner get on each other's nerves?	0.88	

Notes: Data sources are OLLE pre- (baseline) and follow-up surveys (combination of online and interview format).

Table IV.3 shows each secondary outcome construct with an example survey item to address secondary research questions:

- Parenting attitudes (4 items): respondents indicate levels of agreement with 4 statements about their current attitudes about parent relationships. Items rely on a 7-point scale that ranges from 1 for 'strongly disagree' to 7 for 'strongly agree'.
- Parenting expectations (3 items): respondents indicate levels of agreement with statements about their expectations for parent relationships in the future. Items rely on a 7-point scale that ranges from 1 for 'strongly disagree' to 7 for 'strongly agree'.
- Partner relationship attitudes (5 items): respondents indicate levels of agreement with statements about their current attitudes about partner relationships. Items rely on a 7-point scale that ranges from 1 for 'strongly disagree' to 7 for 'strongly agree'.
- Partner relationship expectations (3 items): respondents indicate levels of agreement with statements about their expectations for partner relationships for the future. Items rely on a 7-point scale that ranges from 1 for 'strongly disagree' to 7 for 'strongly agree'.
- Financial attitudes (4 items): respondents indicate levels of agreement with statements about their current attitudes about financial circumstances. Items rely on a 7-point scale that ranges from 1 for 'strongly disagree' to 7 for 'strongly agree'.
- Financial expectations (3 items): respondents indicate levels of agreement with statements about their expectations for financial circumstances in the future. Items rely on a 7-point scale that ranges from 1 for 'strongly disagree' to 7 for 'strongly agree'.
- Employment attitudes (5 items): respondents indicate levels of agreement with statements about their current attitudes about employment. Items rely on a 7-point scale that ranges from 1 for 'strongly disagree' to 7 for 'strongly agree'.
- Employment expectations (3 items): respondents indicate levels of agreement with statements about their expectations for employment in the future. Items rely on a 7-point scale that ranges from 1 for 'strongly disagree' to 7 for 'strongly agree'.

Table IV.3. Measures used to create outcomes constructs for secondary impact analyses

Outcome Construct	Sample Survey Item (scale of agreement)	Cronbach's alpha	Timing of measure
Parenting Attitudes (5 items)	I like to think of my child/ren and me in terms of "us" and "we" as opposed to "me" and "him", "her", or "them."	0.89	Pre-survey administered at enrollment (week 2) by CQI Data Managers and Case Managers; Follow-up survey administered 1-year after enrollment by Local Evaluator
Parenting Expectations (3 items)	I am very confident when I think of our future together.	0.92	
Partner Relations Attitudes (5 items)	I like to think of myself and my partner in terms of "us" and "we" as opposed to "me" and "him" or "her."	0.85	
Partner Relations Expectations (3 items)	I am very confident when I think of our future together.	0.94	
Financial Attitudes (4 items)	I am overwhelmed when I think about my financial situation.	0.65	
Financial Expectations (4 items)	I will have financial stability in the future.	0.77	
Employment Attitudes (3 items)	I like to think of my co-workers in terms of "us" and "we" rather than "me" and "him", "her", or "them."	0.79	
Employment Expectations (4 items)	I will have a long and productive career in the future.	0.91	

Notes: Data sources are OLLE pre- (baseline) and follow-up surveys (combination of online and interview format).

C. Baseline equivalence and sample characteristics

Treatment and control groups were likely to be similar at baseline given that this impact study is an RCT with low attrition. However, evaluators tested the equivalency of study groups using one of the analytic samples to determine if study groups were similar at baseline. Chi-square tests and independent-samples *t*-tests were conducted to look for group differences. Chi-Square tests were run for categorical and dichotomous variables, such as gender or income levels. Independent-samples *t*-tests were run for continuous and interval variables, such as number of children or levels of agreement for healthy parenting attitudes.

The RCT design was well-executed despite a few differences that were detected at baseline because they were controlled for in the models used to make impact estimates with co-variates. Tables IV C.1-C.3 in Appendix C and Table IV.4.4 below summarize descriptive statistics and results for baseline equivalency analyses as follows:

- Demographic characteristics (see Table C.1): Significant differences ($p<.05$) were not detected for any demographic characteristic but two approached significance—% Black/African American ($p<.10$) and % Hispanic/Latino ($p<.10$).
- Economic circumstances (see Table C.2): One significant difference was detected for % Inconsistent Work Hours ($p<.05$) and another economic circumstance approached significance—% Not Employed ($p<.10$).

- Long-term Outcomes (see Table C.3): Significant differences were not detected for any behavioral outcome ($p<.05$) and none of them approached significance ($p<.10$).
- Short-term Outcomes (see Table IV.4.4 below): One significant difference was detected for Financial Attitudes ($p<.05$) and another short-term outcome approached significance—Employment Expectations ($p<.10$).

Table IV.4. Summary statistics of short-term outcomes at baseline and baseline equivalence across study groups[1], for individuals completing the OLLE Follow-up Survey

Outcome construct[2]	Overall mean (standard deviation)	Treatment mean (standard deviation)	Control mean (standard deviation)	Group mean difference (p-value)
Parenting Attitudes	6.6 (0.9)	6.6 (0.7)	6.5 (1.0)	0.1 (0.700)
Parenting Expectations	6.4 (1.0)	6.5 (0.9)	6.4 (1.0)	0.1 (0.228)
Partner Relations Attitudes	6.2 (1.2)	6.2 (1.2)	6.2 (1.1)	0.0 (0.859)
Partner Relations Expectations	6.0 (1.4)	6.0 (1.3)	5.9 (1.4)	0.1 (0.668)
Financial Attitudes	4.9 (1.4)	5.1 (1.4)	4.8 (1.5)	0.3 (0.017)**
Financial Expectations	5.5 (1.0)	5.5 (1.0)	5.4 (1.0)	0.1 (0.247)
Employment Attitudes	5.2 (1.2)	5.3 (1.3)	5.2 (1.2)	0.1 (0.483)
Employment Expectations	6.1 (1.2)	6.2 (1.1)	6.0 (1.2)	0.2 (0.078)*
Sample size	495	246	249	n.a.

Notes: **/*/+ Differences are statistically significant at the .05/.10/.20 levels, respectively.

[1]p-Values for continuous variables were calculated by conducting an independent-samples T-test

[2]Outcomes constructs have a range of 1 to 7.

n.a. = not applicable.

V. FINDINGS AND ESTIMATION APPROACH

A. Implementation evaluation

Key Findings:

Standard and enhanced services reflected different levels of implementation. On the one hand, standard services largely met fidelity standards for both study groups. Also, most treatment (71.7%) and control (70.7%) group participants completed TCD services with an average of about 20 hours of workshop attendance of the possible 26 hours for TYRO Dads and Core Communication. On the other hand, enhanced services were not implemented with fidelity for TYRO graduates in the treatment group since only 41.2% were offered peer group mentoring sessions within 9 months of completing standard services and only 20.7% were enrolled in the Facebook Group. As a result, dosage levels for the enhanced services were quite low and did not meet the desired thresholds.

Findings from implementation analyses reflect challenges for delivering services to participants in the TCD Program. *Standard services* were delivered with sufficient fidelity and dosage levels to both study groups. However, despite the best efforts of the CQI team, the *enhanced services* were not delivered with high fidelity.

Table V.1 presents findings from implementation analyses that use descriptive statistics to examine the extent to which delivery of *standard services* met fidelity standards and dosage thresholds for each study group under the shared condition (see Q3.0, Q6.1-6.2, Q7.0, and Q8.1-8.2 in Appendix B). Findings were derived by analyzing nFORM data that described workshop schedules and attendance to calculate percentages for the intended service amounts in hours that were offered to study group participants and received by them. Descriptive statistics like mean hours elaborate on the extent to which *standard services* met dosage thresholds.

Table V.1. Implementation analysis results for *standard services*

Study Group	Fidelity Standards		Dosage Thresholds			
	Intended Amount Offered	Actual Amount Offered	Intended Amount Received	Actual Amount Received	Intended Amount Received	Actual Amount Received
Treatment Group (n = 473)	100% of parents offered 26 hours of *standard services*[1]	98.1%	80% of parents attend 26 hours of *standard services**	27.9% (mean = 19.98 hours)	80% of parents achieve complete status for *standard services*[1]	71.7%
Control Group (n = 474)		97.7%		31.0% (mean = 20.38 hours)		70.5%

Data Source: nFORM

[1]Standard services = TYRO Dads (20 hours) + Core Communication (6 hours). Complete status means participants received at least 20.8 hours (80% of 26 hours) of Standard services.

Results in Table V.1 are positive about the delivery of *enhanced services* meeting fidelity standards and dosage thresholds for study groups. Findings indicate:

- Fidelity: The facilitators implemented *enhanced services* with fidelity for both study groups. Almost 100% of participants in the treatment (98.1%) and control (97.7%) groups were offered 26 hours of *standard services*.
- Dosage: Thresholds (80.0%) were not met given that only 27.9% of the treatment group and 31.0% of the control group received 26 hours of *standard services*. On average, the treatment (20.0) and control (20.4) groups both received about 20 hours of the 26 offered to them. However, most participants in the treatment (71.7%) and control (70.5%) groups received enough hours to achieve complete status as reported on nFORM.

Table V.2 below presents findings from implementation analyses that examine the extent to which delivery of *enhanced services* met fidelity standards and dosage thresholds for participants under the treatment condition. Results indicate that *enhanced services* were not delivered to participants (n=473) with as much fidelity as *standard services*. Peer group mentoring and the online activities in the Facebook group fell far short of fidelity standards or dosage thresholds as indicated below:

- Fidelity – Peer Group Mentoring: Assignment of up to 12 TYRO graduates to peer mentors (29.4%) and the holding of peer group mentoring sessions at 3-4 community events within 9 months of completing *standard services* (41.2%) did not meet the desired 100% fidelity standard.
- Dosage – Peer Group Mentoring: Only 9.9% of TYRO graduates attended peer group mentoring sessions which did not meet the desired 80% dosage threshold.
- Fidelity – Facebook Group: Only 20.7% of TYRO graduates in the treatment group were enrolled into the Facebook Group did not meet the desired 100% fidelity standard. What is more, mean monthly percentages for Facebook Group members that were offered at least 1 post per month in each priority area are quite low for parenting (3.6%), partner relationships (2.6%), financial literacy (.3%), and employment (.9%).
- Dosage – Facebook Group: Frequency of reactions to Facebook posts by TYRO graduates also did not meet the desired 80% dosage threshold with mean monthly percentages that were low for parenting (3.8%), partner relationships (1.3%), financial literacy (0%), and employment (0%).

Table V.2. Implementation analysis results for *enhanced services* delivered to the treatment group

Treatment Condition	Fidelity Standards		Dosage Thresholds	
	Intended Amount Offered	Actual Amount Offered	Intended Amount Received	Actual Amount Received
Group Mentorship	100% of TYROs assigned a peer group mentor	29.4%	n.a.	n.a.
	100% of TYROs offered 3 mentoring sessions within 9 months	41.2%	80% of TYROs attend at least 1 peer group mentoring session	9.9%
Facebook Group ("A Man Worth Following")	100% of TYROs enrolled into Facebook Group	20.7%	n.a.	n.a.
	100% of TYROs offered 1 Facebook post/month/priority area (4 total)	Mean monthly %: parenting 3.6%, partner relations 2.6%, financial literacy 0.29%, employment 0.86%	80% of TYROs react to 1 Facebook post/month/priority area (4 total)	Mean monthly %: parenting 3.8%, partner relations 1.3%, financial literacy 0.0%, employment 0.0%

Data Source: ASF calendar, Excel tracking sheets (Facebook group), Attendance sheets

Notes: Treatment Group only, n = 473

Program completers/graduates are referred to as TYROs.

Facebook Group amounts offered/received are mean percentages.

Performance issues reflected in the findings presented above were identified by the CQI Team early in the implementation of the TCD Program and then discussed extensively to try to resolve them. Successful and unsuccessful resolutions by the CQI Team are described below:

- *Standard services-TYRO Dads and Core Communication*: Challenges were overcome by the CQI Team to deliver *standard services* to both study groups under the shared condition, but they took great effort. Delivery of *standard services* were hampered largely by the change in direction facilitated by OFA funding decisions. ASF had been operating a healthy marriage program since the inception of funding for HMRF projects in 2006. In 2015, funding was not awarded for a healthy marriage project but instead for a fatherhood project. As a result, community partner relationships had to be reformed to emphasize fathers in program enrollment. As a result, TCD Program enrollment struggled from 2016-18 but CQI efforts to improve it were eventually successful when partnerships with sufficient recruitment potential were established.
- *Enhanced service – Facebook Group*: Delivery of digital learning opportunities and supports to the treatment group were delayed until September of 2018. The delay was due in part because of efforts to address enrollment issues described above for *standard TCD services* but also for another reason. Specifically, the proposal for the current grant awarded in 2015 for the TCD Program originally planned to use the TYRO365 mobile application to deliver digital learning opportunities to the treatment group. However, TCD Program staff and study participants complained of a steep learning curve for using TYRO365 which did not

sufficiently improve after additional training and technical assistance. So, delivery of digital learning experiences switched to the Facebook Group platform but that meant data collection activities no longer had access to the automated, real-time tracking capacity offered by the TYRO365 mobile application. Instead, ASF staff had to manually carry out data collection activities, which is why MS Excel was used by MER to develop a new set of data tracking tools with the subsequent provision of training and technical assistance. Revisions to study protocol were also made and submitted to IRB Solutions. Complicating matters further was that many TYRO graduates enrolled had no access to digital devices and were not savvy with them.

- *Enhanced service – Peer Group Mentoring*: Delivery of peer group mentoring sessions at community events were also delayed in part because of efforts to address enrollment issues described above for *standard TCD services* but there were two other reasons. First, turnover was great among TYRO graduates who agreed to serves as mentors to other TYRO graduates in the treatment group and incentives did not resolve the problem. Second, contact information was difficult to keep up to date for low-income households whose members tend to be a transient population.

B. Primary impact evaluation

Key Findings:

Primary impact estimates provide no evidence that enhanced services facilitated better outcomes for the treatment group compared to the control group. Means for primary outcomes after the delivery of enhanced services were higher in the treatment group for parenting and co-parenting behavior, but not for partner relationship behavior, and there were no significant differences ($p<.05$) that could be attributed to study group assignment for any of them. Primary impact estimates do not support hypotheses 1.1-1.3 that enhanced services improve parenting, co-parenting, and partner relationship behavior one year after TCD enrollment.

Regression analysis addressed primary research questions 1-3 by estimating the primary impact of TCD participation on parenting, co-parenting, and partner relationship behavior one year after program enrollment. Two co-variates— Financial Attitudes and ACS-Variable Hours of Employment —were included in the initial model along with study group assignment, as per results of baseline equivalency analyses (see Table E.1 in Appendix E for the model equation).

Table V.3 below presents estimated effects on parenting, co-parenting, and partner relationship behavior. Although the treatment group does seem to have better outcomes on average than the control group for parenting and co-parenting behavior, but not for partner relationship behavior, the differences were not statistically significant. Results for primary research questions 1-3 indicate that delivery of *standard* and *enhanced TCD services* (i.e., study group assignment) did not have a significant impact on:

1. parenting behavior: Beta = .562, p = .549.

2. co-parenting behavior: Beta = .016, p = .723.
3. partner relationship behavior: Beta = -.0162, p = .149.

Table V.3. Post-intervention estimated effects using data from 1-year OLLE follow-up survey to address the primary research questions

Outcome Construct[1]	Treatment mean (standard deviation)	Control mean (standard deviation)	Group mean difference (p-value)
Parenting Behavior (n = 271, 281)	3.22 (1.21)	3.16 (1.25)	0.07 (0.574)
Co-Parenting Behavior (n = 246, 249)	7.01 (1.35)	6.96 (1.38)	0.04 (0.723)
Partner Relations Behavior (n = 271, 281)	2.35 (0.79)	2.44 (0.92)	-0.09 (0.149)

Source: Follow-up surveys administered at one year after enrollment.

Notes: See Table IV.2 for a more detailed description of each measure and Appendix E for the model equations.

[1]Outcomes constructs have a range of 1 to 7.

C. Sensitivity analyses

Sensitivity analyses tried to confirm primary estimates from the initial model to see if they produced similar results. Two models were created by relaxing the standard ($p < .05$) for including co-variates after baseline equivalency analyses (see Tables F.1 and F.2 in Appendix F for model equations). Table V.4 below compares the co-variates included in the initial model to those in sensitivity analyses. Sensitivity model 1 includes variables that differed across study groups at $p < .10$, which added three co-variates—ACS-Not Employed, ACS-Race 3 (Black or African American), and Employment Expectations—to the initial model. Sensitivity model 2 included variables that differed across study groups at $p < .20$, which added two more co-variates to the initial model—ACS-Ethnicity (Hispanic or Latino) and ACS-Employed Full Time.

Table V.4. Co-variates included in sensitivity models to evaluate primary impact estimates made by the initial model.

Covariate	Description of the covariate	Initial Model	Sensitivity Model 1	Sensitivity Model 2
Study Group	Treatment = 1, Control = 0 after random assignment	X	X	X
Financial Attitudes	Mean rating on a scale from 1 to 7	X	X	X
ACS-Variable Hours of Employment	Mean percentage indicating yes or no.	X	X	X
ACS-Not Employed	Mean percentage indicating yes or no.		X	X
ACS-Race 3 (Black or African American)	Mean percentage indicating yes or no.		X	X
Employment Expectations	Mean rating on a scale from 1 to 7		X	X
ACS-Ethnicity (Hispanic or Latino)	Mean percentage indicating yes or no.			X
ACS-Employed Full Time	Mean percentage indicating yes or no.			X

Note: ACS refers to the Applicant Characteristics Survey administered online to participants using nFORM. See Table IV.2 for a detailed description of measures and Appendix E for the model equations.

Key Findings:

Sensitivity analyses confirm that primary impact estimates after the delivery of enhanced services in the TCD Program did not facilitate better outcomes for the treatment group compared to the control group. Study group assignment played no significant role in any differences between treatment and control group means for parenting, co-parenting, or partner relationship behavior. Sensitivity analyses do not support hypotheses 1.1-1.3 that enhanced services improve parenting, co-parenting, and partner relationship behavior one year after TCD enrollment.

Table V.5 below compares primary estimates for the initial model to the sensitivity models. One change is evident from the initial model results that addressed primary research questions 1-3. However, the difference was miniscule (.04) and study group assignment played no significant role (p =.511). Rather, the difference can be attributed to ACS-Not Employed (p <. 01). So, results for sensitivity model 1 confirm that *standard* and *enhanced TCD services* (i.e., study group assignment) did not have a significant impact on:

1. parenting behavior: Beta = .027, p = .531.
2. co-parenting behavior: Beta = 0.30, p = .511.
3. partner relationship behavior: Beta = -.070, p = .106.

Similarly, results for sensitivity model 2 also confirm that standard and *enhanced TCD services* did not have a significant impact on:

1. parenting behavior: Beta = 1.13, p = .339.
2. co-parenting behavior: Beta = 1.84, p =.067.
3. partner relationship behavior: : Beta = 1.15, p = .232.

Table V.5. Differences in means between intervention and comparison groups estimated using alternative methods

Outcome Construct[1]	Group Mean Difference	P-value of Study Group Assignment		
		Initial Model	Sensitivity Model 1	Sensitivity Model 2
Parenting Behavior (n = 271, 281)	0.07	0.574	0.531	0.339
Co-Parenting Behavior (n = 246, 249)	0.04	0.723	0.511	0.067
Partner Relations Behavior (n = 271, 281)	-0.09	0.149	0.106	0.232

Source: Follow-up surveys administered at one year after enrollment.

D. Additional analyses: secondary impact

Key Findings:

Secondary impact estimates provide some evidence that enhanced services facilitated better outcomes for the treatment group compared to the control group, but findings are exploratory. Treatment group means were consistently higher than the control group for secondary outcomes regardless of their alignment with primary outcomes. Also, significant and positive but small differences due to treatment group assignment were detected for parenting attitudes ($p < .01$), financial attitudes ($p < .01$), and employment expectations ($p < .01$). Therefore, hypotheses 4.1, 8.1, and 8.1 were confirmed because it appears delivery of enhanced services facilitated slightly better parenting attitudes, financial attitudes, and employment expectations for the treatment group compared to the control group,

Secondary impact estimates presented below are derived from regression analyses that addressed secondary research questions 4-7 that are aligned with primary questions 1-3 and additional secondary questions 8-11 that are not aligned with any primary research questions (see Table E.2 in Appendix E for the model equations). All secondary impact estimates are exploratory and derived only from the initial model that was specified earlier, so results are not confirmed with sensitivity analyses. Consequently, two co-variates were included in the model with study group assignment based on results from baseline equivalency analyses——Financial Attitudes and ACS-Variable Hours of Employment.

Table V.5.1 presents estimated impact effects for attitudes and expectations that are aligned with parenting and partner relationship behavior. Results for secondary research questions 4-7 show that *standard* and *enhanced TCD services* did not have a significant impact except on parenting attitudes:

4. parenting attitudes: Beta = .099, $p = .022$.
5. parenting expectations: Beta = .057, $p = .156$.
6. partner relationship attitudes: Beta = .015, $p = .730$.
7. partner relationship expectations: Beta = .036, $p = .408$.

Table V.5.1. Post-intervention estimated effects using data from 1-year follow-up survey to address the secondary research questions aligned with primary outcomes

Outcome Construct[1]	Treatment mean (standard deviation)	Control mean (standard deviation)	Group mean difference (p-value)
Parenting Attitudes (n = 272, 281)	6.59 (0.72)	6.43 (0.99)	0.16 (0.022)*
Parenting Expectations (n = 272, 281)	6.41 (0.93)	6.27 (1.14)	0.14 (0.102)
Partner Relations Attitudes (n = 271, 280)	6.12 (1.23)	6.11 (1.14)	0.02 (0.864)
Partner Relations Expectations (n = 271, 281)	5.92 (1.35)	5.84 (1.47)	0.08 (0.505)

Source: Follow-up surveys administered at one year after enrollment.

Notes: **/* Differences are statistically significant at the .01/.05 levels, respectively.

See Table IV.3 for a more detailed description of each measure and Appendices E and F for model equations.

[1]Outcomes constructs have a range of 1 to 7.

Table V.5.2 below presents estimated effects on group means for attitudes and expectations that are not aligned with financial and employment behavior. Results for secondary research questions 8-11 show that *standard* and *enhanced TCD services* only had a significant impact on financial attitudes and employment expectations:

8. financial attitudes: Beta = 1.25, $p = .004$.

9. financial expectations: Beta = .078, $p = .070$.

10. employment attitudes: Beta = .071, $p = .099$.

11. employment expectations: Beta = 1.02, $p = .018$.

Table V.5.2. Post-intervention estimated effects using data from 1-year follow-up survey to address the secondary research questions not aligned with primary outcomes

Outcome Construct[1]	Treatment mean (standard deviation)	Control mean (standard deviation)	Group mean difference (p-value)
Financial Attitudes (n = 271, 281)	5.02 (1.38)	4.68 (1.52)	0.34 (0.004)**
Financial Expectations (n = 271, 281)	5.52 (0.96)	5.38 (1.00)	0.14 (0.070)
Employment Attitudes (n = 271, 281)	5.25 (1.30)	5.09 (1.29)	0.16 (0.152)
Employment Expectations (n = 271, 281)	6.13 (1.21)	5.90 (1.28)	0.23 (0.018)*

Source: Follow-up surveys administered at one year after enrollment.

Notes: **/* Differences are statistically significant at the .01/.05 levels, respectively.

See Table IV.3 for a more detailed description of each measure and Appendices E and F for model equations.

[1]Outcomes constructs have a range of 1 to 7.

VI. DISCUSSION

Impact study results are intended to guide fatherhood practitioners in their efforts to deliver services to parents from low-income households that are not affected by their incarceration at the time of TCD Program participation to improve the health of family relationships and stabilize their economic circumstances. Study results are intended to guide fatherhood practitioners in two ways. First, findings from impact analyses frame recommendations to help practitioners design effective programs by documenting whether low-income families derived more benefits from the delivery of *enhanced* and *standard services* in the TCD Program as opposed to only *standard services*. Second, findings from implementation analyses frame recommendations to help practitioners design more efficient programs by identifying any implementation challenges for delivering services like those in the TCD Program to parents from low-income families.

The remainder of this section places study results into the proper context to make recommendations that better guide practitioners in the field of fatherhood. First, discussion of impact findings presents the evidence for the benefits of delivering *enhanced TCD services*. Then, implementation findings explain why an improvement agenda is necessary to resolve whether parents from low-income households derive benefits from the delivery of *enhanced TCD services* which remains an unsettled issue. Finally, recommendations for an improvement agenda are laid out for practitioners who attempt to deliver *standard* and *enhanced services* in the future like those in the TCD Program.

Discussion of Impact Findings: Study results provide no evidence that participants in the treatment group derived additional behavioral benefits from the delivery of *enhanced TCD services*. Primary impact estimates did not indicate the treatment group did better than the control group for parenting, co-parenting, or partner relationship behavior after TCD participation. Secondary impact estimates did provide some evidence of additional benefits from *enhanced TCD services* on parenting attitudes, financial attitudes, and employment expectations. However, improved parenting attitudes among treatment participants were not followed by the improvements in the primary outcome, parenting expectations. Similarly, improvements among treatment participants' financial attitudes and employment expectations did not lead to improvements on financial- or employment-related primary outcomes.

Discussion of Implementation Findings: Impact results are not surprising given that most treatment group participants did not receive *enhanced services* to the extent planned for them, as indicated by implementation results that showed their experiences were defined by low levels of fidelity and dosage. While the implementation challenges to deliver *standard services* were overcome and these services were implemented with sufficient fidelity and adequate levels of dosage, these services were received by both the treatment and control groups. Thus, because of the insufficient fidelity and low dosages received for *enhanced services*, we expected that primary impact estimates for healthy family relationships would not be significantly better for the treatment group.

Recommendations: Efficacy of delivering *enhanced services* in addition to *standard services* in the TCD Program is an unsettled issue. Perhaps there would be more evidence to support delivery of *enhanced services* if the implementation challenges for them were overcome to better meet fidelity standards and dosage thresholds, and survey measures were administered to align secondary outcomes with primary outcomes for financial and employment behavior. Recommendations presented below are made to address the implementation challenges like those faced by the CQI Team at ASF for *enhanced TCD services*. Recommendations are:

12. **Conduct a future impact study for the TCD Program to determine if participants derive additional benefits from enhanced services.** Primary and secondary research questions were not adequately answered in this impact study because of the low implementation levels experienced by the treatment group for *enhanced services*, so it is not possible to give the fatherhood field clear guidance regarding the efficacy of peer group mentoring in person or participation in the Facebook group called "A Man Worth Following."
13. **Develop a better strategy to track online activities in the Facebook Group.** Revisions to the TYRO365 mobile application could make it more user friendly to take advantage of the real-time data collection features that ease the burden of describing digital learning experiences. That said, MS Excel tracking tools were adequate, though somewhat limited, and could benefit from refinement before housing them online to track digital learning experiences in real-time.
14. **Increase digital access for participants.** Resources are necessary to increase participant access to digital devices and their technical savvy to use them, which may seem cost prohibitive, but is necessary to build the skills to excel in a society increasingly driven by technology.
15. **Invest more in peer group mentoring.** The high levels of turnover among the peer mentors—who were also TYRO graduates—was a reason for the delay in mentoring, which was part of the *enhanced services* for the treatment group, was delayed. A greater investment in the peer mentors that goes beyond incentives is recommended to retain and keep mentors engaged over time. Specifically, it may be better to train peer mentors as curriculum facilitators for *standard services* and then offer them full or part-time positions in the service delivery organization. Case managers could start as curriculum facilitators until peer mentors are ready to assume the role. Case managers could then support peer mentors in their dual roles as facilitators and mentors to the TYRO fraternity.

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VIII. APPENDICES

A. Logic Model (or theory of change) for the Program

Figure 1 below presents a logic model to specify a theory of change for delivering *standard* and *enhanced TCD services*. Service delivery processes specified in the theory of change were designed to facilitate the desired short and long-term outcomes for family relationships and economic circumstances as depicted in the logic model. Model specification incorporates an RCT study design to theorize the secondary and primary impact of *enhanced services* delivered to the treatment group under a treatment condition after completing *standard services* with their counterparts in the control group under a shared condition.

Service delivery processes: Key aspects of service delivery processes in the theory of change—goals, inputs, activities, and outputs—tried to create robust experiences that maximized participation benefits for parents who agreed to participate in the study. Reaching three goals to solve problems associated with them were theorized to maximize benefits as explained below:

- **Goal 1** - *Deliver standard services to both study groups under a shared condition*: Parents who enrolled in the TCD Program after orientations at recruitment sites all acknowledged the need for help to improve their family dynamics. Study candidates understood after informed consent they would all receive *standard services* to develop their skills to engage in healthy behaviors for parenting, co-parenting, partner relations, employment, and financial management. So, *TYRO Dads* and *Core Communication* curricula were delivered to both study groups under a shared condition.

Figure A.1. Theory of Change Logic Model

Theory of Change Logic Model for an Impact Evaluation of the TCD Project Using a Random Control Trial Design (parents eligible to participate are 18 years of age or more with no open criminal cases and largely low-income)

Service delivery processes (3 months to complete):			
Goals: Increase capacity of fathers to *strengthen family relationships* and *stabilize economic circumstances*.	**Inputs: Make *investments* to standard and enhanced TCD services.**	**Activities: Take the *steps necessary* to deliver standard and enhanced TCD services.**	**Outputs: Track *quantifiable results* from activities to ensure service outptus meet fidelity standards and dosage thresholds for standard and enhanced TCD services.**
Goal 1: Deliver standard services to both study groups under a shared condition.			
Problem: Low-income parents often lack the skills necessary to engage in healthy behaviors for parenting, co-parenting, and partner relationships and productive employment.	Evidence-based curricula (TYRO Dads, Core Communication); Facilitator training to administer curricula; Facilitators; Classroom space	*TYRO Dads* (20 hours):	
		Help parents resolve issues to build skills to meet obligations as partners, parents, and providers.	All parents in both study groups are offered and receive 20 hours of *TYRO Dads.*
		Core Communication (6 hours):	
		Help parents develop the communication-conflict management skills necessary to have healthy relationships.	All parents in both study groups are offered and receive 6 hours of *Core Communication.*
Goal 2: Deliver enhancements to the treatment group under a treatment condition after standard services.			
Problem: Skills take time to develop and need reinforcement to last after completing standard TCD services.	Staff training to create Facebook posts; Staff time to post on Facebook	Facebook Group (on going, weekly after TCD exit):	
		Extend learning opportunities in a Facebook Group called "A Man Worth Following."	Treatment group parents respond each month to 1 Facebook post in each priority area (4 total).
Problem: Parents need peer support to meet their familal obligations after completing TCD standard services.	Mentor training for TCD graduates; Staff time to schedule and hold group mentoring sessions at community events	Group Mentoring (invitation):	
		Extent opportunities for guidance and support from peers in group mentoring sessions at community events.	Treatment group parents invited to 3 community events for group mentoring and attend at least 1 within 9 months after TCD exit.
Goal 3: Conduct Continuous Quality Improvement (CQI) to create robust service delivery experiences.			
Problem: Service outputs that fall short of fidelity standards and dosage thresholds must be improved to maximize program benefits.	Train staff to: use nFORM/OLLE online data collection systems and tracking sheets for Facebook Group; do group mentoring.	CQI Team (ongoing bi-weekly meetings):	
		CQI Team makes decisions to improve service outputs after reviewing bi-weekly reports that present monthly, quarterly, and yearly performance trends.	CQI team enacts intervention strategies to improve service outputs that may fall short of fidelity standards and dosage thresholds.

Desired outcomes (1 year after enrollment):	
Secondary: Improve the attitudes and expectations that lead to behaviors that promote healthy family relationships and economic stability.	**Primary: More frequently exhibit behaviors that promote healthy family relationships and economic stability.**
Treatment group reports greater improvements than the control group in the attitudes and expectations necessary to increase the likelihood of engaging in healthy parent, co-parent, partner relationship, employment, and financial behaviors.	Treatment group reports more frequently than the control group engaging in healthy parent, co-parent, partner relationship, productive employment, and financial behaviors.

- **Goal 2** - *Deliver service enhancements to the treatment group under a treatment condition after standard services*: Behavioral change may take more time to emerge and strengthen for participants than the 3 months allotted to deliver *standard services* or could be made stronger after completing them. Participants may have low levels of development, education, support, or other circumstances that inhibit change for them. So, two service enhancements extended learning opportunities and supports to treatment group parents after they completed *standard services*. First, online learning in a Facebook group called "A Man Worth Following" continued skill-building activities and connections to staff and peers for support and guidance. Second, peer group mentoring held at community events further addressed any lack of support that existed after completing *standard services*. Study participants all understood after informed consent that both service enhancements were available only to parents assigned to the treatment group under a treatment condition so their short and long-term outcomes could be compared to control group that received only *standard services*.
- **Goal 3** - *Conduct Continuous Quality Improvement (CQI) to create robust service delivery experiences*: Bi-weekly reports presented to the CQI Team by evaluators tracked a series of outputs over time to indicate what standard and *enhanced services* might fall short of the intended amounts to be offered and received by study groups under each service condition. Outputs needing improvement were identified and then the CQI Team implemented interventions with the help of evaluators and staff to ensure service amounts offered and received met fidelity standards and dosage thresholds.

Desired Outcomes: Outcomes specified in the logic model theorize the changes desired in the short-term after study participants receive TCD services that likely lead to the changes desired in the long-term. However, outcomes are theorized to be more positive for parents assigned to the treatment group than the control group. Treatment group parents received *standard services* and service enhancements, whereas control group parents received only *standard services*.

Changes desired in the short-term are the improved attitudes and expectations that are needed to engage in healthy parenting, partner relations, employment, and financial behaviors. Changes desired in the long-term are the specific healthier behaviors for parent, co-parent, and partner relationships, as well as productive employment and sound financial management. So, the logic model theorizes the following changes for study participants:

- Improved parenting attitudes and expectations in the short-term leads to healthier parenting behavior in the long-term.
- Improved parenting attitudes and expectations in the short-term leads to healthier co-parenting behavior in the long-term.
- Improved partner relationship attitudes and expectations in the short-term leads to healthier partner relationship behavior in the long-term.
- Improved financial attitudes and expectations in the short-term leads to healthier financial behavior in the long-term.

- Improved employment attitudes and expectations in the short-term leads to healthier employment behavior in the long-term.

B. Data and study sample

Table B.1. Description of partner sites and methods for recruiting TCD impact study participants.

Partners	Organization services	how participants were recruited
Partner 1	Alternative sentencing program offering in-patient treatment for substance abuse as part of probation conditions.	Counselors recommend patients based on progress for TCD presentations within 120 days of release. Voluntary participation.
Partner 2	Works with communities to promote safe and healthy families and protect children and vulnerable adults from abuse, neglect and exploitation	Referrals made by agency staff. ASF contacts them to attend TCD orientation. Those interested are scheduled for intake.
Partner 3	A CBO that offers a program to help students' families give back to their community, improve themselves through education, and support educational success to their children.	ASF's program is offered as a volunteer opportunity through the Family Connection program. ASF staff host recruiting events at TRM.
Partner 4	A CBO that provides support services to children and families affected by homelessness.	Referrals made by agency staff. ASF host recruitment events at their facility.
Partner 5	Hispanic community church	ASF host recruiting events at location
Partner 6	CBO programs trains parents to teachers their children to equip them with tools for academic success.	ASF host recruitment events at their location. Referrals are also made by AVANCE staff.
Partner 7	A CBO arm of a local church offering after-care services to formerly incarcerated individuals.	Referrals from organization's staff
Partner 8	Family-strengthening service location for ASF	ASF TCD site for mini-clinics walk-Ins
Partner 9	CBO offering after-care services to formerly incarcerated individuals (No longer in partnership)	ASF use to host recruitment events at agency's location.
Partner 10	Offers residential services to individuals released from Federal Prison	ASF host recruitment events at facility.
Partner 11	Bi-lingual community church that offers community services to community residents	ASF host recruitment events at location
Partner 12	Community based residential substance abuse treatment facility	ASF staff attends recruitment events held at location.
Partner 13	ASF services arm used to recruit participants referred by partnering agencies and organizations and to meet additional needs of existing program participants.	ASF staff share the TCD program with participants referred for an array of other services. Interested parties contacted for follow-up conversation about TCD program.
Partner 14	Emergency homeless shelter (no longer in partnership)	ASF used to attend recruitment events at their location.
Partner 15	Emergency housing program for families affected by homelessness	ASF services are part of rapid rehousing program offered by agency.
Partner 16	Offers free child-development services to income eligible families with children ages 0-5 years old and provides comprehensive services to the child's family.	ASF staff attend parent meeting and host father-focused events to recruit.
Partner 17	Community Outreach and Education arm focused on reducing infant mortality. ASF serves on CAN Committee to assisting with education.	Agency refer fathers to ASF or ASF attend recruitment events alongside Healthy Start.
Partner 18	Diversion Court that offers a 12-month program to close criminal case without a criminal record.	ASF attends court quarterly to recruit.
Partner 19	Nine-month pre-trial diversion program for adults charged with a misdemeanor Assault case.	Court staff refer qualified candidates for services during final 90-days of court services

Table B.2. Timeline of assigned tasks for sample formation and data collection activities.

Before week 1: *Initial contact with study candidates at orientations* (time estimate in minutes: 120 min. total)

- Intake (0 minutes)
  - Case managers enter C2 info onto nFORM system in office before orientation
  - ID numbers generated in office before orientation
- Orientation (55 minutes)
  - TCD Program description and purpose
  - Study description and purpose
- Questions and Answers (55 minutes)

Week 1: TCD and Study Enrollment, 1st workshop begins for TYRO Dads (time estimate in minutes: 120 min. total)

- CQI data manager, case managers, and assistants distribute tablets to administer nFORM ACS (30 min.)
- Informed consent (15 minutes)
- Random study group assignment (15 min)
- Father participants begin first TYRO workshop (60 min.)
- Enrollment into Facebook Group in office (0 minutes).

Week 2: Pre-test administration, finish 1st workshop for TYRO Dads (time estimate in minutes: 120 min. total)

- CQI data manager, case managers, and assistants distribute tablets to administer nFORM Baseline Survey (20 min.)
- CQI data manager, case managers, and assistants distribute tablets to administer OLLE Pre-Survey (40 min.)
- Father participants finish first TYRO workshop (60 min.)

Weeks 3-12: Deliver TYRO workshops 2-10 (time estimate in minutes: 120 min./week total)

Week 13: *Deliver Core Communication* (time estimate in minutes: 120 min./week total)

After week 13: *Post-test administration, enhancements start for treatment group* (time estimate in minutes: 120 min./week total)

- CQI person and case managers distribute tablets to administer nFORM Exit Survey (50 min.)
- CQI person and case managers distribute tablets to administer OLLE Post-survey (70 min.)
- Case managers use MS Excel tracking tools to assess implementation of service enhancements (0 min.)

Table B.3. Implementation data profile to evaluate fidelity standards and dosage thresholds by research question and study group

Implementation element	Service Condition	Research question	Standards and thresholds	Data source	Timing/frequency of data collection	Party responsible for data collection
Treatment Group (TG)						
Fidelity	Enhanced Service – Peer Group Mentoring	Q1: To what extent was TG offered 3 mentoring sessions after TCD completion?	Q1.1: Every TYRO in TG (100%) is assigned a peer group mentor Q1.2: Every TYRO in TG (100%) is offered 3 mentor sessions within 9 months after completing *standard services*	Attendance sheets, ASF calendar	3-4 times/year	Program staff
Fidelity	Enhanced Service - Facebook Group	Q2: To what extent was TG offered >=1 post/area/month?	Q2: At least 1 post/area (4) is proposed/month on average by case managers	Excel tracking sheets	Monthly	CQI Data Manager, Case Manager
Fidelity	*Standard Services* - TYRO Dads, Core Comm	Q3: To what extent was TG offered 26 hours of TCD curricula?	Q3.0: All parents in TG (100%) are offered 26 hours of standard curricula	nFORM	Monthly	Local Evaluator
Dosage	Enhanced Service - Peer Group Mentoring	Q4: To what extent did TG attend mentoring sessions?	Q4.0: Most TYROs in TG (80%) attend 1 mentor session within 9 months of completing *standard services*	Excel tracking sheets, Attendance sheets	3-4 times/year	CQI Data Manager, Case Manager

Implementation element	Service Condition	Research question	Standards and thresholds	Data source	Timing/frequency of data collection	Party responsible for data collection
Dosage	Enhanced Service - Facebook Group	Q5: To what extent did TG react to posts over time in each area?	Q5: Most TYROs in TG (80%) average 1 reaction or more per month to a post in each priority area	Excel tracking sheets, Attendance sheets	Monthly	CQI Data Manager, Case Manager
Dosage	*Standard Services* - TYRO Dads, Core Comm	Q6: How many hours of TCD curricula were received by TG?	Q6.1: Most TG parents (80%) receive 26 hours of TCD curricula Q6.2: Most TG parents (80%) achieve complete status	nFORM	Monthly	Local Evaluator
Control Group (CG)						
Fidelity	*Standard Services* - TYRO Dads, Core Comm	Q7: To what extent was CG offered 26 hours of TCD curricula?	Q7.0: All CG parents (100%) are offered 26 hours of standard curricula	nFORM	Monthly	Local Evaluator
Dosage	*Standard Services* - TYRO Dads, Core Comm	Q8: How many hours of TCD curricula were received by CG?	Q8.1: Most CG parents (80%) receive 26 hours of standard curricula Q8.2: Most CG parents (80%) achieve complete status for *standard services*	nFORM	Monthly	Local Evaluator

Notes: TCD = TYRO Champion Dads curricula = Standard services

Program completers/graduates are referred to as TYROs.

Table B.4. Data profile for impact evaluation by study group

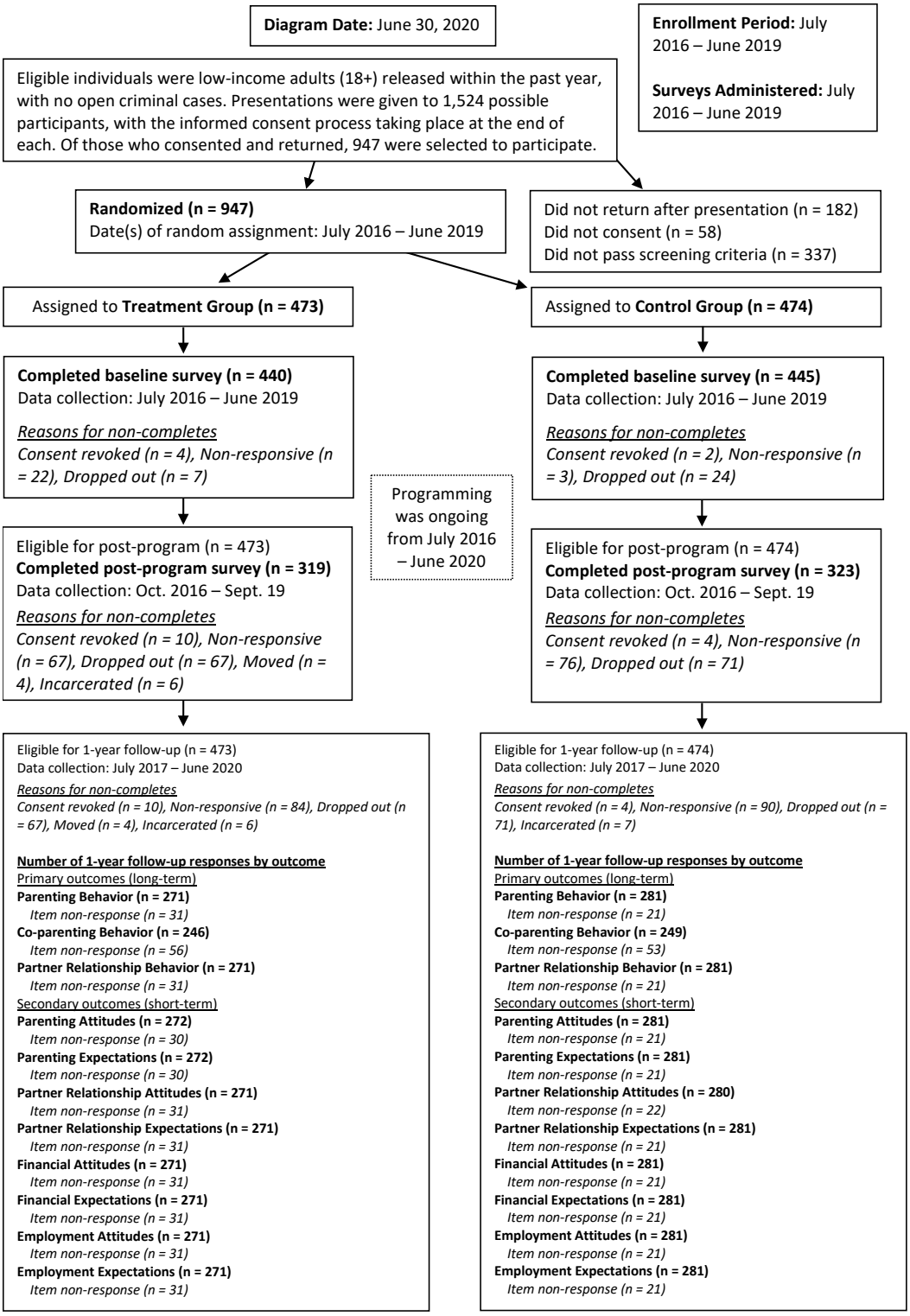
Study group	Data source	Timing of data collection	Mode of data collection	Party responsible for data collection	Start and end date of data collection
Treatment	Participants assigned to Treatment group	After TCD enrollment and random assignment	nFORM Baseline and OLLE Pre-Surveys	CQI Data Manager, Case Manager	July 2016 – June 2020
		At completion of *standard services* (3 months after enrollment)	nFORM Exit and OLLE Post-Surveys	CQI Data Manager, Case Manager	
		1 year after TCD enrollment	OLLE Follow-Up Survey (link sent in mail or interview by evaluator)	Link sent in mail or interview by evaluator	
Control	Participants assigned to Control Group	After TCD enrollment and random assignment	nFORM Baseline and OLLE Pre-Surveys	CQI Data Manager, Case Manager	July 2016 – June 2020
		At completion of *standard services* (3 months after enrollment)	nFORM Exit and OLLE Post-Surveys	CQI Data Manager, Case Manager	
		1 year after TCD enrollment	OLLE Follow-Up Survey (link sent in mail or interview by evaluator)	Link sent in mail or interview by evaluator	

Notes: TCD = TYRO Champion Dads curricula = Standard services

nFORM = Information, Family, Outcomes, Reporting and Management System

OLLE = On-Line Local Evaluation Data Collection System

Figure B.1. CONSORT Diagram: Response and Attrition Rates for Analytic Sample with Consent Before Assignment, Overall and by Study Group



C. Attrition rates and baseline equivalence of the rct design

Results presented below in Tables C.1 to C.3 confirm discussion in section IV that indicated the final analytic sample was likely comprised of similar study groups after random assignment. Evidence discussed in Section III and presented in CONSORT diagrams 1 and 2 in Appendix B show the final analytic sample met OPRE standards for low attrition and missing data across study groups. Consequently, sample formation did not require additional steps to create similar study groups after baseline equivalency analyses before making impact estimates.

Table C.1. Summary statistics of key baseline demographic measures and baseline equivalency across study groups[1,2], for individuals completing the OLLE Follow-up Survey.

Baseline characteristics	Overall mean (standard deviation)	Treatment mean (standard deviation)	Control mean (standard deviation)	Group mean difference (p-value)
Basic Demographics				
Male (%)	73.9	72.4	75.4	-3.0 (0.283)
Born in U.S. (%)	60.2	67.0	54.3	12.7 (0.433)
English as a first language (%)	74.3	77.6	71.1	6.5 (0.230)
Race/ethnicity[3]				
White (%)	34.5	35.4	33.7	1.6 (0.703)
Black (%)	38.2	41.9	34.5	7.3 (0.093)*
Latino (%)	56.0	59.3	52.6	6.7 (0.133)+
Other (%)	22.2	19.9	24.5	-4.6 (0.220)
Educational Background				(0.326)
No HS diploma/GED (%)	73.924.1	22.5	25.7	-3.2
HS diploma/GED (%)	5.2	37.3	33.2	4.1
Vocational certification (%)	6.7	7.4	6.1	1.3
Some college, no degree (%)	13.2	10.7	15.7	-5.0
College degree (%)	6.4	8.1	4.6	3.5
Age Group				(0.599)
Less than 18 years (%)	0.2	0.0	0.4	-0.4
18-20 years (%)	2.6	1.4	1.2	0.2
21-24 years (%)	13.6	13.3	13.9	-0.7
25-34 years (%)	39.8	36.5	43.0	-6.5
35-44 years (%)	30.2	33.3	27.0	6.3
45-54 years (%)	11.4	11.6	11.1	0.6
55-64 years (%)	2.0	2.4	1.6	0.8
65 years or more (%)	0.2	0.0	0.4	-0.4

Baseline characteristics	Overall mean (standard deviation)	Treatment mean (standard deviation)	Control mean (standard deviation)	Group mean difference (p-value)
Marital Status				(0.252)
Married (%)	27.5	31.3	23.8	7.5
Engaged (%)	8.2	7.4	9.0	-1.6
Separated (%)	11.7	12.8	10.7	2.1
Divorced (%)	9.4	7.4	11.5	-4.1
Widowed (%)	0.8	0.4	1.2	-0.8
Never married (%)	42.3	41.2	43.4	-2.3
Partner Status				
Have a partner (%)	44.6	41.6	47.9	-6.3 (0.328)
Live with a partner (%)	89.7	91.0	88.4	2.6 (0.987)
Parental Status				
Have child(ren) under 21	2.4 (1.7)	2.4 (1.8)	2.5 (1.7)	-0.2 (0.341)
Number of children who live with you	1.4 (1.6)	1.4 (1.7)	1.5 (1.6)	-0.1 (0.369)
Sample size	495	246	249	n.a.

n.a. = not applicable.

Notes: **/*/+ Differences are statistically significant at the .05/.10/.20 levels, respectively.

[1]p-Values for categorical variables were calculated by conducting a Chi-Square test

[2] p-Values for continuous variables were calculated by conducting an independent-samples T-test

[3]It is possible for respondents to indicate more than one ethnic category on the ACS.

Table C.2. Summary statistics of key baseline economic circumstances measures and baseline equivalency across study groups[1,2], for individuals completing the OLLE Follow-up Survey

Baseline characteristics	Overall mean (standard deviation)	Treatment mean (standard deviation)	Control mean (standard deviation)	Group mean difference (p-value)
Housing Status				**(0.670)**
Own home (%)	7.5	6.5	8.6	-2.1
Rent home (%)	36.4	36.0	36.7	-0.7
Shelter or halfway house (%)	16.3	17.8	14.7	3.1
Live rent-free (%)	28.7	27.5	29.8	-2.3
Homeless (%)	2.4	3.2	1.6	1.6
Other (%)	8.7	8.1	9.4	-1.3
Income Levels (past 30 days)				(0.860)
Less than $500 (%)	58.2	63.8	52.8	11.0
$500 to $1000 (%)	11.1	11.2	11.1	0.1
$1,001 to $2,000 (%)	13.1	15.9	10.2	5.7
$2,001 to $3,000 (%)	9.4	12.9	6.0	7.0

Baseline characteristics	Overall mean (standard deviation)	Treatment mean (standard deviation)	Control mean (standard deviation)	Group mean difference (p-value)
$3,001 to $4,000 (%)	4.7	4.7	4.7	0.1
$4,001 to $5,000 (%)	2.1	2.6	1.7	0.9
More than $5,000 (%)	1.3	1.3	1.3	0.0
Employment Status				
Not employed (%)	56.4	60.6	52.2	8.4 (0.060)*
Full-time (%)[3]	29.9	32.9	26.9	6.0 (0.198)+
Part-time (%)	6.1	6.1	6.0	0.1 (0.973)
Inconsistent hours (%)	3.6	1.2	6.0	-4.8 (0.040)**
Temporary/seasonal (%)	3.8	4.9	2.8	2.1 (0.231)
Have Health Insurance (%)	27.7	31.0	24.4	6.6 (0.217)
Public Support Index	2.8 (1.2)	2.8 (0.1)	2.8 (0.1)	0.0 (0.814)
Sample size	495	246	249	n.a.

n.a. = not applicable.

Notes: **/*/+ Differences are statistically significant at the .05/.10/.20 levels, respectively.

[1]p-Values for categorical variables were calculated by conducting a Chi-Square test

[2] p-Values for continuous variables were calculated by conducting an independent-samples T-test

Table C.3. Summary statistics of baseline long-term outcomes and baseline equivalence across study groups[1], for individuals completing the OLLE Follow-up Survey

Outcome construct[2]	Overall mean (standard deviation)	Treatment mean (standard deviation)	Control mean (standard deviation)	Group mean difference (p-value)
Parenting Behavior	3.4 (1.1)	3.4 (1.1)	3.4 (1.6)	0.0 (0.773)
Co-parenting Behavior	7.0 (1.4)	7.0 (1.4)	7.0 (1.4)	0.0 (0.735)
Partner Relations Behavior	2.4 (0.8)	2.4 (0.8)	2.5 (0.9)	-0.1 (0.321)
Sample size	495	246	249	n.a.

n.a. = not applicable.

Notes: **/*/+ Differences are statistically significant at the .05/.10/.20 levels, respectively.

[1]p-Values for continuous variables were calculated by conducting an independent-samples T-test

[2]Outcomes constructs have a range of 1 to 7.

D. Data preparation

Psychometric Properties of Outcomes Constructs: Confirmatory Factor Analyses

Confirmatory Factor Analyses (CFA) were conducted in R to analyze the theorized factor structure of OLLE Survey items used to create short and long-term outcomes constructs. Short-term outcomes were analyzed with a 12-factor model and long-term outcomes with a three-factor model. Cronbach alpha-levels for items in each construct were calculated to assess their internal consistency, and any items scoring too low were removed from the model as well as three items that reported high residuals in the covariance matrix. The Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMSR) were referenced to determine best model fit for the data.

Results from Confirmatory Factor Analyses

Short-term outcomes. The initial 12-factor model can be viewed in Figure D.1. Only one of the model fit statistics, SRMR, were adequate for the initial model, leaving the CFI, TLI, and RMSEA with room to improve. Alpha levels (Table D.1) were evaluated for each factor, and all factors reporting less than 0.70 were dropped except for Financial Attitudes, 0.65, which was sufficiently strong to retain all attitudinal factors. This meant that all knowledge items were dropped from the final reported model. Next, residuals (Table D.2) were evaluated and Q8_8, Q23_1, and Q15_5 were eliminated in sequential order. The model fit statistics (Table D.3) of the final model are still not at the recommended level, however the model fit is much closer to ideal than the initial model. The final model can be viewed in Figure D.2.

Figure D.1. Initial 12-factor model

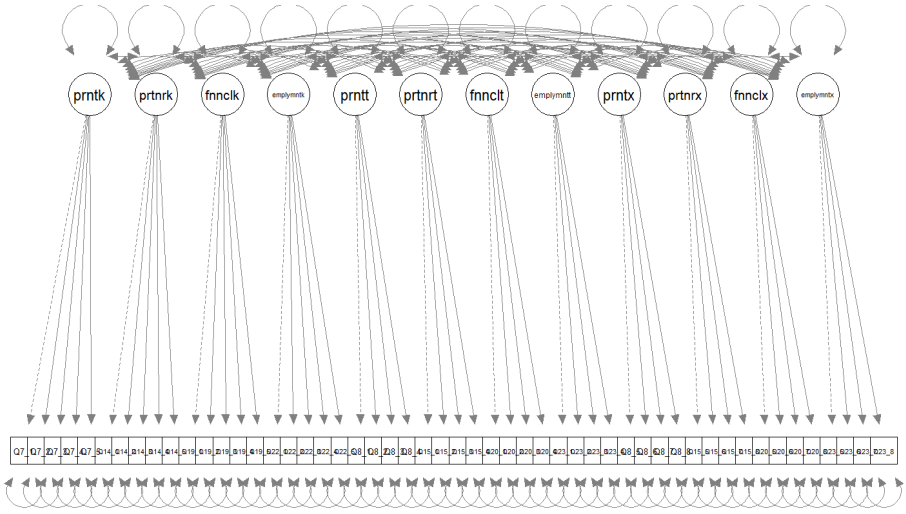


Table D.1. Alpha Levels

	Short-term	Long-term
Parent Knowledge	0.52	-
Partner Knowledge	0.27	-
Financial Knowledge	0.52	-
Employment Knowledge	0.44	-
Parent Attitudes	0.89	-
Partner Attitudes	0.85	-
Financial Attitudes	0.65	-
Employment Attitudes	0.79	-
Parent Expectations	0.92	-
Partner Expectations	0.94	-
Financial Expectations	0.77	-
Employment Expectations	0.91	-
Parent Behavior	-	0.91
Co-Parent Behavior	-	0.81
Partner Behavior	-	0.88

Table D.2. Short-term Outcome Residuals

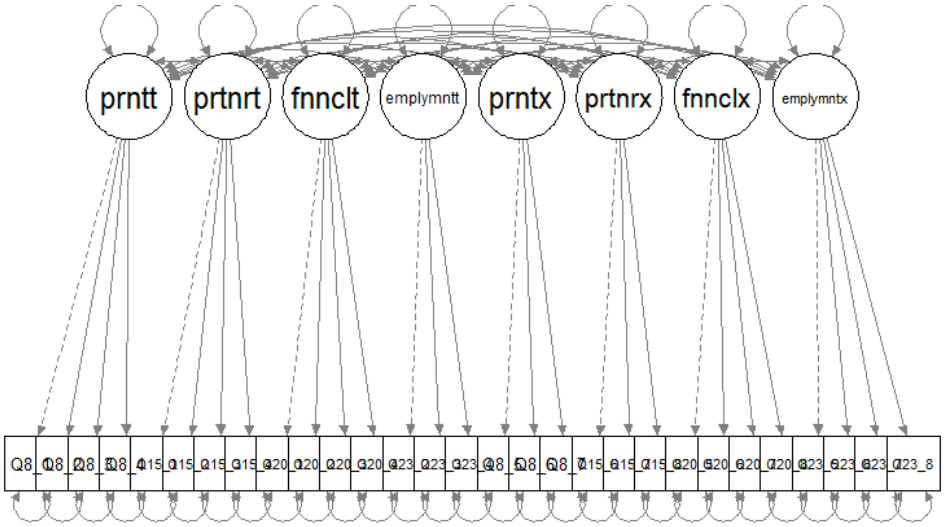
	8_1	8-2	8_3	8_4	15_1	15_2	15_3	15_4	20_1	20_2	20_3	20_4	23_1	23_2	23_3	23_4	8_5	8_6	8_7	8_8	15_5	15_6	15_7	15_8	20_5	20_6	20_7	20_8	23_5	23_6	23_7
8_1	-5034569114.9																														
8_2	**-1.4**	0																													
8_3	**0.6**	**2.7**	0																												
8_4	-12.9	6.3	-1.7	0																											
15_1	**13.7**	**5.4**	**6**	3.6	1830998030 8.8																										
15_2	**2.2**	**-0.8**	**-1.4**	-4.4	**-4**	0																									
15_3	3.5	0.2	2.1	**-4.5**	**-4.7**	**7.8**	0																								
15_4	**3.2**	**0.4**	**0.2**	**-1.9**	**-4.5**	**-3.7**	**2.8**	0																							
20_1	4.7	-0.2	**-1.2**	**-3.2**	**2.3**	**1.8**	**-0.4**	**-2.8**	-1954689130 4.6																						
20_2	**10.8**	**3**	**3.6**	**2**	**9.9**	**5.3**	6.6	**4.4**	**-3.1**	0																					
20_3	**4.5**	**0.3**	**-0.4**	-1.3	**2.6**	**-3.2**	**-2.7**	**-4.5**	**7.9**	**-12.4**	-1211843903 4.5																				
20_4	**3.5**	**-2.5**	**-2.3**	**-3.1**	**2.1**	**-4.7**	**-3.8**	**-4.4**	**3.8**	**-11.1**	**9.1**	2197588770 9.1																			
23_1	**9.7**	**-1.5**	**0**	-4.5	**10.5**	**-3.1**	**-2.7**	**-3.3**	**-1.3**	**12.2**	**-4.2**	**-0.6**	1311312590 6.5																		
23_2	**3.2**	**.1-0.8**	**0.1**	-3	**6.2**	**6.3**	2.7	**0.7**	-3.3	**7.6**	**-5.9**	**-3.9**	**-0.7**	0																	
23_3	**2.9**	**-2.4**	**-0.1**	**-3.6**	**6.4**	**0.9**	**1.4**	**-0.3**	**-4**	**7.1**	**-5.6**	**-2.1**	**-5.8**	**20.2**	0																
23_4	**9.3**	**3.1**	**3.9**	1.2	**8.6**	**-1**	**-1.8**	**-2.8**	**-6.1**	**8.1**	**-2.8**	**-4.1**	**-3.1**	**-0.6**	**2**	0															

	8_1	8-2	8_3	8_4	15_1	15_2	15_3	15_4	20_1	20_2	20_3	20_4	23_1	23_2	23_3	23_4	8_5	8_6	8_7	8_8	15_5	15_6	15_7	15_8	20_5	20_6	20_7	20_8	23_5	23_6	23_7
8_5	2.3	8.5	**6.1**	**18.6**	**4.4**	**-4.8**	**-5.3**	**-3.5**	**-6.1**	**1**	**-3.1**	**-4.1**	**-4.7**	**-3.9**	**-4.5**	**-1.2**	0														
8_6	9.2	-10.4	**0.3**	**-6.5**	**9**	**-3.1**	**-2.1**	**0.2**	**-3.8**	**4.8**	**-1**	**-1.1**	**0.7**	-2	**-1.8**	**1.2**	**2.1**	0													
8_7	16	-8.7	**-3.5**	**-13.2**	**11.8**	**1.6**	**4.2**	**1.6**	**4**	**9.5**	**2.2**	**1.9**	**6.3**	2.7	**2.1**	**3.8**	**-17.1**	**3.1**	0												
8_8	**11.4**	**-8.4**	**-6.9**	-9.7	**11.1**	**-1.3**	1.1	**0.7**	**-0.6**	**6.2**	**0.8**	**0.9**	**3.5**	**-0.2**	**0**	**2.5**	**-13.3**	**4.8**	**16.7**	0											
15_5	3.9	1.9	2.2	-0.2	2.6	5.7	11.9	23.1	-3.4	2.3	-5.2	-5.2	-4.3	0.4	-0.3	-3.7	-3.3	-0.5	1.9	1.6	0										
15_6	6.6	0.6	1.2	-3.7	6.1	-3.9	-5.4	3.1	-1.1	5.2	-3.4	-3.2	-1	3.2	2	-2.9	-6.2	-0.3	6.1	3.8	6.5	0									
15_7	8.1	0.4	2.3	-4.3	7.2	-1.8	-7.7	-10.7	2.2	7.1	-1.3	-3.6	1.7	5.7	4.1	-0.5	-6.2	0.1	10.7	4.9	-13.6	-2.9	0								
15_8	6.3	0.6	1	-4.5	6.1	-2.8	-8.2	-5.7	1.3	5.1	-1.8	-3.4	-0.8	3.9	-3.1	-2.2	-6.8	-2	7.1	4.9	-14.3	-1.4	13.9	0							
20_5	7.5	0.3	0.9	-0.4	7.5	-1.3	-1.9	-1.2	-7.5	13	-6.2	-4.4	1.7	-4.5	-2.3	3	-2.2	0	4.7	3.8	-1.7	-0.9	0.9	-0.4	19744668578.7						
20_6	9.6	-2.6	0.2	-4.2	7.8	-2.5	-2.2	-2.4	-5.4	19.1	-6.7	-3	0.2	-4.6	-2.7	-1.2	-7.4	-1.7	6.6	3	-2	-1.5	3	-1.5	2.1	16225823042.4					
20_7	3.1	0.3	1.5	1.9	3.5	-2.8	0.3	-0.5	-13.7	4.6	-9	-8.1	1.8	-4.6	-1.3	5.3	-0.4	0.8	-0.1	1.2	-0.2	-3	-2.7	-3.8	2.4	-0.8	0				
20_8	6.6	0.6	0.4	-2.1	8.6	2.7	4.3	1.6	-3.7	12.8	-4.4	-2.2	3.2	3.3	3.9	1	-2.5	1.2	4.4	3.7	2.2	4.8	6	5	-4.9	-0.6	2.2	3126774567 9.4			
23_5	9.1	0.1	1.6	-1.3	7.5	-2.2	-1.7	-2.5	-6	9.7	-6.4	-1.4	6.1	-5.4	-2.9	10.9	-3.7	0.1	3.4	2	-3	-1.3	1.1	-1.4	4.9	-2.7	1.5	1.3	15387956193		
23_6	8.5	-2.2	-0.5	-4	9.7	-2.9	-2.4	-2.8	-6.1	11.9	-6.7	-0.4	1.3	-10.8	-7.7	-4.1	-5.6	0.1	3.6	3.5	-3.7	-2.2	0.7	-1.2	2.8	0.4	2.2	4.8	7.3	13801996705.7	
23_7	9	-0.8	-0.4	-3.7	9.1	-1.2	-1	-2.3	-3.3	13.1	-5.1	-2.7	2.9	-6.4	-5.8	-2.4	-5.1	-1	6.3	1.8	-2.4	-0.2	1.8	-0.4	-2.4	-1.1	-0.4	3	-8.7	0.7	15180784963.9

Table D.3. Model Fit

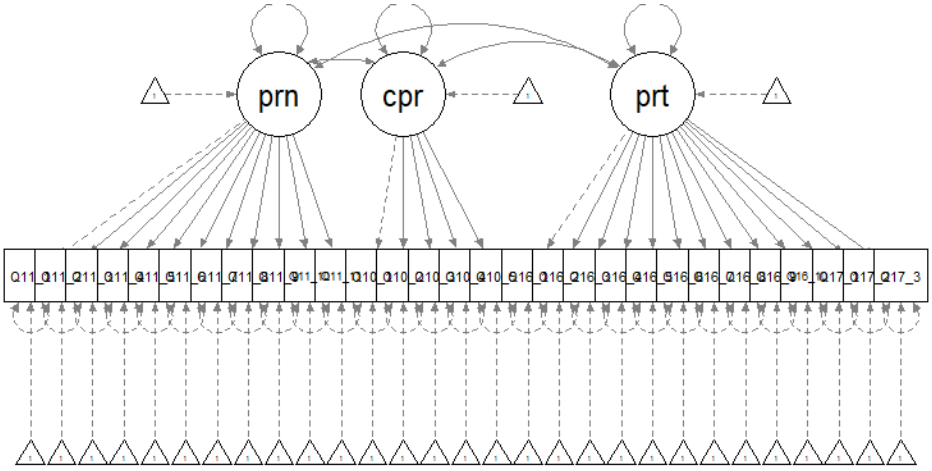
	Short-term	Long-term
Comparative Fit Index (CFI)	0.901	0.949
Tucker-Lewis Index (TLI)	0.885	0.945
Root Mean Square Error of Approximation (RMSEA)	0.076	0.140
Standardized Root Mean Square Residual (SRMSR)	0.075	0.106

Figure D.2. 8-factor model



Long-term outcomes. The initial three-factor model can be viewed in Figure D.3. Two of the model fit statistics, CFI and TLI, were adequate to maintain that the initial model has good fit. Alpha levels (Table 1) were evaluated for each factor, and all factors reported more than 0.70, so no items were dropped. The model fit statistics can be found in Table 3.

Figure D.3. Initial three-factor model



E. Impact estimation

Figures E.1 and E.2 below present the model specifications (equations) used in the assessment of program impacts:

Figure E.1. Initial Model for Estimates of Primary Outcomes Using OLLE Survey Scores at Follow up

Dependent Variables:		Independent Variables:				
Parenting Behavior		*Predictor*		*Co-variate*		*Co-variate*
Co-parenting Behavior	=	Study Group Assignment (1=treatment, 0=control)	+	Financial Attitudes (7-point scale of agreement)	+	Inconsistent Work Hours (1=yes, 0=no)
Partner Relationship Behavior						

Figure E.2. Model for Estimates of Secondary Outcomes Using OLLE Survey Scores at Follow-up

Dependent Variables:		Independent Variables:				
Aligned		*Predictor*		*Co-variate*		*Co-variate*
Parenting Attitudes	=	Study Group Assignment (1=treatment, 0=control)	+	Financial Attitudes (7-point scale of agreement)	+	Inconsistent Work Hours (1=yes, 0=no)
Parenting Expectations						
Partner Relationship Attitudes						
Partner Relationship Expectations						
Not Aligned						
Financial Attitudes						
Financial Expectations						
Employment Attitudes						
Employment Expectations						

F. Sensitivity analyses and alternative model specifications

Figures F.1 and F.2 below present the model specifications (equations) used in the sensitivity analyses to confirm or disconfirm the model used to estimate primary program impacts:

Figure F.1. Sensitivity Model 1 for Estimates of Primary Outcomes Using OLLE Survey Scores at Follow-up (inclusion of co-variates p ,.10)

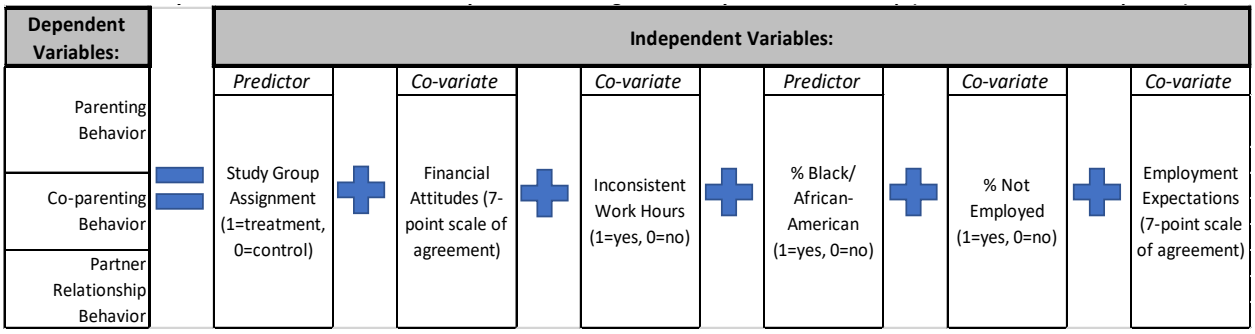


Figure F.2. Sensitivity Model 2 for Estimates of Primary Outcomes Using OLLE Survey Scores at Follow-up (inclusion of co-variates p <.20)