

Descriptive Evaluation of  
The Healthy Marriage and Relationship Education  
Grant in Grand Rapids, MI

Final Descriptive Evaluation Report for  
Bethany Christian Services, Center for Community Transformation

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**Structured Abstract:** “A Descriptive Evaluation of the Healthy Marriage and Relationship Education Grant in Grand Rapids, MI”

Objectives and Key Services: At-risk youth, ages 14-24, living in Grand Rapids, Michigan, were provided with holistic, trauma-informed programming through workshop sessions and voluntary ancillary activities. The primary goal of the program was to help participants develop healthier interpersonal relationships, support their basic needs, and offer them job training and employment opportunities that would increase their upward economic mobility and successfully transition them into adulthood. The program used an evidence-based core curriculum entitled Teen Outreach Program® (TOP®) from Wyman, Inc., that included 16 weeks of classroom-based discussions and interactive activities in conjunction with youth-directed community service learning. Additional program elements designed to enhance experiences and skills in educational and vocational training include individualized employment skills testing and support, paid work experience, and GED and vocational training.

Main Focus of Study: This study focused on project implementation (fidelity, dosage, quality, engagement, and context) and outcomes for participants (changes in attitudes and behaviors, influence of dosage, etc.).

Number of Sites: There was a single site. The Center for Community Transformation is located on the near southeast side of Grand Rapids, Michigan.

Number of Clients: A total of 722 individuals enrolled in the program. Of these, 686 completed a baseline survey and 431 completed a post-program survey (additional follow-up surveys (post-posttests), were added in Year 3). A total of 562 youth participated in at least one TOP workshop session and approximately 80% of these also participated in ancillary services (case management, mentorship, community service, paid work experience, and/or employment support).

Key Types of Data/Samples for Implementation Study: Key data for the implementation study included program documentation, student surveys, and focus groups with participants and program staff.

Key Lessons/Limitations: There are three primary findings. First, there is strong evidence that the evidence-based TOP Curriculum was implemented well and with high fidelity. Second, no statistically significant pre/post changes in attitudes toward marriage or relationships were found. Third, there is evidence that program participants had improved behaviors, such as ability to resolve conflicts, reduce risky behaviors in school, and improve levels of self-esteem, compared to baseline. The study design does not allow a statistical assessment of the influence of ancillary offerings, which the youth themselves described as beneficial. The study design also does not allow a statistical assessment of program impacts on participant outcomes. Participant attrition, which notably reduced the number of participants with both a pre and post survey, limited the study's ability to generalize survey findings to the entire population.

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# Descriptive Evaluation of Healthy Marriage and Relationship Education Grant In Grand Rapids, MI

## I. INTRODUCTION

### A. Introduction and study overview

The Center for Community Transformation's Healthy Marriage and Relationship Education program (HMRE) provides at-risk youth, ages 14-24, living in Grand Rapids, Michigan, with holistic, trauma-informed programming through workshop sessions and voluntary ancillary activities. The program's main goals are to help participants develop healthier interpersonal relationships, support their basic needs, and offer them job training and employment opportunities that help increase their upward economic mobility and successfully transition them into adulthood.

The program uses an evidence-based core curriculum for the workshops entitled Teen Outreach Program® (TOP®) from Wyman, Inc. TOP® is a trauma-informed curriculum with a focus on building healthy decision-making skills and healthy interpersonal relationship competencies. Bethany uses a format consisting of 16 weeks of classroom-based discussions and interactive activities in conjunction with 10 hours of youth-directed community service learning. Workshop content helps youth develop the skills to manage their emotions, set goals, solve problems, and make healthy decisions. The program emphasizes the importance of these social, emotional, and life skills for coping successfully with life's demands, responsibilities, and interpersonal interactions and aims to help youth develop strong communication and empathy skills. The TOP® curriculum emphasizes the importance of healthy interpersonal relationships to buffer stressors faced by the youth and increase avoidance of risky behaviors.

A number of additional program elements are designed to enhance experiences and skills in educational and vocational training. These ancillary services include individual employment support, employment skills testing, group employment education, paid work experiences, and GED and vocational instruction.

This descriptive evaluation is intended to fulfill the requirements of the grant and to provide program management and the implementation team with a comprehensive summary of the degree to which the program was implemented as planned and the degree to which it achieved its short-term and long-term outcomes, as listed below.

**Short-term outcomes:**

- 75% of youth will be enrolled in more than one core activity
- 90% of youth will report feeling valued and supported by their case manager
- 75% of youth will successfully complete at least 80% of curriculum workshops
- 80% of youth who complete TOP® and Love and Logic™ workshops will demonstrate increased relational competencies, trauma resiliency, and self-esteem
- 80% of youth enrolled in education services will earn a GED/HS diploma or an employment-related credential

**Long-term outcomes:**

- 80% of youth who complete healthy relationship and/or parenting workshops will develop concrete skills and competencies for improved family functioning and adult/child well-being (ACF Outcomes: Improved Family Functioning & Adult and Child Well-Being)
- 90% of youth who complete programming will report an increased positive outlook on successfully transitioning to adulthood (ACF Outcome: Successful Transition to Adulthood)

This report includes recommendations for improvement as the staff consider future plans for addressing the needs of this population.

**B. Description of the intended intervention**

Table 1 lists the intended intervention components and describes the target population.

**Table 1: Description of Intended Intervention Components and Target Populations**

Component	Curriculum and content	Dosage and schedule	Delivery	Target Population
Relationship skills workshops	TOP® Healthy Relationship curriculum: developing healthy relationships with self, healthy relationships with others, and building healthy life skills, as well as a student led Community Service Learning component.	Weekly 2-hour sessions of TOP® workshops for 16 weeks.	Interactive workshop format led by trained Youth Facilitators who teach healthy relationship skills and tools to implement these skills. Youth have opportunities to practice the social, emotional and life skills learned during workshops through interactive activities and discussion with peers.	At-risk youth, age 14-24



Component	Curriculum and content	Dosage and schedule	Delivery	Target Population
Case Management	All youth participate in a collaborative assessment process to develop individualized goals for program participation and, as needed, are offered one-on-one case management to support achieving those goals.	Ongoing as needed.	Youth Facilitators meet with a caseload of youth in one-on-one, in-person meetings throughout the project year.	At-risk youth, age 14-24
Educational/ Vocational Training	Youth have access to trained Youth Facilitators who support them with educational and career exploration, developing job readiness skills and leadership abilities to enhance their success in future endeavors.	Initial assessment with ongoing feedback and support.	Youth Facilitators provide youth with vocational and educational training individually and in small groups.	At-risk youth, age 14-24
Mentors	Bethany coordinates a mentor match program to connect interested youth with a caring adult from the community.	Mentors commit to investing at least four hours a month.	Mentors are matched to individual youth based on the mentor and youth's individuality, location, and preferences.	At-risk youth, age 14-24

Following is a narrative description in support of Table 1.

**Description of intervention components and population:** This community-based project was designed to serve 150 youth annually with a total enrollment of 650 youth during the 5-year grant period.

Bethany's Center for Community Transformation project (Bethany) provides youth with holistic, trauma-informed programming through workshop sessions and voluntary ancillary activities designed to help young people develop healthier interpersonal relationships, support their basic needs, and increase their employability through optional job training and employment opportunities, all of which is intended to increase participants' upward economic mobility and support a successful transition into adulthood. The core curriculum used for the workshops is the Teen Outreach Program® (TOP®) from Wyman, Inc., a trauma-informed curriculum with a focus on building healthy decision-making skills and healthy interpersonal relationship competencies. Bethany used an approved adaptation which consists of 16 weeks of classroom-based discussions and interactive activities in conjunction with 10 hours of youth-directed community service learning.

In addition, Bethany offers activities for participants that enhance their experiences and skills in educational and vocational training. These include:

- **Individual Employment Support** – Youth Facilitators work with youth to set individualized economic mobility goals and identify steps to reach those goals. Facilitators then support youth with ancillary activities such as completing employment applications, job searching, building resumes, interviewing coaching, selecting appropriate interview clothing, and career exploration.

- **Employment Skills Testing** – Bethany offers skills testing for youth participants to determine current workplace competencies, measure skills gained, or satisfy employer requirements. TABE (Test of Adult Basic Education) and WorkKeys tests are administered on-site and youth can be referred for additional testing as needed.
- **Group Employment Education** – The TOP<sup>®</sup> curriculum includes content covering key financial literacy topics, including personal budgeting and implementing financial plans. Youth facilitators offer additional content tailored to each group's interests covering topics such as financial assistance for educational costs, accessing supportive services available in the community and basic overviews of resume writing, job searching, and interviewing. Facilitators support experiential learning through hands-on activities and by integrating discussion into real life experiences whenever possible.
- **Paid Work Experiences** – Interested and eligible youth may participate in a paid work experience to develop employment history and build connections with local employers. Location and length of work experiences is determined in collaboration with the Youth Facilitators, economic mobility developer, the youth and the employer. During the paid work experience, youth are seen at least twice weekly by the Youth Facilitators to ensure they are receiving the support needed for the completion of a successful work experience. Employers evaluate youth work performance on a weekly basis. Facilitators review the performance feedback to ensure that barriers to employment success are being removed and teachable moments captured. Following completion of the paid work experience, youth who are interested receive additional support finding long-term employment.
- **GED & Vocational Instruction** – Participants who do not have a high school diploma are able to enroll in programming that helps them prepare to take the GED test while earning a portable industry recognized credential in construction and/or customer service. Additional vocational training opportunities include ServSafe, OSHA-10, CPR and others that develop participants' skills and proficiencies and equip them with the abilities needed to achieve their educational and career goals.

**Proposed plan for implementation:** The proposed plan for implementation is as follows: 1) Youth are referred for programming. At enrollment, all youth complete a Release Form and Informed Consent indicating that their participation in programming and evaluation is entirely voluntary and that they are free to continue with or leave programming at their discretion. 2) Youth (and any appropriate members of their support system) meet individually with a Youth Facilitator, who serves as a case manager to complete an initial screening and assessment to identify strengths, goals, hopes and perceived barriers. The Facilitator and youth collaboratively create an Individualized Development Plan (IDP) to guide their interaction with Bethany. As appropriate, based on the IPD, HMRE-funded activities are offered within a week of the initial interview to avoid challenges of delayed engagement. If HMRE-funded activities are not appropriate, the youth is instead referred to other services more appropriate to their individual needs. 3) After assessment, youth are assigned to a TOP<sup>®</sup> cohort based on schedule and topic preferences. 4) TOP<sup>®</sup> healthy relationship workshops are facilitated in 16-week cohorts, focusing on the primary goals of developing healthy relationships with self and others and building

healthy life skills. Youth are also offered the opportunity to participate in a student-led Community Service-Learning component. Youth can engage simultaneously in supplemental activities including case management, mentoring, and paid work experiences during this time if such activities align with their IDP goals. 5) Successful TOP<sup>®</sup> completion is defined as completing at least 80% of the workshop series. Based on their unique IDP, youth are encouraged to remain engaged in additional activities, including participating in an additional TOP<sup>®</sup> series. Once all IDP goals have been successfully completed, the youth and Facilitator decide on the process to complete the youth's exit from programming.

Participants access program services in the neighborhood where most of them reside. Bethany Christian Services' center is located at 1530 Madison Ave. SE, on the near southeast side of Grand Rapids. Bethany is one of five co-located businesses and nonprofit organizations in the Grand Rapids Center for Community Transformation, a 33,000 square foot building in a federally designated opportunity zone. The GRCCT focuses on youth development, workforce development, housing, and economic mobility. Interventions are provided by a team of Youth Facilitators who serve youth in several roles. These roles include Vocational Instructor, Youth Development Specialist, and Case Manager. In addition, the program has partnerships with other agencies and businesses to give participants access to vocational training, college visits, and specialized services. Participant enrollment is entirely voluntary.

The program targets at-risk youth, ages 14-24, living in Grand Rapids, Michigan. At-risk sub-groups include youth experiencing homelessness, youth who are currently or previously in foster care, and culturally under-represented and minority youth, including refugees and youth from low-income households. Many of these youth have experienced, or are at risk of, trafficking, trauma, domestic violence, and childhood maltreatment.

Table 2 summarizes the key components of staff training and development in support of the program's intervention components.

**Table 2: Staff Training and Development to Support Intervention Components**

Component	Education and initial training of staff	Ongoing training of staff
Relationship skills workshops	Youth Facilitators are required to have a BSW or BS/BA in a related field. Formal initial training in: Providing Trauma Informed Care, Domestic Violence Identification and Intervention, and Behavior Management.	Wyman, the TOP® curriculum provider, provides annual refresher trainings, online implementation resources, webinars, and access to Technical Assistance and network conference calls for continued support in implementing to fidelity.
Case Management	Youth Facilitators receive on-the-job training during their orientation period including serving as a co-facilitator prior to being assigned a caseload of participants.	Facilitator Meetings are held bi-weekly for 90-120 minutes and are used for peer-to-peer learning, to share best practices, highlight current trends and challenges in recruitment and retention, monitor program implementation and provide trainings and education around topics of interest to the program team. Staff is encouraged to participate on local committees and coalitions to learn about community wide trends in serving at-risk youth and build connections to more effectively serve participants. Safe Haven provides annual trainings for Bethany program staff regarding domestic violence screening protocol. Additionally, all employees are required to complete annual agency-wide required trainings on topics including HIPAA, Safety and Security, Ethics and Compliance, and Cultural Diversity. Bethany also hosts child welfare related trainings that are offered to all staff members and encompass a range of child welfare related topics including mandated reporting, trauma informed services, human trafficking, CPR/First Aid.
Educational/Vocational Training, Employment Support, Skills Testing	Same as above. One of the Youth Facilitators has specific training in Employment and Vocational training.	Same as above.

**Staff training and development:** As seen, the Youth Facilitator position requires a BSW or BS/BA in a related field. A desired qualification is being bi-lingual in Spanish and English. Two years of experience working with at-risk youth is desired. All Facilitators receive an initial orientation and onboarding schedule upon hire. Additional trainings include: Providing Trauma Informed Care, Domestic Violence Identification and Intervention, and Behavior Management Training. Wyman, Inc., also offers annual refresher trainings, online implementation resources, webinars, and access to Technical Assistance and network conference calls for continued support in implementing to fidelity. Facilitators are required to attend 2.5 days of curriculum training from a Wyman, Inc. certified trainer prior to serving as a workshop facilitator. New program support staff also receive components of this training to ensure familiarity with the curriculum. Facilitators receive on-the-job training during their orientation period including serving as a co-facilitator prior to leading a cohort of participants. Bethany also sends designated staff to the HMRE regional roundtable and any other grant-specific trainings and conferences.

Facilitator Meetings are held bi-weekly for 90-120 minutes and are used for peer-to-peer learning, to share best practices, highlight current trends and challenges in recruitment and retention, monitor program implementation, and provide trainings and education around topics of interest to the program team. Facilitators are encouraged to participate on local committees and coalitions to learn about community wide trends in serving at-risk youth and to build connections to more effectively serve participants. Refresher trainings in curriculum components are provided by Wyman Connect via webinars and sessions led by the on-site certified trainer. Safe Haven provides annual trainings for Bethany program staff regarding domestic violence screening protocols. Additionally, all employees are required to complete annual agency-wide required trainings on topics including HIPAA, Safety and Security, Ethics and Compliance, and Cultural Diversity. Bethany also hosts child welfare related trainings that are offered to all staff members and encompass a range of child welfare related topics including mandated reporting, trauma informed services, human trafficking, and CPR/First Aid.

***NOTE: The remainder of this document provides one option for organizing the study methods, data, and findings. For your study, if it makes more sense to structure the report differently please discuss with your ETTA. For example, if you conducted only an outcomes study or only an implementation analysis, either section II or section III below would need to be deleted. As another example, if data and analysis methods differed across research questions, one alternative is to organize the report by research question (present a research question, discuss the data and analysis approach used to address the research question, discuss the findings, then move to the next research question).***

## II. PROCESS/IMPLEMENTATION STUDY (IF APPLICABLE)

The process/implementation portion of this evaluation focuses on four measures: fidelity, dosage, engagement, and context. Measures of program process and implementation are a key element in a comprehensive program evaluation because they document whether the program unfolded as intended, whether program staff were qualified, whether curricula were presented with fidelity, etc. Process and implementation measures provide a foundation for understanding program outcomes. For example, if an evaluated program was shown to be implemented with great fidelity, and the intended outcomes are discovered through statistical analyses, the researcher has greater confidence that such outcomes are due to program participation.

### A. Research questions

Following are the specific research questions that address these measures.

#### **Fidelity:**

- How were staff trained in delivering program services? What was the nature of the initial training and what ongoing training was provided for staff? How many participated and who provided the training?
- Were all intended intervention components offered and for the expected duration? If not, to what degree did program delivery differ from intent and why?
- What specific program model or curriculum was used? What types of services were provided for youth?
- Who delivered services to youth?
- What unplanned adaptations, if any, did the program have to make to key intervention components?

#### **Dosage:**

- How many units of service by type did youth receive on average? What was the average duration of program services?

#### **Engagement:**

- How many youth who started the program complete at least 80% of workshop sessions?
- How many youth participated in additional referred services beyond the TOP curriculum?

#### **Context:**

- What other similar and relevant programming was available to youth participants? What external events, in any, affected program implementation?

## B. Study design

The process/implementation study relies largely on program documentation records, participant surveys, and the results of focus groups. Program documentation records are maintained by program staff, who compiled them for this report. Survey results are from the nFORM Healthy Marriage/Responsible Fatherhood Program Applicant Characteristics Survey, the nFORM Healthy Marriage Program Pre/Post and Post-Program Surveys for Youth-Focused Programs, and the Wyman Teen Outreach Program (TOP®) Pre/Post Surveys. Consents were required to access records of program dosage, types of services provided, and survey results.

## C. Sample formation

No sampling was involved in this study. Several research questions relied on the results of youth and staff focus groups. Consents were required for participation of youth and staff in these focus groups. All five Youth Facilitators were asked to participate in focus groups and all five participated. Staff focus groups were conducted in 2017 and December of 2019. Youth participants were identified and recruited by program staff from among active program participants who were demographically representative of the population and had the time and willingness to participate. Pizza and soft drinks were provided as incentives. Each youth signed a consent form. Youth focus groups were conducted in 2016, 2018, and in February of 2020. Staff and participant focus groups explored questions of program strengths, areas for improvement, effective and ineffective program elements, impact on knowledge and behaviors, etc.

Several research questions for the process/implementation study required an analysis of results from the nFORM surveys. The study used the same sample as was used for the outcomes study. (Tables 7 and 8 from that section describe the sample formation used for the outcomes study.)

**Table 3: Characteristics of participants in implementation/process study**

Characteristic	Youth Focus Group Participants N=8	Staff Focus Group Participants N=5
Age Range	15-22	25-45
Female (%)	38%	40%
<b>Race/ethnicity (%)</b>		
Hispanic	0%	0%
Non-Hispanic White	38%	20%
Non-Hispanic Black	62%	80%
Non-Hispanic Asian	0%	0%
<b>Relationship status (%)</b>		
Married or partnered	0%	40%
Single	100%	60%
<b>Other important characteristics</b>		
Low Income	50%	NA
Disabilities	38%	NA
Highest Earned Degree	NA	80% Bachelors, 20% MSW

Source: Bethany records.



## 1. Data collection

Data used to answer the research questions related to implementation and process include the nFORM Healthy Marriage/Responsible Fatherhood Program Applicant Characteristics Survey, the nFORM Healthy Marriage Program Pre/Post and Post-Program Surveys for Youth-Focused Programs, the Wyman Teen Outreach Program (TOP®) Pre/Post Surveys, staff and youth focus groups, and follow-up phone surveys of program participants. The TOP® Pre/Post surveys were developed by Wyman, Inc., the publisher of the TOP® Curriculum. The survey measures participant behaviors in school (suspensions, courses failed, etc.), self-confidence, and self-esteem. Pretest surveys are administered to participants upon enrollment in programming. Post-test surveys are administered during the last four days of TOP® Programming. Post program surveys are administered to participants who complete a subsequent sequence of TOP® programming. Table 4 summarizes the data sources for each research question, frequency of data collection, and party responsible.

**Table 4: Data Sources for Process/Implementation Study Research Questions**

Implementation element	Research question	Data source	Timing/ frequency of data collection	Party responsible for data collection
Fidelity	How were staff trained in delivering program services? What was the nature of the initial training and what ongoing training was provided for staff? How many participated and who provided the training?	Program documentation of training topics, dates, presenter, and participants.	Ongoing	Program managers.
Fidelity	Were all intended intervention components offered and for the expected duration? If not, to what degree did program delivery differ from intent and why?	Program documentation of training topics, dates, presenter, and participants.	Ongoing	Program managers.
Fidelity	What specific program model or curriculum was used? What types of services were provided for youth? Who delivered services to youth?	Program documentation of training topics, dates, presenter, and participants.	Ongoing	Program managers.
Fidelity	What unplanned adaptations, if any, did the program have to make to key intervention components?	Focus groups with all program staff delivering TOP® curriculum (2017 & 2019).	At conclusion of the program.	Evaluator
Dosage	How many units of service by type did youth receive on average? What was the average duration of program services?	Participant nFORM and enrollment/attendance records	Ongoing	Program staff, evaluator
Engagement	How many youth who started the program complete at least 80% of workshop sessions?	Pre-test, Post-test, and Post/Post test nFORM surveys, internal attendance records	Pre-program Post-program 3 months after leaving program	Evaluator



Implementation element	Research question	Data source	Timing/ frequency of data collection	Party responsible for data collection
Engagement	How many youth participated in additional referred services beyond the TOP® curriculum?	Pre-test, Post-test, and Post/Post test nFORM surveys, internal attendance records	Pre-program Post-program 3 months after leaving program	Evaluator
Context	What other similar and relevant programming was available to youth participants? What external events, in any, affected program implementation?	Focus groups with program staff (2017 & 2019).	At conclusion of the program.	Evaluator

## 2. Data preparation and measures

Table 5 lists the measures identified for addressing each of the research questions around process/implementation and describes how each will be reported.

**Table 5: Measures for addressing the research questions**

Implementation element	Research question	Measures
Fidelity	How were staff trained in delivering program services? What was the nature of the initial training and what ongoing training was provided for staff? How many participated and who provided the training?	Number of staff trained, number of trainings offered by type, staff providing training.
Fidelity	Were all intended intervention components offered and for the expected duration? If not, to what degree did program delivery differ from intent and why?	Comparison of program documentation to program proposal. Analysis of gaps, where they exist. Single rater will use a common process for identifying focus group themes related to fidelity and analysis of key terms or phrases that are relevant to program fidelity.
Fidelity	What specific program model or curriculum was used? What types of services were provided for youth? Who delivered services to youth?	Program documentation on units of service by type, documentation of workshop attendance, documentation of curriculum reviewed in each workshop session.
Fidelity	What unplanned adaptations, if any, did the program have to make to key intervention components?	Single rater will use a common process for identifying focus group themes, key phrases, and key terms related to unplanned adaptations and causes.
Dosage	How often did youth participate in the various interventions or services on average? What was the average duration of program services?	Analysis of data files. Frequency count and summary of mean units of service by type.
Engagement	How many youth who started the program complete at least 80% of workshop sessions?	Analysis of follow-up surveys reporting workshop participation.
Engagement	How many youth participated in additional referred services beyond the TOP® curriculum?	Analysis of follow-up surveys reporting units of service by type.

Implementation element	Research question	Measures
Context	What other similar and relevant programming was available to youth participants? What external events, if any, affected program implementation?	Analysis of staff focus groups. Single rater will use a common process for analyzing themes, key phrases, key terms.

#### D. Findings and analysis approach

In this section, key findings about program implementation and processes are listed. Each research question is re-stated and key findings follow. In general, the findings related to program implementation and processes are highly positive. They show that program staff are highly qualified to work with youth and participated in extensive and relevant training that was facilitated by highly qualified individuals or organizations. Program components, including the evidence-based TOP® curriculum, were offered and implemented as planned to high risk youth recruited from local high schools. Youth participated in a number of ancillary services and events, which focus group participants cited as particularly beneficial.

#### 1. How were staff trained in delivering program services? What was the nature of the initial training and what ongoing training was provided for staff? How many participated and who provided the training?

##### a. Key findings

Program staff meet high qualifications for their work with youth and receive ongoing training and support to identify and share best practices. For example, all of Bethany's Youth Facilitators have a Bachelor's in Social Work (BSW) or a Bachelor's Degree in Science or Arts (BS/BA) in a related field. Two Facilitators are currently studying for new certifications in their field of expertise. All Facilitators received an initial orientation and onboarding schedule upon hire and attended mandatory trainings. A summary of formal trainings in grant year 2019-20 is found below. Facilitators attended 2.5 days of curriculum training from a Wyman, Inc. certified trainer prior to serving as a workshop facilitator. All Facilitators receive on-the-job training during their orientation period, including serving as a co-facilitator, prior to leading a cohort of participants. Bethany sent three designated staff to the HMRE Biennial Grantee Conference in August of 2019. Ongoing bi-weekly Facilitator meetings are held to discuss topics of interest, share best practices, etc.

##### *Summary of formal ongoing training in grant year 2019-2020:*

- Sex Trafficking of Minors: Recognizing the Recruitment & Grooming Process (attended by one staff member)
- Fair Housing Training (attended by one staff member)
- Domestic Violence Training from YWCA (attended by 13 staff members including all facilitators and case managers.)
- MOASH Training on LGBTQ+ (attended by 9 staff members)

- Emergency, Safety, and Security by Bethany HQ (attended by 9 staff members)

**2. Were all intended intervention components offered and for the expected duration? If not, to what degree did program delivery differ from intent and why?**

*a. Key findings*

Intended intervention components include Relationship Skills workshops, Case Management, Educational/Vocational Training, and Mentoring. All of these components were offered to youth participants each year of implementation. All but two workshops were implemented for a full 16 weeks, as planned, including education/vocational specific topics. There were two schools for which the full dosage was not met. These were two newly added high schools in which Bethany began programming during the 4th year. One of these schools was an alternative high school which offers a mid-year graduation for students who accumulate sufficient academic credits. This led to a significant loss of students in one of the workshops. Staff from this school did not fully understand the expectations of participation in the TOP<sup>®</sup> workshops. As a result, the support from this school was insufficient and led to the facilitator continually adjusting her schedule and the timeline of workshops to accommodate students. She continued to connect with the youth one on one, but the result of this is that students from this school did not complete the required dosage of workshops.

**3. What specific program model or curriculum was used? What types of services were provided for youth? Who delivered services to youth? What unplanned adaptations, if any, did the program have to make to key intervention components?**

*a. Key findings*

The evidence-based core curriculum used for the workshops is entitled Teen Outreach Program (TOP<sup>®</sup>) from Wyman, Inc. TOP<sup>®</sup> is a trauma-informed curriculum with a focus on building healthy decision-making skills and healthy interpersonal relationship competencies. The services that Bethany provides includes relationship skills workshops, case management, education/vocational training, and mentor matches.

The services for youth, including workshops, case management, educational/vocational training, and mentor matching are delivered by five trained Youth Facilitators. In addition, the program has partnerships with other agencies and businesses to give participants access to vocational training, college visits, and specialized services.

Program staff reported no unplanned adaptations to key intervention components.

**4. How many units of service by type did youth receive on average? What was the average duration of program services?**

*a. Key findings*

Students were offered 16 weeks of TOP<sup>®</sup> workshop sessions for each cohort for each year of the project. Students have the opportunity to participate in ancillary workshops such as employment training, educational workshops, trauma workshops, and more. Students participate in an average of three ancillary workshops over the five years of implementation. TOP<sup>®</sup> workshop participation is recorded in nFORM, and ancillary workshop participation is collected in the Salesforce system. Records show that students average a total of 204 days in the program from entry to exit. Students also average 10 case management hours each year, attend an average of 16.5 workshops, and attend an average of 13 TOP<sup>®</sup> workshops. A total of 42 participants (10%) were linked with an adult mentor. Nearly half of all participants (49%) complete Community Service Learning opportunities and over one-third (35%) participate in paid work experiences.

**5. How many youth who started the program complete at least 80% of workshop sessions?**

*a. Key findings*

A total of 562 youth report attending at least one session over the five years of programming. Of these, 295 (52%) report attending at least 80% of the workshops available.

**6. How many youth participated in additional referred services beyond the TOP<sup>®</sup> curriculum?**

*a. Key findings*

Of the 431 total participants who completed the post-program survey, 84.8% participate in at least one additional service (case management, mentorship, community service, paid work experience, and/or employment support) beyond the TOP<sup>®</sup> curriculum over the 5 years of programming.

Youth Facilitators commented in the focus group on the importance of these additional services in building on the foundation of the TOP<sup>®</sup> Curriculum and classroom/group discussions. They commented that the program is particularly effective when participants have opportunity to apply workshop learning to relevant and real-world experiences that come out in job training, skills training, college visits, and case management.

Similarly, youth who participated in the focus group identified ancillary services such as job training, PACT certification, and job searches as being most helpful in improving their personal outcomes.

**7. What other similar and relevant programming was available to youth participants?  
What external events, in any, affected program implementation?**

*a. Key findings*

Bethany Christian Services offers youth participants the opportunity to participate in several college tours, group outings (Detroit Pistons basketball games), holiday parties, athletic leadership conferences, and Young Life clubs to enhance their overall experiences. No external events are known to have affected program implementation.

### III. OUTCOMES STUDY (IF APPLICABLE)

The outcomes study that follows provides an analysis of non-causal associations of participant changes in attitudes and behaviors after participation in the program. These outcomes provide preliminary understanding of trends among participants during their participation in the program. While findings from the descriptive outcome analysis cannot be directly attributed to program participation, the study can yield some insight into the change process and the best indicators of that change, paving the way for future studies against a comparison group.

#### A. Research questions

The evaluation identifies the following primary research questions:

1. Do youth have better outcomes when they participate in Grand Rapids Center for Community Transformation (GRCCT) activities?
  - a. Do youth who complete both a pre-test and post-test report more positive attitudes toward marriage or committed relationships after participation in program services compared to attitudes at program intake?
2. Do youth have better outcomes when they participate in more GRCCT activities (dosage)?
  - a. Do youth who complete both a pre-test and post-test report more positive attitudes toward marriage or committed relationships with increased participation in program workshops (i.e. if they attend the Wyman recommended minimum of 12 workshops)?
3. Do youth have better outcomes when they participate in GRCCT activities over a longer period of time (duration)?
  - a. Do the positive attitudes toward marriage or committed relationships of youth who complete both a pre-test and post-test increase with increased length of time involved in the program?
4. Do youth outcomes vary by demographic characteristics?
  - a. Do youth positive attitudes toward marriage or committed relationships differ by race, gender, age, or risk factors such as foster care placement among those who complete a pre-test and post-test?

#### Secondary Research Questions

5. Do youth report reduced positive attitudes toward premarital sex and risky sexual behaviors at program completion compared to program intake?
6. Do youth report increased agency in existing relationships at program completion compared to program intake?
7. Do youth report increased likelihood of participating in marriage in the future at program completion compared to program intake?
8. Do youth report improved positive conflict resolution behaviors in existing relationships at program completion compared to program intake?
9. Do youth report fewer risky behaviors at school at program completion compared to program intake?

10. Do youth report increased self-esteem at program completion compared to program intake?

## B. Study design

### 1. Sample formation

Bethany's Center for Community Transformation program recruits participants from high-poverty geographical areas within the Grand Rapids area. As Table 6 shows, these recruitments come from schools, churches, and community agencies.

**Table 6: Recruitment Sources for the Project**

Schools/Agencies	Other Recruitment Sources	Service Locations
<ul style="list-style-type: none"> <li>Wyoming Public Schools</li> <li>Covenant House Academy</li> <li>Lighthouse Academy</li> <li>Wedgwood Christian Services</li> <li>Bethany Foster Care, Counseling, and Refugee Services</li> <li>Network 180</li> <li>YouthBuild</li> <li>DA Blodgett St. Johns</li> <li>Catholic Charities</li> <li>River City Scholars</li> <li>Arbor Circle</li> <li>Kent County 7<sup>th</sup> Circuit Court</li> <li>Grand Rapids Public Schools</li> <li>HQ Homeless Drop in center</li> </ul>	<ul style="list-style-type: none"> <li>Churches</li> <li>Community</li> <li>Criminal Justice Workers</li> <li>Other GRCCT youth and staff</li> <li>Foster Care Workers</li> <li>Parent/family member</li> </ul>	<ul style="list-style-type: none"> <li>Covenant House Academy</li> <li>Central High School</li> <li>Southeast Career Pathways Alternative School</li> <li>Wyoming Public High School</li> <li>Grand Rapids Center for Community Transformation</li> </ul>

#### *Sample eligibility criteria:*

Eligibility criteria for Bethany's project are youth between the ages of 14 and 24. Youth are recruited from schools in high poverty geographical locations in Grand Rapids, Michigan; however, participants are not required to meet any specific threshold for low income. Youth that learn about the program and self-refer may also be enrolled. The project sought to serve a total of 650 youth, including youth who are low income, culturally under-represented (including refugees and unaccompanied minors), youth with truancy issues, foster care youth, and homeless youth – all of whom are at a high risk for being human trafficked, experiencing trauma, domestic violence, and childhood maltreatment.

#### *Purposeful sampling:*

Bethany's project does not apply any additional criteria for enrollment. Youth were primarily recruited through foster care agencies and from alternative high schools, with additional staff presence within schools in high poverty areas.

Youth that were recruited to participate in services were provided with consents for participation as well as consent to collect data. Youth were provided with passive consents for parents or guardians. Youth whose parents contacted the center to revoke consent were removed from the study. Upon receipt of consents, youth were enrolled in TOP<sup>®</sup> workshops and received nFORM and TOP<sup>®</sup> data collection surveys. Youth that complete these surveys were included as study participants.

### *Process for Enrollment*

Prior to workshop start, case managers and class facilitators recruit youth and provide intake packets to them and their parents. The packets include:

- Bethany's Center for Community Transformation Intake form
- Release, waiver and indemnity Agreement – Events for Minor Child
- Bethany Christian Services Consent to Release of Records or Information form
- Bethany Christian Services Notice of Privacy Practices for Consumer Confidential Information – Acknowledgement of Receipt
- Bethany Christian Services Media Release of Information

Staff follow up with youth by phone calls, text messages, e-mails and school visits to ensure that packets are completed and signed and that essential documents are collected. Programs including an employment aspect require additional documents of:

- Birth certificate
- Social Security Card
- Picture or State ID
- Driver's License
- Work permit (if under 18)

Table 7 shows total recruitment and completion rates for the three data collection instruments. A total of three samples were used for the analysis. The first sample is the nFORM pre- and post-program survey. A total of 722 youth were recruited to the center and completed the informed consent process detailed above. Among these, a total of 686 (95%) participants completed a baseline nFORM survey. A total of 431 participants completed a post-program survey, representing a 40% attrition rate. The TOP<sup>®</sup> survey, collected at the same time as the nFORM survey, experienced high rates of noncompletion by participants, as well as many missing fields in the scale scores. In total, 208 TOP<sup>®</sup> pre and post surveys were matched, representing a 70% attrition rate.

The second sample represents participants who report having a boyfriend or girlfriend. Agency in relationships questions and conflict resolution questions are only asked of this sample. A total of 273 participants reported having a boyfriend or girlfriend at baseline. Of these, only 82



participants completed the post-program questions relevant to those in a current relationship, representing a 70% attrition rate.

The post-post, collected 3-months post-participation, received a total of 89 responses out of 302 eligible for completion (the post-post was added in the 3rd year of programming to capture whether attitudes and behaviors were stable after program completion). Staff relay dates and times of first workshop sessions through face-to-face contacts or text messages. The Youth Facilitators additionally make trips into the community (schools or homes) to seek out youth who were unable to make it into the center to collect missing data collection instruments and identify resources to increase attendance.

**Table 7: Recruitment and Attrition**

Number of individuals	Number of individuals
Enrolled in the program	722
Completed a baseline survey	686
Completed post-program survey*	431
Attrition rate (%)	40%
Completed TOP <sup>®</sup> survey*	208
Attrition rate (%)	71%
Reported a boyfriend/girlfriend at pre-test	273
Completed post-program boyfriend/girlfriend scales*	82
Attrition rate (%)	70%
Eligible to complete a post-post survey	302**
Completed Post-Post survey*	87
Attrition rate (%)	71%

\* Number of individuals after dropping cases with high item nonresponse and making all analysis restrictions

\*\* Post-Post tests were added in program Year 3

Table 8 shows participant characteristics and demographics for each of the above groups. Participant ages average roughly 18 years, with TOP<sup>®</sup> and Post-Post program samples running slightly younger on average (17 and 16, respectively). Participants are consistently mostly African American, and report roughly equal males and females. Just under a third report involvement with the Foster Care system at some point, which varies slightly between samples. Post-Post samples represent the lowest rate of Foster Care involvement at 18%, while the boyfriend/girlfriend sample represents the highest at 39%. In each sample, over half of the participants are currently in a stable housing situation (youth or guardians own or rent their own place). This is consistent among all samples except the post-post, where the rate is slightly higher (67%).

**Table 8: Participant Demographics and Key Characteristics**

Characteristic	Post-Program Sample	Boyfriend/ Girlfriend Sample	TOP® Survey Sample	Post-Post Program Sample
Average Age	17.9	18.7	17.3	16.1
Female (%)	207 t(48.0%)	49 (59.8%)	105 (50.5%)	43 (49.4%)
<b>Race/ethnicity (%)</b>				
Hispanic	62 (14.4%)	12 (14.6%)	32 (15.4%)	12 (13.8%)
Non-Hispanic White	99 (26.8%)	20 (28.6%)	55 (26.4%)	18 (20.7%)
Non-Hispanic Black	241 (65.3%)	50 (61.0%)	117 (56.3%)	55 (63.2%)
Non-Hispanic Asian	4 (0.9%)	0 (0.0%)	4 (1.9%)	2 (2.3%)
<b>Relationship status (%)</b>				
Married or partnered	0 (0.0%)	0 (0.0%)	0 (0.0%)	0 (0.0%)
Single	431 (100.0%)	82 (100.0%)	208 (100.0%)	87 (100.0%)
Involved with Foster Care	135 (31.3%)	32 (39.0%)	57 (27.4%)	16 (18.4%)
Stable Housing	236 (54.8%)	46 (56.1%)	116 (55.8%)	58 (66.7%)
<b>Sample size</b>	<b>431</b>	<b>82</b>	<b>208</b>	<b>87</b>

## 2. Data collection

Participants are assessed at intake to establish a baseline of attitudes and behaviors related to marriage and relationships. At the beginning of the first session, facilitators administer the Characteristic and Pre-program surveys. Staff provide youth with \$10 gift cards as an incentive to complete the surveys. Any youth enrolled late or unable to make it to the first session are asked to come into the center and take the survey on their own time. After participation in the program, youth receive a post-test to assess their change over time. Participants receive a post-post survey three months after completing the program. This survey was added in the third year of programming to determine whether changes in attitudes or behaviors were maintained after program participation has ended.

**Table 9: Data Collection Instruments and Timelines**

Data source	Timing of data collection	Mode of data collection	Start and end date of data collection
TOP® Pre-test Survey	At first workshop	In-person survey	October 1, 2015 – March 31, 2020
nFORM Healthy Marriage Entrance Survey	At first workshop	In-person survey	October 1, 2015 – March 31, 2020
nFORM Healthy Marriage Applicant Characteristics Survey	At first workshop	In-person survey	October 1, 2015 – March 31, 2020
TOP® Post-test Survey	At last workshop	In-person survey	October 1, 2015 – March 31, 2020
nFORM Healthy Marriage Exit Survey	At last workshop	In-person survey	October 1, 2015 – March 31, 2020
Post-program Follow-Up survey	3-months after last Workshop	In-person survey	October 1, 2019 – March 31, 2020

### 3. Analytic sample, outcomes, and descriptive statistics

The measures listed in Table 10 have been identified to track participant outcomes. Each subscale was assessed for internal reliability.

**Table 10: Measures for addressing the research questions**

Outcome name	Description of the outcome measure	Source of the measure	Timing of measure
Attitudes towards Marriage	These questions are taken from participant responses under the subscale “How much do you agree or disagree with the following statements about marriage?”. Questions ask about whether they believe marriages are happy, should be lifelong, or require work. <b>Cronbach’s alpha: 0.718*</b>	nFORM Entrance survey nFORM Exit survey Post-program Follow-up	Participant post-tests at end of intervention
Understanding Healthy Relationships	These questions are taken from the participant responses under the subscale “In a healthy relationship, how important is it that couples...?”. Questions ask about whether couples should not cheat on one another, argue, threaten, etc. <b>Cronbach’s alpha: 0.797</b>	nFORM Entrance survey nFORM Exit survey Post-program Follow-up	Participant post-tests at end of intervention
Attitudes towards Healthy Relationships	These questions are taken from participant responses under the subscale “How much do you agree or disagree with the following statements about relationships?”. Questions ask about whether couples should discuss their feelings, accept domestic violence, or keep thoughts to themselves. <b>Cronbach’s alpha: 0.748</b>	nFORM Entrance survey nFORM Exit survey Post-program Follow-up	Participant post-tests at end of intervention
Attitudes towards sex	These questions are taken from the participant responses under the subscale “How much do you agree or disagree with the following statements about sex?”. Questions ask about sex before marriage and thoughts on using protection during sex. <b>Cronbach’s alpha: 0.706</b>	nFORM Entrance survey nFORM Exit survey Post-program Follow-up	Participant post-tests at end of intervention
Agency in existing relationships	These questions are taken from the participant responses under the subscale “Please indicate how often the following things happen with your boy/girlfriend...”. Questions ask about whether participants are pressured to do things they don’t want to or controlled by their significant other. <b>Cronbach’s alpha: 0.792</b>	nFORM Entrance survey nFORM Exit survey Post-program Follow-up	Participant post-tests at end of intervention
Likelihood of future marriage	These questions are taken from the participant responses under the question “When you think about the future, what do you think are the chances that you will be married to one person for life?”	nFORM Entrance survey nFORM Exit survey Post-program Follow-up	Participant post-tests at end of intervention

Outcome name	Description of the outcome measure	Source of the measure	Timing of measure
Conflict Resolution	These questions are taken from the participant responses under the subscale “When you have a serious disagreement with your boy/girlfriend, how often do you...?” and “How often do the following things happen with your boy/girlfriend?”. Questions ask about how participants handle things when they are mad or frustrated with their significant other. <b>Cronbach’s alpha: 0.724</b>	nFORM Entrance survey nFORM Exit survey Post-program Follow-up	Participant post-tests at end of intervention
Behaviors in School	These questions assess evidence of risky behaviors pulled from the subscale “During the last school year, did you...?” and “Have you ever...?”. Questions ask about suspensions, failed, grades, or failed classes. <b>Cronbach’s alpha: 0.709</b>	TOP Entrance survey TOP Exit survey	Participant post-test at end of intervention
Self-esteem/Self-confidence	These questions assess individual self-esteem of participants pulled from the subscale “How much do you agree with these statements as they apply to you personally?”. Questions ask about whether youth feel they can deal with things on their own, or are confident in their own abilities. <b>Cronbach’s alpha: 0.701</b>	TOP Entrance survey TOP Exit survey	Participant post-test at the end of intervention

\*Alphas were calculated using pre- and post-tests from the analytic sample (N = 431 for nFORM, 208 for TOP®)

### *Analytic Sample*

The analytic sample is composed of all participants enrolled in the TOP® curriculum over the course of the 5-year grant. Participants with missing pre-test or post-test scales were removed from the sample, as no change over time can be measured. Mean substitution was used for missing items within subscales. Individuals who completed fewer than 80% of the items were removed from analysis for the given measure.

The program experienced roughly a 40% attrition rate for pre-test post-test completion (see Table 7 on page 21). A total of 431 cases were included in the final analytic sample out of the 722 that were enrolled. The primary reason for attrition is lost contact.

An attrition analysis reveals little evidence of bias in completion rates. Participants who completed both a pre-test and post-test were compared to participants who dropped out of the program on characteristics of race and ethnicity, pre-test scores, and select demographics. The only significant difference between groups was higher rates of Hispanic ethnicity among those who did not complete the program. To ensure this did not bias program outcomes, Hispanic ethnicity was controlled for in each model. For more details on attrition analysis, see Appendix D.

Individuals reporting existing relationships at pre-test will be assessed at post-test for continued reporting of items specifically related to behaviors in existing relationships. Persons enrolled in school will be assessed for behaviors in school as measured by the TOP® pre-test and post-test survey.

### *Data Preparation*

Data was downloaded in csv or Excel format and imported into STATA for data processing and analysis. Missing values were mean substituted where no more than 80% of scale items were missing. Cases with too many missing values (less than 80% of scale items) were removed from analysis. Several datasets were composed: 1) Demographic file with all participant characteristics collected at intake, 2) Dose file with all participant units of service by type, 3) nFORM outcome data with Entrance and Exit surveys, and 4) TOP<sup>®</sup> outcome data with pre-test and post-test surveys. Each participant's data was assessed over pre- and post-test surveys to identify inconsistencies in the data. Identified incompatible responses were treated as missing. In cases where reverse coded items were ignored and no variation occurred, scales were flagged as unreliable and excluded from analysis (e.g. respondents reply "strongly agree" to every item including reverse coded items). For more information on item coding and data preparation, see Appendix C.

### *Outcome Measures*

Scales were checked using confirmatory factor analysis to produce Cronbach's alphas. Scales that did not meet an alpha threshold of 0.70 were adjusted. Factor loadings were reviewed for scales that did not meet the 0.70 threshold for removal of items that reduce the overall reliability. Each identified subscale was to be assessed as a score constructed from the sum of items. Reverse scale score items were reverse coded. All scale items were adjusted to begin at 0. Final scale scores were calculated to begin at 0 with an increase showing more positive outcomes in all cases. For details on specific scale items, see Appendix E.

### *Analytic Approach*

Data was assessed using multiple modes of statistics. First, descriptive statistics provide frequencies of program participation, number of persons served, and demographics and characteristics of the population. Second, bivariate statistics provide measures of participant change over time on outcome measures from primary and secondary research questions. Lastly, multivariate analyses provide models of the participant change process, with program dose, participant characteristics, and other covariates.

Model Specification: The multivariate analysis utilizes Ordinary Least Squares regression to assess participant change in outcomes using control variables of participant demographics and characteristics, program dose, and covariates. Critical value of  $p < 0.05$  (two-tailed) was used to assess for statistical significance. The model assesses attitudes towards marriage and relationships as dependents with change in scores of self-esteem, agency in relationships, and behaviors in relationships according the following theory of change:

Increase in self-esteem → Increased agency in relationships → Increased evidence of self-directed behaviors in relationships → Improved attitudes towards marriage and relationships □  
Increased likelihood of future engagement in marriage.

**Covariates:** Model covariates include self-esteem, agency in relationships, and self-directed behaviors in relationships at baseline. The project collected data related to participant characteristics and demographics, service participation, and participant outcomes. Each model, by dependent variable, included all service components and demographics/characteristics. Binary demographic variables occurring in less than 5% of the sample were removed. Using a covariance matrix, variables with a correlation of  $r \geq 0.70$  were removed from the model to prevent collinearity. Using subset selection techniques, variables that showed no significant relationship with any of the dependent variables were also removed. These techniques provided a final set of variables which included: Ancillary workshop sessions, TOP<sup>®</sup> workshop sessions, race, sex, current grade (0 = no education, 1 = less than 9th grade, 2 - 5 = 9th grade – 12th grade, and 6 = high school graduate), likelihood of future marriage at pre-test, likelihood of cohabitation at pre-test, likelihood of children out of wedlock at pre-test, currently a parent (0/1), program rating (0 – 2), and initial scale rating. Each model assessed the change in scale score from pre-test to post-test. All models use the same list of controls. For brevity, variables showing no significant impact were removed from the tables presented in the narrative. Full models for each research question can be found in Appendix E. Page numbers are indicated following each table.

The ancillary workshop sessions are led by the same Youth Facilitators as the TOP<sup>®</sup> workshop sessions. These workshops afford youth the opportunity to put the skills learned into practice, often with the guidance of Youth Facilitators. For this reason, Ancillary workshops were included as a separate dose variable from the TOP<sup>®</sup> workshops. These two variables did not show evidence of collinearity ( $r = 0.35$ ). Inclusion of ancillary workshop sessions did not shrink the coefficient of the TOP<sup>®</sup> workshop sessions in the multivariate models. For more detailed analyses of ancillary workshop sessions compared to TOP<sup>®</sup> workshop sessions, see Tables 29 – 31 in Appendix E.

## C. Findings and analysis approach

### 1. Do youth have better outcomes when they participate in GRCCT activities?

*a. Do youth who complete both a pre-test and post-test report more positive attitudes toward marriage or committed relationships after participation in program services compared to attitudes at program intake?*

*a. Key findings*

Overall, roughly 2 in every 5 youth with both pre-test and post-test data show more positive attitudes towards Healthy Marriages and Healthy Relationships at post-test compared to pre-test:

- 167 (43%) show a positive increase in Attitudes towards Healthy Marriages. An additional 81 (21%) show stable scores over time.
- 161 (39%) show a positive increase in Attitudes towards Healthy Relationships. An additional 67 (16%) show stable scores over time.

- 169 (44%) show a positive increase in Understanding of Healthy Relationships. An additional 92 (24%) show stable scores over time.

Participants who complete both a pre-test and a post-test show no significant differences on attitudes toward marriages, understanding of healthy relationships, or attitudes towards healthy relationships when comparing group means. Table 11 shows limited change on participants' attitudes towards marriages, understanding of healthy relationships, or attitudes towards healthy relationships. At post-post, collected three months after program completion, these patterns hold for understanding of healthy relationships and attitudes towards healthy relationships. Attitudes towards marriages do show a significant change in scores; however, this change reflects a significant reduction in scores, indicating more negative attitudes towards marriages.

**Table 11: Participant change over time on healthy marriages and healthy relationships**

Outcome	Follow-up Point	Sample size	Mean outcome at baseline	Mean outcome at follow-up	Difference in means	p-value of the difference
Attitudes towards Marriages	Post-Test	384	7.25	7.21	0.04	0.748
	<b>Post-Post</b>	<b>85</b>	<b>6.99</b>	<b>6.49</b>	<b>0.50</b>	<b>0.050</b>
Understanding of Healthy relationships	Post-Test	410	16.84	16.64	0.20	0.176
	Post-Post	87	17.33	16.89	0.46	0.099
Attitudes towards Healthy Relationships	Post-Test	386	16.26	16.41	0.15	0.405
	Post-Post	83	16.46	16.61	0.15	0.640

To better understand the factors that associate with participant changes, an OLS model of change scores (difference in scores from pre-test to post-test) was run using factors of participation, participant characteristics, and participants' likelihood of participating in future marriage or cohabitation behaviors. Table 12 reveals TOP® Workshop participation significantly associates with changes in Attitudes towards marriages and attitudes towards healthy relationships. In both cases the coefficient is negative. This suggests either that scores are likely to *decrease* rather than increase with increased participation, or that those who participated in increased workshop sessions were more likely to experience reductions.

**Table 12: OLS Model of change scores at post-test**

		Changes in Attitudes towards Marriages	Changes in Understanding of Healthy Relationships	Changes in Attitudes towards Healthy Relationships
Number of Ancillary Workshop Sessions	Coef	-0.0048	-0.0063	0.0084
	S.E.	0.008	0.011	0.012
Number of TOP® Workshop Sessions		-0.0245*	-0.0023	-0.0372*
		0.012	0.016	0.018
Race: Black		0.2501	-0.0073	-0.3166
		0.223	0.306	0.331
Race: Hispanic		-0.3568	-0.2180	0.2905
		0.306	0.424	0.461



	Changes in Attitudes towards Marriages	Changes in Understanding of Healthy Relationships	Changes in Attitudes towards Healthy Relationships
Sex: Male	0.2306 0.205	-0.4138 0.282	-0.7916** 0.303
Current Reported Grade Level	0.1833* 0.076	-0.0581 0.102	0.0192 0.110
Likelihood of Future Marriage	0.4783*** 0.103	0.5019*** 0.141	0.4911*** 0.149
Likelihood of Cohabitation	-0.4045*** 0.110	-0.0180 0.149	-0.1251 0.160
Likelihood of Children out of Wedlock	-0.3262*** 0.102	-0.0470 0.134	0.0804 0.145
Currently a Parent	0.1146 0.257	-0.9590** 0.344	-1.1497** 0.394
Program Rating	0.3728+ 0.208	-0.6659* 0.279	-0.5875+ 0.310
Initial Scale Rating	-0.5873*** 0.041	-0.5692*** 0.055	-0.6542*** 0.044
Constant	3.5992*** 0.811	10.3732*** 1.314	12.1817*** 1.324
Model R2	0.3762***	0.2403***	0.3875***
<b>Sample size</b>	384	410	386

+p < .10, \*p < 0.5, \*\*p < 0.01, \*\*\*p < 0.001

At post-post, these trends hold. The number of TOP<sup>®</sup> workshop sessions attended continues to negatively associate with change in attitudes towards marriages and healthy relationships. Total workshop participation, however, shows a positive relationship with changes in attitudes towards healthy relationships, suggesting the TOP<sup>®</sup> curriculum alone may be insufficient to promote positive changes in attitudes. See Table 13.

**Table 13: OLS Model of change scores at post-post**

		Changes in Attitudes towards Marriages	Changes in Understanding of Healthy Relationships	Changes in Attitudes towards Healthy Relationships
Number of Ancillary Workshop Sessions	Coef	0.0654*	-0.0203	0.0821
	S.E.	0.033	0.061	0.057
Number of TOP <sup>®</sup> Workshop Sessions		-0.0905** 0.030	0.0067 0.057	-0.1172* 0.052
Race: Black		-0.2976 0.620	-1.2720 1.072	-0.2718 1.039
Race: Hispanic		-1.0120 0.880	-0.3231 1.653	1.1077 1.606



	Changes in Attitudes towards Marriages	Changes in Understanding of Healthy Relationships	Changes in Attitudes towards Healthy Relationships
Sex: Male	-0.0681 0.508	-0.7335 0.965	-1.7699 <sup>+</sup> 0.949
Current Reported Grade Level	0.1916 0.225	0.5236 0.554	-0.0824 0.401
Likelihood of Future Marriage	0.6138* 0.302	0.5622 0.554	0.3770 0.533
Likelihood of Cohabitation	-0.7450** 0.270	0.6790 0.496	0.3680 0.494
Likelihood of Children out of Wedlock	-0.4133 0.255	-0.4409 0.442	0.1485 0.440
Currently a Parent	2.4101* 1.077	0.2599 1.886	5.0888** 1.913
Program Rating	0.1882 0.505	0.5290 0.921	-1.3333 0.898
Initial Scale Rating	-0.5008*** 0.109	-0.8724*** 0.248	-0.4874*** 0.140
Constant	1.5417*** 2.502	10.6415 <sup>+</sup> 5.363	2.6753 4.652
Model R <sup>2</sup>	0.4543***	0.2565 <sup>+</sup>	0.3348**
Sample size	85	87	83

+p < .10, \*p < 0.5, \*\*p < 0.01, \*\*\*p < 0.001

## 2. Do youth have better outcomes when they participate in more GRCCT activities (dosage)?

a. *Do youth who complete both a pre-test and post-test report more positive attitudes toward marriage or committed relationships with increased participation in program workshops (i.e. if they attend the expected Wyman recommended minimum of 12 workshops)?*

### b. *Key findings*

Participants who completed the Wyman recommended minimum number of sessions (12) do not show significant change over time on attitudes towards marriages, understanding of healthy relationships, or attitudes towards healthy relationships from pre-test to post-test (See Table 35 in Appendix E). When breaking TOP<sup>®</sup> participation into groups based on participation level, however, participation in a moderate number of sessions (5 – 12) associates with positive changes in attitudes towards health marriages. Participants with 5 – 12 sessions show an average increase of 0.29 from pre-test to post-test (scale scores range from 0 – 16), representing a small shift towards more positive views of marriages. For participants with greater than 12 sessions, however, the opposite trend is observed, with average scores decreasing by 0.26 on average. See Table 14.

**Table 14: Differences in change scores based on participation levels**

Outcome	Number of Sessions	Sample size	Mean outcome at baseline	Mean outcome at follow-up	Difference in means	p-value of the difference
Attitudes towards Marriages	5 – 12	154	7.06	7.35	0.29	0.028
	More than 12	213	7.16	6.90	-0.26	
Understanding of Healthy relationships	5 – 12	154	16.91	16.62	-0.29	0.927
	More than 12	213	16.83	16.57	-0.26	
Attitudes towards Healthy Relationships	5 – 12	154	16.63	16.48	-0.15	0.547
	More than 12	213	16.20	16.30	0.10	

Table 15 shows the results of a regression model of participant change scores from pre to post. Participation in 5 – 12 sessions of TOP curriculum correlates with positive changes in attitudes towards marriage by 0.63 on average, when controlling for participant characteristics and initial scores. Coefficients from demographics and future outlook towards marriage show similar trends as reported previously and are removed for simplified viewing. For a full table of the model, see Table 36 in Appendix E. The model described shows no significant relationship between participation on changes in understanding of healthy relationships, consistent with the previous results that show no significant relationship between TOP® participation and this scale score. Changes in attitudes towards healthy relationships, by contrast, show significant increase in scale scores by 1.19 on average when participants attend fewer than 5 sessions. This is consistent with previous findings that greater attendance associates with decreases in attitudes towards healthy relationships.

Note the sample here compares participation in 5-12 sessions compared to more than 12. Sample will differ from Table 35 (Appendix E), which assesses participants who met the recommended minimum of 12 sessions (i.e. 12 or more sessions).

**Table 15: Model of change scores against participation at post-test**

		Changes in Attitudes towards Marriage	Changes in Understanding of Healthy Relationships	Changes in Attitudes towards Healthy Relationships
Number of Ancillary Workshop Sessions	Coef	-0.0017	-0.0036	0.0053
	S.E.	0.008	0.011	0.012
TOP® Workshops < 5		0.5936	0.6624	1.1868*
		0.371	0.503	0.552
TOP® Workshops 5 - 12		0.6287**	-0.0184	-0.0632
		0.232	0.317	0.343
Model R2		0.3817***	0.2441***	0.3892***
Sample size		393	410	386

\*p < 0.5, \*\*p < 0.01, \*\*\*p < 0.001

At post-post, size and direction of the coefficients remain similar; however, TOP® participation demonstrates no significant relationship to change scores on the 3 scales. This may be an effect

of sample size (~85 compared to ~390), suggesting insufficient power to detect the relationship. See Table 16. For a full version of the model, see Table 37 in Appendix E.

**Table 16: Model of change scores against participation at post-post**

		Changes in Attitudes towards Marriages	Changes in Understanding of Healthy Relationships	Changes in Attitudes towards Healthy Relationships
Number of Ancillary Workshop Sessions	Coef	-0.0394	-0.0019	-0.0353
	S.E.	0.038	0.067	0.069
TOP <sup>®</sup> Workshops < 5		2.6033+ 1.410	-1.1196 2.470	-2.3218 2.750
TOP <sup>®</sup> Workshops 5 - 12		0.7203 0.781	1.205 1.390	-0.0128 1.4514
Model R <sup>2</sup>		0.4081***	0.2793*	0.2928*
<b>Sample size</b>		<b>85</b>	<b>87</b>	<b>83</b>

+p < .10, \*p < 0.5, \*\*\*p < 0.001

### 3. Do youth have better outcomes when they participate in GRCCT activities over a longer period of time (duration)?

- a. *Do the positive attitudes toward marriage or committed relationships of youth who complete both a pre-test and post-test increase with increased length of time involved in the program?*
- b. *Key findings*

Increased number of days involved with the program associates negatively with changes in Attitudes towards Marriages. Table 17 shows that scores decrease by an average of 0.0015 per day enrolled. With an average of 204 days enrolled, this translates to a 0.306 decrease in Attitudes towards Marriages. These findings confirm previous findings that increased participation relates to reduced scores on Attitudes towards Healthy Marriages. No relationship was observed between time enrolled and changes in Understanding of Health Relationships or Attitudes towards Healthy Relationships. No major differences were observed on other coefficients, and the full model can be found in Table 38 in Appendix E.

**Table 17: Model of change scores against enrollment time at post-test**

		Changes in Attitudes towards Marriage	Changes in Understanding of Healthy Relationships	Changes in Attitudes towards Healthy Relationships
Total Time Enrolled (days)	Coef	-0.0015**	-0.0006	0.0008
	S.E.	0.001	0.001	0.001
Model R <sup>2</sup>		0.3812***	0.2413***	0.3815***
<b>Sample size</b>		<b>384</b>	<b>410</b>	<b>386</b>

\*\*p < 0.01, \*\*\*p < 0.001

Time enrolled in the program (duration) shows consistent association with scores at post-post. Enrollment days show a similar negative relationship with Attitudes towards Healthy Marriage, with scores decreasing by -0.0018 on average. See Table 18.

Time enrolled shows no significant relationship with either Understanding of Healthy Relationships or Attitudes towards Healthy Relationships at either post-test or post-post, confirming previous findings which saw little relationship between participation and these scores. For a full version of this model, see Table 39 in Appendix E.

**Table 18: Model of change scores against enrollment time at post-post**

		Attitudes towards Marriage	Understanding of Healthy Relationships	Attitudes towards Healthy Relationships
Total Time Enrolled (days)	Coef	-0.0018**	0.0010	-0.0027
	S.E.	0.001	0.003	0.002
Model R2		0.3926***	0.2582+	0.2954*
<b>Sample size</b>		<b>85</b>	<b>87</b>	<b>83</b>

+p < .10, \*p < 0.5, \*\*p < 0.01, \*\*\*p < 0.001

#### 4. Do youth outcomes vary by demographic characteristics?

- a. *Do youth positive attitudes toward marriage or committed relationships differ by race, gender, age, or risk factors such as foster care placement among those who complete a pre-test and post-test?*
- b. *Key findings*

Based on the results presented in Table 12, participant demographics and characteristics show little relationship with changes in scale scores of Attitudes towards Marriage, Understanding of Healthy Relationships, or Attitudes towards Healthy Relationships.

Participant race shows no association with changes on any of the scale scores.

Participant grade level shows a positive relationship with changes in Attitudes towards Marriage (Table 12 above). Participants in higher grade levels show more positive change in these attitudes from pre-test to post-test.

Male change scores on Attitudes towards Healthy Relationships trend downward (Table 12 above). Males show a 0.79 greater decrease in scores on average compared to female participants when controlling for other characteristics, future outlook on marriage, and initial scale scores.

## Secondary Research Questions

### 5. Do youth report reduced positive attitudes toward premarital sex and risky sexual behaviors at program completion compared to program intake?

#### a. Key findings

Participants show no significant differences from pre-test to post-test or post-post test on Attitudes towards Risky Sexual Behaviors (see Table 41 in Appendix E). Table 19 shows no evidence of a relationship between participation and change in Attitudes towards Risky Sexual Behaviors (decreased scores represent positive change). Future expectations of cohabitation and having children out of wedlock both correlate with positive changes in attitudes towards risky sexual behaviors, an expected relationship since those expecting to engage in these behaviors would be more comfortable engaging in premarital sex.

Demographic characteristics show little relationship with changes in Attitudes towards Risky Sexual Behaviors at post-test; however, at post-post being African American or Black negatively associates with changes in Attitudes towards Risky Sexual Behaviors by an average of 2.43 from pre- to post-post. Being male, by contrast, associates positively with changes in these attitudes by 1.99 from pre- to post-post. These variables show no significant relationship with the outcome at post-test where the sample is much larger (N = 396); however, the coefficients are in the same direction. This suggests the smaller sample at post-post may produce a different relationship between these characteristics and the dependent variable than is observed at post-test.

**Table 19: Model of changes in attitudes towards risky sexual behaviors**

		Changes in Attitudes towards Sexual Behaviors (Post-Test)	Changes in Attitudes towards Sexual Behaviors (Post-Post)
Number of Ancillary Workshop Sessions	Coef	-0.0129	0.0671
	S.E.	0.011	0.049
Number of TOP® Workshop Sessions		0.0256	-0.0451
		0.016	0.046
Race: Black		-0.1524	-2.4250**
		0.311	0.914
Race: Hispanic		0.1232	0.1276
		0.427	1.363
Sex: Male		0.2400	1.9873*
		0.295	0.826
Current Grade		0.1017	0.3910
		0.105	0.355
Likelihood of Future Marriage		-0.1851	-0.3656
		0.140	0.476
Likelihood of Cohabitation		0.3025*	0.5880
		0.149	0.434

	Changes in Attitudes towards Sexual Behaviors (Post-Test)	Changes in Attitudes towards Sexual Behaviors (Post-Post)
Likelihood of Children out of Wedlock	0.3007* 0.137	-0.0738 0.383
Currently a Parent	0.3511 0.350	-0.2283 1.597
Program Rating	0.3251 0.293	0.7731 0.786
Initial Scale Rating	-0.6159*** 0.043	-0.7404*** 0.134
Constant	2.5065* 1.039	3.2414 3.414
Model R2	0.3709***	0.4609***
<b>Sample size</b>	<b>396</b>	<b>76</b>

\*p < 0.5, \*\*p < 0.01, \*\*\*p < 0.001

## 6. Do youth report increased agency in existing relationships at program completion compared to program intake?

### a. Key findings

Participants show no evidence of change in Agency in Relationships. No significant relationship is observed between participants' reported Agency in Relationships and level of participation, participant demographics or characteristics, or future outlook of marriage. Scale scores show no significant change from pre-test to post-test. Too few cases report a romantic relationship at both pre-test and post-post test to analyze differences between these data collection points. Level of participation, demographics, and future outlook on marriages do not significantly predict participant change on these scores. See Table 43 and 44 in Appendix E.

## 7. Do youth report increased likelihood of participating in marriage in the future at program completion compared to program intake?

### a. Key findings

- 124 (29%) indicate an increased likelihood of being married to one person for life in the future. An additional 186 (43%) show stable scores over time.

Participants overall show little change from pre-test to post-test on self-reported likelihood of participating in a lifelong marriage (Survey Question: "When you think of your future, what do you think are the chances that you will be married to one person for life?"; see Table 41 in Appendix E). When controlling for ancillary workshop sessions, TOP® workshop sessions, race, gender, current grade level, program rating, and initial scale score, participation in TOP® workshop sessions significantly and negatively associates change in self-reported likelihood of lifelong marriage. Ancillary workshop participation, by contrast, weakly and positively

associates with changes on this measure. These somewhat contradictory results suggest participation in ancillary services of the center, rather than just the TOP<sup>®</sup> curriculum, correlates with positive changes in self-reported likelihood of participation in a lifelong marriage at some point in the future. Race, gender, and grade level show no significant relationship with this outcome and are not presented here. For a full table of the model, see Table 46 in Appendix E.

At post-post, none of these factors reach significance, suggesting a weak relationship and insufficient power to detect it.

**Table 20: Model of changes in likelihood of participating in marriage in the future**

		Change in Reported Likelihood of Future Marriage (Post-Test)	Change in Reported Likelihood of Future Marriage (Post-Post)
Number of Ancillary Workshop Sessions	Coef S.E.	0.0081* 0.003	0.0099 0.016
Number of TOP <sup>®</sup> Workshop Sessions		-0.0108* 0.005	-0.0061 0.013
Program Rating		-0.2583** 0.091	0.2440 0.255
Initial Scale Rating		-0.5913*** 0.045	-0.5629*** 0.131
Constant		2.3600*** 0.257	1.3462+ 0.741
Model R2		0.3161***	0.2426**
<b>Sample size</b>		<b>420</b>	

+p < .10, \*p < 0.5, \*\*p < 0.01, \*\*\*p < 0.001

## 8. Do youth report improved positive conflict resolution behaviors in existing relationships at program completion compared to program intake?

### a. Key findings

Among participants who reported having a boyfriend or girlfriend at baseline, participants show significantly increased scores in conflict resolution from pre-test to post-test. Participants report an average scale score of 10.88 at baseline, which increases significantly to 12.34 at post-test. See Table 21.

**Table 21: Conflict resolution scores from pre to post-test**

Outcome	Sample size	Mean outcome at baseline	Mean outcome at follow-up	Difference in means	p-value of the difference
Conflict Resolution	82	10.88	12.34	1.46	0.005

Note: Too few cases to test at post-post. Conflict Resolution is only collected from individuals who report currently being in a romantic relationship (See Attrition analysis on page 21).

Few factors show a significant relationship with these change scores. Table 22 shows participation, as measured by total workshop sessions and the number of TOP<sup>®</sup>-specific

workshop sessions, has a nonsignificant relationship with this change. This finding suggests these changes are fairly consistent, regardless of increased participation (those with a post-test report an average of 13 sessions each).

Being African American represents the only demographic characteristic showing a significant association with change scores. Participants in this category report an increase in Conflict Resolution scores by 2.94 on average when controlling for other factors. No other demographic characteristics or factors show significant relationship with change scores.

**Table 22: Model of change in conflict resolution scores**

		Change in Conflict Resolution Scores
Number of Ancillary Workshop Sessions	Coef	0.0359
	S.E.	0.031
Number of TOP® Workshop Sessions		0.0520
		0.079
Race: Black		2.9423*
		1.173
Race: Hispanic		0.0465
		1.592
Sex: Male		0.1411
		1.111
Current Grade		0.5748
		0.349
Likelihood of Future Marriage		-0.1184
		0.583
Likelihood of Cohabitation		-0.0262
		0.491
Likelihood of Children out of Wedlock		0.8862+
		0.491
Currently a Parent		0.4982
		0.856
Program Rating		0.8527
		1.070
Initial Scale Rating		-0.4832***
		0.132
Constant		2.8555*
		4.543
Model R2		0.3020*
<b>Sample size</b>		<b>82</b>

+p < .10, \*p < 0.5, \*\*\*p < 0.001



## 10. Do youth report increased self-esteem at program completion compared to program intake?

### a. Key findings

Participants show significant decreases in self-esteem scores from pre-test to post-test. Table 25 shows participants *decrease* from 18.28 at baseline to 16.81 at follow-up. The number of TOP<sup>®</sup> workshop sessions participated in, however, shows a significant positive relationship with change in self-esteem. To confirm this relationship, participants who attended the recommended minimum number of 12 TOP<sup>®</sup> sessions show a nonsignificant decrease of 0.58 from pre- to post-test. By contrast, those with fewer than 12 sessions show a significant decrease in self-confidence scores by 2.58. This suggests reduced attendance associates with reduced self-esteem, while self-esteem appears to remain stable for those who meet participation expectations.

**Table 25: Self-esteem change scores from pre-test to post-test**

Outcome	Sample size	Mean outcome at baseline	Mean outcome at follow-up	Difference in means	p-value of the difference
Self-Esteem	208	18.28	16.81	1.47	0.0007
12+ Sessions	116	18.35	17.77	0.58	0.1854
<12 Sessions	92	18.18	15.60	2.58	0.0012

Few demographic factors relate to changes in self-esteem. Being male is associated with a negative change in self-esteem scores by 1.69 on average. Interestingly, rating the program one point more positively shows reduced self-esteem by -1.66. See Table 26

**Table 26: Model of self-esteem change scores**

	Changes in Self-Esteem Scores	
Number of Ancillary Workshop Sessions	Coef	-0.0052
	S.E.	0.027
Number of TOP <sup>®</sup> Workshop Sessions		0.1024** 0.038
Race: Black		-0.1318 0.853
Race: Hispanic		-0.2318 1.168
Sex: Male		-1.6859* 0.795
Current Grade		0.2057 0.301
Likelihood of Future Marriage		0.6696+ 0.399
Likelihood of Cohabitation		0.0819 0.424

Changes in Self-Esteem Scores	
Likelihood of Children out of Wedlock	0.2256 0.381
Currently a Parent	-0.6173 1.127
Program Rating	-1.6625* 0.814
Initial Scale Rating	-0.7933*** 0.103
Constant	11.7294*** 3.409
Model R2	0.2889***
<b>Sample size</b>	<b>208</b>

+p < .10, \*p < 0.5, \*\*p < 0.01, \*\*\*p < 0.001

## IV. Discussion and Conclusions

There are three primary findings of the evaluation. First, there is strong evidence that the evidence-based TOP® Curriculum was implemented well and with high fidelity. Program staff are highly qualified and well trained. Participating youth have many opportunities for ancillary programs and services that support the program's overall goal of educating youth about healthy marriages and relationships, personal skill development, and improving agency and self-esteem. Youth also express positive feelings about the benefits of the program through surveys and focus groups. Second, there is little evidence to show that participation in the program was associated with improved attitudes toward marriage or relationships or that greater dosages (number of classes, length of participation) had any measurable relationship with improved attitudes. Third, there is evidence that participation in the program was correlated with improved behaviors, such as ability to resolve conflicts and reduce risky behaviors in school. The following discussion explores each of these findings in more detail.

The findings of the evaluation of program implementation and processes are highly positive. They show that program staff are highly qualified to work with youth and participated in extensive and relevant training that was facilitated by highly qualified individuals or organizations. Program components, including the evidence-based TOP® curriculum, were offered and implemented as planned to high risk youth recruited from local high schools. Youth participated in a number of ancillary services and events, including relationship skills training and testing, case management services, vocational training, employment assistance, individual mentoring, college visits, service learning, GED classes, and pre-apprenticeship certification in construction and/or customer service. A focus group conducted with program facilitators in December of 2019 identified a number of positive themes as they relate to program implementation and impact. The TOP® Curriculum was cited as a positive contributor to healthy attitudes toward marriage and relationships based on their observations of discussions and behaviors. Positive relationships among youth and between youth and facilitators was identified as a factor leading to improved outcomes. Youth Facilitators cited the totality of programming, including classroom and non-classroom activities, as a contributor towards development of new skills, improved attitudes, and improved behaviors. The ability to connect classroom learning to real-world situations (job seeking, job training, certification, etc.) was seen to be particularly effective.

A focus group conducted with youth in February of 2020 also identified a number of positive themes. Youth identified non-classroom offerings, such as job skills training, apprenticeship certification, as most helpful in improving their personal outcomes. All participants rated the program as a whole as moderately to highly effective in helping them develop healthier relationships. In particular, participants cited developing relationships, personal growth, and personal accomplishments as ways that the program met their expectations. Participants were able to identify specific skills and techniques learned in the program as helpful in resolving disagreements with girlfriends or boyfriends. Notably, attitudes toward marriage varied among participants and generally appeared unrelated to participation. Survey results of youth show

positive increases in a number of core skills or components. A very large majority (94% or more) agree or strongly agree that the program helped them to 1) understand what makes a relationship healthy, 2) learn new skills to apply to their relationship, and 3) build confidence in their ability to apply new skills to their relationships.

The findings of program outcomes suggest there is a complex relationship between participation in the TOP<sup>®</sup> curriculum and survey results that measure Youth Attitudes towards marriage and healthy relationships. Overall, youth attitudes appear to be relatively stable from pre-test to post-test. The same is true for change from pre-test to post-post test. When looking at factors that correlate with the observed changes, however, several key factors became evident.

The TOP<sup>®</sup> curriculum itself exhibits an unexpected relationship with the outcomes. When examining changes in Attitudes towards Marriages and Attitudes towards Healthy Relationships, increased participation is associated with reductions in participant scores. Further analysis identified a positive relationship up to a point, between 5 and 12 sessions, that diminishes and becomes negative with session participation beyond that. This might indicate a point of diminishing return from the program, or it may indicate that the TOP<sup>®</sup> curriculum initially increases positive attitudes and then reduces them. Students may initially see much of the positive impacts of marriage, particularly when presented with examples of healthy marriages by staff. In terms of student attitudes towards marriage, however, students appear to return to previous views in the long run. Alternatively, this may reflect the differing starting attitudes of these groups. Participants with 5-12 sessions report average baseline scores on Attitudes towards Health Marriage of 7.01, compared to 7.39 for those outside that range of participation. While these differences are not significant ( $t(421) = 1.41, p = 0.16$ ), the strong negative coefficient for initial scale score ( $\beta = -0.5873$ ) suggests participants with higher scores at baseline are more likely to report decreases over time. This may suggest higher participation is negatively correlated with change in attitudes simply because attitudes among participants with these higher session counts are more positive to begin with.

The former suggestion, that student attitudes initially show positive change that diminishes with further participation, is supported by student focus group results, where many indicated this program presented them with their first examples of what a healthy marriage looks like. Many students, however, maintained that they don't necessarily see themselves getting married, suggesting that while this may have opened their minds to the possibility of marriage, it did not necessarily change their view of marriage overall. This is further supported by the fact that duration in the program significantly associates with reduced attitudes towards marriage. This suggests the positive influence among those with 5 – 12 sessions represents an initial increase in positive attitudes that likely occurs among most participants; however, these students did not participate long enough to see those scores return to baseline.

Few demographic characteristics relate to participant outcomes. Grade level demonstrates a weak, positive relationship with changes in attitudes towards marriages. Males demonstrate a greater likelihood to report reduced attitudes towards healthy relationships.

Participation in the TOP<sup>®</sup> curriculum did, however, show significant positive associations with changes in conflict resolution scores, and reduced risky behaviors in school, as well as a negative relationship with self-esteem. Participants show a significant increase in measures of conflict resolution, suggesting participants may be learning better ways to manage conflict. This is supported by focus group findings where participants indicated these skills were particularly useful from the program. The nFORM survey asked participants about conflict resolution in current romantic relationships, limiting the sample of students who completed this pre and post ( $n = 82$ ); however, focus group results indicated students were applying these skills in many settings including employment settings, with their peers, and with their parents.

Participants additionally show significantly reduced negative behaviors in school. This suggests participation in the program is associated with a decrease in these behaviors. Increased participation in TOP<sup>®</sup> did not necessarily increase these scores, suggesting that this positive change is consistent even among those with lower participation levels. Without a comparison group it is difficult to determine whether this effect would be replicated without the TOP<sup>®</sup> curriculum, yet the results initially appear promising.

Lastly, participant self-esteem scores ultimately show a decrease over time; however, increased TOP<sup>®</sup> participation appears to mitigate some of these negative effects. Participants with fewer than the 12 recommended sessions show large declines in self-esteem on average, while those with 12 or more show stable, non-significant change in self-esteem over time.

These findings, combined with the significantly reduced acting out in school and improved communication through conflict resolution, suggests the minimal changes observed in attitudes towards marriage and healthy relationships may be further influenced as participants mature over time. While initial findings suggest little change in attitudes, the observed growth in other areas suggests the participants have gained skills that will improve their likelihood of obtaining and maintaining healthy relationships, even if their attitudes towards them have not necessarily improved. These findings suggest a promising initiative that can be improved with further study.

The three primary findings would appear to contradict each other. The positive findings of program processes and implementation contrast with those program outcomes that found little or no improvements in attitudes toward marriage and relationships. On the other hand, there is some evidence that program participation was associated with improved behaviors. Interpretation of the findings by program staff will be crucial for decision making on how to move forward with future youth programming.

Youth attitudes toward marriage and toward intimate relationships are highly complex and can evolve both positively and negatively with the effects of personal experience and maturity. They are certainly affected by the life experiences of youth, who observe both healthy and unhealthy relationships in their own families, in the families of friends, and in the depictions of marriage and relationships found in popular culture (television, movies, popular music, social media, etc.). It seems possible that, even when youth are provided with an evidence-based program like the TOP<sup>®</sup> Curriculum, a number of highly relevant ancillary services, mentoring, group discussions, etc., which the participants describe and rate as engaging and relevant, deeply engrained attitudes

toward marriage and relationships do not change to a measurable degree using standardized pre/post surveys. And yet, there is also evidence that behaviors of participants change over time in a positive manner. Our data suggests participation in the program associates positively with changes in behaviors, even if changes in attitudes are not detected. This could be a short-coming of the pre/post survey itself, defects in the standardized processes used to implement the survey, or defects in the theory of change.

Staff should consider these findings and their implications for programming. At first look, it appears more measures of behaviors, rather than attitudes would be helpful. Staff should also consider a longer follow-up period, allowing more time for attitudes to change. Focus groups revealed a need to assess behaviors beyond romantic relationships, as many students describe putting their skills to use in alternative settings. Ancillary program efforts showed little relationship with the program outcomes, but may demonstrate more nuanced effects on skill development or application of newly acquired interpersonal skills. Program staff should carefully consider how these findings fit their perspective of participant change and how the program could better measure change among participants.

## **V. APPENDICES**

A. Logic model (or theory of change) for program

Logic model here



## B. Data Sources

A primary data source for the process analysis was documentary evidence maintained by Bethany Christian Services (dates, topics, and participation in staff trainings, highest degree attained by program staff, participant recruitment efforts, programming duration, out-of-classroom trips and experiences, demographics of youth and staff who participated in focus groups, etc.). This information did not require data coding or analysis.

A second data source included focus groups with youth and program staff. Scripts for the focus groups were developed by REA staff. Comments of participants were recorded verbatim. REA staff reviewed these responses to identify themes. Results were summarized in formal reports shared with program leadership.

Finally, the youth pre/post survey was used to report changes in skills in the core program components and overall assessment of the impact of programming on knowledge, skill development, and skill application. These results were summarized in numbers and percentages. Additional detail in how survey data were analyzed is provided in the following section.

## C. Data Preparation

Data sources for the analysis include nFORM survey and TOP<sup>®</sup> survey. Both surveys were administered pre and post-completion of the TOP<sup>®</sup> curriculum. Items from the surveys were recoded, assessed for missing values, and formed into a set of scales used as outcomes.

*Recoding:* Each survey item was collected on a scale from 1 – 4 or 1 – 5. Items from the scale were recoded as 0 – 3 or 0 – 4 to ensure scales had a real zero. Reverse coded items were identified and reverse coded to ensure consistent direction in the scales.

*Missing data:* Cases with missing data within the scales were identified and replaced with the mean of the sample values. Each item missing was identified within a scale to obtain a total count of missing values within a scale. Individuals with less than 80% of items completed were identified and the scale score was labeled as missing.

*Scale Development:* Each of the scales was identified from the nFORM or TOP<sup>®</sup> survey. Items were grouped using confirmatory factor analysis. Each scale was assessed for inter-item reliability using Cronbach's alpha. Scales with an alpha of less than 0.70 were adjusted, removing items that reduced the scale reliability. The final subset of items for each scale is described in Appendix E.

*Variable Selection:* Variables were selected by variable selection techniques and narrowed to a subset of demographics, dose, future likelihood of participation in marriages, and initial scale score. The final selected variables include: Ancillary workshop sessions, TOP<sup>®</sup> workshop sessions, race, sex, current grade (0 – 7, from less than 9<sup>th</sup> grade to high school graduate), likelihood of future marriage at pre-test, likelihood of cohabitation at pre-test, likelihood of children out of wedlock at pre-test, currently a parent (0/1), program rating (0 – 2), and initial scale rating.

Due to a large portion of the program's services being available through ancillary workshop sessions, this was included in the models as well as TOP<sup>®</sup> workshop sessions. Correlation between the variables was fairly weak ( $r = 0.35$ ). To ensure the effect of dose was not minimized by inclusion of a second dose variable, or the self-reported likelihood of participating in marriage in the future, models were run sequentially using TOP<sup>®</sup> workshop sessions and initial scale rating only initially. Next demographics were added. Next future outlook was added. Finally, remaining variables were added. Tables 27 – 29 below show this sequential process resulted in stable coefficients from the TOP<sup>®</sup> workshops and in the same direction. Comparing these results to the full model displayed in Table 12 shows the TOP<sup>®</sup> workshop coefficient shrinks minimally from -0.0325 to -0.0245. This demonstrates little minimization of the effect of the TOP<sup>®</sup> workshops occurred through inclusion of the variables selected.

**Table 27: Initial Model using only TOP<sup>®</sup> Workshop participation and Initial Scale Rating**

		Changes in Attitudes towards Marriages
Number of TOP <sup>®</sup> Workshop Sessions	Coef	-0.0325**
	S.E.	0.011
Initial Scale Rating		-0.4474***
		0.040
Constant		3.6449***
		0.347
Model R2		0.2452***
<b>Sample size</b>		<b>393</b>

**Table 28: Model with TOP<sup>®</sup> Workshop participation, initial scale rating, and demographics**

		Changes in Attitudes towards Marriages
Number of TOP <sup>®</sup> Workshop Sessions	Coef	-0.0291*
	S.E.	0.011
Race: Black		0.1613
		0.229
Race: Hispanic		-0.4331
		0.319
Sex: Male		0.2280
		0.213
Current Grade		0.2501***
		0.078
Initial Scale Rating		-0.4658***
		0.040
Constant		2.7792***
		0.467
Model R2		0.2737***
<b>Sample size</b>		<b>393</b>

**Table 29: Model with TOP® Workshop participation, initial scale rating, future outlook towards marriages, and demographics**

		Changes in Attitudes towards Marriage
Number of TOP® Workshop Sessions	Coef S.E.	-0.0279* 0.011
Race: Black		0.1898 0.217
Race: Hispanic		-0.5029+ 0.300
Sex: Male		0.2237 0.200
Current Grade		0.1947** 0.074
Likelihood of Future Marriage		0.4418*** 0.099
Likelihood of Cohabitation		-0.4087*** 0.108
Likelihood of Children out of Wedlock		-0.3181** 0.098
Initial Scale Rating		-0.5737*** 0.041
Constant		4.2241*** 0.667
Model R2		0.3655***
<b>Sample size</b>		<b>393</b>

#### D. Attrition analyses and tables

Attrition analysis reveals similar demographic and scale scores for participants and dropouts. Table 30 shows only being Hispanic differed significantly between participants who completed a post-test and those that did not, with Hispanics being overrepresented among individuals who dropped out of the program. Hispanic ethnicity was used as a control variable in each model.

**Table 30: Attrition Analysis for post-test sample**

Baseline measure	Mean for the analytic sample (standard deviation)	Mean for individuals enrolled in the study but not in the analytic sample (standard deviation)	Difference (p-value of difference)
Female (%)	52% (0.50)	52% (0.50)	0.587
<b>Race/ethnicity (%)</b>			
Hispanic	14% (0.35)	23% (0.42)	0.005
Non-Hispanic White	23% (0.44)	17% (0.41)	0.192
Non-Hispanic Black	56% (0.49)	51% (0.47)	0.777
Non-Hispanic Other Race	7% (0.27)	9% (0.32)	0.134

Baseline measure	Mean for the analytic sample (standard deviation)	Mean for individuals enrolled in the study but not in the analytic sample (standard deviation)	Difference (p-value of difference)
Current Grade	3.26 (1.39)	3.36 (1.57)	0.380
Attitudes towards Marriages (range 0 – 15)	7.25 (2.79)	7.25 (2.65)	0.99
Understanding of Health Relationships (range 0 – 21)	16.83 (2.66)	16.68 (2.97)	0.46
Attitudes towards Health Relationships (range 0 – 21)	16.18 (3.65)	16.13 (3.65)	0.86
<b>Sample size</b>	<b>431</b>	<b>255</b>	

At post-post, the only significant difference between the analytic sample and program drop-outs was current grade level. Participants in the study at post-post have slightly lower grade levels than program drop-outs. Current Grade was included as a control variable for each model. See Table 31.

**Table 31: Attrition Analysis for post-post sample**

Baseline measure	Mean for the analytic sample (standard deviation)	Mean for individuals enrolled in the study but not in the analytic sample (standard deviation)	Difference (p-value of difference)
Female (%)	49% (0.50)	48% (0.50)	0.848
<b>Race/ethnicity (%)</b>			
Hispanic	14% (0.35)	17% (0.38)	0.494
Non-Hispanic White	21% (0.41)	25% (0.46)	0.074
Non-Hispanic Black	62% (0.49)	51% (0.50)	0.142
Non-Hispanic Other Race	3% (0.18)	7% (0.32)	0.271
<b>Current Grade</b>	<b>2.55 (1.18)</b>	<b>3.37 (1.30)</b>	<b>&lt;0.000</b>
Attitudes towards Marriage (range 0 – 15)	6.93 (2.57)	7.15 (2.65)	0.51
Understanding of Health Relationships (range 0 – 21)	17.33 (1.99)	16.86 (2.66)	0.13
Attitudes towards Health Relationships (range 0 – 21)	16.44 (3.53)	16.65 (3.47)	0.64
<b>Sample size</b>	<b>87</b>	<b>215</b>	

## E. Details of the outcome analysis organized by research question.

Below are the details of scale formation, specific coding details, and the tables excluded from the results section specifying the full model or providing details where results were not significant. Each research question is restated with results following.

### 1. Do youth have better outcomes when they participate in GRCCT activities?

- a. Do youth who complete both a pre-test and post-test report more positive attitudes toward marriage or committed relationships after participation in program services compared to attitudes at program intake?

Dependent variables for this research question include Attitudes towards Marriage, Understanding of Healthy Relationships, and Attitudes towards Healthy Relationships. The following items were identified in formation of the scales:

**Table 32: Attitudes towards marriages Scale**

Scale	Question	Direction	Item Number
Attitudes towards Marriages (nFORM)	Marriages should be lifelong	-	A1c
	It is ok to live with a boyfriend/girlfriend without being married	+	A1d
	It is ok to live with a boyfriend/girlfriend without a plan to be married	+	A1e
	It is ok to have kids without being married	+	A1f
	It is ok to have kids without a plan to be married	+	A1g

**Table 33: Understanding of Healthy Relationships Scale**

Scale	Question (How important is it that couples...	Direction	Item Number
Understanding of Healthy Relationships (nFORM)	Do not cheat on each other?	+	A3a
	Do not call each other names?	+	A3b
	Do not threaten each other?	+	A3c
	Do not push, shove, hit, slap, or grab each other?	+	A3d
	Do not argue?	+	A3e
	Encourage each other when life is hard?	+	A3f
	Enjoy spending time together?	+	A3g

**Table 34: Attitudes towards Healthy Relationships Scale**

Scale	Question	Direction	Item Number
Attitudes towards Healthy Relationships (nFORM)	In a healthy relationship it is essential for couples to talk about things that are important to them.	-	A4a
	Even in a good relationship, couples will occasionally have trouble talking about their feelings	-	A4b
	A relationship is stronger if a couple doesn't talk about their problems	+	A4c
	A person who makes their partner angry on purpose deserves to be hit	+	A5a
	Sometimes physical violence, such as hitting or pushing, is the only way to express your feelings	+	A5b
	Violence between dating partners is a personal matter and people should not interfere	+	A5c
	It's ok to stay in a relationship even if you're afraid of your boy/girlfriend	+	A5d

2. Do youth have better outcomes when they participate in more GRCCT activities (dosage)?
- a. Do youth who complete both a pre-test and post-test report more positive attitudes toward marriage or committed relationships with increased participation in program workshops (i.e. if they attend the expected minimum 12 workshops)?

Dependent variables for this research question include Attitudes towards Marriages, Understanding of Healthy Relationships, and Attitudes towards Healthy Relationships.

No significant increase in scores were noted from pre-test to post-test or post-post among those who met the minimum 12 sessions of TOP curriculum. Only post-post test of Understanding of Healthy Relationships shows significant change. However, scores decrease rather than increase.

**Table 35: Pre-test and Post-test scores reveal little change on attitudes and understanding of healthy marriages and healthy relationships when limited to participants with 12 or more TOP® Workshop Sessions**

Outcome	Follow-up Point	Sample size	Mean outcome at baseline	Mean outcome at follow-up	Difference in means	p-value of the difference
Attitudes towards Marriages	Post-Test	235	7.12	6.89	-0.23	0.145
	Post-Post	56	6.88	6.32	-0.56	0.113
Understanding of Healthy relationships	Post-Test	244	16.73	16.56	-0.17	0.364
	<b>Post-Post</b>	57	17.23	16.16	-1.07	0.033
Attitudes towards Healthy Relationships	Post-Test	237	16.24	16.30	0.07	0.771
	<i>Post-Post</i>	57	16.18	15.82	-0.35	0.508

Full model specification of the relationship between session attendance on changes in the above dependent variables from pre-test to post-test.

**Table 36: Full model of session attendance against changes in attitudes and understanding of healthy marriages and healthy relationships from pre-test to post-test**

		Changes in Attitudes towards Marriages	Changes in Understanding of Healthy Relationships	Changes in Attitudes towards Healthy Relationships
Number of Ancillary Workshop Sessions	Coef S.E.	-0.0017 0.008	-0.0036 0.011	0.0053 0.012
TOP Workshops < 5		0.5936 0.371	0.6624 0.503	1.1868* 0.552
TOP Workshops 5 - 12		0.6287** 0.232	-0.0184 0.317	-0.0632 0.343
Race: Black		0.2687 0.223	-0.0327 0.306	-0.3430 0.331
Race: Hispanic		-0.3387 0.305	-0.2143 0.423	0.3234 0.461
Sex: Male		0.2231 0.205	-0.4114 0.282	-0.7631* 0.303
Current Grade		0.1769* 0.076	-0.0559 0.102	0.0382 0.111
Likelihood of Future Marriage		0.5122*** 0.101	0.4963*** 0.140	0.5167*** 0.148
Likelihood of Cohabitation		-0.4228*** 0.110	-0.0135 0.149	-0.1356 0.160
Likelihood of Children out of Wedlock		-0.3305** 0.102	-0.0271 0.134	0.1477 0.147
Currently a Parent		0.1040 0.260	-1.0382** 0.347	-1.2599** 0.397
Program Rating		0.3983+ 0.208	-0.6492* 0.279	-0.5532+ 0.310
Initial Scale Rating		-0.5940*** 0.041	-0.5681*** 0.055	-0.6378*** 0.044
Constant		2.9026*** 0.787	10.2443*** 1.275	11.1494*** 1.279
Model R <sup>2</sup>		0.3817***	0.2441***	0.3892***
<b>Sample size</b>		<b>393</b>	<b>410</b>	<b>386</b>

+p < .10, \*p < 0.05, \*\*p < 0.01, \*\*\*p < 0.001

Full model specification of the relationship between session attendance on changes in the above dependent variables from pre-test to post-post.

**Table 37: Full model of session attendance against changes in attitudes and understanding of healthy marriages and healthy relationships from pre-test to post-post**

		Changes in Attitudes towards Marriages	Changes in Understanding of Healthy Relationships	Changes in Attitudes towards Healthy Relationships
Number of Ancillary Workshop Sessions	Coef S.E.	-0.0394 0.038	-0.0019 0.067	-0.0353 0.069
TOP Workshops < 5		2.6033+ 1.410	-1.1196 2.470	-2.3218 2.750
TOP Workshops 5 - 12		0.7203 0.781	1.205 1.390	-0.0128 1.4514
Race: Black		0.0902 0.631	-1.1048 1.045	0.4398 1.070
Race: Hispanic		-0.5651 0.904	-0.2424 1.556	2.0268 1.618
Sex: Male		-0.4103 0.529	-0.5810 0.962	-1.9385+ 0.983
Current Grade		0.0576 0.230	0.4736 0.393	-0.3100 0.408
Likelihood of Future Marriage		0.7510* 0.314	0.6902 0.556	0.6875 0.554
Likelihood of Cohabitation		-0.6953* 0.284	0.6335 0.493	0.3399 0.514
Likelihood of Children out of Wedlock		-0.3569 0.284	-0.5479 0.443	0.3568 0.459
Currently a Parent		1.1457 1.054	0.5267 1.778	4.0041* 1.927
Program Rating		0.1594 0.545	0.8427 0.946	-1.3074 0.967
Initial Scale Rating		-0.5893*** 0.111	-0.9105*** 0.234	-0.4477** 0.147
Constant		1.4804 2.819	9.9562+ 5.4272	2.3877 5.026
Model R <sup>2</sup>		0.4081***	0.2793*	0.2928*
<b>Sample size</b>		<b>85</b>	<b>87</b>	<b>83</b>

+p < .10, \*p < 0.5, \*\*p < 0.01, \*\*\*p < 0.001

### 3. Do youth have better outcomes when they participate in GRCCT activities over a longer period of time (duration)?

- Do the positive attitudes toward marriage or committed relationships of youth who complete both a pre-test and post-test increase with increased length of time involved in the program?

Dependent variables for this research question include Attitudes towards Marriages, Understanding of Healthy Relationships, and Attitudes towards Healthy Relationships.



Full model specification of the relationship between enrollment days on changes in the above dependent variables from pre-test to post-test.

**Table 38: Full model of time enrolled against changes in attitudes and understanding of healthy marriages and healthy relationships from pre-test to post-test**

		Changes in Attitudes towards Marriages	Changes in Understanding of Healthy Relationships	Changes in Attitudes towards Healthy Relationships
Total Time Enrolled (days)	Coef	-0.0015**	-0.0006	0.0008
	S.E.	0.001	0.001	0.001
Number of Ancillary Workshop Sessions		-0.0104 0.008	-0.0067 0.010	0.0001 0.011
Race: Black		0.2692 0.222	-0.0076 0.305	-0.2966 0.332
Race: Hispanic		-0.3535 0.305	-0.2237 0.423	0.2968 0.464
Sex: Male		0.2072 0.205	-0.4270 0.282	-0.8060** 0.305
Current Grade		0.1585* 0.076	-0.0683 0.103	0.0173 0.112
Likelihood of Future Marriage		0.4821*** 0.102	0.4968*** 0.140	0.5212*** 0.149
Likelihood of Cohabitation		-0.4083*** 0.109	-0.0148 0.149	-0.1311 0.160
Likelihood of Children out of Wedlock		-0.3375*** 0.102	-0.0529 0.134	0.0961 0.146
Currently a Parent		0.0424 0.258	-0.9959** 0.347	-1.1776** 0.399
Program Rating		0.3496+ 0.208	-0.6712* 0.279	-0.5967+ 0.312
Initial Scale Rating		-0.5911*** 0.041	-0.5728*** 0.055	-0.6497*** 0.044
Constant		3.9220*** 0.829	10.6404*** 1.339	11.8100*** 1.355
Model R <sup>2</sup>		0.3812***	0.2413***	0.3815***
<b>Sample size</b>		<b>384</b>	<b>410</b>	<b>386</b>

\*p < .10, \*p < 0.5, \*\*p < 0.01, \*\*\*p < 0.001

Full model specification of the relationship between enrollment days on changes in the above dependent variables from pre-test to post-post.

**Table 39: Full model of time enrolled against changes in attitudes and understanding of healthy marriages and healthy relationships from pre-test to post-post**

		Changes in Attitudes towards Marriages	Changes in Understanding of Healthy Relationships	Changes in Attitudes towards Healthy Relationships
Total Time Enrolled (days)	Coef	-0.0018**	0.0010	-0.0027
	S.E.	0.001	0.003	0.002
Number of Ancillary Workshop Sessions		-0.0100 0.023	-0.0134 0.040	-0.0131 0.041
Race: Black		0.1194 0.634	-1.2559 1.043	0.1324 1.047
Race: Hispanic		-0.6573 0.931	-0.1698 1.642	1.4394 1.680
Sex: Male		0.1781 0.541	-0.7736 0.969	-1.7804 <sup>+</sup> 0.987
Current Grade		0.0299 0.230	0.5277 0.393	-0.2684 0.402
Likelihood of Future Marriage		0.7057* 0.319	0.5825 0.555	0.4621 0.552
Likelihood of Cohabitation		-0.7171* 0.284	0.6663 0.496	0.3725 0.508
Likelihood of Children out of Wedlock		-0.4530 0.285	-0.3789 0.468	0.1655 0.4781
Currently a Parent		1.3237 1.059	0.3043 1.786	-4.0795* 1.909
Program Rating		0.2469 0.537	0.4778 0.929	-1.2613 0.935
Initial Scale Rating		-0.5634*** 0.113	-0.8468*** 0.253	-0.4359** 0.044
Constant		3.5730*** 2.696	9.6173 5.929	3.5795 5.057
Model R <sup>2</sup>		0.3926***	0.2582 <sup>+</sup>	0.2954*
<b>Sample size</b>		<b>85</b>	<b>87</b>	<b>83</b>

\*p < .10, \*p < 0.5, \*\*p < 0.01, \*\*\*p < 0.001

#### 4. Do youth outcomes vary by demographic characteristics?

- Do youth positive attitudes toward marriage or committed relationships differ by race, gender, age, or risk factors such as foster care placement among those who complete a pre-test and post-test?

Dependent variables for this research question include Attitudes towards Marriages, Understanding of Healthy Relationships, and Attitudes towards Healthy Relationships, specified in Tables 29 - 30.

## Secondary Research Questions

1. Do youth report reduced positive attitudes toward premarital sex and risky sexual behaviors at program completion compared to program intake?

The dependent variable for this research question is Attitudes towards Risky Sexual Behaviors.

The following items were identified to form this scale.

**Table 40: Attitudes towards risky sexual behaviors scale**

Scale	Question	Direction	Item Number
Attitudes towards Risky Sexual Behaviors (nFORM)	A person should only have sex with someone they love	-	B1a
	A person should only have sex if they are married or made a lifelong commitment	-	B1b
	I would be devastated if I got someone/got pregnant at this age	-	B1c
	I would feel comfortable having sex with someone I was attracted to but didn't know well	+	B1d
	At my age right now having sexual intercourse would create problems	-	B1f
	At my age right now, it is ok to have sexual intercourse if I use protection	+	B1g
	I feel good enough about myself that I can say no even if my friends are having sex	-	B2b

Participants report no significant change in Attitudes towards Risky Sexual Behaviors from pre-test to post-test or to post-post test.

**Table 41: Participants show no change in attitudes from pre-test to post-test or post-post test on Attitudes towards Risky Sexual Behaviors**

Outcome		Sample size	Mean outcome at baseline	Mean outcome at follow-up	Difference in means	p-value of the difference
Attitudes towards Risky Sexual Behaviors	Post-Test	412	7.54	7.78	0.24	0.165
	Post-Post	81	6.44	7.04	0.59	0.158

Do youth report increased agency in existing relationships at program completion compared to program intake?

The dependent variable for this research question is Agency in Relationships. The following items were identified to form this scale.

**Table 42: Agency in Relationships Scale**

Scale	Question (My boy/girlfriend...)	Direction	Item Number
Agency in Relationships (nFORM)	Makes me feel good about myself	-	C2a
	Pressures me to do risky things I don't want to do	+	C2b
	Wants to control what I do	+	C2c
	Tries to make me look bad	+	C2d
	Puts down my physical appearance or how I look	+	C2e
	Insults or criticizes my ideas	+	C2f
	Blames me for his/her problems	+	C2g

No significant differences were noted in Agency in Relationship scores from pre-test to post-test.

**Table 43: Participants show no significant differences on Agency in Relationship scores from pre-test to post-test**

Outcome	Sample size	Mean outcome at baseline	Mean outcome at follow-up	Difference in means	p-value of the difference
Agency in Relationships	55	3.02	4.04	1.02	0.1978

The model of change in agency in relationships and factors of participation, likelihood of future participation in marriage, and participant demographics fails to achieve statistical significance.

**Table 44: Model of change in Agency in Relationships from pre-test to post-test controlling for participant demographics, future likelihood of participation in marriage, and program participation**

		Changes in Agency in Relationships
Number of Ancillary Workshop Sessions	Coef	0.0052
	S.E.	0.046
Number of TOP Workshop Sessions		-0.0165 0.111
Race: Black		-0.5113 1.949
Race: Hispanic		-1.2465 2.554
Sex: Male		1.6810 1.656
Current Grade		1.2870* 0.568
Likelihood of Future Marriage		-0.0121 0.892
Likelihood of Cohabitation		0.6523 0.149
Likelihood of Children out of Wedlock		0.2055* 0.789
Currently a Parent		-0.4045 1.469
Program Rating		2.1657 1.416
Initial Scale Rating		-0.7070** 0.214
Constant		-6.6400 6.353
Model R <sup>2</sup>		0.3552
<b>Sample size</b>		<b>55</b>

\*p &lt; 0.5, \*\*p &lt; 0.01

**2. Do youth report increased likelihood of participating in marriage in the future at program completion compared to program intake?**

Dependent variable for this research question is the nFORM question, “What do you think are the chances that you will be married to one person for life?”

Participants show little change from pre-test to post-test or post-post test on likelihood of future marriage to one person.

**Table 45: Participants show no significant differences from pre-test to post-test or post-post on likelihood of participating in marriage in the future**

Outcome	Time Point	Sample size	Mean outcome at baseline	Mean outcome at follow-up	Difference in means	p-value of the difference
Likelihood of Future Marriage	Post-test	420	3.43	3.43	0.00	0.965
	Post-Post	87	3.44	3.25	-0.18	0.142

Full model specification for change in likelihood of future marriage to one person.

**Table 46: Full model of participation against changes in likelihood of future participation in marriage from pre-test to post-test and post-post**

		Changes in Likelihood of Future Marriage (Post-Test)	Changes in Likelihood of Future Marriage (Post-Post)
Number of Ancillary Workshop Sessions	Coef	0.0081*	0.0099
	S.E.	0.003	0.016
Number of TOP Workshop Sessions		-0.0108*	-0.0061
		0.005	0.013
Race: Black		-0.1300	0.1846
		0.098	0.2953
Race: Hispanic		0.0010	0.2578
		0.138	0.4073
Sex: Male		0.0753	0.0170
		0.091	0.246
Current Grade		0.0153	-0.0696
		0.033	0.108
Program Rating		-0.2583**	0.2440
		0.091	0.255
Initial Scale Rating		-0.5913***	-0.5629***
		0.045	0.131
Constant		2.3600***	1.3462*
		0.257	0.741
Model R <sup>2</sup>		0.3161***	0.2426**
<b>Sample size</b>		<b>420</b>	<b>87</b>

\*p < .10, \*p < 0.5, \*\*p < 0.01, \*\*\*p < 0.001

3. Do youth report improved positive conflict resolution behaviors in existing relationships at program completion compared to program intake?

Dependent variable for this research question is Conflict Resolution. The following items were identified to form this scale.

**Table 47: Conflict Resolution Scale**

Scale	Question (When you have a serious disagreement, how often do you...)	Direction	Item Number
Conflict Resolution (nFORM)	Just keep your thoughts and feelings to yourself?	-	C3a
	Discuss your disagreements?	+	C3b
	End up throwing things or hitting something?	-	C3c
	Keep arguing until you get your way?	-	C3d
	Yell or shout?	-	C3e
	Give each other the silent treatment?	-	C3f
	My boy/girlfriend can count on me to be there when he/she needs me.	+	C3a
	My boy/girlfriend and I talk about the things that really matter.	+	C4b
	I am comfortable sharing my thoughts and feelings with my boy/girlfriend.	+	C4c

4. Do youth report fewer risky behaviors at school at program completion compared to program intake?

Dependent variable for this research question is Risky Behaviors in School. The following items were identified to form this scale.



**Table 48: Risky Behaviors in School Scale**

Scale	Question (In the last year, did you...)	Direction	Item Number
Risky Behaviors in School (TOP)	Fail any courses for the whole year?	+	6a
	Get any failing grades on your report card?	+	6b
	Get suspended from school?	+	6c
	Cut classes without permission?	+	6d

**5. Do youth report increased self-esteem at program completion compared to program intake?**

Dependent variable for this research question is Self-Confidence/Self-Esteem. The following items were identified to form this scale.

**Table 49: Self-esteem Scale**

Scale	Question	Direction	Item Number
Self-esteem/Self-confidence (nFORM)	I can work out my problems if I try hard enough	+	7a
	It's easy for me to stick to my plans and accomplish my goals	+	7b
	I can usually handle whatever comes my way	+	7c
	I like to see other people happy	+	7d
	Most people can be trusted	+	7e
	There is some good in everybody	+	7f

## F. Data collection instruments