

## Final Research Performance Progress Report

### B.2 - What did you accomplish under these goals?

#### I. Background, Purpose, and Aims

The New York State Department of Health (NYSDOH) and Cornell University have been partnering since 2016 on the five-year (2016 – 2021) research project titled “Testing the Efficacy of a Strengths-based Curriculum to Reduce Risk for Future Sexual Violence Perpetration”. The research design includes the implementation and evaluation of the Brothers as Allies (BAA) curriculum (adapted Council for Boys and Young Men curriculum) with males aged 12-14 to reduce risk for future sexual violence perpetration. Prior to, and during, this project, Cornell University has had an extensive history collaborating with NYSDOH, more specifically as the training and technical assistance center for the Adolescent Health Unit programs through Cornell’s ACT for Youth. NYSDOH and Cornell University have had a long history of prevalent, informative, and forward-thinking collaboration for advancement of prevention work.

#### BACKGROUND

Sexual violence, defined as a sexual act that is committed or attempted by another person without freely given consent of the victim or against someone who is unable to consent or refuse, is a widespread problem in the United States. A 2010-2012 nationally representative survey of adults indicated that 1 in 3 women (35.3%) and 1 in 6 men (17.1%) reported experiencing some form of sexual violence (SV) in their lifetime.<sup>1</sup> Like many other forms of violence, some racial/ethnic minorities experience greater victimization rates—multiracial and American Indian/Alaska Native women are more likely to experience rape or attempted rape in their lifetimes than women of other racial or ethnic backgrounds.<sup>2,3</sup> Likewise, sexual violence disproportionately impacts gay, lesbian, bisexual, and transgender individuals.<sup>3</sup> Finally, youth and young adults are more likely to be victims of sexual violence; about 80% of female victims were first raped before the age of 25.<sup>2</sup> A study in the United States focusing on high school students found that 1 in 11 female and 1 in 15 male high school students reported experiencing physical dating violence, with 1 in 9 female students and 1 in 36 male students reporting sexual dating violence within the past year.<sup>4</sup> One in 3 female and nearly 1 in 4 male victims of completed or attempted rape experienced this for the first time between ages 11-17 years.<sup>4</sup>

The research base for sexual violence prevention is emerging and expanding, but there is still limited information about primary prevention of sexual violence perpetration. First, much of the research on sexual violence prevention has focused on college settings.<sup>5-13</sup> This is in part a function of increased political and social awareness of sexual violence as a significant problem on college campuses, and the requirements of Title IX and expanded state policies for prevention education.<sup>12-16</sup> Also, many prevention programs focus exclusively on a specific violence outcome, despite the fact that individuals may engage in multiple forms of violence, or may be victimized in multiple ways.<sup>17,18</sup> The CDC has articulated an awareness of shared risk and protective factors related to multiple forms of violence, with particular interest in understanding how existing programs and initiatives may impact the rates of sexual violence.<sup>17,19</sup>

#### The Program

For this project, we chose to evaluate a curriculum based on the *Council for Boys and Young Men* (hereafter, *the Council*), which was being used within the New York State Department of Health Rape

Prevention and Education (RPE) Program (CDC NOFO 19-1902). The Council has been developed by One Circle Foundation, an organization committed to fostering healthy and resilient youth, families, and communities. At the time that this project was proposed, the Council was being disseminated to hundreds of agencies nationwide and implemented in many social services or juvenile justice settings.<sup>20</sup> Interest in this curriculum was expressed in New York State by the RPE Program Regional Centers for Sexual Violence Prevention (Regional Centers). The RPE Program is comprised of six Regional Centers, serving 17 counties, throughout New York State. Each region is focused on the primary prevention of sexual violence at the community level of the social ecological model.

The NYC Alliance Against Sexual Assault (Regional Center: Region 2) was partnering with the Bronx County District Attorney's Office to offer the Council in a Bronx middle school. Other Regional Centers also expressed their willingness and interest in offering this program in their community, recognizing that effective engagement with males is an acute need in their region. The Council for Boys and Young Men is an approved primary prevention curriculum for NYS RPEs, authorized under RFA# BMCH-2014-1.

The Council is founded on a strengths-based group model that empowers boys and young men to further their emotional literacy and challenge unhealthy gender norms.<sup>21</sup> The program emphasizes the development of positive relationships and pro-social values.<sup>22</sup> The curriculum fits within the positive psychology model, identifying strengths, assets, and positive behaviors; this framework is commonly used in juvenile justice settings and is identified as a best practice in the field of social work.<sup>22-25</sup>

The Council is also informed by: 1) resiliency principles; 2) theories of masculine identity formation; 3) adolescent brain development; 4) trauma responsiveness; and 5) cross-cultural traditions and rites of passage approaches for developing males.

The program includes developmentally appropriate modules for both boys (9-14 years) and young men (14-18 years). The Council is usually taught in 1.5 to 2 hour sessions, for a minimum of 10 weeks. It is designed to work in closed groups of no more than 10 boys, so that relationships are strengthened and stabilized across the life of the curriculum. The program approach favors process over content, so the specific curricula available as part of the program are structured to assure that all meetings follow the same seven group process steps. Each Council meeting includes an opening ritual, a warm-up/check-in activity, a focused activity (e.g., a group challenge), an opportunity for reflection, and a closing ritual.

The content for each session varies widely by the composition of the group, previous topics and conversation threads, and real time reactions and responses to each session activity. As a result, although each session does revolve around particular content related themes (e.g., "boys and their emotions" or "respecting intimate partners"), the actual content of conversation can vary from group to group.

We worked with the One Circle Foundation to create a version of the *Council* curriculum, which fused the most accessible and relevant sections of the middle and high school *Council* curricula for our project's sexual violence prevention goals. The resulting *Brothers as Allies (BAA)* curriculum was designed to be accessible to middle school boys but focused more squarely on areas related to emotional and relational health. It also contains some new content developed by One Circle focused more specifically on the sexual violence prevention elements of this project.

The centerpiece of the existing Council curricula on which BAA was built overlaps well with the more distal indicators likely to be primary mechanisms for sexual assault and harassment prevention, such as healthy masculinity, positive relationships with a male mentor, and healthy peer to peer exchange. As such, One Circle Foundation merged two existing curricula and added a sexual violence component. Otherwise, the BAA curriculum followed the same steps and procedures as all other Council curricula.

### ***Theoretical Rationale for Boy's Council approach***

There are several theoretical foundations for the Council for Boys and Young Men. The primary theoretical driver for the curriculum, Relational-Cultural Theory (RCT)<sup>26</sup> hypothesizes that individuals grow through and towards relationships, and recognizes the impact that cultural experiences have on relationships, especially for women, men of color, and other marginalized individuals.<sup>27,28</sup> In particular, the Council recognizes the value of mutual empathy and mutual empowerment, and uses a mentorship model to promote these values.<sup>21</sup> The end result is, ideally, a respectful and reciprocal relationship between the facilitators and the boys that serves as a template for other positive relationships, with both peers and adults.

While the Council for Boys and Young Men is grounded in theory, the evaluation research on this program is limited. Previous studies found an increase in school engagement related to attendance and positive behavior in school among intervention participants.<sup>26,29</sup> Positive school engagement can be an important protective factor with implications for both youth violence and sexual violence perpetration.<sup>17,19,30</sup> A study from 2012 examined the relationship between the Council and adherence to traditional masculinity; it found that participants were slower to adapt to traditional masculine ideology than control peers.<sup>31</sup> However, the previous studies have either adopted a simple pre/post with no comparison group study design, or used non-equivalent control groups. Also, two of the studies acknowledge that program fidelity was not assessed as part of the evaluation process.<sup>26,29</sup> One study on the Council never formally trained facilitators in the program.<sup>26</sup> In short, there was, and still is a need for a more rigorous evaluation of this promising approach to youth development.

### ***Purpose and Aims***

The overarching goal of this study was to conduct an outcome evaluation of the newly developed Brothers as Allies curriculum. In alignment with the CDC funding goal, the primary goal was to assess efficacy of the program in preventing later sexual violence. Toward this end, we examined the curriculum's impact on a variety of sexual violence indicators. We also aimed to better understand the effects of the intervention on more proximal and curriculum-salient emotional and relational indicators. Because we were funded to carry out an outcome evaluation of what was essentially a new curriculum, we did not have the opportunity to conduct feasibility assessments nor a small-scale efficacy trial. These gaps did affect our ability to conduct a high-quality outcome study of the BAA curriculum.

Specific objectives were as follows:

**Aim 1. To use a waitlist design to evaluate the efficacy of a strengths-based curriculum to reduce risk for future sexual violence perpetration among middle school-aged boys (ages 12-14).** To do this we collaborated with New York State RPE-funded Regional Centers for Sexual Violence Prevention (Regional Centers) and New York State Department of Health (NYSDOH) funded Comprehensive

Adolescent Pregnancy Prevention (CAPP) providers. The original aim was to use a matched pair control design to recruit 36 afterschool programs (18 intervention and 18 control) with a total of 720 middle school boys aged 12-14 (20 boys at each site) to implement the Council for Boys and Young Men, Brothers as Allies curriculum. This approach was modified early in the study (by end of Year 1) to reflect field realities. Instead of a matched pair control design, we adopted a waitlist control design to accommodate the desire of the study sites assigned to the control condition.

Outcomes of primary interest included those linked to sexual assault: a) sexual perpetration & victimization, b) sexual harassment and c) bystander behavior. **We hypothesized that youth would improve in these outcomes as a result of their participation in the intervention compared to youth in the control group.** As a secondary set of aims, we hypothesized that youth in the treatment group would show improvements in youth development outcomes, including: a) healthy masculinity, b) conflict resolution skills, c) social support and connectedness, and d) healthy decision making.

**Aim 2. To assess the extent to which primary outcomes were attributable to theoretically and empirically assumed mediators, in particular: a) acceptance of violence, b) masculine ideology, c) conflict resolution, d) peer interpersonal conflict resolution skills, and e) social connectedness.** This aim augments Aim 1 and was based on the same procedure and sample but focused on identifying the key mechanisms and dose-response pathways of effect. **We hypothesized that there will be treatment attributable changes in each of these secondary outcome areas and these will mediate primary treatment effects noted in Aim 1 above.**

**Aim 3. To determine the implementation factors which impact the efficacy of a multi-session strengths-based curriculum to reduce risk for future sexual violence perpetration among middle school boys in New York State afterschool programs.** The intention of this aim was to assess implementation factors salient in the above outcomes. **We hypothesized that fidelity and participant attendance (dosage) and program engagement will result in improved participant outcomes.** Unfortunately, challenges in implementation and the COVID-19 pandemic interrupted this aim. Incomplete fidelity data prohibited accomplishing this aim.

**Timeline**

Task	Year 1 Quarter				Year 2 Quarter				Year 3 Quarter				Year 4 Quarter			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Refine data collection plan	X	X														
Finalize measures and develop all data collection instruments	X	X														
Develop data processing and management systems		X	X	X												
Prepare protocol and obtain IRB approval	X	X														

Recruit implementation sites within RPE catchment areas; randomize treatment and control sites.		X	X	X														
Train facilitators who will implement program			X	X														
Collect baseline data in Cohort 1 (Pre-test)					X													
Implement Program Cohort 1					X													
Data collection Cohort 1 post intervention (Post-test)					X													
Data Collection Cohort 1: 6 month follow up							X											
Data Collection Cohort 1: 12 month follow up								X										
Implement Program Cohort 2						X	X											
Collect baseline data in Cohort 2 (Pre-test)						X												
Data collection Cohort 2 post intervention (Post-test)							X											
Data Collection Cohort 2: 6 month follow up								X										
Data Collection Cohort 2: 12 month follow up									X									
Collect implementation fidelity data				X	X	X	X											
Collect audio recorded implementation data				X	X	X	X											
Develop coding scheme for audio recording			X	X														
Sample recordings and code data						X	X	X	X	X								
Analyze data									X	X	X	X	X					
Synthesize results and prepare reports for researchers, practitioners, and policy makers											X	X	X					



Region	Site	Number of Cohorts	Intervention/Control Crossover	Year
Niagara Falls	Gaskill Prep (Middle School)	2	Control	Fall 2018
			Control	Fall 2019
Niagara Falls	LaSalle Prep (Middle School)	3	Intervention	Fall 2018
			Intervention	Spring 2019
			Intervention	Fall 2019
Buffalo	Buffalo Public School #27	2	Crossover	Fall 2018
Buffalo	Buffalo Public School# 31	2	Intervention	Fall 2018
			Control	Fall 2019
Buffalo	Buffalo Public School #18	2	Control	Fall 2018
			Intervention	Fall 2019
Buffalo	Buffalo Public School #93	1	Control	Fall 2019
Buffalo	Buffalo Public School #6	2	Intervention	Fall 2018
			Control	Fall 2019
Buffalo	Buffalo Public School #45	2	Crossover	Spring 2019
			Intervention	Fall 2019
Buffalo	Buffalo Public School #74	2	Crossover	Fall 2018
			Intervention	Fall 2019
Buffalo	Buffalo Public School #97	1	Control	Fall 2018 Spring 2019
Buffalo	Buffalo Public School #92	1	Intervention	Fall 2019
Buffalo	Buffalo Public School #33	1	Control	Fall 2018
Buffalo	Buffalo Public School #198	1	Intervention	Fall 2018
Sherburne	Sherburne High School	1	Control	Spring 2019
Oxford	Oxford Academy Middle School	2	Intervention	Spring 2019
			Intervention	Spring 2019
Oxford	Oxford Academy High School	1	Crossover	Spring 2019

Rochester	SWAN (Southwest Area Neighborhood Center)	3	Control	Fall 2017
			Control	Spring 2018
			Control	Spring 2018
Rochester	In Control (Community After School Center)	4	Intervention	Summer 2017
			Intervention	Summer 2017
			Intervention	Summer 2018
			Intervention	Summer 2018
Rochester	Flint (Community After School Center)	1	Control	Fall 2017
Albany	Troy Boys and Girls Club	1	Control	Fall 2019
Albany	Watervliet Public School	1	Control	Fall 2019

In terms of sample characteristics, all participants were boys between the ages of 12-14. The majority of the sample was non-white. Distribution of all demographic characteristics can be found in the table below. As shown, youth SES was assessed using parental education level, but since significant portions of youth did not complete this question or did not know, this question was not used in the analysis.

**Table 2. Participant demographic characteristics**

Characteristic	Mean (SD) or N (%)
Age	12.90 (0.974)
<b>Sexual orientation N (%)</b>	
Black/African American	144 (38.0)
Hispanic	20 (5.3)
Asian/Pacific Islander	17 (4.5)
White	52 (13.7)
Multiracial	32 (8.4)
Other	91 (24.0)
<b>Race/ethnicity N (%)</b>	
Heterosexual	329 (86.8)

Gay/lesbian	2 (0.5)
Bisexual	9 (2.4)
Unsure/Questioning	4 (1.1)
Other	6 (1.6)
Prefer to self-describe	7 (1.8)
<b>Parents' Highest Level of Education</b>	
Grade school or less	28 (7.4)
Some high school	11 (2.9)
Finished high school	12 (3.2)
Some college	18 (4.7)
Finished college	16 (4.2)
Some graduate or professional school after college	8 (2.1)
Finished graduate or professional school (for example, masters or doctor's degree)	18 (4.7)
Not sure	31 (8.2)
Missing	237 (62.5)

## Procedures

### *Quantitative Data*

All BAA programs and control sites were held in afterschool settings to accommodate the 1.5-hour length of the program (one school program was held before school). BAA facilitators were recruited from the local community by our on the ground partners. All facilitators participated in a 2-day BAA training delivered by One Circle Foundation trainers.

Study participants completed surveys at 4 time periods: at baseline (Time 1), immediately following the intervention (Time 2), at Time 2 + 3 months (Time 3) and Time 2 + 4.5 months (Time 4). Research assistants administered surveys, ensuring parental consent and youth assent prior to survey administration. Electronic surveys accessed via the Qualtrics offline survey application were completed on tablets provided by the facilitators at all stages of data collection. Early experience data collection made it clear that in person data collection was much more effective than electronic follow-up and despite collecting cell phone information for all participants and their parents as well as social media information for participants, successful data collection dropped off precipitously after Time 2 when the BAA program was concluded and/or when students were no longer reachable in the programs through

which they had been recruited. Once COVID-19 occurred in the Spring of 2020, even Time 2 data was compromised because it became impossible to continue with onsite data collection.

### Measures

Table 3 below includes all primary and secondary study measures. The primary outcome of this intervention is prevention and/or reduction in sexual assault perpetration. Because this outcome is likely to be quite rare in this population, we also examined sexual harassment and reported bystander behavior (both actual intervention behavior and intended behavior in bystander situations involving sexual assault or harassment). Secondary measures assessed include: a) attitudes related to gender roles and acceptance of sexual violence, b) interpersonal relations and interactions (e.g. capacity for empathy and respect for others), c) youth adult connectedness, and d) program engagement. Demographic measures (sex, race/ethnicity, age, and family composition) were also collected.

Since most measures evaluating primary prevention strategies for sexual violence perpetration were developed for use with older populations, mostly college students and some high school students, we made modest adaptations to scales with language or concepts unlikely to be accessible to middle school boys in our study area. All revisions were reviewed with study partners and piloted with several middle school boys.

Table 3 Measures

Measure	Citation
About your Background	Created based on Census Categories
AAUW Sexual Harassment Survey (Modified Version)	American Association of University Women (2001). <i>Hostile hallways: The AAUW Survey of Sexual Harassment in America's Schools</i> . Washington, DC.
Sexual Experiences Survey	Koss, M.P. Abbey, A., Campbell, R., Cook, S., Norris, J., Testa, M., Ullman, S., West, C., & White, J. (2006). <i>The Sexual Experiences Long Form Perpetration (SES-LFP)</i> . Tucson, AZ: University of Arizona.
YRBS	Centers for Disease Control and Prevention. (2017). <i>Youth Risk Behavior Survey Questionnaire 2017</i> . Atlanta, GA.
Acceptance of Violence	Smith Slep, A.M., Cascardi, M., Avery-Leaf, S., & O'Leary, K. D. (2001). Two New Measures of Attitudes About the Acceptability of Teen Dating Aggression. <i>Psychological Assessment, 13</i> (3), 306.
Homophobic Comments	Orchowski et al. from Poteat, V. P., & Espelage, D. L. (2005). Exploring the relation between bullying and homophobic verbal content: The Homophobic Content Agent Target (HCAT) Scale. <i>Violence and victims, 20</i> (5), 513-528. doi:10.1891/0886-6708.2005.20.5.513
Illinois Bully Scale	Espelage, D. L. & Holt, M. (2001). Bullying and victimization during early adolescence: Peer influences and psychosocial correlates. <i>Journal of Emotional Abuse, 2</i> ,123–142.
Adolescent Masculine Ideology in Relationships Scale	Chu, J. Y., Porche, M. V., & Tolman, D. L. (2005). The Adolescent Masculinity Ideology in Relationships Scale: Development and validation of a new measure for boys. <i>Men and Masculinities, 8</i> (1), 93-115.
Bystander Efficacy Scale	Bystander Efficacy Scale. (Banyard, Plante, & Moynihan, 2002). This scale was modeled on recent work by LaPlant (2000, 2002).

Teasing and on-line texting and social media experiences	Orchowski et al. from Ybarra, M. L., Espelage, D. L., & Mitchell, K. J. (2007). The co-occurrence of Internet harassment and unwanted sexual solicitation victimization and perpetration: Associations with psychosocial indicators. <i>Journal of Adolescent Health, 41</i> (6), S31-S41. doi:10.1016/j.jadohealth.2007.09.010
Exposure to Pornography (Braun-Courville)	Braun-Courville, D. K., & Rojas, M. (2009). Exposure to sexually explicit web sites and adolescent sexual attitudes and behaviors. <i>Journal of Adolescent Health, 45</i> , 156-162.
Exposure to Pornography (Kuhn & Gallinat)	Kühn, S. & Gallinat, J (2014). Brain structure and functional connectivity associated with pornography consumption: The Brain on Porn. <i>JAMA Psychiatry, 71</i> (7), 827-834.
Expect Respect Survey - Healthy Conflict Resolution Skills	Ball, B., Tharp, A. T., Noonan, R. K., Valle, L. A., Hamburger, M. E., & Rosenbluth, B. (2012). Expect Respect Support Groups Preliminary Evaluation of a Dating Violence Prevention Program for At-Risk Youth. <i>Violence Against Women, 18</i> (7), 746-762.
Interpersonal Communications Competence Scale	Rubin RB, Martin MM. Development of a measure of interpersonal communication competence. <i>Commun Res Rep. 1994;11</i> (1):33-44.
One Circle Foundation Youth Survey (Social Support & Connectedness)	Modified from Multidimensional Scale of Perceived Social Support (Zimet, Dahlem, Zimet & Farley, 1988)
One Circle Foundation Youth Survey (Healthy Decision Making)	From General Perceived Self-Efficacy Scale (Schwarzer and Born 1997)
K-6	Kessler, R.C., Barker, P.R., Colpe, L.J., Epstein, J.F., Gfroerer, J.C., Hiripi, E., Howes, M.J, Normand, S-L.T., Manderscheid, R.W., Walters, E.E., Zaslavsky, A.M. (2003). Screening for serious mental illness in the general population <i>Archives of General Psychiatry. 60</i> (2), 184-189.
Alcohol and Drug Use/ Grades	Adapted from Centers for Disease Control and Prevention. (2017). Youth Risk Behavior Survey Questionnaire 2017. Atlanta, GA.
About the Survey	Constantine, N.A., Benard, B., & Diaz, M. (1999). Measuring Protective Factors and Resilience Traits in Youth: The Healthy Kids Resilience Assessment. Paper presented at the Seventh Annual Meeting of the Society for Prevention Research, New Orleans, LA
Program Evaluation	Tiffany, J. S., Exner-Cortens, D., & Eckenrode, J. (2012). A New Measure for Assessing Youth Program Participation. <i>40</i> (3). doi: <a href="https://doi.org/10.1002/jcop.20508">https://doi.org/10.1002/jcop.20508</a>

### *Quantitative Data Analysis*

All data were at least ordinal, with the exception of demographic variables. Data were reverse coded where needed and standardized to assure measurement consistency within each construct examined (e.g. frequency per last 2 weeks, month or year). The primary model evaluated was treatment (2 levels—control and intervention) and time of assessment (4 levels—baseline, 10 weeks later at the completion of the intervention, 3 months subsequently, and 4.5 months subsequently) as fixed

classification factors, the interaction of these 2 factors, and individuals as levels of a random classification factor. We also examined models that included an *a priori* set of additional independent variables, specifically race/ethnicity as a 5-level fixed classification factor (African American, Black, and African; Hispanic; white; other; multiple self-identification) and age, alcohol use, and marijuana use as covariates (i.e., quantitative variables). We also examined some additional sociodemographic variables that had greater amounts of missing data, but none made meaningful differences when adjusted for and none were included in final models.

The interaction of each of the additional variables with treatment and time was also examined—a 3-way interaction of fixed factors for the categorical variables and homogeneity of regressions of the covariates by levels of treatment and time for the covariates.

There was no coherent significance for interactions. Final models presented are those including the *a priori* set of additional variables and no interactions involving those variables.

The primary analytical strategy included examination of general linear mixed models assuming normality and, where appropriate because of potential count-data form, generalized linear mixed models with log link and Poisson (or negative binomial) error assumption, in all cases with unstructured error. Degrees of freedom were computed using the first-order Kenward-Rogers method. Binomial logistic models (never/ever) were constructed but did not add any meaningful information so are not reported here.

The outcome data are sparse (relatively few ‘yes’ responses for many variables), and even with estimation using a number of estimation methods for the generalized models there is some numerical ill behavior in estimation. This fact, and that the estimates and tests when estimation is in fact well behaved in the generalized case are quite similar to those from models assuming normality, led us to a decision to report normal models in this paper.

The key test of the effectiveness of the intervention is the treatment  $\times$  time interaction and sub interactions partitioned from it—e.g., (C  $\nu$  T)  $\times$  (Time 1  $\nu$  Time 2). Because data are considerably less complete at assessments 3 and 4, and we have concerns about selective decisions to participate at these later time points (including the possibility of more difficult cases making the decision to continue), we report only the tests of intervention effects between baseline and the second assessment.

### **III. Results and Outcomes, Significant Findings, Key Accomplishments**

There were three primary aims associated with this project:

Aim 1. To use a waitlist design to evaluate the efficacy of a strengths-based curriculum to reduce risk for future sexual violence perpetration among middle school-aged boys (ages 12-14).

Aim 2. To assess the extent to which primary outcomes were attributable to theoretically and empirically assumed mediators, in particular: a) acceptance of violence, b) masculine ideology, c) conflict resolution, d) peer interpersonal conflict resolution skills, and e) social connectedness.

Aim 3. To determine the implementation factors which impact the efficacy of a multi-session strengths-based curriculum to reduce risk for future sexual violence perpetration among middle school boys in New York State afterschool programs.

We hypothesized that:

**H1.** When compared to the control group, youth in the treatment condition will show improvements in a) sexual perpetration & victimization, b) sexual harassment and c) bystander behavior.

**H2.** Effects observed in H1 will be mediated by changes in a) acceptance of violence, b) masculine ideology, c) conflict resolution, d) peer interpersonal conflict resolution skills, and e) social connectedness.

**H3.** There will be a dose-response relationship observed such that engagement in a greater number of BAA sessions will increase the magnitude of treatment effect.

The activities undertaken to assess the stated hypotheses are described above and will not be repeated here. Overall results are reported below:

## Results

Quantitative data were examined using general linear mixed models and generalized linear mixed models with log link and Poisson error assumption. The primary analysis examined treatment  $\times$  time interaction and sub interactions. Variables were examined in blocks with primary outcomes (sexual perpetration, sexual victimization, sexual harassment, and bystander efficacy) examined first and secondary outcomes (acceptance of violence, masculine ideology, conflict resolution, peer interpersonal conflict resolution skills, and social connectedness), examined subsequently. All models were first run as unadjusted models and were then run controlling for demographic characteristics (age, ethnicity/race, and sexual orientation; parent education was omitted due to significant missing data).

Table 1 below shows the final adjusted models for primary outcome variables. Because data were considerably less complete at assessments 3 and 4, tests of intervention effects between baseline and the second assessment are those in which we have the greatest confidence. Overall, the intervention showed few notable effects, but did show direct effects of the intervention on sexual victimization and perpetration. More specifically, participants in the BAA group reported greater sexual victimization than members of the control group at time point 2, a finding which may reflect broader awareness of sexual aggression and violence as a result of program participation. BAA participants were significantly less likely to report having forced someone to do something sexual, other than kissing in the past month at time point 2 compared to the control group and reported significantly less a) sexually harassing behavior, b) sexual touching, pinching or grabbing and c) blocking or cornering with sexual intent when compared to the control group from baseline to the second timepoint. There were no other significant direct effects for primary or secondary outcomes.

Dose-response analysis was conducted by examining effects of completed number of sessions on the primary outcomes at any timepoint. There were no effects of number of completed sessions. In light of the intervention and data collection disruption caused by COVID-19, we are unable to assess the effects of implementation factors on key outcome areas.

Table 4: Adjusted treatment effects: SV victimization, SV Perpetration, SV Bystander attitudes.

OUTCOME	BASELINE M (SD)	10 WEEKS M (SD)	3 MONTHS M (SD)	4.5 MONTHS M (SD)	10 WEEK – BASELINE	3 MONTH – POST INTV.	4.5 MONTH - POST INTV.
I have been forced to do unwanted sexual things in past 12 months							
Control	.35 (.08)	.15 (.09)	.13 (.14)	.30 (.14)	-.20* (.10)	-.22 (.15)	-.04 (.15)
Treatment	.11 (.09)	.26 (.09)	.28 (.14)	.21 (.12)	.14 (.10)	.16 (.15)	.09* (.13)
Treatment - Control	-.23* (.11)	.11 (.12)	.15 (.19)	-.10 (.19)	-.34* (.15)	-.38* (.21)	-.13* (.20)
I have been physically hurt by someone I was dating or hooking up with in past 12 months							
Control	.36 (.07)	.23 (.07)	.20 (.12)	.19 (.12)	-.13 (.09)	-.16 (.13)	-.17 (.13)
Treatment	.35 (.07)	.27 (.07)	.34 (.11)	.18 (.11)	-.09 (.09)	-.13 (.12)	-.17 (.12)
Treatment - Control	-.01 (.09)	.04 (.10)	.14 (.16)	-.01 (.16)	-.05 (.13)	-.14 (.18)	.00 (.17)
AAUW Sexual Harassment Survey (Physical Subscale): I forced someone to have sexual intercourse with me when they did not want to							
Control	.06 (.04)	.14 (.05)	.07 (.07)	.07 (.07)	.08 (.05)	.00 (.08)	.01 (.07)
Treatment	.12 (.04)	.12 (.05)	.38 (.07)	.09 (.07)	.00 (.05)	.26*** (.07)	-.03 (.07)
Treatment - Control	.06 (.06)	-.02 (.06)	.31** (.10)	.02 (.10)	.08 (.07)	-.25* (.11)	.04 (.10)
AAUW Sexual Harassment Survey (Physical Subscale): I forced someone to do something sexual, other than kissing							
Control	.04 (.05)	.20 (.49)	.11 (.08)	.12 (.08)	.16*** (.16)	.07 (.08)	.08 (.08)
Treatment	.11 (.05)	.09 (.05)	.27 (.08)	.13 (.07)	-.03 (.06)	.15 (.08)	.01 (.07)
Treatment - Control	.07 (.06)	-.12* (.07)	.15 (.12)	.01 (.10)	.19* (.08)	-.08 (.12)	.07 (.11)

AAUW Sexual Harassment Survey (Physical Subscale): I showed, gave, or left someone sexual pictures, drawings, messages, or notes							
Control	.16 (.07)	.26 (.07)	.28 (.11)	.19 (.11)	.10 (.08)	.12 (.11)	.09 (.11)
Treatment	.25 (.07)	.37 (.07)	.44 (.11)	.58 (.10)	.12 (.08)	.20* (.11)	.33*** (.10)
Treatment - Control	.09 (.09)	.11 (.10)	.16 (.15)	.39** (.14)	-.02 (.11)	-.08 (.16)	-.30* (.15)
AAUW Sexual Harassment Survey (Verbal Subscale): I wrote sexual messages/graffiti about someone on bathroom walls, in locker rooms, etc.							
Control	.12 (.06)	.30 (.06)	.07 (.10)	.17 (.09)	.19** (.07)	-.05 (.10)	.06 (.10)
Treatment	.12 (.06)	.13 (.06)	.43 (.09)	.32 (.08)	.01 (.07)	.31*** (.10)	.20* (.09)
Treatment - Control	.01 (.08)	-.17* (.08)	.36** (.13)	.15 (.12)	.18* (.09)	-.36** (.14)	-.14 (.13)

AAUW Sexual Harassment Survey (Physical Subscale): I touched, grabbed, or pinched someone in a sexual way							
Control	.08 (.06)	.31 (.07)	.19 (.11)	.21 (.10)	.23 (.08)	.11 (.12)	.13 (.11)
Treatment	.21 (.18)	.18 (.07)	.30 (.11)	.44 (.09)	-.03 (.08)	.09 (.11)	.23 (.10)
Treatment - Control	.13 (.08)	-.13 (.09)	.10 (.15)	.24* (.14)	.26* (.11)	.03 (.16)	-.10 (.15)
AAUW Sexual Harassment Survey (Physical Subscale): Blocked someone's way or cornered someone in a sexual way							
Control	.07 (.06)	.24 (.06)	.22 (.10)	.12 (.09)	.18** (.07)	.16 (.10)	.06 (.10)
Treatment	.22 (.06)	.19 (.06)	.38 (.09)	.26 (.09)	-.03 (.07)	.16 (.10)	.04 (.09)
Treatment - Control	.15* (.07)	-.05 (.08)	.15 (.13)	.13 (.12)	.21* (.10)	-.00 (.14)	.02 (.14)

AAUW Sexual Harassment Survey (Verbal Subscale): I spied on someone as they dressed or showered at school							
Control	.12 (.08)	.17 (.06)	.04 (.09)	.16 (.09)	.05 (.08)	-.08 (.11)	.04 (.11)
Treatment	.09 (.08)	.24 (.06)	.32 (.09)	.17 (.08)	.14 (.08)	.22 (.11)	.08 (.10)
Treatment - Control	-.03 (.10)	.07 (.08)	.28* (.12)	.01 (.12)	-.10 (.12)	-.31* (.16)	-.04 (.15)

During the past 6 months how often did you ask someone to do something sexual that they did not want to do using mobile apps, social media, texts, or other digital communication?							
Control	12.38 (2.88)	4.71 (3.09)	5.50 (5.12)	8.42 (5.00)	-7.67* (3.80)	-6.87 (5.58)	-3.96 (5.49)
Treatment	9.79 (2.92)	9.54 (3.09)	25.44 (4.82)	11.23 (4.39)	-0.25 (3.82)	15.65*** (5.28)	1.44 (4.89)
Treatment - Control	-2.58 (3.89)	4.83 (4.20)	19.94*** (6.91)	2.81 (6.54)	-7.42 (5.39)	-22.52*** (7.68)	-5.39 (7.35)

Only variables with significant treatment effects shown in table

Adjusted for race/ethnicity and age

\*\*\*p<.001, \*\*p<.01, \*p<.05

## Conclusions

Unfortunately, not only did the analysis fail to uphold any but the most basic of program effects, and only at the second time point, but the combination of data collection in the field with middle school youth coupled with the interruption posed by the COVID-19 pandemic yielded a far less than ideal and complete dataset. As we have indicated elsewhere, some of the challenge in isolating true intervention effects may be due to the fact that the Brothers as Allies program was developed via significant adaptation of two other One Circle programs specifically for use in this study. Moreover, implementation was delayed by a year, and the study design was changed in order to identify research sites willing to be randomized. Lastly, recruiting, retaining, and adequately preparing facilitators also proved challenging. In many ways, the current study was structurally a blend between a feasibility and small-scale efficacy study rather than an outcome study. More detail on the many lessons learned in the course of developing and executing this study will be discussed later in this report.

For all these reasons, we refrain from clearly concluding that the BAA program was or was not effective in reducing sexual violence-related behavior. Taken as a whole, we believe that there is reason to expect that a less encumbered outcome study of the Brothers as Allies curriculum would show more substantive results than are evidenced here.

#### **IV. Other Relevant Activities, Lessons Learned, and Recommendations**

##### **FY2017 Supplement for Recruitment and Retention of Tribal and Rural Populations**

We conducted a small qualitative study to explore factors that may affect engagement in research and programming among middle school age youth in rural and Native American communities in NYS.

##### *Objectives*

- To better understand the barriers and facilitators of research and program participation in these communities, especially when sensitive topics are involved.
- To lay the groundwork for bringing a program, such as BAA, that would engage youth in harder to reach populations.

##### *Methods*

We conducted a total of four focus groups -- three with youth in rural settings and one with Native youth, which involved 29 participants. The focus group question protocol was split into two domains, one regarding youth programs broadly-defined and another specifically regarding youth programs (such as BAA) with a defined number of sessions and meeting length, requirements for attendance, and potentially sensitive content.

Four key informant interviews were conducted with professional staff serving rural and Native youth populations. Questions assessed adult perceptions of barriers and facilitators of youth recruitment and retention in research and programming, with an emphasis on influences especially relevant to rural and Native youth.

#### **Results**

##### **Facilitators of Program Participation**

- 1) Developing a safe, comfortable space with programming that promotes independence while integrating interactive activities would provide the foundation for a successful program with rural and Native youth.
- 2) Space is most likely to be positively received if it feels distinct from an academic classroom environment (even if it is physically located in a school).
- 3) The program leader is essential in promoting a warm and accepting program environment, and youth are most likely to connect with an adult leader who is young and shares a common identity with the priority populations. In particular, Native youth participants emphasized the need for Native program facilitators.

- 4) Incentives such as clothing, food, cash stipends, free trips to amusement parks, and college visits may encourage youth to join and stay connected to programming.
- 5) Transportation to the program along with consistent and convenient scheduling should facilitate increased access to and for the priority populations.
- 6) Study participants appeared to value the presence of peers differently: Native participants wanted a competitive and active environment while rural participants appeared to want a more collaborative and less competitive atmosphere for the programming.
- 7) Social media and word-of-mouth advertising may be the best strategies to promote programming to priority populations.

#### Barriers to Program Participation

- 1) Content that is poorly matched to participant interests or developmental stage
- 2) Program structure, implementation environment, and leaders that are unwelcoming, judgmental, and perceived as emotionally unsafe
- 3) BAA material might be too difficult or sensitive for middle school-aged youth; however, these sentiments were often expressed hypothetically after a brief description of BAA, and not from personal experience.
- 4) Any cost associated with programming like BAA would decrease the priority population's ability to participate.
- 5) Without some form of easy or consistent transportation, it would be extremely difficult for youth from communities like theirs to participate.

#### Facilitators and Barriers to Research Participation

1. The content of the research is mostly unimportant, even if it might be perceived as sensitive.
2. Transportation is critical: Can parents and participants get to and from the research location at a given time, without incurring any additional costs?
3. Offering food and providing financial incentives are ways to help overcome barriers and encourage parents and participants to view research participation as being worthwhile.
4. Finally, and most importantly, to encourage research participation, researchers must be effective communicators. Researchers should make themselves available to provide detailed answers to questions about research content and practices to parents and participants. Effective communication from researchers will assuage anxiety for individuals who might be skeptical or uneasy and encourage participation.

#### **Competitive Supplemental Funding for Select CE16-005 Grantees\_**

***In their own words: Telling the Brothers as Allies story***

To supplement the primary aims of this study, we also conducted a small qualitative study intended to qualitatively explore the perceived efficacy of the BAA program in reducing risk and increasing protective factors for later sexual violence perpetration from the perspectives of BAA participants and facilitators. Since the BAA program is a novel blending of two One Circle Foundation programs focused specifically on enhancing sense of connectedness and respect for self and others, we determined that qualitatively understanding the linkages between these more proximal BAA foci and the attitudes, behaviors and behavioral intentions known linked to sexual violence would provide important insights difficult to capture well in quantitative data. Using qualitative methods enabled us to ask semi-structured questions capable of surfacing and explicating core themes that we anticipated would reflect both explicit and implicit perceptions of program mechanisms and effects.

### ***Overview of activities***

The overarching goal of this project was to expand our data collection and data analysis activities as well as to augment the plan for disseminating our findings. Expanding data collection efforts enabled us to add a qualitative component to the quantitative data collection effort through focus groups and interviews with a subset of Brothers as Allies (BAA) participants and in-depth interviews with all BAA facilitators in the 2019-2020 academic year, from which data were then analyzed. This enabled the research team to expand dissemination efforts in several ways, all of which will help tell “the Brothers as Allies Story” using techniques that produce highly relatable stories of particular value in communicating with Rape Prevention and Education (RPE) program key stakeholders, community members, and youth.

### ***Specific objectives***

1. To qualitatively explore the perceived efficacy of the BAA program in reducing risk and increasing protective factors for later sexual violence perpetration from the perspectives of BAA participants.
2. To qualitatively explore the perceived efficacy of the BAA program in reducing risk and increasing protective factors for later sexual violence perpetration from the perspectives of BAA facilitators.
3. To analyze qualitative data collected in Objectives 1 & 2; and
4. To develop and use transmedia-based approaches for communicating study results to community key stakeholders (including participants and their family members, study partners and regional RPEs), key New York State provider groups, and other lay audiences.

### ***Methods***

We conducted key informant interviews with 9 facilitators, 6 site coordinators, and 3 youth participants. Additionally, we held 2 focus groups with youth participants from the Buffalo area.

**Focus groups:** We worked with program facilitators and program sites to identify appropriate students and arrange logistics. Parental consent and youth assent were collected prior to participation. Because these groups were scheduled in the Spring of 2020, only two groups took place before schools closed due to the COVID-19 pandemic. Those two groups were facilitated by research staff best positioned to inspire comfort and sharing in youth (e.g., male, young adult). Focus groups were 1 hour in length and were conducted at the sites where BAA was implemented. Each group had one facilitator and two note takers who monitored key themes in real time (this is needed for inductive analysis and to monitor

theme redundancy). Focus group participants identified as African American (7), African (3), Hispanic, Latino (2), Asian or Pacific Islander (3), and White (2). Ages of participants ranged from 11 to 14 years and all identified as straight except one participant who selected unsure/questioning. All participants were from urban communities. These groups were audio recorded and transcribed verbatim. Participants received food during the group and \$20 for their participation.

**Key Informant Interviews:** As a means of further investigating themes that emerged from the focus groups, individual interviews were conducted to invite deeper understanding and additional probing of more sensitive topics (e.g., witnessing of sexual harassment, homophobia, romantic relationship experience). Despite plans to interview 15-20 youth, COVID-19 limited access to youth who had participated in the 2019-2020 academic school year. After multiple attempts to reach out to youth, we conducted individual interviews with 3 boys via Zoom. All participants were 13 years of age, two identified as African American or Black and from an urban community while one identified as White and from a rural community. Parental consent and student assent were obtained prior to the interviews. Each interview was conducted by experienced research staff with training in conducting sensitive interviews and one note taker. Interviews were audio recorded and then transcribed verbatim to analyze. Youth were compensated \$20 for their participation.

Interviews with facilitators were easier to schedule via Zoom. We were able to connect with and interview all 9 facilitators who facilitated the BAA program during the 2019-2020 school year. These facilitators identified as Black/African American (4), White (3), Hispanic, Latino (1), Dominican (1), and Native American (1). They ranged in age from 23-50 and ranged in experience with youth from 1 year to 25 years. Consent was obtained prior to the interview. Interviews were conducted by experienced research staff with training in conducting sensitive interviews and one note taker. Interviews were approximately 1 hour, audio recorded and then transcribed verbatim for analysis. Facilitators were compensated \$50 for their participation.

Site coordinators were recruited from sites that participated in the intervention groups from the 2019-2020 school year. Six site coordinators were interviewed via Zoom. Site coordinators experience with youth ranged from 3 to 20+ years. Interviews with site coordinators allowed not only exploration of the perceived efficacy of programming from a site administrative perspective, but also provided valuable feedback regarding the process and relationship between community site and research organization. Consent was obtained prior to the interview. Interviews were conducted by experienced research staff with training in conducting sensitive interviews and one note taker. Interviews were approximately 30 minutes, audio recorded and then transcribed verbatim to analyze. Site coordinators were compensated \$25 for their participation.

**Analysis:** A team of three trained researchers conducted inductive analysis to surface and monitor emergent themes in all transcribed interviews. This iterative analytical process, known as the constant comparative method (Glaser & Strauss, 1967) was used as data collection stages progress to refine and augment data sources, needs and meanings. The research team used hand coding methods to identify patterns and develop category systems meaning and action, otherwise known as unitizing and categorizing (Lincoln & Guba, 1985). This process allowed the research team to use questions developed using both priori and posteriori methods to develop questions for the interviews that followed the focus groups.

## **Results**

1. **Partnerships** are the most important element of community engaged research. It is essential to establish partnerships with organizations and individuals at the proposal stage, well before the implementation of the research. This must include ongoing communication between all collaborators. In the BAA study, this included program implementation sites, facilitators, participants, and researchers in addition to the sponsoring organizations (NYSDOH, Cornell University, and CDC). Key collaborators at the community level should be well-respected, trusted organizations that are part of the community and familiar with the target population. Expectations should be clearly articulated and agreed upon in advance to assure buy-in at all levels before moving forward. This includes staff roles and effort (i.e., who will do what and when), the use of stipends or incentives, and the overall operational process that will be used to conduct the study.

2. **Site recruitment** requires adequate time. It is essential to establish agreements with all of the intended participating study sites, if possible during the proposal stage. If this is not possible, the proposal should include a planning stage to recruit sites identifying those with clear evidence of the likelihood of success. If some sites have not been recruited with clear MOUs, then it would be useful to demonstrate their likelihood of study participation, given the use of site incentives, or strong existing relationships with candidate partners.

Other findings regarding site recruitment, management and retention:

- **Site buy-in of administrators and front-line staff** is essential for successful engagement. The organization must be willing to work on sexual violence prevention with middle school boys. Everyone needs to understand the overall mechanics of the study including expectations for staff involvement, space/equipment needs, and the process for distributing incentive payments. Student enrollment, activity schedules and attendance must be included in the planning process. Scheduling an after-school program that conflicts with other popular activities, such as basketball, will influence participation. Because the BAA program was designed to be delivered in 60-90 minute sessions, finding this amount of available time was especially challenging for our study sites.
- **Provide control group with programming** as an incentive to encourage sites to participate in the study. Our initial plan was to compare boys who received the BAA intervention with boys who received regular after-school programming. We learned that this was not appealing to sites that were only motivated to participate by the prospect of eventually receiving the BAA program, even if they had been randomized to the control condition. Including some form of control group programming should be included in the proposal planning process. This is especially important in under-served schools where available programs for youth are limited and participating in research adds extra responsibilities to site staff.
- Beware of **Research Burnout** in over studied areas which could impact site recruitment. Be prepared to address prior negative experiences in research projects acknowledging the challenges and opportunities.
- Given the **sensitivity of the project focus**, sexual violence perpetration, be prepared to have conversations with parents/and or administrators to clarify the content of the program and answer any questions or concerns.

3. Well trained **Facilitators** are essential to successful program delivery. The facilitator's background, life experience and approach to the curriculum are the ingredients that offer the most potential for success

with youth participants. Recruitment of facilitators who buy into the purpose of the program and have full understanding of the study goals and logistics can prevent challenges around communication and adaptation when groups are underway. In addition, when possible, facilitators should have a relationship and connection to the community in which they will be working. Although not always feasible, having an existing relationship with the boys can establish trust earlier and facilitate the reinforcement of BAA concepts and practices.

- Facilitators should understand and be comfortable with the sensitive topics addressed in the BAA curriculum. This should be attended to during the recruitment and screening of potential facilitators. It may be advisable to offer an enhanced training period that includes an opportunity to address the facilitators' own experiences with toxic masculinity, gender roles, and myths and facts about sexual violence. To encourage this, one idea is to have the facilitators actually go through the curriculum as participants prior to program implementation.
- Ongoing support and supervision of facilitators should be built into the program, to provide assistance needed as questions come up during program implementation. Creating a learning community group with other facilitators can build strengths across the facilitation team.

**4. Youth Participants:** Although developed for middle school youth ages 12-14, we found that the BAA resonated best with boys who were 13-14 years of age. There is a wide range of maturity and development in early adolescence, so program leaders should be mindful of this during the recruitment process. Good communication about the program content is just as important to share with youth participants as it with adult partners. Participation should be voluntary and promoted across all segments of the population, not just boys of particular race or socioeconomic status. We recommend future implementation use an intentional strategy to increase the diversity of sites and groups receiving the Brothers as Allies program.

**5. BAA curriculum** offers a unique approach to violence prevention by focusing less on imparting knowledge, and more on "creating space" which enables participants to assess their own feelings, perceptions and personal histories to more fully understand their emotions and behavior.

- We learned that providing facilitators with coaching in advance of each session helps prepare them for both the topics to be discussed and the logistics/supplies needed to carry out the session.
- Providing snacks for participants is also highly recommended when possible.
- We heard requests to adapt the curriculum into shorter sessions so that the program can be accommodated within the school day schedule. This would require smaller groups to allow for full participation in the shorter timeframe.

## Challenges

- 1) Conducting a rigorous outcome study under "real world" conditions presented us with several challenges faced described below. We offer lessons learned for future efforts.
  - First and foremost: the need for randomization. It was difficult finding sites willing to serve as a control group. This was largely due to resistance to adding tasks without clear benefit to their

already full plates. Many of the community sites were only willing to participate if they were guaranteed to receive the intervention at some point; thus, using a wait list design proved to be useful in recruitment. In future studies we recommend working with community partners in advance to identify and offer alternative programming to groups in the control condition.

- There has been historical resistance to participation in research for marginalized populations. It is hard to break into communities when you are an outsider. This is particularly true for communities that have had negative experiences with research, which sadly has occurred too often in communities of color. Knowing about the history of the groups with whom one wishes to work and partnering with existing community organizations is an important approach.
- Efforts must be made to share information readily and clearly, with an awareness that scientific/academic language can create barriers between community members and research practitioners. For example, even the term “control group” can be easily misunderstood to mean “being controlled.”
- When working with school systems or other organizations, ask pro-actively if they have their own human subjects review process in addition to the institutional review board of the university overseeing the study. We learned this lesson the hard way. Just as we were about to launch the study in a school district, implementation was stopped because their human subjects review committee denied the application. We lost a significant amount of time because of this. Start early to submit study plans with a complete explanation of the project, not just the intervention but the survey research component and all aspects of the staffing, space, incentives and operational process. This can help clear up any questions or allow for adaptations that would increase the chances of approval.
- Collecting data from multiple sites that were in distant locations from the study team proved to be the most difficult aspect of the project. Local research assistants were hired and were overseen by our partner, Planned Parenthood of Central and Western New York (PPCWNY). This required long-distance supervision between the Cornell University team and PPCWNY, which created another step removed between university researchers and field data collection. We opted to use tablets loaded with Qualtrics surveys offline, coded to each individual participant ID. Research assistants were responsible for entering the correct ID for each student, and matching tablets to students while maintaining survey confidentiality. This was logistically challenging and required a great attention to detail. We collected survey data at pre- and post-intervention and again at three and six months after program completion. Control group data were collected during the same time frame. This required research assistants to meet with boys in groups to obtain assent, distribute tablets accurately linked to participant ID number, assure data were saved to each tablet, and collect contact information for future data collection points. We provided a cash incentive to students for each survey completed (\$10 for the first survey, \$20 for the second, \$30 for the third and \$40 for the fourth). Research assistants had to carry cash and obtain signed receipts from participants at each data collection point.
- Obtaining parental consent was also a challenge. Although we used passive consent, which includes students as participants unless parents return a form opting their child out, we wanted to be sure parents had every opportunity to be aware of the study, so sites used two methods to contact families. In some cases, individual phone calls were made. Using the site’s existing

systems for parental consent proved helpful, for example sending study materials home with other “welcome back” mailings at the start of the school year.

- Because the research team was not a part of the after-school settings where the program was delivered, planning and coordination between the site, the facilitator and the research assistant had to be ongoing and accurate. We learned that individual and site schedules were difficult to align, and plans changed frequently due to student absences, school events or researcher capacity. Keeping data collection separate from facilitation was intentional; however, this did create some confusion among both partners and participants about which elements of the program were “research” (4 surveys) vs “program” (10 facilitated sessions). As discussed previously in this report, clear communication from the start involving all parties in the project is essential. We recommend pre-scheduling all data collection dates across the term of the project so that everyone is aware in advance of school events and holidays. It is also advisable to build in days to cover potential weather-related cancelations. Student attendance also affected data collection efforts. We learned that at least two visits per data collection point were necessary to reach all the students enrolled in the study. For the time 3 and 4 surveys we shifted to online survey distribution because the students were no longer in a cohesive group that could be accessed all together for a research assistant to distribute tablets. We contacted students in advance using the methods they provided to us, to let them know that a survey would be emailed to them shortly. Incentives were provided via online gift certificates to Amazon or Walmart, however the response rate for those surveys was not as robust as those in the first two (in person) data collection points.

- 2) Recruitment and/or retention of the various research participants, including community buy-in, and approaches to managing effective relationships with research and community partners  
\*A detailed description of this information can be found under 2) *Site Recruitment* on Page 21 of the report.

- 3) **COVID-19 Challenges:**

The pandemic had a significant impact on this project -- basically shutting down program implementation and data collection. This significantly reduced our sample size and follow up data collection efforts (Times 3 and 4).

Early in 2020 we had one cycle that was planned that was unable to start, and two other cycles were unable to finish due to COVID-19 restrictions. Overall, we had hoped for an additional 14 cycles for the remainder of 2020 that were unable to begin.

In addition, our data collection efforts shifted to 100% online surveys, and this greatly reduced student response rates. We found that collecting data in person produced a greater return rate than surveys conducted online, so groups that were due for follow up surveys were affected by not having researchers visit in person.

## **V. Public Health Relevance and Impact**

Sexual violence (SV) is recognized by the Centers for Disease Control and Prevention (CDC) as a “profound social and public health problem in the United States.”<sup>48</sup> As previously stated, a 2010-2012 nationally representative survey of adults indicated that 1 in 3 women (35.3%) and 1 in 6 men (17.1%) reported experiencing some form of SV in their lifetime.<sup>1</sup> SV research and intervention efforts have shifted toward preventative efforts rather than focusing on individuals who have been victimized. Many of these interventions occur in college settings due to the recognition of SV as a significant problem on college campuses. However, recommendations from this field of research suggest that intervention during adolescence may provide a better chance for prevention of future SV perpetration.<sup>49,50</sup> By evaluating the BAA program for middle school boys, this project contributes to the existing literature and helps provide potential options for working with adolescents.

Furthermore, the World Health Organization (WHO) recommends a gender transformative paradigm for interventions that address traditional masculinity ideologies and increase men’s positive attitudes toward gender equity and behaviors that reduce risk factors and increase protective factors.<sup>51</sup> This project consisted of an evaluation of a program founded on a strengths-based group model empowering boys and young men to further their emotional literacy and challenge unhealthy gender norms, providing a program in line with the WHO’s recommendations and an alternative to bystander intervention focused prevention programming. Results from the qualitative supplement also suggest that facilitators felt that the program offers an alternative to instruction-based intervention, creating a unique space for relationship building and an opportunity for participants to bring in and learn from their own personal experiences.

Beyond the program itself, this project helped build and strengthen a relationship between community-based organizations and research institutions. By participating in the evaluation process, including the follow-up qualitative data collection, each party had the opportunity to debrief and communicate what went well, what could have gone better, and what was learned from the experience. This helps inform future partnerships and community-based research to better connect research with practice.

### Publications, Presentations, Media Coverage

Project Title	Project Type	Project Co-Authors	Audience	Description
A Strengths Based Curriculum for Sexual Violence Prevention	New York State Department of Health Provider Meeting Presentation (PowerPoint Presentation)	Janis Whitlock, Ann-Margret Foley, Mary Maley	NYS Funded Providers	5/20/2021 62 Attendees
Telling the Brothers as Allies Story	General Community PowerPoint with Recorded Presentation	Mary Maley, Janis Whitlock, Jane Powers, and Victoria Baum	Project partners and the general community	Condensed PowerPoint for general public

Brothers as Allies Brief Community Summary	Infographic	Victoria Baum, Janis Whitlock, Mary Maley	Project partners and the general community	Brief visual summary of project and outcomes.
A Strengths Based Curriculum for Sexual Violence Prevention	CDC Report	Ann-Margret Foley, Elizabeth Rialdi, Janis Whitlock, Jane Powers, Mary Maley, Victoria Baum, Mandy Purington	CDC	Full project report to the CDC.
Lessons Learned from the Brothers as Allies Project	Printed Glossy Report	Janis Whitlock, Jane Powers, Mary Maley, Victoria Baum, Mandy Purington	Researchers, community partners and collaborators	Lessons learned throughout the entire project, focusing on lesson from conducting rigorous research in real world settings
Brothers as Allies: Facilitator Voices	Video presentations compiled from interviews with project facilitators	Aime Kamwe (SirAimezing Productions) & Janis Whitlock	Project partners, the general community, and future facilitators	The videos focus on four key questions:  Q1: Why do boys need a program like this?  Q2: What changes did you notice in boys who participated?  Q3: What are the strengths of this program?  Q4: Facilitator thoughts on the need to continue past 10 sessions

**Key collaborations/partnerships and the benefits gained from this research.**

This project was completed through the combined effort of the NYSDOH, Cornell University’s ACT for Youth, the One Circle Foundation, and community providers (Planned Parenthood and afterschool

programming). Approaching the project with these collaborative partnerships created a connection between academia, policy making, and practice-based entities. These connections benefit the community by informing policy and practice with research, but also by informing research with practical experience. The opportunity to facilitate these connections and create these relationships benefitted all who were involved.

## VI. Translation of Research Findings and Data Management and Sharing

Our unique partnership with the NYSDOH provides valuable connections to youth serving organizations, practitioners, and community organizations. As the funder of NYS Rape Prevention and Education Program, and several adolescent pregnancy prevention programs, the NYSDOH supports over 65 agencies serving thousands of youth each year. Our results will be shared strategically with these groups via webinars and web-based resources available at [http://actforyouth.net/youth\\_development/brothers.cfm](http://actforyouth.net/youth_development/brothers.cfm)

These resources will include:

- Narrated PowerPoint Presentation: A slide deck summarizing the background of the project, the study design, and the quantitative and qualitative findings. This was presented during the 2021 NYSDOH-sponsored Provider Meeting, held May 18-21. A recording of the presentation and a PDF of the slides have been posted and made available online: [http://www.actforyouth.net/publications/provider\\_2021.cfm](http://www.actforyouth.net/publications/provider_2021.cfm)
- Executive Summary: A “glossy” report to the community, including infographics to illustrate research findings. This report will be distributed in hardcopy and electronically to key project stakeholders, including site administrators, program facilitators, and other partners. This will also be available via the BAA website: [http://actforyouth.net/youth\\_development/brothers.cfm](http://actforyouth.net/youth_development/brothers.cfm)
- Lessons Learned whitepaper report on effective program implementation. This paper focuses on building site/parent buy-in for the program, preparing and training facilitators for implementation, and best practices during program implementation.
- Manuscript(s) for peer-reviewed publication under preparation
- Conference presentations. As appropriate, we will present this information at national conferences, such as American Public Health Association, American Evaluation Association, etc.
- Videos which include interviews with BAA facilitators which describe the need for the program, outcomes of the program and strength of the curriculum. The focus of each segment is facilitators responding to these questions:
  - Q1: Why do boys need a program like this?  
[https://drive.google.com/file/d/1QvXjRv7vKnZLKW3z1wi7WL\\_eqCUorhFE/view?usp=drivesdk](https://drive.google.com/file/d/1QvXjRv7vKnZLKW3z1wi7WL_eqCUorhFE/view?usp=drivesdk)
  - Q2: What changes did you notice in boys who participated?  
<https://drive.google.com/file/d/1I5J4Mj8Jc8rFBIhe0j4yAdFAisAWJ-2C/view?usp=drivesdk>
  - Q3: What are the strengths of this program?  
<https://drive.google.com/file/d/1jRITJmtuHpfKboJwLmrZyE8EPMLD1HSF/view?usp=drivesdk>

- Q4: Facilitator thoughts on the need to continue past 10 sessions  
[https://drive.google.com/file/d/1Ldz9G2te2L4FlcmUQn0\\_zY5cLQ0NHBZs/view?usp=drivesdk](https://drive.google.com/file/d/1Ldz9G2te2L4FlcmUQn0_zY5cLQ0NHBZs/view?usp=drivesdk)

Preventing future sexual violence perpetration requires a variety of approaches at several developmental levels. The aims of the BAA project focus specifically on middle school boys to build healthy relationships, improve communication skills and foster respect for differences. Results of our study suggest this program is well received by both the target population and the facilitators who lead the groups. There is great potential for this program to be scaled up for use in other communities. Our partners and program facilitators expressed a strong need for programming of this type for boys in this age group.

Results of this project will inform NYSDOH's approach for future proposals and working with community partners. Lessons learned from implementation (as presented in the white paper on program implementation) have informed NYSDOH's approach such that responses to future requests for proposals sponsored by NYSDOH will require best practices for implementation to be in place in order to receive funding. The results of this project have also informed selection of curricula to be used with youth; that is, BAA has become an option to use with NYSDOH-funded programs. Recent discussions with the NYSDOH have begun to move these efforts forward.

Lessons learned from this project have also yielded specific guidance for engaging youth, and specifically for engaging young men in programming that spans several weeks. For example, the relationship between program facilitator and youth participants is essential and can be intentionally fostered by the facilitator.

Regarding scalability, One Circle (the developer and purveyor of the BAA curriculum) has made BAA available as one of its programs. Any organization interested in purchasing and implementing BAA can access it through the One Circle website. (One Circle also provides training for facilitators.) The design of this research study suggests the findings would apply to a more general population.

Additionally, this study yielded much information about how to partner with other organizations in research (including academic partners and community organizations) and how to engage young men in future, similar research.

### **Data Management Plan**

Parent notification, tracking of parent decline to participate, and parent/youth participant contact information was largely collected in person and on paper, but was documented and tracked in encrypted files. Site condition, cohort number, and youth participant status were tracked in separate files.

Participant names and contact information were collected from participants on paper. The research assistant entered this information into a database stored on an encrypted server at Cornell University, accessible only through a password-protected computer. The paper documents on which this information was originally collected have been shredded. The research assistant assigned each participant a random ID number; this number (and no identifying information) was entered into the

Qualtrics survey for each participant. A single file linking participant name to the unique identifiers was created to assure that we can link all data collected over time. When survey data were collected, the research assistant had a list of names and IDs; the research assistant entered the ID into the survey form and handed the tablet to the participant. After this process was completed for all participants in a particular data collection session, the paper with the list of names and IDs was shredded.

The Cornell University PI and research assistant are the only members of the research team who had access to participant names and contact information. As described above, this information was collected on paper, but stored in a secure database. When surveys were administered in person, the person assigned to collect data from each site brought a list of names and IDs so that the correct ID could be entered into the survey for each participant. The research assistant retained this list at all times, shredding the document following each data collection session.

When participants completed surveys at Time 3 and 4, unique Qualtrics survey URLs were generated for each participant, embedding a unique ID along with their responses and allowing the research team to connect an individual's survey responses over time. Any paper surveys disseminated were pre-labeled with the participant's unique ID.

### **Data sharing**

The data includes information from middle school-aged students from Western and Central NYS regions. Because the data includes information that may be personally identifying, such as demographics, family experiences, and experiences in school, only the fully de-identified dataset will be available to users who sign a data usage agreement. The agreement will stipulate:

- That the usage of the data is only for research purposes;
- That the user will not identify any participant based on demographics, reported experiences, or any other information from the dataset;
- That the user will appropriately secure all electronic and physical materials, including storing the dataset on a secure drive or network;
- That the user will delete or return the dataset after analysis is completed.

### **Dissemination plan**

Data will be disseminated in multiple ways, to benefit both the academic community and the larger community. First, data will be analyzed and written up in typical academic form for dissemination through peer reviewed publications and academic conferences.

In addition, we will be creating a community friendly set of presentations that rely on Transmedia elements that captures what we found to be the most significant findings and experiences of the study. Between the NYSDOH, the Cornell University study team, our community partners and the One Circle Foundation, we have broad reach within and outside of the state. We anticipate being able to disseminate high-level takeaways from the study quite easily and widely. In addition to extracting key findings and rendering in simple narrative forms, we will use video interviews with program facilitators and site coordinators about what they observed with the program. These can be integrated into community presentations and web-based summaries that will be made available throughout our networks.

Project lessons learned, study findings and best practices for implementation will be available as an Executive Summary. This will be a “glossy” report to the community, including infographics that illustrate research findings. This report will be distributed in hardcopy and electronically to key project stakeholders, including site administrators, program facilitators, and other partners. This will also be available via the BAA website: [http://actforyouth.net/youth\\_development/brothers.cfm](http://actforyouth.net/youth_development/brothers.cfm)

Lastly, the NYSDOH has extensive plans to disseminate the research results and BAA curriculum with the Comprehensive Adolescent Pregnancy Prevention (CAPP) Program and the Rape Prevention and Education (RPE) Program. Both programs are in the planning stages to administer funding to contractors across the state to support the implementation of BAA. These initiatives support comprehensive, high-quality interventions that rely on the best available research evidence to inform and guide practice for prevention. Information about the research results and BAA curriculum will be added to the NYSDOH website. Finally, NYSDOH is in the process of evaluating the BAA curriculum to determine if it meets the RPE Program requirements for ‘evidence-informed’. If it is found to be evidence informed, it will be added to the approved list of RPE Program curriculum for implementation by the Regional Centers for Sexual Violence Prevention.

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