PARTNER VIOLENCE PREVENTION FOR MIDDLE-SCHOOL BOYS: A DYADIC WEB-BASED INTERVENTION STUDY

NCT#: NCT03109184

Date of Upload: August 1, 2019

PURPOSE

The purpose of this project was to develop and refine a web-based intervention that reduces the risk of dating violence among middle-school aged males. The final intervention (STRONG), used by parents and adolescents together, is based on the empirical literature linking emotion regulation deficits to violent behavior as well as studies showing that parental involvement is crucial to offset dating violence risk. STRONG is also based on content delivered in efficacious, face-to-face interventions for relationship risk reduction among teens (K23MH086328; R01NR011906). In Phase I, STRONG was developed through consultation with an Expert Panel and iterative focus group meetings with a community advisory panel comprised of middle school boys and their parents. In Phase 2, STRONG was tested in a small randomized trial to assess feasibility and acceptability (Aim 1) and detect preliminary between-group effect sizes (Aim 2) to support a future large randomized efficacy trial of the program.

PROJECT PARTICIPANTS

Seventh and eighth grade boys were recruited, with a parent/caregiver (91% mothers), from six urban middle schools in the Providence, RI area. In Phase 1 we recruited 8 parent-son dyads to take part in a community advisory panel that provided feedback on the web-based intervention as we developed it. In Phase 2 we recruited parents and sons to enroll in the randomized trial (n=119 dyads). The RCT sample was diverse in terms of race/ethnicity (adolescents were 49% Caucasian; 24% Hispanic) and economic conditions (26% with annual household incomes < $30,000). Thirty-seven percent of families were single parent households.

PROJECT DESIGN & METHODS

Families were recruited for the study over a 2 ½ year period, beginning June 2015 through November 2017. To be eligible to participate, the adolescent had to identify as a male

and be enrolled in the 7th or 8th grades. Also, both the parent/guardian and adolescent were required to speak English because the budget did not support adapting the program and data collection instruments to other cultures and languages. All procedures were approved by the Rhode Island Hospital IRB and the appropriate NIJ offices related to the protection of human subjects.

Recruitment for Phase 2 involved three primary approaches. First, the intervention and research study were described to students by study staff in presentations during visits to classrooms and student assemblies. All male students in the 7th and 8th grades were provided information about the study along with a **consent to contact form** for their parent/guardian if they wished to participate. Second, the Principals of participating schools emailed 7th and 8th grade parents to introduce the study and provide a link to an online version of the consent to contact form. Lastly, study staff were invited by school administrators to school Open Houses and Student Award nights to speak to parents directly about the study and provide consent to contact forms. Once permission to contact families was received, study staff arranged a meeting with families to describe the project and obtain informed consent. Adolescent assent was obtained separately from parents, to ensure that adolescents did not feel coerced to participate.

Our final sample included 59 dyads randomized to the STRONG intervention condition and 60 dyads randomized to the control condition. Participants were randomized to either the intervention or a wait-list control condition by stratified randomization with a block size of 4, to avoid serious imbalance in the number of participants assigned to either condition. Randomization was also stratified based on the gender of the participating parent and occurred after baseline assessment.

Measures

Demographics and Descriptive Information. Adolescents and parents completed items including age, race, and ethnicity.

Primary Outcome.

Dating Violence Behaviors. The Conflict in Adolescent Dating Relationships Inventory (CADRI; Wolfe et al., 2001), completed by dating teens, assesses verbal, emotional, physical, and sexual dating abuse perpetration and victimization with a current or recent dating partner.

Secondary Outcomes

Attitudes Supporting Dating Violence. The Attitudes about Relationship Violence Questionnaire (ARVQ; MacGowan, 1997), completed by parents and teens, assesses knowledge, attitudes, and methods of dealing with DV.

Intervention Mechanisms (Mediators)

Emotion Regulation. The Adolescent Self-Regulatory Inventory (ASRI; Moilanen, 2007) measures perceptions of adolescents' abilities to regulate over the short-term and long-term, separately; both adolescents and parents completed it about the adolescent. The Emotion Regulation Behaviors Scale (ERBS; Houck, Hadley, Barker, Brown, Hancock, & Almy, 2016) assesses the frequency of engaging in specific emotion regulation behaviors (e.g., "getting away from whatever was causing the feeling") when experiencing strong feelings over the previous week. Participants rated engaging in each behavior on a scale from 1 (all the time) to 5 (never). Items were reverse coded so that higher scores indicate more use of emotion regulation behaviors. The Behavioral Indicator of Resiliency to Distress (BIRD; Shields & Cicchetti, 1998) is a 5-minute computerized distress tolerance task for adolescents. This measure generates a score of total time that adolescents persist on a frustrating task, which has been linked to distress

tolerance (Shields & Cicchetti, 1998). Longer quit times indicate a longer duration of tolerance for negative emotion.

Parent-Child Communication. A modification of the Miller Sexual Communication Scale (Miller et al., 1998), completed by both parents and sons, was used to assess how often dyads have discussed seven topics related to healthy relationships (e.g., managing problems, managing feelings, digital abuse). The Parent-Adolescent Communication Scale (Olson, 1985) completed by both parent and teens, was used to assess problem communication and open communication in families.

Procedures and Intervention Components.

Families randomized to STRONG completed 6 modules comprised of 4-6 activities (games, videos, etc.) targeting three primary constructs: relationship health, ER, and communication (See Table 1 for a detailed list of activities). The game uses a space theme on a planet in which dating violence is rampant. As such, young people are required to complete a series of challenges with a coach to earn a "relationship license." The 6 modules are completed

over four sessions. Session 1 includes the baseline assessment procedures along with Module 1 (about 15 minutes). Module 1 is completed by parents (while adolescents finish the assessment) and focuses on program engagement by educating parents about dating violence and ER, using engagement techniques to increase the perceived value of the program, and enhancing their efficacy for engaging their adolescent sons in the activity. During Session 2, dyads complete Modules 2 and 3 (each about 30 minutes), which encourage dyadic

communication through games, introduce the concept of emotions influencing behavior, and teach ways to recognize emotional arousal. Session 3 is comprised of Modules 4 and 5 (each about 30 minutes), which introduce ER strategies adapted from Project TRAC, a group-based ER intervention designed for middle schoolers that has been shown to reduce sexual risk (Houck, Hadley, Barker, Brown, Hancock, & Almy, 2016; Houck, Barker, Hadley, Brown, Lansing, Almy, & Hancock, 2016). These strategies correspond to four of the "families" of ER processes in Gross' process model (Gross, 2014). The modules link ER with communication and provide opportunities to practice both during dyadic activities about sexual health. For Session 4, families complete Module 6, which provides additional practice using ER strategies during a difficult communication task along with an activity identifying the role of ER when communicating with romantic partners. The program concludes with praise for completion and encouragement to continue using the skills learned. Following completion of each session, debrief surveys were completed by both the adolescent and his parent/guardian to assess acceptability and usability. Families were compensated $5 for completing the session debrief surveys, $30 for completing the assessments at baseline, $35 for completing assessments at 3-months, and $40 for completing assessments at 9-months.

Control Condition

A wait-list control group was used as a comparison condition in the trial. Participants in the control condition completed assessment measures at the same time points (baseline, 3-month

follow-up, and 9-month follow-up) as those in the intervention condition. After completion of the 9-month follow-up, all families were offered the intervention condition, delivered in the same manner as in the intervention condition.

Data Analysis Plan

For our Aim 1 analysis of acceptability and feasibility, attendance and retention rates were calculated, and session debrief survey ratings were summarized. For our Aim 2 analysis of study impact, Weighted Generalized Estimating Equations (WGEE; Dahmen & Ziegler, 2004; Salazar A, Ojeda B, Dueñas M, Fernández F, Failde, 2016; Deaman & White, 2011) were used to address the nested structure of the data with assessments nested within each participant, and missing data due to participant drop-out across the study. WGEE has been recommended by the National Research Council as one of the preferred strategies for dealing with missing data in longitudinal clinical trials (Council, 2010). The WGEE was fit using a negative-binomial distribution with a log link function for the dichotomous violence behaviors and fit using a normal distribution and identity link function for continuous ratings of attitudes and intervention mechanisms. Baseline was included as a covariate in all models which evaluated the efficacy of the intervention versus control condition at 3- and 9-month follow-ups. A completer analysis was deemed appropriate as the small sample size of this pilot study could be impacted substantially from the presence of families randomized to STRONG who were not exposed to the intervention. Analyses included intervention families who received an adequate dose of intervention, defined as a minimum of 4 out of 6 intervention modules (n=114/119). Lastly, it was hypothesized that having dating experience prior to receiving the intervention might impact how adolescents understood and internalized the intervention material. Consequently, we ran

exploratory analyses that included ever being in a dating relationship prior to baseline as a moderating variable.