

## Citation and Abstract of Supporting Research Study

### Citation:

Barbee, A. P., Cunningham, M. R., van Zyl, M. A., Antle, B. F., & Langley, C. N. (2016). [Impact of Two Adolescent Pregnancy Prevention Interventions on Risky Sexual Behavior: A Three-Arm Cluster Randomized Control Trial](#). *American journal of public health, 106*(S1), S85-S90.

### Abstract:

**Objectives.** To test the efficacy of *Reducing the Risk* (RTR) and *Love Notes* (LN) on reducing risky sexual behavior among youths yet to experience or cause a pregnancy.

**Methods.** The four dependent variables were ever had sex, condom use, birth control use, and number of sexual partners at 3- and 6-month follow-up in a 3-arm cluster randomized controlled trial of 1448 impoverished youths, aged 14 to 19 years, in 23 community-based organizations in Louisville, Kentucky, from September 2011 through March 2014.

**Results.** At 3 and 6 months, compared with the control condition, youths in RTR reported fewer sexual partners and greater use of birth control. At 6 months, LN participants reported greater use of birth control and condoms, fewer sexual partners, and were less likely to have ever had sex compared with the control condition.

**Conclusions.** We provided additional evidence for the continued efficacy of RTR and the first rigorous study of LN, which embeds sex education into a larger curriculum on healthy relationships and violence prevention.

As of January 2009, Kentucky ranked eighth highest in the United States in adolescent births, with an overall adolescent birth rate of 51.3 per 1000 females aged 15 to 19 years, and a non-Hispanic Black female birth rate of 57 per 1000, which were both significantly higher than the national rate, which was 39.1 per 1000 females.<sup>1</sup> Major contributing factors to high adolescent pregnancy and birthrates are engagement in high-risk sexual behaviors, such as having multiple partners and lack of consistent use of condoms and other forms of birth control. In Kentucky, more than 24% of high school students reported having had 4 or more partners by graduation, and more than 50% of sexually active students had not used a condom during their last sexual intercourse.<sup>2</sup> One recent review found that comprehensive sex education programs are effective in reducing high-risk sexual behavior.<sup>3</sup> The Teen Pregnancy Prevention Evidence Review by the US Department of Health and Human Services (HHS) confirmed that 1 program, *Reducing the Risk* (RTR), showed evidence of effectiveness with increased birth control and condom use<sup>4-7</sup> and was tested in the present study. We chose to test the fifth edition of RTR with adaptations.<sup>8,9</sup>

We also tested a new approach to adolescent pregnancy prevention. *Love Notes* (LN) embeds pregnancy and disease prevention messages in a curriculum that emphasizes the importance of forming healthy relationships and avoiding intimate partner control or violence for individuals to reach their life goals. LN uses sound pedagogy and includes the use of brief lectures, video,

music, discussion, workbook exercises involving self-reflection and goal setting, role plays or scenarios, games, and group activities, many of which involve the use of artistic expression. Studies have found that intimate partner violence is related to sexual risk taking, inconsistent condom use, partner nonmonogamy, and unplanned pregnancy.<sup>10</sup> A focus on this destructive dynamic is not emphasized in most adolescent pregnancy prevention interventions. Research on an early version of LN (*Love U2: Relationship Smarts*) with high-risk youths and delivered through the public school system found an impact on awareness of healthy versus unhealthy relationship patterns and reduction of verbal aggression.<sup>11</sup> A subsequent study with high-risk youths using LN in a community-based organization found that students significantly increased their knowledge about relationships, showed a significantly lower acceptance of violence in dating relationships, and significantly increased communication and conflict management skills.<sup>12</sup> However, the efficacy of LN as an adolescent pregnancy prevention intervention has not been tested.

Our purpose in this study was 2-fold. First, we set out to test the efficacy of an adapted version of RTR, compared with a control condition, *The Power of We* (POW), as well as with LN. Second, we tested the efficacy for the first time of a new adolescent pregnancy prevention intervention, LN, compared with the same control condition. We examined 3 high-risk sexual behavioral outcomes for the previous 3-month period at 3- and 6-month follow-ups, plus whether the participants engaged in sexual intercourse.

Compared with participants in the POW control condition, 3 and 6 months after the conclusion of the program, we asked if participants (1) in the RTR intervention group and (2) the LN intervention group use condoms and other forms of birth control more often and did they have fewer sexual partners? As secondary research questions, we asked whether (3) LN and RTR differed in their impact on the primary outcomes, and (4) whether LN and RTR affected the onset of engagement in sexual intercourse.