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Original article

Short-Term Impact of a Teen Pregnancy-Prevention Intervention Implemented in Group Homes

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A B S T R A C T

Purpose: Youth living in group home settings are at significantly greater risk for sexual risk behaviors; however, there are no sexual health programs designed specifically for these youth. The study's purpose was to assess the effectiveness of a teen pregnancy-prevention program for youth living in group home foster care settings and other out-of-home placements.
Methods: The study design was a cluster randomized controlled trial involving youth (N = 1,037) recruited from 44 residential group homes located in California, Maryland, and Oklahoma. Within each state, youth (mean age = 16.2 years; 82% male; 37% Hispanic, 20% African-American, 20% white, and 17% multiracial) in half the group homes were randomly assigned to the intervention group (n = 40 clusters) and the other half were randomly assigned to a control group that offered "usual care" (n = 40 clusters). The intervention (i.e., Power Through Choices [PTC]) was a 10-session, age-appropriate, and medically accurate sexual health education program.
Results: Compared to the control group, youth in the PTC intervention showed significantly greater improvements ($p < .05$) from preintervention to postintervention in all three knowledge areas, one of two attitude areas, all three self-efficacy areas, and two of three behavioral intention areas.
Conclusions: This is the first published randomized controlled trial of a teen pregnancy-prevention program designed for youth living in foster care settings and other out-of-home placements. The numerous significant improvements in short-term outcomes are encouraging and provide preliminary evidence that the PTC program is an effective pregnancy-prevention program.

IMPLICATIONS AND CONTRIBUTION

This study is a randomized controlled trial of a teen pregnancy-prevention program designed for youth living in foster care settings and other out-of-home placements. The numerous significant improvements in short-term outcomes are encouraging and provide preliminary evidence that the Power Through Choices program is an effective intervention. However, the most informative results will come from analyses of longer term outcomes (6 and 12 months) that include behavior change data.

Youth living in foster care or other out-of-home settings are substantially more likely to participate in sexual risk behaviors. For example, youth in foster care are more likely to report ever having had sex, to be currently sexually active, and are more likely to report initiating sex at an early age (before age 13) [1]. Among sexually active youth in foster care, 23.4% of girls and 8.5% of boys did not use any method of contraception at their last sexual encounter compared to 14.4% of girls and 7.5% of boys nationally. Nationally, a greater proportion of sexually active

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youth reported female partners use of hormonal contraception (48.3% of males and 42.7% of females) compared to youth in foster care (7.7% of males and 23.5% of females) [1].

Such behavioral differences result in disproportionately high pregnancy rates among youth in foster care. Nearly one in three young women in the foster care system are pregnant at least once by age 17 or 18 and by age 19 over half experience a pregnancy [2,3]. In comparison, one in four girls nationally become pregnant before age 20 [4]. Youth in foster care also experience a greater number of repeat pregnancies. Before age 20, 46.4% of females in foster care experience more than one pregnancy [2].

These data suggest the strong need for sexual risk behavior prevention programming for youth living in foster care or other out-of-home settings. However, there are no evidence-based pregnancy-prevention programs specifically for these youth.

A number of randomized controlled trials (RCTs) of teen pregnancy/sexually transmitted infection (STI)-prevention programs have been conducted. The results have generally found that sexuality education programs can have a positive impact on youths' knowledge, attitudes, self-efficacy, and intentions to engage in sexual behaviors. For example, Jemmott et al. [5] evaluated the effectiveness of an HIV/STI-prevention program using an RCT design in a study that included 659 African-American youth (mean age = 11.8 years, 53% female). They found that youth in the safer-sex intervention were significantly more likely to report greater knowledge regarding condom use and HIV risk reduction, stronger beliefs that condoms prevent pregnancy, and greater self-efficacy for using condoms at 12-month follow-up. Markham et al. [6] conducted an RCT with 907 seventh-grade youth (48.4% Hispanic, mean age = 12.6, 59.8% female). Results at ninth-grade follow-up indicated that youth in the risk-reduction intervention group had greater knowledge about condoms, greater intentions to use condoms, stronger self-efficacy to use condoms, and greater intentions to remain abstinent until the end of high school [6]. Finally, Lawrence et al. [7] conducted an RCT involving 246 African-American youth (mean age = 15.3 years, 72% female). At 12-month follow-up, youth in the intervention group indicated greater increases in knowledge about HIV risk behavior, and greater increases in self-efficacy to prevent HIV risk behavior were noted post intervention although the differences were not maintained at 12 months [7]. These results suggest that sexual health education programs can significantly improve knowledge, attitudes, self-efficacy, and intentions toward sexual behaviors.

The results of research also suggests that effective programs can take place in a variety of settings (community based, schools, and health clinic) and can have positive effects on males and females as well as on racial and ethnic minority youth [7–9]. To date, however, no RCTs have been conducted to evaluate a comprehensive sexual health education curriculum designed specifically for youth in foster care and other out-of-home care settings.

The purpose of this RCT was to test the effectiveness of the Power Through Choices (PTC) program which is an age-appropriate and medically accurate sexual health education intervention for youth living in group home foster care settings and other out-of-home placements. The PTC program was delivered to youth living in group homes operated or contracted by child welfare (foster care) or the juvenile justice group care settings. Specific goals of the PTC intervention included delaying the initiation of sexual intercourse and reducing the incidence of unprotected sexual intercourse, STIs, and teen pregnancy among youth ages 13–18 who were living in group home settings. The PTC intervention focused on improving knowledge, attitudes, self-efficacy, behavioral intentions, and behaviors related to sexuality and reducing sexual risk behaviors of this understudied and underserved population. The specific purpose of this article is to present the preintervention to postintervention results in regard to the participants' knowledge, attitudes, self-efficacy, and behavioral intentions.

Methods

The study was reviewed and approved by the institutional review board at the University of Oklahoma Health Sciences Center. The study design was a cluster RCT involving youth (N = 1,037) recruited from 44 residential group homes located in California (n = 19), Maryland (n = 10), and Oklahoma (n = 15) [10]. All youth living in the same group home were assigned to the same research condition to eliminate the possibility of contamination between treatment and control groups. Within each state, half the group homes were randomly assigned to a treatment group that offered the PTC program (n = 40 clusters) and the other half were assigned to a control group that offered "usual care" (n = 40 clusters).

Homes were approached to participate in the study if they had the capacity and commitment to support the study; therefore, sampling was purposive rather than random. Within each site's catchment area, every group home that was willing to participate and that had youth residents between the ages of 13–18 was recruited. Exclusion criteria were group homes specifically for pregnant and parenting teens (maternity homes); group homes for adolescent sexual offenders; and group homes providing therapeutic services to youth with significant mental, emotional, or behavioral issues [10]. Based on these criteria, 72 homes were eligible to participate in the study yielding a response rate of 61%. Each participating group home completed a memorandum of agreement prior to randomization agreeing to participate regardless of randomization assignment.

Each state had its own team of intervention facilitators as well as two data collectors. Annual in-person trainings for all data collection personnel were conducted to standardize the data collection protocol and maintain the standardization across all sites for years two to five of the study. In year 1, a pilot study was conducted in two homes in each state. The evaluation protocols and instruments (approximately five questionnaires and 15 forms) were revised as a result of the pilot study and feedback during the PTC facilitator and evaluator trainings.

Sampling

PTC is designed and appropriate for youth living in many types of out-of-home care settings; however, the implementation of PTC described in this study is exclusive to youth living in group homes overseen by the child welfare (CW) (foster care) and/or Juvenile Justice (JJ) systems. A "group home" is considered a congregate care residential facility operated or contracted by a state child welfare agency, a state juvenile justice agency, or by a private care provider. There is evidence to suggest that youth involved in the CW systems are also at risk for involvement in the JJ system [10–12]. The inverse is also true, as youth first involved in the JJ system are at risk for involvement in the CW system [10–12]. Group homes served in the study included: (1) youth in the CW system; (2) youth in the JJ system; or (3) a mixture of youth from both systems. Eight homes in the study were CW