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Teaching teens about sex: A fidelity assessment model for Making Proud Choices☆

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ABSTRACT

Given the increased necessity for local program administrators to operate evidenced-based programs developed for different target populations and community settings, we present evidence about the effectiveness of a specific adolescent health intervention, Making Proud Choices (MPC). MPC was originally designed for inner city, African-American youth in high HIV communities, but implemented recently in diverse settings shown to be at high risk of teen-pregnancy in Missouri. In light of the pressures for local adaptation of the comprehensive sexual education curriculum, we created a three-pronged fidelity assessment tool. We find that significant gains are reported in terms of knowledge as well as intent to use a condom. Furthermore, these findings are consistently achieved in both urban and rural settings, with foster care youth, and for Whites and African-Americans.

1. Introduction

Accountability pressures at the federal government level have led to tighter oversight of the funds given to local organizations through state and federal funding mechanisms. In response to the performance measurement movement, evidence-based programs (EBPs) have proliferated throughout social programming. Evidenced-based programs are theory driven programs that have been rigorously evaluated through random assignment or with quasi-experimental designs and found to be effective through a peer review process. The treatment regimens for these evidence-based programs are often captured in a manual and disseminated so their outcomes can be replicated elsewhere (Bass & Judge, 2010; Miller, Krusky, Frazen, Cochran, & Zimmerman, 2012).

Federal, state, and local governments are progressively more focused on funding EBPs to ensure public resources are directed toward interventions that produce replicable outcomes (Esbensen et al., 2011; William-Taylor, 2008). For example, funding for the teen pregnancy prevention intervention studied here originated in the Affordable Care Act. Private foundations have also started to limit funding to health programs that incorporate evidenced-based practices (Cooney, Huser, Small, & O'Conner, 2007).

The growth in EBPs has raised important questions about their use, particularly whether it is possible to implement standardized program models and practices across diverse settings. While some researchers have focused on the accuracy of evidence based implementation (Maynard, 2009), others have examined the complexity involved in using evidence based programming in diverse communities (Castro, Barrera, & Martinez, 2004). When EBPs are adapted to meet the needs of different communities, questions of program fidelity emerge, concerning the degree to which facilitators deliver the program as intended (Dusenbury, Brannigan, Falco, & Lake, 2004; Smith & Caldwell, 2008).

In this paper, we explain the approach taken in the implementation of one evidence-based teen pregnancy prevention program in Missouri. Missouri is a state that contains a very diverse population that tests the limits of any community-based EBP. After reviewing the importance of program fidelity and the unique challenges inherent in adolescence health education, we describe the three-component fidelity tool created for this project. We present findings specific for the implementation of the Making Proud Choices (MPC) program model, demonstrating how fidelity information can be used to inform facilitator training and technical assistance. In the final section, we explore the evidence that program outcomes are consistently achieved for different subgroups (i.e., race, sex, and urban/rural) of teens. Given the correlation between adolescent sexual behavior and academic outcomes, drug use, psychological control, and poverty status (Brooks-Gunn & Furstenberg, 1989; Whitaker, Miller, & Clark, 2000), the success of comprehensive sex education programs is an issue with implications throughout the life course.

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2. Background: the importance of fidelity

In order to successfully implement EBP, the measurement of program fidelity, or the extent to which services are being implemented as intended for the target audience is key (Moncher & Prinz, 1991). Program fidelity can be measured by gauging how closely a program has been implemented to the program model and assessing its compliance with program curriculum and activities (Dusenbury et al., 2004; Mowbray, Holter, Teague, & Bybee, 2003). While it is well understood that high program fidelity may be best, in many areas, such as adolescent sexual education, it is difficult to achieve. Ott, Rouse, Resseguie, Smith, and Woodcox (2011) evaluated the challenges to implementing adolescent sex education programs and reported that nearly all of the programs described some level of adaptation. They found that often, program adaptations were major, such as using the curricula for an entirely different target audience or omitting major content areas. Concerns regarding the fidelity of teen pregnancy prevention programs lead the National Campaign to Prevent Teen and Unplanned Pregnancy to release the following statement:

> "...effective programs can remain effective when they are implemented with fidelity by other people in other communities with similar groups of young people. However, when programs were substantially shortened, when activities related to a particular behavior (e.g., use of condoms) were deleted, or when programs were implemented in different settings, the original positive results were not replicated" (Kirby, 2007, p. 16).

The strongest empirical evidence for the importance of fidelity in teen pregnancy prevention activities comes from the work of Stanton et al. (2005) who developed a teen pregnancy prevention intervention called Focus on Kids. This intervention was designed, evaluated and found to be successful in inner-city Baltimore, which has a large African American, HIV-positive population. The same intervention was then replicated in rural, white communities in West Virginia, areas with relatively small HIV-positive populations. In order to test the importance of program fidelity, the program was implemented with two variants: one that remained loyal to the original Focus on Kids program curriculum (high fidelity) and one that adapted the curriculum to the cultural norms of West Virginia (low fidelity). A third, randomized control group did not receive any intervention.

The low fidelity version of Focus on Kids in West Virginia emphasized mainly abstinence, compared to the original Focus on Kids which took a more comprehensive approach with abstinence plus proper condom use. Stanton and colleagues found that neither version of the program in West Virginia was as successful as it was in Baltimore, but that the high fidelity version still had moderate success compared to the control group. Stanton and colleagues concluded that "...seemingly 'minor' alterations can produce significant changes in impact" (Stanton et al., 2005, p. 24). It is important to note that while the current study focuses on teen pregnancy prevention programs, Ringwalt et al. (2003) report similar findings with substance abuse interventions, and the importance of fidelity is in no way limited to this domain.

Thus, while the literature suggests that high levels of fidelity are associated with stronger treatment effects, prior research also suggests that high levels of fidelity are difficult to achieve and that significant program adaptations are common. In addition to high fidelity, high levels of exposure to program intervention may be required to change adolescent behavior (Sieving et al., 2014).

3. Current study: Making Proud Choices

The Personal Responsibility Education Program (PREP) was established through the Patient Protection and Affordable Care Act of 2010 to be administered by the U.S. Department of Health and Human Services (HHS) and providing $75 million to the 59 states and territories to implement evidence-based teen pregnancy and sexually transmitted disease prevention programs. PREP funding can only be used to implement programs found on a list of evidence-based teen pregnancy prevention programs developed by HHS. These HHS programs have been rigorously evaluated and proven to have a positive impact on one or more of the priority outcomes, including sexual activity (i.e., initiation; frequency; rates of vaginal, oral and/or anal sex; number of sexual partners), contraceptive use (i.e., consistency of use or one-time use, for either condoms or another contraceptive method), STIs, and pregnancy or birth. The HHS list of approved programs contains 31 evidence-based program models. In Missouri, the Department of Health and Senior Services is responsible for coordinating and administering PREP activities. The Department of Health and Senior Services selected three programs for replication in Missouri. One of these programs, Making Proud Choices, is the focus of this study.

MPC is a comprehensive sex education program consisting of eight lessons. The Department of Health and Senior Services selected this program for its administrative flexibility; the eight lessons can be implemented in as little as one day or stretched out over eight weeks. MPC relies on theories of cognitive-behavioral therapy and self-efficacy. The lessons are intended to increase knowledge of STI's, HIV, and their prevention. MPC also focuses on promoting safer sex and abstinence, as well as providing students the tools to make responsible decisions about their own sexual behaviors. The Department of Health and Senior Services expected the program to increase knowledge around sexual health and increase the intent to use contraception, which would ultimately decrease teen birth rates and the incidence of sexually transmitted diseases and HIV.

The original MPC curriculum was tested in a randomized control trial on African American middle school aged youth in Philadelphia, with pretest and follow-up assessment measures given two months, six months, and twelve months after the intervention. The facilitators for the evaluated trials were all African American adults. As a result of the intervention, students showed a statistically significant reduction in frequency of sex, increased use of condoms, and reduced incidence of unprotected sex. The program was also found to delay the onset of sexual activity (Jemmott, Jemmott, & Fong, 1998).

4. Data and methods

The Missouri Department of Health and Senior Services conducted a state-wide needs assessment to target PREP funding to geographic areas of Missouri with the highest risk of teen pregnancy. Data considered included county level data from 2005 to 2009 on teen pregnancy birth rates, incidences of sexually transmitted diseases and HIV, and indicators of economic opportunity and education level known to be related to teen pregnancy. Based on these indicators, the areas at highest risk of teen pregnancy were inner-city St. Louis, inner-city Kansas City, and the extremely rural areas of southern Missouri. Over the course of this study, 7 organizations implemented a total of 36 programs for 288 teens. Three of those organizations were community based organizations serving youth in foster care while the remaining four were general community based organizations. These organizations implemented programs in 6 rural counties and 2 counties with highly urban locations, Jackson County (Kansas City) and St. Louis City. Table 1 presents the needs assessment data for these 8 counties as well as the number of MPC groups held in each county that are included in this study. Overall, of the 36 total implementations of the MPC curriculum, 11 of these occurred in