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Examining the effects of afterschool programs on adolescent pregnancy

Introduction

With a rate of 70 per 1,000 in 2006, the United States has a significantly higher rate of teenage pregnancy than most other industrialized nations¹. This rate has been decreasing in the United States in recent years, yet the racial/ethnic gap in adolescent pregnancy still exists. Black and Hispanic girls are almost three times more likely than non-Hispanic white girls to become pregnant between 15 and 19 years of age, thus increasing the overall rate of teenage pregnancy in the United States². These discrepancies on both the global and the demographic level are notable when considering the negative impacts of teenage pregnancy on health and wellness.

Teen Pregnancy and Health

Research shows a relationship between teenage pregnancy and poor health outcomes, both for the teenagers and for the babies born to them. For example, babies born to young mothers are at an increased risk of adverse birth outcomes. Controlling for race, education level, prenatal care, and behavioral risk factors, teenage pregnancies are associated with elevated risks of preterm birth, low birth weight, low Apgar score at five minutes after birth, and neonatal mortality³. The vast majority of adolescent pregnancies are unintended, which also has implications for the health of babies. Mothers who did not intend on becoming pregnant are almost twice as likely as those who did plan their pregnancies to delay the onset of prenatal care, which can lead to adverse birth outcomes⁴. Similarly, pregnant teens are twice as likely as older mothers to

not receive any prenatal care at all. Moreover, unintended pregnancies and adolescent childbearing can have deleterious effects for children over the lifecourse. Daughters of teenage mothers are three times more likely than those of older mothers to become pregnant before age 20, and children of young mothers score worse on math and reading tests when they reach school age. The health and wellness of adolescents can also be compromised when they become pregnant. Teen mothers are less likely than their peers to finish high school or attend college, and unwanted births are associated with higher levels of maternal depression, lower levels of maternal happiness, and lower quality maternal-child relationships^{5,6}. Even if the adolescent pregnancy does not result in adolescent parenting (due to abortion, adoption, or miscarriage), the parties involved are still mentally, emotionally, and physically affected.

In order to eliminate racial and ethnic disparities in teenage pregnancy – and the related disparities in health, education, and socioeconomic position – efforts should be directed towards lowering the number of minority girls who unintentionally become pregnant before the age of 19. Could afterschool programs serve as a tool of intervention in reducing the high rates of pregnancy among minority, and subsequently all American, adolescents? While the link between teenage pregnancy and participation in afterschool programs has not been researched extensively, initial findings regarding the impact of these programs on adolescent sexual and behavioral health are promising. The

available literature supports the notion that programming targeted towards youth development and implemented in the afterschool hours might be effective in lowering teen pregnancy rates in the United States.

Background and Research Findings

Afterschool Supervision and Sexual Activity

The hours immediately following school dismissal can be a prime time for adolescents to engage in a variety of risky behaviors, including experimenting with alcohol, drugs, cigarettes, and sex. Children of working parents often return home and remain unsupervised from three to six o'clock in the evening. One cross-sectional survey of students in an urban school district found that 56% of the predominantly Black students were unsupervised for four or more hours daily after school and, those who reported being home alone for 30 or more hours weekly were more likely to be sexually active than those reporting being home alone less than five hours per week. For boys, there was a positive association between unsupervised time, tobacco and alcohol use, number of sexual partners, and sexually transmitted diseases⁷. It is possible that teenage conception is occurring at higher rates during these unsupervised afterschool hours, which would make participating in afterschool programs a safer and supervised alternative to returning to an empty home with a potential sexual partner.

Yet, afterschool supervision, or lack thereof, is not the only factor that might influence adolescent sexual behavior. How students *use* their afterschool time is a potential predictor of sexual behavior as well. For girls in the survey, there was an association between nonparticipation in afterschool activities and being sexually active⁷.

Another study of high school students found that 10th graders who were involved in extracurricular activities after school were 37% less likely to become teen parents before graduating high school than students who did not participate in school-sponsored activities⁸. This finding is particularly relevant when considering the fact that students from low-income families, who are disproportionately racial and ethnic minorities in the United States, were less likely to engage in afterschool activities that would keep them out of trouble and help them develop skills and character. One limitation of these cross-sectional, observational studies is that they do not reveal a causal relationship between lack of afterschool supervision and nonparticipation in afterschool programs and adolescent pregnancy -- they simply show a correlation. However, more rigorous evaluations of afterschool programs using quasi-experimental research designs reveal the positive effects of afterschool programs on various health and behavior-related outcomes.

The Benefits of Afterschool Programs

Research shows that high-quality afterschool programs can provide a safe, supervised, and structured environment for adolescents to develop. When the programs include certain components, they have been found to positively impact children and adolescents. Teenagers who participate regularly in well-implemented afterschool programs reap academic, social, and health benefits⁹. The structured time spent on homework improves academic performance when paired with enriching, hands-on learning possibilities. Programs that include mentoring and sessions designed to build personal, social, and leadership skills improve students' self-esteem, self-confidence, and self-control along with the

increasing capacities in the skills themselves. Likewise, participation in programs targeting specific behaviors is associated with improved outcomes, such as delaying alcohol use and substance abuse. These programs use skill-building, community service, and leadership activities to influence students' behaviors.

Participation in afterschool programs is also associated with a decreased likelihood for sexual activity and increased knowledge of safe sex practices among teenagers⁹. While the exact link between participation in afterschool programs and adolescent sexual health has yet to be determined, examination of these programs offers important insight. Researchers have found a positive correlation between hours without supervision after school and sexual activity. However, it is likely that specific components of high-quality afterschool programs act as more significant determinants of adolescent sexual health than sheer supervision. This idea is modeled in a study of participation in afterschool programs and delinquency reduction¹⁰. Students who participate in afterschool programs exhibit fewer delinquent behaviors, but decreasing time spent unsupervised is not the mechanism by which delinquency is reduced. Alternatively, participation in programs after school increases intentions to avoid drug use and maintain positive peer associations, and the mediating effect of afterschool programs on delinquent behavior is strongest with programs emphasizing social skills and character development.

Emphasis on skill building and character development in afterschool programs is just as important in improving adolescent sexual health. Teenagers who envision their own future success and have educational or career aspirations that they believe are

attainable are less likely to experience early sexual initiation or have a child¹¹.

Afterschool programs that focus on these areas, and not necessarily on sex education or pregnancy prevention, are associated with lower levels of sexual experience and chances of pregnancy or childbirth among participants. One such program is The Children's Aid Society-Carrera (CAS-Carrera) program, which was launched in Harlem in 1984¹². This afterschool program uses a comprehensive approach to adolescent development by incorporating the following components into a model for boys and girls ages 11 years and up: career, academic, family life and sexuality, mental and physical health, arts, and individual sports. The program emphasizes education and employment, providing participants with the chance to learn what interests them and gain skills and talents in those areas. However, the goal is for the personal development -- the increase life skills and academic/career aspirations -- to have a contraceptive effect.

An evaluation of the CAS-Carrera program using a randomized controlled trial revealed that it does, in fact, have a positive impact on adolescent sexual health. Girls who participated in the program over a three-year period were significantly less likely to be sexually active or to have experienced pregnancy. If sexually active, female program participants were significantly more likely to have used a condom or hormonal method the last time they had sexual intercourse. Since the participants in this study were primarily non-Hispanic Black and Hispanic adolescents from disadvantaged backgrounds, the evaluation of CAS-Carrera supports the idea that high-quality afterschool programs are effective, and have the potential to be instrumental, in reducing pregnancy among "at-risk" populations.

Implications and Recommendations

With the knowledge that participation in afterschool programs can improve adolescent sexual health, and the specific example of the Children's Aid Society-Carrera program, certain policies might be considered. One recommendation would be sustaining programs that work. Funding for programs like CAS-Carrera would allow them to continue operating from the sites they currently occupy. Additionally, federal funding would allow the implementation of the programs that work in disadvantaged areas where need is high. While afterschool programs like CAS-Carrera are expensive to maintain, cost-benefit analyses should be run to determine if the cost of the programs are less than or greater than the cost of teen childbearing. In 2010, the United States Department of Health and Human Services awarded \$75 million to 75 grantees looking to launch the CAS-Carrera model in their communities¹³. In the same year, the cost of teen childbearing to taxpayers was \$9.4 billion¹⁴. Considered in conjunction with each additional cost (like those related to delinquency) that could be avoided with the implementation of high-quality afterschool programs, the benefits of supporting afterschool programs outweigh the costs.

Another recommendation would be to restructure and ameliorate afterschool programs that are currently in place. Many afterschool programs exist but are not of high-enough quality to result in improved adolescent sexual health outcomes. Altering the structure of these programs to include components seen in successful, high-quality models would be a cost-effective way to impact adolescent health. For example, restructuring afterschool program curricula and activities to emphasize personal development, academic and career goals,

and life skills could increase the aspirations and self-efficacy of teenagers, thus reducing unintended pregnancies during high school. An additional goal would be to make these improved programs more widely available for the many low-income and minority adolescents whose parents report having limited access to afterschool programs despite considering them "an absolute necessity"¹⁵. Strategies to encourage and maintain adolescent participation should also be considered.

The review of the literature suggests that high-quality afterschool programs are indeed effective in improving teenagers' sexual health by helping teenagers delay the initiation of sexual activity, increase use of condoms and hormonal contraception, and avoid teenage pregnancy. When considering program efficacy, though, it should be noted that there is currently no program, afterschool or otherwise, that can completely eliminate adolescent pregnancy and the associated poor sexual health behaviors. There are too many forces at play in the issue: education, poverty, societal norms, etc. However, the implementation of high-quality afterschool programs, especially those targeted towards Black and Hispanic teenagers, could reduce the racial/ethnic disparity in teenage pregnancy rates and improve outcomes over the lifecourse for these minority groups. This disparity reduction would improve the United States' overall standing alongside other developed nations in rates of teenage pregnancy.

Related Sources of Interest

1. Afterschool Alliance
<http://www.afterschoolalliance.org/>
2. Children's Aid Society-Carrera Program
<http://stopteenpregnancy.childrengaid.org/>

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