

Using Science to Improve the Sexual Health of America's Youth

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For decades, sexuality education policies and practices in the U.S. have been a mixture of science, morality, politics, and the personal opinions of key decision makers. Far too often, science has fared dismally when policy, practice, and curriculum decisions were made in state legislatures and local school board meetings. The new research focusing on the meta-analyses of group-based comprehensive risk reduction (CRR) and abstinence education interventions is one additional tool in the toolkit of those who want to use science, not ideology, to address the sexual risk-taking of America's youth.

The impact of poor and limited policies regarding sex education and access to contraception has far-reaching impact in American society. For example, the U.S. teen pregnancy rate is more than six times that of the Netherlands, four times that of Germany, and three times that of France. Similar statistics are found when examining rates of HIV/AIDS diagnoses as well. Rates in the U.S. are six times greater than in Germany, three times greater than in the Netherlands, and 1.5 times greater than in France. In addition, youth in U.S. are significantly less likely to use contraception than European youth.¹

Although it is not suggested that any one sex education policy or curriculum will result in a significant decline in these statistics, having good evidence-based policies and practices is a positive first step in creating a climate where sexuality is discussed as a normal part of the human experience. In addition, using science helps address sexual risk-taking by teens as a public health issue and not a morality debate.

Brief History of Sex Education in the U.S.

A brief review of the history of sex education in the U.S. is warranted because these early experiences continue to affect the philosophies used today to address sexuality education policies and practices. Prior to the 20th century, sex education in the U.S. was not organized in any respect. Most Americans lived in rural settings, and basic sex education consisted of watching animals reproduce.

There was the expectation that girls would remain virgins until their wedding nights, and contrary expectations were given to boys who often were initiated to sex at brothels. In the early 1800s, pamphlets and brochures were developed that mixed theological, nutritional, and philosophical information with the primary purpose of helping readers control sexual urges until marriage.²

The "modern" sex education movement in the U.S. began in early 20th century with a focus on two key issues: the impact of "venereal diseases" and the decline of American morality, specifically the immorality of city life. Founded in 1914, the American Social Hygiene Association (ASHA) led the charge to address medical and moral improvement. The philosophy of ASHA was that if the citizenry knew about the medical dangers of sexual immorality, then rational people would decide not to experiment with promiscuity.² It should be noted the "scare 'em" approach is still alive and well today.

Sex education advocates soon turned to public schools as an avenue to reach young people. Many of these early school-based programs were focused on quashing curiosity about sex, with much of the material focused on using fear to accomplish the task. In 1913, the Chicago public schools were the first in a major city to implement sex education in high schools. The opposition was swift and powerful and eventually led to the resignation of the popular school superintendent.²

The "Chicago Controversy" clearly identified the themes that were to characterize sex education over the next century. Supporters of sex education opined that "scientific" knowledge about sexuality (or at least reproduction) would actually lead to more responsible and moral behavior. Opponents argued that any information about sexuality, no matter how well intended, would corrupt young minds and lead youth down the path of immorality and a lifetime of negative consequences. On the medical front, the development of penicillin during World War II lessened the dangers of syphilis, and the focus of instruction shifted to the social aspects of sexuality (a.k.a. "family life education").²

The 1960s and 1970s were a time when premarital sexual activity, pregnancy, and sexually transmitted diseases rose dramatically. National groups, such as the Sexuality Information Education Council of the United States (SIECUS), were formed to provide leadership in

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the formal science of sexuality education. The novel approach by SIECUS was the teaching of sexuality education without the value-laden approaches of the past. As was the case some 50 years earlier in Chicago, the opposition to this approach for teaching sexuality education was swift and strident.²

The most meaningful milestone for the federal government's involvement in sexuality education began with the 1996 Welfare Reform Act in which federal funds were provided to states to support "abstinence-only until marriage (AOUM)" sex education. Grantees were required to adhere to strict guidelines (i.e., "A-H definition") that promoted sexual abstinence at the exclusion of scientific discussions of contraception and promoted heterosexual marriage as the only acceptable lifestyle. Most of these programs rarely discussed basic topics such as puberty, reproductive anatomy, and sexual health other than abstinence from sexual activity. As a result of this funding, a "cottage industry" of AOUM programs was developed, with many of these programs having very little to no basis in science, pedagogical theory, or basics of curriculum development.³ By 2010, 25 states no longer applied for federal abstinence-only funding.⁴

More recently, Congress authorized two new funding streams for sexuality education and pregnancy prevention programs. The 2010 Personal Responsibility Education Program provides the first federal funding for programs that teach about abstinence and contraception for the prevention of pregnancy and sexually transmitted infections (STIs). There is \$75 million in funding provided over the 5-year period (2010–2014), and 43 states and the District of Columbia applied for funds in 2010. A second funding stream provides for replication of evidence-based interventions in community, school, and faith-based settings, as well as funding research and demonstration projects to develop, replicate, refine, and test additional models and innovative strategies for preventing teen pregnancy.⁵ These new funding streams signal a clear shift in strategy at the federal level away from ideologic to science-based solutions to teen pregnancy prevention.

Existing Research

Recently, there has been evidence of "what works" in teen pregnancy prevention programs. The groundbreaking work by Dr. Doug Kirby led to the publication of *Emerging Answers 2007*, which identified characteristics of effective programs, how to choose an effective program, and comprehensive evaluations of a number of existing programs.⁶ This work is the foundation of evidence-based programming in the field and is widely referenced

by advocates of science-based policy and program decisions.

Of particular note in Kirby's work is the definition of the term *effective*.⁶ Kirby's research focused on the behavior change of participants, not merely knowledge and attitude changes. This gold standard of research is important to keep in mind when those in the field routinely refer to *evidence* merely in terms of knowledge or attitudinal changes of participants. Although it is certainly important to improve knowledge and develop positive attitudes, merely doing so is a far cry from true behavior change. This new report on the meta-analyses of sex education programs focuses on behavior change as the ultimate criterion for determining *effectiveness*.

Future of Sex Education

The Future of Sex Education (FOSE) Project, begun in 2007, is taking advantage of the changing political climate in America to proactively address sexuality education policies and programs. Funded by the Ford, George Gund, and Grove Foundations, this is a collaborative partnership between Advocates for Youth, Answer, and SIECUS that resulted in the development of a strategic framework for advancing sex education in public schools. The vision of FOSE is that every young person enrolled in a public school receives developmentally appropriate, culturally and age-appropriate, comprehensive sexuality education at school. The established goals of the project focus on championing support for sex education policies at the national, state, and local levels, along with ensuring that public schools have the capacity to implement and sustain quality comprehensive sexuality education.⁷

One innovative and useful product from the FOSE Project has been the recently released National Sexuality Education Standards that will help guide the work of school administrators, teachers, parents, and other community stakeholders as they plan and implement evidence-based policies and practices. Developed in partnership with the American Association of Health Education, American School Health Association, National Education Association Health Information Network, and the Society of State Leaders of Health and Physical Education, the National Standards is another tool to be accessed in using science to guide policy and practice at the national, state, and local levels.⁸

Implications for the Field

The new sexuality research by the Community Preventive Services Task Force will have a long-lasting impact on the future of sex education policies and programs in the U.S. This research is strategic and useful in a number of respects. First, it focused on matters of true concern in local

communities. For example, barriers to implementation were assessed: The best program/curriculum in the world is of little use if restrictions on intervention activities, funding, and participation challenges are not addressed. Far too often, interventions are assessed in artificial environments that have little in common with real-life scenarios.

Second, potential benefits and harm were assessed. There are a number of myths about comprehensive risk-reduction strategies that have existed for years. For example, it is common for community members to believe that providing CRR will lead to earlier and riskier sexual activity. As with other prior research, this study indicates that the opposite is true. Still, it is of value to practitioners to know that these concerns are common among many community members and must be addressed.

Third, the limitations in reviewing CRR and abstinence education programs were identified. A limiting factor in this type of research is the use of self-reported data to measure behavior. In addition, many of the evaluated programs provided little information about the actual content of the respective programs. A number of limitations were listed, and the reader should be cognizant of these limitations in interpreting results. In addition, the analyses of published abstinence education research highlighted a number of ongoing problems in evaluating these interventions.

Finally, the article is very clear in identifying existing research gaps. For example, most of the reviewed programs were delivered to coeducational groups and results were not reported by gender. Other identified gaps included limited information regarding parental participation, inconsistent reporting of moderator variables, and inconsistent time periods for follow-up assessment of participants. As always, identification of research gaps indicates that there is more work to do in assessing all aspects of human behavior change, in particular, the factors affecting sexual behavior.

Conclusion

This research effort should not be seen as the final word on comprehensive risk-reduction and abstinence education programs, but rather another milestone in the evol-

ing fields of human behavior change and the impact of sexuality education curricular approaches. The mantra of using evidence-based practices is commonly bandied about, but the reality is that the research on sexuality education program effectiveness is not as robust as it needs to be. This study adds needed information to the evolving research in the field and, when combined with the new federal funding streams and FOSE initiatives, will provide meaningful and useful tools to professionals in the field who are committed to using science, not theology and personal opinions, to guide sexuality education policies and practices.

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