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Editorial

Sex Education: Broadening the Definition of Relevant Outcomes



Substantial evidence exists for the efficacy and effectiveness of comprehensive sex education (CSE) in positively influencing behaviors related to preventing unintended pregnancy and sexually transmitted diseases (STDs), including delaying sexual intercourse, increasing contraception and condom use, and reducing the frequency of sex and number of partners [1–3]. The scientific evidence also provides ample assurance that sex education does not have negative outcomes [1–5]. The value of systematically gathering evidence about effective sex education programs is exemplified by two pioneering reports by Dr. Douglas Kirby, *No Easy Answers: Research Findings on Programs to Reduce Teen Pregnancy* [4] and *Emerging Answers: Research Findings on Programs to Reduce Teen Pregnancy and Sexually Transmitted Diseases* [5]. These reports illuminated the common characteristics across effective programs and subsequently influenced the development of a new, more scientifically informed set of curricula and interventions [3–5]. Goldfarb and Lieberman's new review, *Three Decades of Research: The Case for Comprehensive Sex Education* [6], builds on this legacy.

First, Goldfarb and Lieberman use recent guidelines from the U.S., particularly the *National Sex Education Standards* [7], expanding the focus from the behavioral determinants of pregnancy and sexually transmitted infections to other potential outcomes of CSE. Their review, which focuses exclusively on school settings, identifies literature that measures the impact of CSE on this broader set of outcomes: appreciation of sexual orientation and gender diversity; prevention of homophobic bullying, intimate partner violence, and child abuse; and promotion of healthy relationships, social–emotional learning, and media literacy. Furthermore, Goldfarb and Lieberman examine three approaches: traditional, curriculum-based classroom interventions; the integration of CSE topics into other academic subjects; and interventions to improve school climate. Their review suggests that programming or interventions that are not part of typical sex education classes can contribute to important outcomes and ought to be included in the conceptualization of sex education. It is worth noting, however, that even in schools that require sex education, only about 6 hours of instruction on human sexuality is required throughout high school and even less in elementary and middle school [8], which means that expectations about the potential of sex education must align with these constraints.

Goldfarb and Lieberman find evidence supporting the positive impact of a range of interventions on a broad set of sexual health outcomes. However, the methodological weaknesses of many of the underlying studies limit the conclusions that can be made about CSE's impact. Importantly, most of the studies reviewed are not randomized controlled trials or rigorous quasiexperimental designs, which limit the attributions of causation for observed changes in knowledge, attitudes, and behavior. However, the value of this work lies in advancing an expanded conception of CSE. Indeed, Goldfarb and Lieberman challenge readers to think more expansively about sex education. Notably, their review of CSE includes many programs that may not originally have been developed as “sex education.” Their findings show that effective sexual health promotion can transcend curriculum-based programs, which have been the main way formal sex education has been delivered in the U.S.

Given the current public attention to sexual violence, a particular contribution of Goldfarb and Lieberman's study is to highlight the potential for sex education as a population-level strategy to prevent dating and intimate partner violence and reduce child sexual abuse. The public conversation about sexual assault has persistently focused on questions of individual guilt and adjudication [9]. This review shifts this conversation to show that CSE can prevent sexual assault perpetration and victimization by promoting sexual consent, encouraging bystander interventions, and teaching sexual refusal skills. These lessons have the potential to prevent harm while young people are in school and over the life course; they can also promote the development of healthy relationships.

Although Goldfarb and Lieberman take an expansive view of what schools can do, it is also important to think about other avenues for providing sexuality education. Parents, youth-serving organizations, health care providers, the faith community, and the media all contribute to young people's sex education: the challenge is to harness and use the power of these multiple people and institutions to provide young people with needed information, skills, and resources. The digital space is increasingly where young people obtain sex education. Digital interventions have the potential for both efficacy and scale [10] and may be particularly important now, given school disruptions due to COVID-19. The national surveillance systems for sex education in the U.S. do not

 See Related Article on p.13

track digital interventions. Moreover, they track classroom instruction for a limited number of topics [11]. This broader landscape of sex education beyond specific curriculum-based programs merits further science-informed development and evaluation as well as better surveillance. The potential for linking and reinforcing information between school-based CSE and digital interventions is also ripe for development.

Expanding the definition of sex education's efficacy beyond reproductive health effects is a clear contribution of this new review. For example, enhancing the school climate to be more supportive of lesbian, gay, bisexual, and transgender youth has the potential to improve a much broader range of social–emotional and mental health outcomes than has been traditionally measured by evaluations of sex education. However, it is important to note that high levels of support for sex education in schools across the country, among parents and nonparents, and among people of both political parties have been measured against traditional outcomes (e.g., those related to pregnancy and STD prevention) [12,13]. Explicitly shifting sex education toward other goals may result in lower support for programs in some communities while improving support in others and could create new opportunities for coalition building in support of CSE.

Young people have fundamental human rights to the complete and accurate health information needed to protect their sexual and reproductive health [14]. CSE is necessary for achieving this goal. Governments have an obligation to provide accurate information to their adolescent citizens; such obligations extend to government-funded health education and health care services [15]. Thus, it is essential to expand the scope of CSE beyond a focus on pregnancy and STD prevention to include advancing respect for people of all sexual orientations and gender identities, the ability to successfully navigate sexual consent, and the empowerment of children and adolescents to address sexual abuse.

The review suggests that there is unrealized potential for layering curriculum-based and environmental-level programming to better meet the needs of students. Goldfarb and Lieberman's review suggests that if we conceptualize CSE beyond traditional, classroom-based approaches, with the power to impact sexual and reproductive health outcomes as well as individuals' social–emotional and mental health and the broader climate, we will make progress in helping young people become sexually healthy adults. At the same time, it is critical that new programs and policies complement, rather than substitute for, curriculum-based CSE and that the availability of CSE should not depend solely on its demonstrated impact on particular outcomes or on public opinion but, rather, should center on adolescents' human rights as the key justification for CSE.

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