Ideology or Evidence? Examining the Population-Level Impact of US Government Funding to Prevent Adolescent Pregnancy

See also Fox et al., p. 497.

US government support for sexual abstinence-only until marriage (AOUM) programs over the past 38 years[1] and recent efforts by the Donald Trump administration to dismantle the evidence-based Teen Pregnancy Prevention (TPP) program reflect an ongoing conflict between science and ideology in US public health policy. A new study by Fox et al. (p. 497) in the current issue of *AJPH* provides intriguing new evidence regarding both of these approaches. The authors found that sexual risk avoidance (otherwise known as AOUM) funding was associated with an increase in state adolescent birthrates, whereas TPP funding was associated with a decrease in those rates. However, these associations were limited to ideologically conservative states—the states that are the most likely to adopt AOUM policies and that often have higher adolescent birthrates.

The new study adds to previous research regarding the limitations of AOUM.[1] The United States is an anomaly among developed nations in supporting AOUM and building certain key adolescent health policies on conservative ideologies rather than science. In fact, US adolescents are less likely to receive comprehensive sex education than they were in the past. Between 2006 and 2013, fewer adolescents reported receiving formal sex education, including information about birth control.[2]

SHIFTING FUNDING

The findings from this new study are important because of shifting federal policies regarding AOUM and TPP over the past decade. In 2010, under President Barack Obama, there was a policy shift from a focus on AOUM to a focus on evidence-based TPP; Congress drastically reduced spending on AOUM programs. However, in 2017 President Trump's administration attempted to reverse this focus and to dismantle the TPP program—first by attempting to discontinue grants midstream and then by issuing a call for new proposals that would have allowed this funding to shift to AOUM approaches. Legal challenges in the federal courts have enjoined these actions to date, but future support for the TPP program—as well as sexual and reproductive health rights more broadly—remains in jeopardy.

These fundamental policy changes merit population-level analyses; such research has been limited to date. Previous evidence from the TPP has focused on the efficacy of individual programs and curricula rather than its broader impact on sexual health outcomes. There is wide variation in what young people receive in school-based sex education in different communities across the country; states and local communities generally set educational policy, including policy regarding sex education. Thus, examining state ideology and state funding by Fox et al. is a welcome and innovative idea. This approach may yield important insights into the influence of funding and programming in varied contexts. In identifying state ideology as a key variable, the authors found that AOUM was not just ineffective but was actually harmful to youths.

EVIDENCE

Current scientific evidence on AOUM programs and adolescent pregnancy prevention programs and the broader literature on more comprehensive approaches to sex education is clear: this evidence strongly supports the efficacy of comprehensive curriculum-based programs to change behaviors that are the immediate precursors of adolescent pregnancy (i.e., sexual activity and contraceptive use). AOUM programs have generally failed to demonstrate any behavioral change.

The most comprehensive meta-analysis of US programs conducted for the Centers for Disease Control and Prevention's *Guide to Community Preventive Services* examined 66 "comprehensive risk-reduction" sexual health programs and 23 risk avoidance and AOUM programs.[3] Comprehensive risk-reduction programs had favorable effects on current sexual activity, frequency of sexual activity, condom use, protective behaviors overall (which combined condoms, oral contraception, and dual use), number of sexual partners, frequency of unprotected sexual activity, sexually transmitted infections, and pregnancy. Moreover, adverse impacts from these programs were rarely identified. By contrast, insufficient evidence was found for changes in behaviors or the other sexual health outcomes from AOUM programs. Likewise, a recent global review of curriculum-based sex education commissioned by the United Nations Educational, Scientific and Cultural Organization of 77 high-quality studies delivered in schools concluded that sex education "remains a crucial and cost-effective strategy."[4(p28)] Together these findings reinforced the conclusions of earlier reviews encompassing decades of evaluation research.[5]

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A summary of the scientific findings from phase 1 (2010–2015) of the TPP was published in *AJPH* in 2016.[6] Overall, 12 programs had strong implementation and evaluation and positive behavior change, 16 had strong implementation and evaluation but no evidence of behavior change, and 13 had inconclusive findings. Again, these findings are similar to previous reviews of specific sex education curricula.[3–5]

The weight of scientific evidence finds that comprehensive curriculum-based programs, including many of those used in the TPP program, are effective in changing behaviors leading to adolescent pregnancy. Not every individual evaluation demonstrates efficacy, but meta-analyses find sex education is effective in changing multiple behaviors. By contrast, AOUM programs do not demonstrate efficacy in delaying the initiation of sexual intercourse or changing other relevant health behaviors. Despite this, the Trump administration continues ideologically driven attacks on the TPP program, while supporting the expansion of funding for AOUM programs.

IDEOLOGY

AOUM programs, as defined by US federal funding requirements, raise serious concerns about the human rights of young people; they inherently withhold life-saving information about human sexuality and may provide medically inaccurate and stigmatizing information.[1] Other scientific concerns and human rights concerns include the promotion of gender and racial stereotypes, insensitivity to nonheterosexual youths, and harm to traditional sexual health education. Considering the sharply rising age at marriage in the United States and around the world, abstinence until marriage has become increasingly uncommon as well as unrealistic as a policy goal.

To be sure, the new study by Fox et al. is not definitive. The article should be clearer that state funding includes funding to state governments and nongovernmental organizations within states—including conservative religious groups. When funding goes to local groups, the potential direct impact is limited to a relatively small group of adolescents within a state. Thus, neither AOUM nor TPP funding to local groups is likely to directly change state-level adolescent birthrates. The findings of Fox et al. suggest important indirect effects of federal funding for AOUM and TPP, potentially by creating a policy climate that legitimizes either approach. Conservative states, in particular, appear sensitive to these shifts in funding. The authors' finding that AOUM funding is associated with perverse effects on (i.e., increases in) adolescent birthrates and that TPP is associated with decreases in these rates is consistent with these indirect effects.

SUMMARY

Although there are limitations to research on the population-level effects of health policy, such research is an essential endeavor and one that the authors have engaged thoughtfully, including adjusting for major covariates that are associated with adolescent births. The Fox et al. study adds to the scientific literature demonstrating that AOUM is a policy that may have deleterious effects on young people. It also supports considerable previous research showing that providing sex education to adolescents can effectively address the sexual behaviors that lead to adolescent pregnancy. These findings, added to the growing literature about the problematic effects of AOUM, suggest that US government policy and funding should heed the scientific evidence, continue to support the implementation of evidence-based approaches, and shift away from AOUM programming that may actually be causing harm. AJPH

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CONFLICTS OF INTEREST

The authors have no conflicts of interest to disclose.

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