ELSEVIER

Contraception 86 (2012) 276–280

Contraception

Original research article

Sex education and adolescent sexual behavior: do community characteristics matter?

Joan Marie Kraft[a,*], Aniket Kulkarni[a], Jason Hsia[b], Denise J. Jamieson[a], Lee Warner[a]

[a]*Division of Reproductive Health, U.S. Centers for Disease Control and Prevention, Atlanta, GA 30341, USA*

[b]*Office on Smoking and Health, U.S. Centers for Disease Control and Prevention, Atlanta, GA 30341, USA*

Received 28 September 2011; revised 4 January 2012; accepted 4 January 2012

Abstract

Background: Studies point to variation in the effects of formal sex education on sexual behavior and contraceptive use by individual and community characteristics.

Study Design: Using the 2002 National Survey of Family Growth, we explored associations between receipt of sex education and intercourse by age 15, intercourse by the time of the interview and use of effective contraception at first sex among 15–19-year-olds, stratified by quartiles of three community characteristics and adjusted for demographics.

Results: Across all quartiles of community characteristics, sex education reduced the odds of having sex by age 15. Sex education resulted in reduced odds of having sex by the date of the interview and increased odds of using contraception in the middle quartiles of community characteristics.

Conclusion: Variation in the effects of sex education should be explored. Research might focus on programmatic differences by community type and programmatic needs in various types of communities.

Published by Elsevier Inc.

Keywords: Adolescents; Sex education; Sexual behavior; Community context

1. Introduction

US Healthy People 2020, a national 10-year agenda for improving the health of all Americans, includes objectives to delay sexual initiation and increase contraceptive use among sexually active adolescents [1]. Because sex education curricula can delay sexual debut and increase contraceptive use, Healthy People 2020 includes an objective to increase the proportion of adolescents who receive reproductive health instruction in school or community settings [1–4]. Recent studies point to variation in program effects for subgroups based on gender and community characteristics, speculating that those who have more control over condom use (i.e., males) benefit more from such interventions [4–6]. Mueller and colleagues [4], for example, reported weaker effects of sex education on sexual initiation and contraceptive use for rural compared to urban youth. These findings are intriguing in light of associations between community characteristics and sexual risk behaviors [7–10].

There are marked differences in adolescent sexual behavior by community of residence. Adolescents living in communities characterized by disadvantage and social disorganization (e.g., high rates of poverty, residential instability) are more likely to initiate sex as teenagers, less likely to use contraception at first sex and more likely to give birth as teenagers [7–9]. Access to institutions that enhance success (e.g., schools, jobs) and healthy development (e.g., clinics), the quality of parent–child relationships and/or norms and community efficacy (e.g., other adult supervision) are thought to link community characteristics to behavior [7,11]. Lacking institutional resources or social constraints that may limit their control over things like contraceptive use, adolescents in disadvantaged communities may need intensive interventions, and so sex education as typically offered in schools or community settings may have weaker effects for adolescents living in such communities. We assess the association between sex education and selected risk behaviors (sexual initiation and contraceptive use) among 15–19-

* Corresponding author. Tel.: +1 770 488 6396; fax: +1 770 488 6391.
E-mail address: jik4@cdc.gov (J.M. Kraft).

0010-7824/$ – see front matter. Published by Elsevier Inc.
doi:10.1016/j.contraception.2012.01.004

year-olds within subgroups defined by community characteristics to explore variation in the effects of sex education on sexual behaviors by community characteristics.

2. Methods

Data were from the 2002 National Survey of Family Growth (NSFG), one of few data sources that include measures of community characteristics at the census tract level. Data collection has been reported previously [12]. We chose the NSFG for several reasons: it uses a nationally representative sample and so includes a range of randomly selected geographic units (as one stage in sampling) along the continuum from disadvantaged to advantaged across the United States, and it is used to measure progress toward Healthy People 2020 objectives, including exposure to reproductive health instruction in school and community settings.

We limited our sample to 2247 15–19-year-old males and females who were not married or living with a partner. Adolescents were asked during in-person interviews whether they received formal instruction in school, church or a community organization on contraception or how to say no to sex. Those who answered yes to either question were asked in what grade they first received that type of instruction. We added 5 (i.e., age at which most children start school) to that grade to estimate the age at which they received sex education. We defined sex education as occurring before first sex if the age at sex education was younger than the age at first sex or if the adolescent had not had sex by the time of interview. We did not include a measure of parent–child communication about reproductive health because of our focus on formal instruction and because we could not ascertain whether parents talked to their children before they first had sex.

We considered three outcomes: sexual intercourse by age 15 (yes vs. no), sexual intercourse by the time of the interview (yes vs. no) and use of an effective contraceptive at first sex (i.e., use of long-acting, hormonal or barrier method vs. nonuse or use of other methods such as withdrawal or spermicides). The outcomes were based on responses to questions asking whether participants had ever had sexual intercourse and, if so, the age at which they first had sexual intercourse and what contraceptive method(s), if any, they used the first time they had sexual intercourse.

Three measures of community characteristics (from the 2000 Census) assessed employment and economic opportunities which may shape adolescents' success on pathways to adulthood, relationships with adults and norms in the census tract of residence at the time of the interview: percentage of residents 25 years and older with an Associate's degree (i.e., 2 years of college work in the Arts and Sciences or as preparation for an occupation) or more (i.e., Associate's degree, Bachelor's degree, advanced degree), median family income in dollars and the percentage of men who were unemployed (i.e., male unemployment rate) [5,6]. These measures have been used in previous studies assessing associations between community characteristics and sexual behavior [7,10]. Although they overlap, the measures may tap different dimensions of disadvantage in communities. For example, although it is a measure of economic disadvantage, male unemployment may be related to women's perceptions of the availability of "marriageable" men and thus linked to social norms around out-of-wedlock births [13]. Likewise, the percentage of residents with an Associate's degree is linked to income but may also shape young people's ideas about the feasibility or importance of going to college.

Because our analyses are exploratory and we needed to address the possibility of multicollinearity, we considered the effects of sex education on the outcomes separately for each community characteristic. To assess the effect of sex education on each outcome within subgroups defined by community characteristics, we divided the distribution on each characteristic into quartiles. This classification is a compromise between the need for reliable statistics and our desire to look at the full distribution on each characteristic. We estimated 12 logistic regression models (i.e., one for each quartile of each community characteristic) for each outcome. Each model was adjusted for respondent's sex, age, race/ethnicity (white/other, non-Hispanic Black and Hispanic), school enrollment at the time of the interview (yes, no), family composition at age 14 (2 parents, other) and mother's education (high school or less, some college, college plus) [2,3]. Adjusted odds ratios are interpreted as the increase or decrease in odds of experiencing an outcome (e.g., having had sex before age 15) associated with having received sex education within a particular quartile of a particular community characteristic, controlling for demographic factors [e.g., row 1 of Table 1A indicates that in communities in the lowest quartile of percentage of residents with an Associate's degree, the odds of having had sex by the age of 15 were significantly lower among those who received sex education (aOR=0.44, $p<.05$) compared to those who did not receive sex education, when controlling for demographic factors]. All analyses were weighted to account for the complex survey design in SUDAAN, using Taylor Linearization for variance calculations.

3. Results

Most (87%) respondents reported receiving formal sex education. Tables 1 and 2 show the percentages that received sex education and that experienced each outcome [i.e., sexual initiation by age 15 (Table 1A) and by interview (Table 1B); use of effective contraception at first sex (Table 2)] within quartiles of community characteristics. We found significant bivariate associations between each community characteristic and receipt of sex education and between each community characteristic and each outcome. For example,

Download English Version:

https://daneshyari.com/en/article/3913861

Download Persian Version:

https://daneshyari.com/article/3913861

Daneshyari.com