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Adolescent Sex Education

Carolyn Payne

May/June 2017

Burlington, VT

University of Vermont Larner College of Medicine (UVM LCOM)

Community Health Centers of Burlington (CHCB)

The Boys and Girls Club of Burlington

Project Mentors: Sherry Larose, PA, Mallory Brown, MSW,

Barbara Frankowski, MD, MPH, Judy Wechsler, PA, Heather Stein, MD

Why Adolescent Sex Education?

- Sexual activity is prevalent and often unsafe among teens
 - 41% of U.S. and 41% of Vermont high school students reported having ever had sexual intercourse (2015)¹
 - 43% of U.S. and 42% of Vermont high school students did not use a condom the last time they had sex (2015)¹
 - 10% of U.S. and 10% of Vermont high school students had ever been tested for HIV (2015)¹
 - 55% of 15-19 year old U.S. teens reported ever having engaged in oral sex (2008)² but only 9% of teens reported using a condom during oral sex in a 2007 study³
 - 23% of females and 14% of males reported ever experiencing rape, physical violence, or stalking by an intimate partner (2011)⁴
- Epidemiology
 - The United States (U.S.) has had higher rates of teen pregnancies and sexually transmitted infections (STIs) than most other developed nations for decades^{5, 6}
 - Numerous studies have shown that unintended pregnancies and/or STIs are more common among traditionally underserved populations, including ethnic minority, LGBTQ, impoverished, and rural communities^{1, 4, 5}

Why Adolescent Sex Education?

- Unplanned Pregnancies
 - 45% of U.S. pregnancies (2011) and 46% of Vermont (2010) pregnancies were unintended⁷
 - Pregnancy rate among 15-19 year olds was 52 and 32 per 1,000 among U.S. and Vermont women, respectively (2011)⁷
- STIs
 - 2015 was the second year in a row that increases were seen in all 3 nationally reported STIs (chlamydia, gonorrhea, and syphilis-6, 13, and 19% increases, respectively)⁸
 - About 20 million new STIs are reported in the U.S. each year and nearly half are among 15-24 year olds⁸
 - The highest chlamydia and gonorrhea rates in Vermont are in Chittenden County and the surrounding areas⁹

Public Health Costs

- Unplanned Pregnancies
 - Teen pregnancy and childbirth cost U.S. taxpayers \$9.4 billion in 2010 with estimates based on increased health care, foster care, and incarceration costs and decreased tax revenue from lower educational attainment among children of adolescents and teenage mothers¹⁰
 - 68% of U.S. and 73.5% of Vermont unplanned births were publicly funded in 2010⁷
- STIs
 - New STIs cost U.S. taxpayers \$16 billion in direct medical costs alone¹¹
 - Lifetime treatment cost per person of HIV is \$379,668 (in 2010 dollars)¹²
- Federally funded programs
 - Public investments in family planning resulted in net government savings of \$13.6 billion in the U.S. and \$16.4 million in Vermont in 2010 with estimates based on family planning services helping Americans avoid unintended pregnancy, abortion, cervical cancer, STIs, infertility, and preterm and low birth weight births^{7, 13}
 - Teen pregnancy rate might have been 73% higher without publicly funded family planning services¹⁴

Public Health Considerations

- Comprehensive sex education essential in high school years
 - 49.3% of U.S. high school seniors reported being sexually active compared to 19.6% of freshman in 2013¹⁵
 - Traditional national abstinence-only sex education has been correlated with higher rates of teen pregnancy and STIs^{5, 16, 17, 18}
 - Vermont sponsors comprehensive sex education¹⁷
 - Personal Responsibility and Education Programs funding
 - Evidence-based technique that stresses abstinence but also STI prevention and contraception as well as healthy relationships, healthy life skills, and adolescent development, especially among at-risk youth^{17, 18}
- Primary care offices serve as resources for adolescent education
 - National efforts are promoting holistic approaches to medicine that offer resources to address all of a patient's medical and social needs as well as opportunities for disease prevention through programs like patient-centered medical homes¹⁹
 - Community Health Centers of Burlington (CHCB)
 - Federally qualified health center nationally recognized for its cost-effective, extensive, and high-quality patient-centered medical home that serves over 34,000 Vermonters
 - Incorporates sexual education, especially at its adolescent and transgender clinics^{20, 21, 22}

Community Perspectives

Sherry Larose, PA

Medical Provider at CHCB Pearl Street Youth Health Center

Adolescents and young adults should be routinely educated about healthy lifestyles in as many settings as possible. They require services and counseling related to sexually transmitted infections, contraception, and psychiatric concerns. Medical providers should discuss these topics and any prevention and screening opportunities at every appointment.

Mallory Brown, MSW

Assistant Programs Director at The Boys and Girls Club of Burlington

Teens believe myths about sex that they hear and that put them at risk for pregnancy, sexually transmitted infections, and even legal action. Sex education seems to be especially successful in after school programs like those at The Boys and Girls Club of Burlington, perhaps because they are in more informal settings than many sex education programs.

Barbara Frankowski, MD, MPH

Professor of Pediatrics at UVM LCOM

Engaging teens in a way that promotes a fun, open, and non-judgmental environment is essential to leading a successful sex education talk. Providing an interactive discussion format can be particularly engaging, especially for older adolescents.

Intervention and Methodology

- Developed a comprehensive sex education presentation for older adolescents
 - Objectives
 - Emphasize that medical providers are resources for treatment as well as counseling in decision-making and information about sex, healthy lifestyles, community resources, and evidence-based online sources
 - Provide information about STIs, including types, transmission, prevention, and treatment
 - Discuss contraceptive methods, options for unplanned pregnancies, cultural views on teen pregnancies, and common consequences of teen pregnancy
 - Engagement strategies
 - Interactive discussion format allowing students to discuss what they want to talk to about, what they already know, and what questions they have
 - After school program setting for a group of students who elect to attend together in the presence of mentors who are known and trusted
 - Simple visual aid summarizing contraceptive methods
 - Reviewed by Dr. Frankowski, Ms. Brown, and Ms. Weschler
- Conducted pilot presentation
 - High school students
 - The Boys and Girls Club of Burlington
 - Promotes Health & Athletics, Career Readiness & Life Skills, and Art & Technology
 - Offers out-of-school hours programs that especially target at-risk youth²³

Results and Responses: Early Project

- Identification of need for sex education implementation and development
 - High rates of unplanned pregnancies, STIs, and unsafe behaviors as well as high associated public health costs in the U.S. and Vermont
 - Traditional abstinence-only education worsens outcomes while comprehensive sex education strategies have been effective
 - Project goals highly supported by UVM and CHCB faculty and staff
- Development of presentation
 - Developed comprehensive sex education presentation using evidence-based resources and teaching approaches
 - Reviewed and positively received by project mentors who are community experts in adolescent medicine, sex education, and at-risk youth populations

Results and Responses: Pilot Presentation

- Results
 - 2 older adolescent male students and 2 after school mentors attended and engaged in a lively and comfortable 45-minute discussion
 - Discussed important topics, including the purpose of adolescent medical visits, the definition of sex, consent related to relationships, sex, and parenthood, types of STIs, STI transmission, contraceptive methods, non-evidence-based contraceptive strategies, and perspectives on teens using contraception, terminating pregnancies, offering children to adoptive services, and becoming parents
- Responses
 - Positive verbal feedback from students and mentors
 - The interactive discussion approach worked well with older high school students who were interested in learning
 - For future talks for younger or less enthusiastic students, a lecture-based approach that provides opportunities for more anonymous questions would be useful
 - It is important to keep in mind that high school student knowledge and background as well as level of experience and behavioral risk widely vary
 - Low attendance was attributed to nice spring outdoor weather for basketball

Effectiveness and Limitations

- Effectiveness
 - Developed comprehensive sex education presentation that is available for future educators online
 - Piloted presentation in appropriate after school program for at-risk youth and received positive response
 - Educated students in at-risk populations that are served by the Community Health Centers of Burlington
- Limitations
 - Short six-week project time period during family medicine clinical rotation
 - One pilot presentation session with two students and two student mentors in one community
 - No student surveys
 - No formal performance evaluations

Recommendations for Future

- Facilitate student discussion groups
 - Gain students by introducing yourself to all of the students in the after school program prior to presentation date, making multiple visits, and/or planning to present on rainy or cold days when outdoor recreation options are limited
 - Preserve small group discussions by limiting the number of students per discussion
 - Consider having students and mentors sign up in advance so students can plan to attend with people whom they feel comfortable discussing sensitive topics
- Evaluate effectiveness and improve presentation
 - Question and knowledge surveys before and after presentation
 - Presentation feedback surveys by students and mentors
 - Behavior surveys before presentation and one month post presentation
 - Demographic, cultural, and family surveys
- Expand impact
 - Teach students throughout Chittenden County, Vermont, New England, and the U.S.
 - Develop sex education curriculums for each high school year
 - Develop longitudinal sex education programs
 - Study population data collected from surveys and use to inform policy decisions

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