

Objective

The goals of this study were to explore the descriptive characteristics of condom use among high school students in the United States (US) and analyze factors that promote high school students to engage in condom use.

Introduction

According to the Centers for Disease Control and Prevention (CDC) in 2010, there were approximately 47,500 new infections of HIV in the United States and 26% were from youth aged 13-24. Several known ways exist to prevent HIV transmission, to include using condoms consistently and correctly. Condom use is imperative in sexually active high school (HS) students, as this age group shows increasing numbers of new infections of sexually transmitted diseases (STDs). Negative experiences, such as bullying and violence for this population, can cause submissiveness, lack of self-esteem and assertiveness which potentially contribute to inconsistent condom use in adolescents. The current study used the CDC's 2011 Youth Risk Behavior Survey (YRBS) to evaluate self-reported data from HS students on dating violence, bullying, and condom use. Identifying characteristics that promote the use of condoms will help inform high school officials, researchers, and public health workers on methods to increase condom use within this susceptible age group and potentially prevent possible STD cases in this group. Furthermore, this research can also serve as a tool to develop STD related interventions for high school students. Knowing factors that contribute to the promotion of condom use could possibly serve as the focal point for targeted youth interventions.

Methods

Data were obtained from the CDC's 2011 Youth Risk Behavior Survey (YRBS) to analyze characteristics that contribute to US high school students using condoms. Data were analyzed to determine the percent of sexually active students, prevalence of condom use, and variables that predicted condom use. Descriptive statistics were completed for the following variables: gender, age, race, grade, dating violence, bullied at school, electronically bullied and condom use. Race was categorized into Whites, Blacks, Hispanics, and Others. All other predictor variables were dichotomized. Only events of bullying at school and electronic bullying from the past 12 months were included in the analysis. Analyses were performed using SAS 9.2. Chi-squared tests were used to determine associations between predictor variables and condom use. Logistic regression was used for bivariate and multivariate analysis to predict factors that increased the likelihood of condom use.

Results

Table 1. Characteristics of Condom Use in US High Schools, YRBS 2011

Characteristics	N= 4463	Condom Use	
		N=2730	No Condom Use N=1733
		N (%)	N (%)
Age (years)	≤15	571 (12.79)	298 (6.68)
	≥16	2159 (48.38)	1435 (32.15)
Sex	Male	1479 (33.18)	664 (14.89)
	Female	1249 (28.02)	1066 (23.91)
Race	White	1073 (24.04)	719 (16.11)
	Black	625 (14.00)	320 (7.17)
	Hispanic	775 (17.37)	531 (11.90)
	Other	257 (5.76)	163 (3.65)
Grade	≤10th Grade	1003 (22.47)	531 (11.90)
	≥11th Grade	1727 (38.70)	1202 (26.93)
Dating Violence	Yes	347 (7.80)	339 (7.62)
	No	2374 (53.34)	1390 (31.24)
Bullied at School (≤12 mos)	Yes	345 (7.99)	292 (6.76)
	No	2289 (53.00)	1393 (32.25)
Electronically Bullied (≤12 mos)	Yes	340 (8.34)	330 (8.09)
	No	2153 (52.80)	1255 (30.77)

Table 2. Logistic Regression of Factors Associated with Dating Violence and Bullying Predicting Condom Use in US High School Students, YRBS 2011

Variable		Crude OR (CI ^a)	Adjusted OR (CI ^a)	P-Value
Age (years)	≤15	1.27 (1.09-1.49)	0.98 (0.79-1.23)	0.88
	≥16	1.00 ^b	1.00 ^b	
Sex	Male	1.00 ^b	1.00 ^b	
	Female	0.53 (0.47-0.60)	0.54 (0.47-0.61)	<0.0001
Race	White	1.00 ^b	1.00 ^b	
	Black	1.31 (1.11-1.54)	1.18 (0.99-1.41)	0.0027
	Hispanic	0.98 (0.85-1.13)	0.74 (0.60-0.90)	0.0001
	Other	1.06 (0.85-1.31)	1.03 (0.88-1.22)	0.31
Grade	≤10th Grade	1.32 (1.16-1.50)	1.38 (1.14-1.66)	0.0007
	≥11th Grade	1.00 ^b	1.00 ^b	
Dating Violence	Yes	1.00 ^b	1.00 ^b	
	No	1.67 (1.42-1.97)	1.57 (1.32-1.88)	<0.0001
Bullied at School (≤12 mos)	Yes	1.00 ^b	1.00 ^b	
	No	1.39 (1.17-1.65)	1.13 (0.92-1.38)	0.24
Electronically Bullied (≤12 mos)	Yes	1.00 ^b	1.00 ^b	
	No	1.67 (1.41-1.97)	1.29 (1.07-1.56)	0.0093

^aCI: 95% confidence interval

^bIndicates Reference Category

Discussion

This study suggests that schools should continue to engage in violence prevention and sex education programs for students to increase their knowledge of condom use and decrease violence among youth. This study illustrates that students exposed to dating violence and bullying are less likely to engage in condom use, meaning efforts to prevent and reduce violence with these students should expand. The analysis demonstrates US high school students who are electronically bullied are 29% less likely to use condoms than students who were not electronically bullied, which was a more significant finding than bullying on school property. With more detailed sex education, more students may engage in condom use regardless of negative events such as dating violence and bullying. Research efforts should target the development of anti-violence programs to decrease bullying and partner violence significantly, and potentially increase condom use in this target population. These measures could increase condom use in youth and potentially decrease the spread of STDs nationally in this target population.