Original Study

# Factors Affecting Sex Education in the School System

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A B S T R A C T

*Study Objective:* To describe the current status of school based sex education and to determine predictors of providing a comprehensive sex education curriculum.
*Design:* Cross-sectional mailed survey
*Setting:* Hawaii
*Participants:* Seventh and eighth grade health teachers
*Interventions:* Participants were surveyed regarding the content, quality, and influences on sex education for the 2007 to 2008 academic year.
*Main Outcome Measures:* Measures of association (chi-square, ANOVA) and multiple logistic regression were used to determine predictors for teaching comprehensive sex education topics including sexually transmitted infections and pregnancy prevention.
*Results:* Approximately 80% of teachers incorporated some form of sex education into their curriculum and 54.4% of teachers incorporated a comprehensive education. Teachers indicated that personal values and the availability of curriculum had the greatest influence on the content of the curriculum. Specific factors which were associated with an increased likelihood of providing a comprehensive curriculum included teaching in a public school (public 66.7% versus private 34.6%, $P = 0.01$), receiving formal training in sex education (received training 77.8% versus did not receive training 50.0%, $P = 0.03$) and having contact with a student who became pregnant (contact 72.7% versus no contact 46.7%, $P = 0.04$).
*Conclusion:* Although most teachers incorporate some form of sex education, only half incorporate a comprehensive curriculum. Personal values as well as teacher resources play an important role in the content of the curriculum.
*Key Words:* Sex education, School, Health teachers, Teen pregnancy, Contraception

## Introduction

Adolescence is a time of both physical and behavioral growth that is notable for an increase in risk taking behavior and a growing interest in sex. Adolescents in the United States have similar rates of sexual activity compared to adolescents in other developed nations.[1] However, the United States has one of the highest rates of teen pregnancy, birth, and abortion compared to other developed nations.[1,2] Approximately 10% of all births in the U.S. occur in teenagers and 9.5 million new cases of sexually transmitted infections (STIs) are diagnosed in teenagers and young adults each year.[3]

Efforts to delay the initiation of sexual intercourse, prevent sexually transmitted infections and improve the use of birth control have often focused on health education, particularly education delivered through the school system.[4,5] Although some studies have not shown a benefit to comprehensive sex education,[4] others have reported that adolescents with accurate knowledge about sexual health are more likely to delay sexual debut and use some form of birth control when they become sexually active.[4–6]

Although there is no standard for what is considered a comprehensive sex education program, topics generally deemed integral include contraception, sexually transmitted infections, HIV/AIDS, and abstinence.[7] Studies conducted in the United States have reported that most schools incorporate topics such as puberty, HIV/AIDS, and the effect of alcohol and drugs on sexual behavior.[8] However, many schools are deficient in, or altogether do not address, topics like sexual orientation, abortion, contraception, and condom use.[7,8] In recent years, funding decisions made at the federal level have restricted sex education programs at many schools to abstinence-only messaging.[7]

The lack of established sex education curricula in many states and school districts allow teachers some flexibility in determining topics that are taught. A survey of public school teachers in Illinois found that approximately two thirds of teachers incorporated a comprehensive sex education program into their curriculum. Authors also found that one third of all the sex education teachers had not received any training in sexual health education.[7] The objective of this study was to examine the content and influences of sex education in both public and private schools in Hawaii, a state with a pregnancy rate above the United States national average.[9]

## Materials and Methods

A self-administered, anonymous questionnaire was mailed to all 7th and 8th grade health teachers in Hawaii in both the public and private school systems. Approval

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for this cross-sectional study was granted by the University of Hawaii Committee on Human Studies (CHS 16259). Each school listed in the Hawaii Department of Education[10] and the Hawaii Association of Independent Schools[11] database was contacted by phone, and the name and mailing address of each teacher who provided health education was obtained. If a teacher could not be identified, the survey was sent to the school principal for distribution. Teachers returned the questionnaire in pre-addressed, stamped envelopes. Completion and return of the questionnaire constituted informed consent. A second questionnaire was sent to non-responders four weeks after the initial mailing.

The questionnaire was based on a previously validated survey.[7] Minor modifications were made and the modified version was validated utilizing a small group of 7th and 8th grade school teachers in Hawaii. All questions pertained to the 2007 to 2008 school year. In addition to collecting teacher demographic information, the questionnaire assessed the content of the sex education taught. Teachers were asked to indicate all of the sex education topics they taught from a list of 18 topics (Fig 1). Respondents were asked whether factors such as (1) personal values, (2) the availability of curriculum and other resources, (3) the school, (4) parental input, (5) community, cultural and religious views, (6) the school district, and (7) the state government had no influence, not much influence, some influence, or a great deal of influence on their curriculum. Teachers were also asked whether they thought abstinence was (1) one alternative, (2) the best alternative, (3) the only alternative for preventing pregnancy and STIs, and (4) I don't teach about abstinence from intercourse. A respondent was defined as teaching comprehensive reproductive health education if he or she included topics on abstinence, HIV/AIDS, other sexually transmitted infections, and contraception.[7]

To assess possible influences, respondents were asked about personal and external factors that affected their teaching curriculum, how comfortable they were teaching sex education, and what kind of sex education training they received before they started teaching the course. Teachers were also asked two questions regarding their experience with students; (1) Have there been any students in your school who have gotten pregnant? (2) Have you personally had any students who have gotten pregnant?

Descriptive statistics including frequency measures were generated for the study population. Demographic and professional characteristics were compared using a 2-sample t-test for continuous variables and chi square tests for categorical variables. Multiple logistic regression was also performed to confirm the significance of relationships. All statistical analyses were performed using the Statistical Program for Social Sciences (SPSS 16.0 for Windows; SPSS Inc, Chicago, IL).

## Results

The total response rate was 46.9% (82/175) with public school teachers being more likely to respond than private school teachers (public school 62.5% versus private school 33.7%, $P < 0.001$). It is notable that many respondents did not provide answers to all of the questions on the survey. The age of teachers (39.4 years versus 40.9 years, $P = 0.17$), years teaching (12.1 versus 14.7, $P = 0.08$), and years teaching sex education (6.9 versus 7.5, $P = 0.89$) were not statistically different between public and private schools respectively. The demographic and professional characteristics of the respondents are presented in Table 1. Most respondents were female (70.3%) and had between 1 and 15 years teaching experience (60.3%).

Approximately 80% (61/76) of respondents taught some form of sex education. The prevalence of health topics that were taught is summarized in Fig 1. Even when some form of sex education was incorporated, many of the topics commonly addressed were related to abstinence education, such as dealing with the pressure to have sex (87.7%), abstaining until marriage (80.8%), the emotional

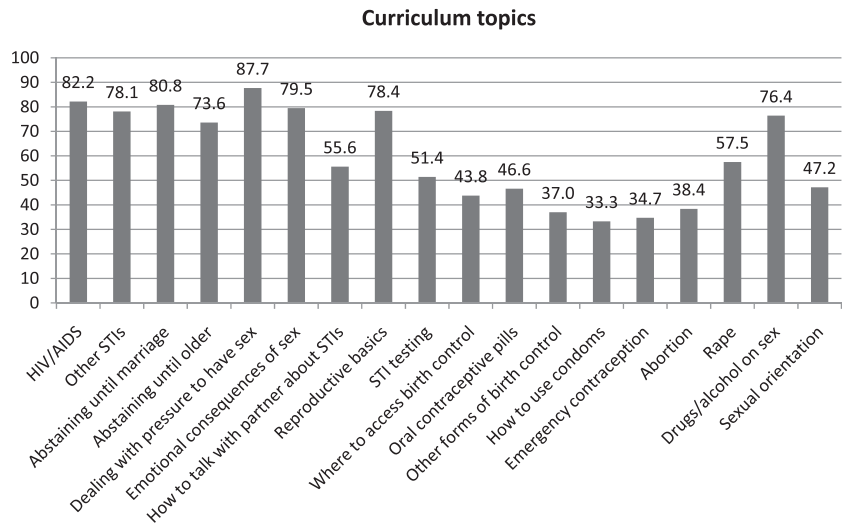


**Fig. 1.** The percentage of health educators teaching sexual curriculum topics for all schools.