PARENT-TEEN COMMUNICATION AND ADOLESCENT SEXUAL BEHAVIOR IN HAWAI‘I

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ABSTRACT

Preventing and reducing the number of teen\(^1\) pregnancies is an important public health policy goal in the United States. Hawai`i ranks 17\(^{th}\) highest in teen pregnancy nationwide. The early onset of sexual behavior is the major factor in teenage pregnancy, and the sexually transmitted diseases (STDs). The purpose of this three-study dissertation is to explore Hawai`i’s teens’ sex behaviors and their access to information about sex from parents and other reputable sources. Chapter 1 presents an overview of teens’ sex behaviors, along with the conceptual framework and my three research questions. Chapter 2 presents a quantitative study examining the associations between self-reported sex behaviors and access to sex education from teens’ school, a healthcare provider, their family, or non-parental adult among youth in grades 6-12 responding to the 2009 Hawai`i Youth Risk Behavior Survey. Chapter 3 presents analysis of a questionnaire administered to explore parental perceptions of teen sex behavior and parent-teen sex communication patterns in multi-ethnic Hawai`i. Chapter 4 presents the PhotoVoice qualitative study on teens’ perceptions related to parental sex messages. Chapter 5 summarizes the findings and presents implications and conclusions. Findings suggest that teens that got information from parents or have a non-parental adult they can talk to about important things were less likely to report ever having had sex. School HIV/AIDS education was not associated with having had sex, perhaps because Hawai`i public schools do not adhere to a standard, evidence-based pregnancy and STD prevention program. Hawai`i parents believe that parents are responsible to talk to their child about sex and saw doctors, nurses, and schools as secondary, but major, sources of

\(^1\) In this dissertation, the word “teen” refers to the age group 10 to 19 years old, and “youth” refers to the age group 10 to 15 years old. The word teen and youth may use interchangeably unless otherwise age group is specified.
a teen’s information about sex. Hawai’i youth appreciated their parents’ efforts to communicate about sex and would like to learn about parents’ perceptions and family values related to sex if the awkwardness could be lessened. Findings can inform the design of programs to prevent teens’ from engaging in early onset of sex behavior as well as to promote parent-child communication about sex.
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CHAPTER 1. INTRODUCTION

Teen Pregnancy in United States

Teen pregnancy is a major public health problem worldwide for its impact on the health of mother, child, and the overall wellbeing of the society. It is a problem that affects every society, developed and developing alike.

Among the most industrialized countries, the United States (US) has had the highest teen pregnancy rate for more than a decade, even though its rates of teen pregnancy and birth have declined from a peak in 1990, at 117 per 1,000 females aged 15-19, to a low of 69.5 per 1,000 females aged 15-19 in 2005 (Abma, Martinez, Mosher, & Dawson, 2004; Guttmacher Institute, 2010). A cross-national study conducted by the Guttmacher Institute, comparing teens’ sexual and reproductive behavior between 1998 and 2001 in five developed countries including Sweden, France, Canada, Great Britain and the US, showed that less effective contraceptive use by sexually active teens is the major contributor to the high rates of teen pregnancy and birth in US (Guttmacher Institute, 2001). Easy access to contraceptive and other reproductive health services in Sweden, France, Canada and Great Britain contributed to lower rates of teenage pregnancy and sexually transmitted diseases (STDs) in these countries as well. In addition, countries with low levels of teen pregnancy and birth have higher levels of societal acceptance of sexual activity among young people, make available comprehensive information about sexuality, and have clear expectations about commitment and prevention of child bearing and STDs within teenage relationships (Guttmacher Institute, 2001).

Every year from 1991 through 2006, an average of 800,000 teens, about 10% of women aged 15 to 19 years in US, became pregnant (Kost, Henshaw, & Carlin, 2010). Among these pregnant teens, more than 50% became teenage mothers (Kost et al., 2010). The number of teens reported to be sexually active at an early age is alarming to public health professionals in US. According to the US Centers for Disease Control and Prevention (CDC, 2010), 5.9% of high school students in US had sexual intercourse for the first time before age 13. The early onset of sexual behavior is the major factor in teenage pregnancy, as well as in the transmission and the acquisition of STDs, including HIV (Goodson, Evans, & Edmundson, 1997). In 2006, approximately 1 million
adolescents and young adults aged 10 to 24 years were reported to have chlamydia, gonorrhea, or syphilis, and approximately 22,000 adolescents and young adults aged 10 to 24 years in 33 states were living with HIV/AIDS (CDC, 2009).

During the previous decade, a tremendous amount of public health effort was invested in teen pregnancy prevention and HIV/AIDS education in the US. As a result, the US teen pregnancy rate reached its lowest point in more than 30 years in 2005 (69.5 per 1,000 females aged 15-19). However, between 2005 and 2007, teen birth rate increased by 5% (Guttmacher Institute, 2010). Fortunately, data for 2008 and 2009 suggest that the long-term downward trend had resumed (CDC, 2011b). However, teen pregnancy and birth rates in the US are still too high, and preventing and reducing the number of teen pregnancy is an important public health policy goal (CDC, 2011b).

**Teen Pregnancy in Hawai`i**

Over the past decade, the Hawai`i rate of teen pregnancy followed the national downward trend. The most recently published national statistics showed that the rate of teen pregnancy in Hawai`i was 71 pregnancies per 1,000 females aged 15 to 19 in 2005; this is a drop of 49% from the 1992 rate of 140 per 1,000 females aged 15 to 19 (Kost et al., 2010). Despite this decrease in the rate of teen pregnancy, Hawai`i ranks 17th highest in teen pregnancy nationwide (Kost et al., 2010). Hawai`i maternal and child health needs assessment in 2005 had established the goal to reduce the rate of unintended pregnancy focusing on teen pregnancy as one of the three priorities for woman and infant populations (Hawai`i State Department of Health, 2005).

There are approximately 3,600 teen pregnancies each year in Hawai`i. Based on available data, we know that 50% of these pregnancies result in live births and 37% in abortions (Guttmacher Institute, 2006). Hawai`i has the 12th highest chlamydia rate in the nation in 2009 (CDC, 2011a). The highest age-specific rates of reported chlamydia were among 15-19 year old females (Hawai`i State Department of Health, 2011).

According to the 2009 Hawai`i Youth Risk Behavior Survey (HYRBS), 44% of Hawai`i high school students and 13% of Hawai`i middle school students have ever had sexual intercourse. Among Hawai`i high school students who were currently sexually active, 52% did not use a condom during last sexual intercourse; among Hawai`i middle school students who were currently sexually active, 33% did not use a condom during
last sexual intercourse (CDC, 2010). About 1 in 17 Hawai`i high school students (6%) reported they had sexual intercourse for the first time before age 13 (CDC, 2010).

Teen pregnancy and births in Hawai`i are not evenly distributed across ethnic groups (Sasaki & Kameoka, 2009). The state of Hawai`i has a uniquely diverse and rich culture because of its diverse populations. In 2000, the state’s ethnic distribution was estimated to 24.3% Hawaiian, 24.3% Caucasian, 18.9% Japanese, 16.5% Filipino, 7.4% Chinese, 2.4% Korean, 1.8% Samoan, and 9% other (including African Americans; Hispanics; Lao, Thai, Vietnamese, and other Asians; Micronesians, Marshallese, Tongans, and other Pacific Islanders; and others) (Park, Braun, Horiuchi, Tottori, & Onaka, 2009). A recent study on prevalence of sexual risk behaviors among Hawai`i teens in three ethnic groups found that Native Hawaiian teens were more likely to engage in sexual risk behaviors than Filipino and Japanese teens (Sasaki & Kameoka, 2009). A descriptive analysis of Hawai`i Health Information Corporation (HHIC) hospital discharge data from January 2005 through June 2009 showed that, over the 4.5-year study period, teen mothers (19 years and younger) comprised 8.5% of the maternal population. Among these teen mothers, 50% were of Hawaiian or Filipino ancestry. The majority of the teen mothers lived in rural areas of the State. Sixty percent of teens giving births were enrolled in Medicaid at discharge. The study findings suggested that young Hawaiian and Filipino girls from low-income families, particularly in rural communities, are most at-risk of being teen mothers (Aung, Hurwitz, & Partika, 2010).

Another recent study on prevalence of six sexual risk behaviors among Hawai`i teens also showed ethnic differences in sexual behaviors. The six behaviors studied were: 1) ever had sexual intercourse; 2) sexual intercourse within the 3 months preceding the survey; 3) first sex before age 13 years; 4) multiple sexual partners; 5) substance use before last sexual intercourse among current sexually active adolescents; and 6) condom use by current sexually active participant or partner during last sexual intercourse. When comparing Native Hawaiian, Filipino, and Japanese teens, the study found that the highest prevalence of sexual risk behaviors were reported by Native Hawaiian teens, followed by Filipino teens, and finally Japanese teens (Sasaki & Kameoka, 2009). This same ethnic ordering was found in the study of hospital discharges for teen girls giving birth between 2005 and 2009 (Aung et al., 2010).
Studies suggest that having access to sex education and pregnancy, STDs and HIV/AIDS prevention can protect youth from risky sexual behaviors, especially prevention education from a variety of sources, such as school, healthcare provider, family, and community (Advocates for Youth, 2008; Green & Documet, 2005; Kirby, 2002; Kirby, Laris, & Rolleri, 2007; Kohler, Manhart, & Lafferty, 2008). Given the high rates of teen pregnancy reported by youth in Hawai`i, it is important to determine whether Hawai`i teens have access to information about sex education in these settings (Guttmacher Institute, 2001) and whether such access is associated with a lower rate of engaging in sex among Hawai`i teens. Thus, Research Question #1 in this dissertation was: How does access to sources of information about sex behaviors relate to teens’ sexual behaviors? What are the sex and ethnic differences in access to sources of prevention information about sex behavior? To answer these questions, I conducted a secondary data analysis of HYRBS data to: 1) assess the relationship between youth’s access to sex education and pregnancy/STD prevention information and youth’s sex behaviors, such as ever versus never having had sexual intercourse and condom use during last sexual intercourse; and 2) examine gender and ethnic differences in access to prevention information about sex behavior.

**Parental Influence on Teen Sexual Behaviors**

Numerous factors – biological, environmental, social and economic – contribute to a teen’s decision to initiate sexual activity (Aspy et al., 2007). Among all these factors, having a good parent and teen relationship has the strongest influence in protecting a teen from engaging in risky sexual behaviors (Wyckoff et al., 2008). Parents are the primary source of information about sex and behavioral values. Parents can deliver age-appropriate and timely prevention messages to their children (Dilorio, Pluhar, & Belcher, 2003; Rupp & Rosenthal, 2007; Wyckoff et al., 2008).

In a recent national survey conducted by “The National Campaign to Prevent Teen Pregnancy” (2010), 57% of the teens aged 12 to 14 years and 39% of the teens aged 15 to 19 years stated that among all sources (e.g. friends, religious leaders, siblings, teachers, sex educators, and media), parents most influenced their decisions about sex. Six in ten teens (62%) wished they were able to talk more openly about relationships with their parents (Albert, 2010).
However, studies have shown that most parents were not prepared to deliver age-appropriate messages to their children and often missed the chance to communicate about sex behaviors with their children before the behavior starts. According to Pluhar, Jennings & DiIorio (2006), mothers face challenges in communication about sex with their teen. In their study, mothers reported feeling shocked and embarrassed when sex-related questions came from their child earlier than they expected (Pluhar, Jennings, & DiIorio, 2006). Another study pointed out that many parents wait to talk to their children about sexuality until they believe their child is in a romantic relationship (Eisenberg, Sieving, Bearinger, Swain & Resnick, 2006). By doing so, parents may miss important opportunities to influence a child’s sex behaviors (Eisenberg et al., 2006). Wyckoff et al. (2008) suggested that the prevention messages need to be relayed before the sexual behavior is initiated, and the preadolescence years are the optimal time for parents to provide sexual risk prevention messages to their teens. To gain the optimum level of influence, Pluhar et al. (2006) suggested that parents be encouraged and supported to exercise their influential roles in the health of preadolescents before the teen engages in sex behavior.

In a study by Aspy et al. (2007), teens were much less likely to have initiated sexual intercourse if their parents taught them to say no, set clear rules, and talked about what is right and wrong and about delaying sexual activity. In addition, Aspy et al. (2007) found that having only one sexual partner was associated with having an adult role model who supports abstinence, being taught at home about birth control, and being taught at home how to say no.

Mothers have influence on their daughters’ sexual decision making. Daughters who reported a positive relationship with their mothers and perceived their mothers to be disapproving of engaging in sexual intercourse were less likely to initiate sexual activity or to become pregnant (Dittus & Jaccard, 2000). The greater the level of discussion about negative consequences of pregnancy, the stronger the level of perceived maternal disapproval, and the higher the level of mother-daughter relationship satisfaction, the stronger the association with negative attitudes towards pregnancy on the part of the adolescent (Jaccard, Dodge, & Dittus, 2003).
McNeely, Shew, Beuhring, Sieving, Miller and Blum (2002) also explored maternal influence on the timing of first intercourse for adolescents (McNeely et al., 2002). The results indicated that, for females, mother's satisfaction with her relationship with her daughter, mother's strong disapproval of her daughter having sex, and frequency of communication with the daughter about her friends were associated with later sexual debut. Lloyd’s (2004) study had an additional finding that poor parent and teen communication and unstable relationships with parents could lead teens to sexual activity and other risk behaviors (Lloyd, 2004).

Together, these findings suggest that parents fill the most important role in a teen’s sexual decision making. Parents should be aware of their influential role and the importance of interpersonal parent-teen communication as part of their parenthood responsibility to protect teens from engaging in risky compromising behaviors.

Several social-psychological theories and models include the concepts of interpersonal interactions in formal and informal relationships and social factors. In particular, the Interdependence Theory of Social Influence and Interpersonal Communication (Interdependence Theory) stated that influence and communication are the most effective mechanisms in changing health behavior within relationships characterized by mutual trust, respect, shared power, and decision making (Lewis, DeVellis & Sleath in Glanz, Rimer & Lewis, 2002). The key concepts in the Interdependence Theory include social norms, relationship characteristics, influences from the larger systems, and socioeconomic factors as they influence behavior. By strengthening communication and influence between parents and teen, parents could be the channel for delivering health information that can keep teens from engaging in risky sexual behaviors (Wyckoff et al., 2008).

Despite the importance of parent-child communication in child’s sexual behavior, little is known about parent-child communication about sex in Hawai`i families. Based on the findings from the literature review and the Interdependence theoretical framework, this dissertation also conducted research to: 1) examine parents’ perceptions of their teens’ sexual behaviors and messages about sex they communicate to their children; and 2) explore teens’ perceptions of parental communication about sex. Thus, the following two research questions were addressed: Research Question #2: How do parents perceive
sex communication to teen child in multi-ethnic Hawai`i? What messages do parents convey to the teen-child regarding sexual behavior? Are there differences in communication patterns between mothers and fathers? and **Research Question #3**: How do teens perceive parent’s messages about sexual behavior? What messages do teens get from their parents? For the second study, I administered a questionnaire to parents of teens across the island of O`ahu. For the third study, I used PhotoVoice, through which teens took and explained photos that represented how their parents communicated with them about sex.

**Conceptual Framework**

Figure 1.1 illustrates the conceptual framework of this dissertation on teen pregnancy prevention and parent-child communication in Hawai`i. The conceptual framework summarizes what we know from the literature about the factors that influence risky sex behavior in teens. It shows the logical consequences of promoting parent-child communication in preventing the early onset of teens’ sexual behaviors, teen pregnancy, and sexually transmitted diseases. The three research questions are interrelated in nature to better understand the overall picture of parent-child communication about sex behaviors.

Preventing pregnancy as well as STDs in the teen population needs a thorough understanding of risk factors at multiple levels: individual, interpersonal, familial, and societal. We know that positive familial influence is critical in preventing teens from engaging in risk behaviors, because parents have opportunity and authority to provide age-appropriate sex messages throughout the life span of the child. Thus, strengthening communication between parents and child can help parents deliver better health information to keep a child from engaging in risky sexual behaviors (Wyckoff et al., 2008). Findings from these three studies provide important data for the development and testing of interventions, or for adapting evidence-based interventions from other communities, to strengthen parent-child communication in Hawai`i.

In these three studies, I used a community-based participatory approach. In study 1, I collaborated with the Hawai`i Departments of Health and Education to access data and interpret findings. In study 2, I collaborated with service providers and community members who helped me recruit parents willing to complete the questionnaire. In study
3. I collaborated with school and community providers to identify a group of teens that could secure parental consent and that assented to participate in the PhotoVoice activity.
CHAPTER 2. ASSOCIATIONS BETWEEN ACCESS TO SEX EDUCATION AND SEX BEHAVIORS AMONG HAWAI`I TEENS

Abstract

Objectives: To examine the association between teens’ self-reported sex behaviors and their access to four sources of sex education or information.

Methods: Multiple logistic regression analyses were used to examine associations between self-reported sex behaviors (intercourse and condom use) and access to sex education from teens’ school, a healthcare provider, their family, or non-parental adult among 2,565 youth (weighted n=64,973) in grades 6-12 responding to the 2009 Hawai`i Youth Risk Behavior Survey.

Results: Of the total sample, a third of boys (31%) and girls (33%) reported ever having had sex, with greater proportions of Native Hawaiian, Filipino-American and Caucasian youth (vs. Japanese-American youth) engaging in sex. Of the total sample, 83% reported learning about sex education at school, 56% from family and 41% from a healthcare provider, while 88% said they had a non-parental adult with whom they could talk. Students who reported communicating with family and non-parental adults were less likely to report ever having had sex (OR 0.6, 95%CI=0.4, 0.9 and OR=0.3, 95%CI=0.2, 0.7, respectively). Youth who had already engaged in sex were more than twice as likely to report talking to a healthcare provider about sex (OR=2.4; 95%CI=1.8-3.3). Exposure to HIV/AIDS education in school was not associated with youth’s sex behavior. Among the 6th-8th graders, those who reported having talked with a healthcare provider about sex were 3 times more likely to have used condom at their last sexual encounter (OR=3.0, 95%CI=1.1-8.4).

Conclusion: Teen pregnancy is a health and social issue. School-based sex education is important, but not enough. Promoting parent-child communication about sex could help delay teen engagement in sex, and access to healthcare providers could increase teen condom use.
Introduction

Preventing teen pregnancy and the transmission of sexually transmitted diseases (STD), including human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS), are long-standing public health goals in the United States (US) (Goodson, Evans, & Edmundson, 1997; Healthy People 2020). In 2006, about 1 million adolescents and young adults aged 10 to 24 years were reported to have chlamydia, gonorrhea, or syphilis, and approximately 22,000 adolescents and young adults aged 10 to 24 years in 33 states were living with HIV/AIDS (CDC, 2009). Teen pregnancy rates have fallen steadily over time, from its peak in 1990 (116.9 pregnancies per 1,000 women aged 15-19) to 71.5 pregnancies per 1,000 women aged 15–19 in 2006, which represents a 39% decrease (Boyer et al, 2000; Kost, Henshaw, & Carlin, 2010). Despite this decrease, teen pregnancy rates in the US remain the highest among all industrialized nations (CDC, 2011). Furthermore, the high proportion of teens reported to be sexually active at an early age is still alarming to public health professionals (Guttmacher Institute, 2010). Recent data suggests that 46% of high school students in US have ever had sexual intercourse, and 5.9% had sexual intercourse for the first time before age 13 (CDC, 2010). Among the 34% of high school students who are sexually active, 39% reported that neither they nor their partner used a condom during last sexual intercourse (CDC, 2010).

The Hawai`i rate of teen pregnancy follows the national downward trend. The most recently published national statistics showed that the rate of teen pregnancy in Hawai`i was 71 pregnancies per 1,000 females aged 15 to 19 in 2005—which is a drop of 49% from the 1992 rate of 140 per 1,000 females aged 15 to 19 (Kost et al., 2010). Despite this decrease, Hawai`i ranks 17th highest in teen pregnancy nationwide (Kost et al., 2010). According to the 2009 Hawai`i Youth Risk Behavior Survey (HYRBS), 44% of Hawai`i high school students and 13% of Hawai`i middle school students have ever had sexual intercourse. Among Hawai`i high school students who were currently sexually active, 52% did not use a condom during last sexual intercourse; among Hawai`i middle school students who were currently sexually active, 33% did not use a condom during last sexual intercourse (CDC, 2010). About 1 in 17 Hawai`i high school students (6%) reported they had sexual intercourse for the first time before age 13 (CDC, 2010).
Studies suggest that having access to sex education and pregnancy, STDs and HIV/AIDS prevention can protect youth from risky sexual behaviors, especially prevention education from a variety of sources, such as school, healthcare provider, family, and community (Advocates for Youth, 2008; Green & Documet, 2005; Kirby, 2002; Kirby, Laris, & Rolleri, 2007; Kohler, Manhart, & Lafferty, 2008). Given the high rates reported by youth in Hawai`i, it is important to determine whether Hawai`i teens have access to information about sex education in these settings (Guttmacher Institute, 2001) and whether such access is associated with a lower rate of engaging in sex among Hawai`i teens. The purpose of this study is to assess the relationship between youth’s access to sex education, pregnancy/STD prevention information and youth’s sex behaviors, such as ever versus never having had sexual intercourse and condom use during last sexual intercourse. Figure 2.1 presents the analytical framework of associations between access to sources of information and youths’ sex behaviors. In addition, this paper examines sex and ethnic differences in access to prevention information about sex behavior.

![Diagram of Teens' Sex Behaviors](attachment:image.png)

Figure 2.1 Access to sex education and prevention information about pregnancy, STDs and HIV/AIDS and teen’s sex behavior

**Methods**

**Sample**

This study used secondary data from the 2009 HYRBS. HYRBS, derived from the CDC’s school-based Youth Risk Behavior Survey (YRBS), is a population-based, cross-
sectional survey of a representative sample of public high schools and middle schools in Hawai`i that is administered in odd-numbered years (Saka, 2008). About 80% of Hawai`i’s students attend public schools. The HYRBS covers health-risk behaviors in six major categories, including sexual risk behaviors (Eaton et al., 2008). The data from middle school (grades 6 through 8) and high school (grades 9 through 12) students are statistically weighted according to the CDC guidelines. In 2009, the sample included 3,122 students (weighted n=79,726) in grades 6 through 12 and (Saka, 2008). This study was approved by the University of Hawai`i-Institutional Review Board (UH-IRB) and the Hawai`i Department of Education.

**Key Variables**

**Sexual behaviors.** The HYRBS examined four sexual risk behaviors in both middle and high school students: 1) ever had sexual intercourse, 2) age at first sexual intercourse, 3) number of sexual partners, and 4) condom use by participant or partner during last sexual intercourse. Items 2-4 were only relevant to those who reported either ‘yes’ or ‘no’ to the item “Have you ever had sexual intercourse.” Data for the 454 students that did not answer this question were excluded from the analysis.

**Access to sex education and prevention information about pregnancy, STDs and HIV/AIDS.** The HYRBS included six items related to youths’ access to sex education and prevention information about pregnancy, STDs and HIV/AIDS, which were: 1) Have you ever been taught about AIDS or HIV infection in school? 2) Has a doctor or nurse ever discussed ways to prevent pregnancy with you? 3) Has a doctor or nurse ever discussed ways to prevent STDs and AIDS or HIV infection with you? 4) Have your parents or other adults in your family ever talked with you about what they expect you to do or not to do when it comes to sex? 5) Is there at least one teacher or other adult in this school that you can talk to if you have a problem? and 6) Outside of school, is there an adult you can talk to about things that are important to you? These questions are asked of both middle and high school students, and each was scored 1=yes and 0=no. The 58 (weighted n=1,515) youth who did not answer all these items were excluded from the analysis. For purposes of this study, the six items were grouped into four sources of education/prevention information: school, healthcare provider, family, and other adult. A composite variable was created with five categories, from 0=youth did not get preventive...
information from any source (school, healthcare provider, family or non-parental adult) to 4=youth got preventive information about sex from all four sources.

**Ethnicity.** The 2009 HYRBS gave participants an option to select one or more responses to identify their race or ethnicity. Of all the participants in this study (n=2,668; weighted n=66,963), 16.6% selected more than one option for race/ethnicity. We assigned multi-ethnic youth to an ethnic group following these rules. If Native Hawaiian was selected, the youth was identified as Native Hawaiian regardless of which other ethnicities were selected. Removing the Native Hawaiians, any youth that was full or part Filipino was identified as Filipino-American. Next, we classified any youth that was full or part Black/African American as Black/African-American. Then, any youth that was full or part Japanese was identified as Japanese-American. Remaining Asians and Pacific Islanders were combined into one group. The final group was White/Caucasian. There were 45 (weighted n=475) youth selecting other ethnicities, and they were excluded from the analysis.

**Statistical Analysis**

Descriptive statistics were computed to examine the prevalence of sexual risk behaviors and youth’s access to source of sex education/prevention information by sex, grade level and ethnicity, and differences were tested using chi-square tests. Tests of heterogeneity were performed to test for possible effect-measure modification (i.e., differences in the associations between sources of information and sexual behaviors according to sex, ethnicity and/or grade level).

The two main behavioral outcomes in this study are ever versus never having had sexual intercourse, and condom use during last sexual intercourse among currently sexually active youth (yes or no). Ten logistic regression models were calculated, regressing each sexual behavioral outcome on each of five exposure variables: 1) composite variable of access to four sources of information (categories 0 to 4), 2) school, 3) healthcare provider, 4) family, and 5) other adult. Three demographic variables (ethnicity, grade level and sex) were controlled for in the analyses irrespective of their significance level. The composite variable of access to four sources of information was controlled for in the individual logistic regression model for school, healthcare provider, family and other adult. Access to 0 source of information was used as a reference group.
for comparison purposes. Students of Japanese ethnicity were used as a reference group for comparison purposes because they were the ethnic group with the least sexually active youth in 2009 HYRBS. Analyses were stratified by middle versus high school (grades 6th–8th and grades 9th–12th, respectively). Odds ratios and 95% Confidence Intervals (CI) were computed from the logistic regression models. All analyses were conducted using the statistical software package SAS (version 9.2).

Results

After exclusion criteria were applied, the total sample comprised 2,565 participants (weighted n=64,973), 82% of the 2009 HYRBS participants (Table 2.1). The 557 (weighted = 14,757) excluded participants did not differ by demographic characteristics from the included teens. About 49% were boys (weighted n=31,809), and 51% were girls (weighted n=33,091). Study participants were normally distributed among 6th-8th graders and among 9th-12th graders (W=0.81 and W=0.82, respectively). The ethnic distribution of the participants was 33.3% Native Hawaiian, 29.5% Filipino-American, 14.5% White/Caucasian, 12.9% Japanese-American, 7.8% Other Asian/Pacific Islander, and 1.8% Black/African-American. Of the four education/prevention information sources, students reported other adult as the most available source (88%), followed by school, family, and healthcare provider (83%, 56% and 41%, respectively). Significantly more girls than boys mentioned having access to any of the four sources of education/prevention information. Among the ethnic groups, significant differences were seen for three sources of education/prevention information—school, family, and healthcare provider. The majority of all ethnic groups mentioned they had access to a non-parental adult with whom they could talk. Slightly lower proportions of Filipino-American, Native Hawaiian, and Other Asian/Pacific Islander students (80%, 81% and 84%, respectively) reported access to school-based HIV/STD education than students of White/Caucasian, Japanese-American and Black/African-American ethnicity (88%, 88% and 86%, respectively). Greater proportions of Black/African-American, White/Caucasian, and Native Hawaiian students (75%, 64% and 62%, respectively) reported that their parents/family talked to them about what they expect them to do or not to do when it comes to sex compared to Japanese-American, Filipino-American and Other Asian/Pacific Islander students (45%, 48% and 51%, respectively). Smaller
proportions of Japanese-American, Other Asian/Pacific Islander, and Filipino-American students reported access to healthcare providers (30%, 34% and 36%, respectively) than Native Hawaiian, Black/African-American and White/Caucasian students (52%, 45% and 38%, respectively). Significantly more 9th-12th graders than 6th-8th graders reported having access to any of the 4 sources of education/prevention information (Table 2.1).

Table 2.1– Descriptive characteristics of 6th -12th graders and their access to source of sex education and prevention information, HYRBSa 2009 (Weighted N=64973)

<table>
<thead>
<tr>
<th></th>
<th>Any one sources</th>
<th>School</th>
<th>Healthcare provider</th>
<th>Family</th>
<th>Non-parental adult</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>Overall ‘Yes’</td>
<td>62,539 (96.25)</td>
<td>50,198 (82.77)</td>
<td>25,604 (41.02)</td>
<td>33,100 (55.81)</td>
<td>55,809 (88.17)</td>
</tr>
<tr>
<td>χ2 (df)</td>
<td>2195.01(1)***</td>
<td>999.31(1)***</td>
<td>79.10(1)***</td>
<td>31.38(1)***</td>
<td>1457.07(1)***</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>31,809 (49.01)</td>
<td>23,856 (79.81)</td>
<td>10,598 (34.71)</td>
<td>14,810 (51.11)</td>
<td>26,390 (85.70)</td>
</tr>
<tr>
<td>Girls</td>
<td>33,091 (50.99)</td>
<td>26,327 (85.64)</td>
<td>14,989 (47.11)</td>
<td>18,268 (60.36)</td>
<td>29,396 (90.64)</td>
</tr>
<tr>
<td>χ2 (df)</td>
<td>1.00(1)</td>
<td>13.84(1)***</td>
<td>38.83(1)***</td>
<td>20.10(1)***</td>
<td>14.64(1)***</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black/African-American</td>
<td>1,152 (1.80)</td>
<td>948 (85.53)</td>
<td>486 (45.22)</td>
<td>794 (75.47)</td>
<td>1,005 (90.39)</td>
</tr>
<tr>
<td>Japanese-American</td>
<td>8,277 (12.93)</td>
<td>6,686 (87.55)</td>
<td>2,369 (30.30)</td>
<td>3,355 (45.35)</td>
<td>7,132 (88.72)</td>
</tr>
<tr>
<td>Native Hawaiian</td>
<td>18,928 (29.57)</td>
<td>14,091 (79.64)</td>
<td>6,603 (36.20)</td>
<td>8,279 (48.47)</td>
<td>16,222 (88.17)</td>
</tr>
<tr>
<td>Other Asian/Pacific Islander</td>
<td>4,982 (7.78)</td>
<td>3,780 (83.82)</td>
<td>1,645 (34.17)</td>
<td>2,294 (50.94)</td>
<td>4,211 (87.43)</td>
</tr>
<tr>
<td>White/Caucasian (alone)</td>
<td>9,302 (14.53)</td>
<td>7,830 (88.78)</td>
<td>3,369 (37.50)</td>
<td>5,576 (63.91)</td>
<td>7,952 (87.64)</td>
</tr>
<tr>
<td>χ2 (df)</td>
<td>1150.23(5)***</td>
<td>17.16(5)*</td>
<td>67.95(5)***</td>
<td>56.02(5)***</td>
<td>0.53(5)</td>
</tr>
<tr>
<td>Grade</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6th -8th graders</td>
<td>24,455 (15.712)</td>
<td>15,712 (5.688)</td>
<td>5,688 (10.326)</td>
<td>20,543 (37.82)</td>
<td>37.82 (42.52)</td>
</tr>
<tr>
<td>9th-12th graders</td>
<td>40,200 (34.238)</td>
<td>34,238 (19.738)</td>
<td>19,738 (22.557)</td>
<td>35,005 (50.21)</td>
<td>50.21 (60.64)</td>
</tr>
<tr>
<td>χ2(df) P</td>
<td>151.11(1)**</td>
<td>89.14(1)***</td>
<td>161.29(1)***</td>
<td>38.68(1)***</td>
<td>20.19 (1)**</td>
</tr>
</tbody>
</table>

a HYRBS: Hawai‘i Youth Risk Behavior Survey
Note. Number may not sum to total because of non-responses.
P<.05; **P<.01, ***P<.001
Table 2.2 presents the descriptive characteristics of 6\textsuperscript{th}-12\textsuperscript{th} graders and their sex behaviors. Boys and girls reported about the same proportion of ever having had sex (31\% versus 33\%, respectively). Among the boys and girls that ever had sex, significantly more boys than girls reported having used a condom during last sexual intercourse (63\% versus 47\%, respectively).

Table 2.2 – Descriptive characteristics of 6th – 12th graders reporting sexual risk behaviors, HYRBS\textsuperscript{a} 2009 (Weighted N=20,954)

<table>
<thead>
<tr>
<th></th>
<th>Total Sample</th>
<th>Of those reporting ever had sex</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ever had sex</td>
<td>Used condom during last sex</td>
</tr>
<tr>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>9,981 (31.38)</td>
<td>6,176 (63.49)</td>
</tr>
<tr>
<td>Girls</td>
<td>10,965 (33.14)</td>
<td>5,138 (47.42)</td>
</tr>
<tr>
<td>(\chi^2) (df)</td>
<td>0.90(1)</td>
<td>16.73(1)***</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black/African-American</td>
<td>456 (39.64)</td>
<td>314 (70.96)</td>
</tr>
<tr>
<td>Japanese-American</td>
<td>1,428 (17.25)</td>
<td>711 (50.50)</td>
</tr>
<tr>
<td>Filipino-American</td>
<td>5,493 (29.02)</td>
<td>2,788 (52.30)</td>
</tr>
<tr>
<td>Native Hawaiian</td>
<td>9,045 (42.33)</td>
<td>4,603 (51.87)</td>
</tr>
<tr>
<td>Other Asian/Pacific Islander</td>
<td>1,173 (23.55)</td>
<td>555 (48.10)</td>
</tr>
<tr>
<td>White/Caucasian (alone)</td>
<td>3,160 (33.97)</td>
<td>2,276 (72.03)</td>
</tr>
<tr>
<td>(\chi^2) (df)</td>
<td>84.00(5)***</td>
<td>15.49(5)</td>
</tr>
<tr>
<td>Grade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6th -8th graders</td>
<td>3,093 (12.65)</td>
<td>2,011 (67.35)</td>
</tr>
<tr>
<td>9th-12th graders</td>
<td>17,676 (43.97)</td>
<td>9,258 (53.21)</td>
</tr>
<tr>
<td>(\chi^2) (df)</td>
<td>269.63(1)***</td>
<td>6.43(1)*</td>
</tr>
</tbody>
</table>

\textsuperscript{a}HYRBS: Hawai`i Youth Risk Behavior Survey. Note: Number may not sum to total because of non-responses. *p<.05, **p<.01, ***p<.001

Ever having had sex was significantly different across ethnic groups, in that greater proportions of Native Hawaiian, Black/African-American and White/Caucasian students (42\%, 40\% and 34\%, respectively) reported ever having sex than Filipino-American, Other Asian/Pacific Islander, and Japanese-American students (29\%, 24\% and 17\%, respectively). However, no ethnic associations were found for the condom use during last sexual intercourse behaviors. (Table 2.2)

The proportion engaging in sex was significantly lower in middle school than in high school (13\% for 6\textsuperscript{th}-8\textsuperscript{th} graders versus 44\% for 9\textsuperscript{th}-12\textsuperscript{th} graders), while prevalence of condom use during last sexual intercourse was significantly lower in high school (67\% among 6\textsuperscript{th}-8\textsuperscript{th} graders versus 53\% among 9\textsuperscript{th}-12\textsuperscript{th} graders). (Table 2.2)
Table 2.3 – Multiple Logistic Regression examining associations between teens’ ever had sex behavior (vs. never had sex) by access to prevention information/education, and demographic factors, HYRBS\textsuperscript{a} 2009 (Weighted N=64,973)

<table>
<thead>
<tr>
<th>Access to source of information/education</th>
<th>Grade 6 thru 8 (N=24,015)</th>
<th>Grade 9 thru 12 (N=39,632)</th>
<th>Total Sample (N=63,647)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No access (0 sources)</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Access to 1 source</td>
<td>1.40 (0.42-4.62)</td>
<td>3.22 (0.78-13.34)</td>
<td>2.32 (1.15-4.69)*</td>
</tr>
<tr>
<td>Access to 2 sources</td>
<td>0.90 (0.24-3.32)</td>
<td>1.94 (0.53-7.12)</td>
<td>1.48 (0.83-2.65)</td>
</tr>
<tr>
<td>Access to 3 sources</td>
<td>1.94 (0.48-7.86)</td>
<td>3.64 (0.93-14.33)</td>
<td>2.82 (1.69-4.71)*</td>
</tr>
<tr>
<td>Access to 4 sources</td>
<td>2.72 (0.84-8.78)</td>
<td>4.24 (1.12-16.11)*</td>
<td>3.36 (1.93-5.86)*</td>
</tr>
<tr>
<td>Race/Ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Japanese-American</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Black/African-American</td>
<td>4.59 (1.77-11.89)*</td>
<td>3.13 (1.55-6.33)*</td>
<td>3.55 (1.97-6.39)*</td>
</tr>
<tr>
<td>Filipino-American</td>
<td>0.87 (0.32-2.36)</td>
<td>2.41 (1.35-4.28)*</td>
<td>2.08 (1.25-3.45)*</td>
</tr>
<tr>
<td>Native Hawaiian</td>
<td>3.40 (1.31-8.85)*</td>
<td>4.28 (2.17-8.46)*</td>
<td>4.23 (2.15-8.33)*</td>
</tr>
<tr>
<td>Other Asian/Pacific Islander</td>
<td>1.72 (0.77-3.83)</td>
<td>1.29 (0.73-2.29)</td>
<td>1.36 (0.77-2.41)</td>
</tr>
<tr>
<td>White/Caucasian (alone)</td>
<td>1.95 (0.95-3.99)</td>
<td>2.28 (1.22-4.27)*</td>
<td>2.26 (1.31-3.91)*</td>
</tr>
<tr>
<td>Sex</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Girls</td>
<td>0.80 (0.46-1.40)</td>
<td>1.04 (0.74-1.45)</td>
<td>0.98 (0.72-1.32)</td>
</tr>
<tr>
<td>Grade</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6\textsuperscript{th} grade</td>
<td>0.27 (0.14-0.52)*</td>
<td>-</td>
<td>0.14 (0.07-0.29)*</td>
</tr>
<tr>
<td>7\textsuperscript{th} grade</td>
<td>0.50 (0.29-0.87)*</td>
<td>-</td>
<td>0.27 (0.18-0.41)*</td>
</tr>
<tr>
<td>8\textsuperscript{th} grade</td>
<td>1.00</td>
<td>-</td>
<td>0.57 (0.32-1.01)</td>
</tr>
<tr>
<td>9\textsuperscript{th} grade</td>
<td>-</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>10\textsuperscript{th} grade</td>
<td>-</td>
<td>1.80 (1.30-2.48)*</td>
<td>1.82 (1.30-2.55)*</td>
</tr>
<tr>
<td>11\textsuperscript{th} grade</td>
<td>-</td>
<td>2.95 (2.25-3.87)*</td>
<td>2.94 (2.22-3.91)*</td>
</tr>
<tr>
<td>12\textsuperscript{th} grade</td>
<td>-</td>
<td>3.07 (1.53-6.17)*</td>
<td>3.06 (1.51-6.19)*</td>
</tr>
<tr>
<td>Access to individual source</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>School: Ever taught about HIV/AIDS in school (Yes vs No)</td>
<td>1.05 (0.36-3.05)</td>
<td>0.95 (0.57-1.58)</td>
<td>1.00 (0.68-1.48)</td>
</tr>
<tr>
<td>Healthcare provider: Ever discussed ways to prevent pregnancy, STDs and AIDS or HIV infection (Yes vs No)</td>
<td>1.72 (0.87-3.38)</td>
<td>2.58 (1.70-3.91)*</td>
<td>2.42 (1.79-3.29)*</td>
</tr>
<tr>
<td>Family: Ever talked about what they expect their child to do or not to do when it comes to sex (Yes vs No)</td>
<td>0.62 (0.31-1.21)</td>
<td>0.65 (0.40-1.05)</td>
<td>0.63 (0.42-0.95)*</td>
</tr>
<tr>
<td>Non-Parental Adult: Adult besides parents that can talk to (Yes vs No)</td>
<td>0.57 (0.29-1.09)</td>
<td>0.26 (0.09-0.77)*</td>
<td>0.34 (0.16-0.72)*</td>
</tr>
</tbody>
</table>

\*HYRBS: Hawai`i Youth Risk Behavior Survey
Note: CI: confidence interval; OR: odds ratio.
*Denotes statistically significant odds ratio, p<.01.
Table 2.3 presents the adjusted odds ratios from the multivariate logistic regression models examining associations between access to sex education/prevention information sources and students’ ever versus never having had sex among three subgroups (6\textsuperscript{th}-8\textsuperscript{th} graders, 9\textsuperscript{th}-12\textsuperscript{th} graders and the full sample). Among all 6\textsuperscript{th}-12\textsuperscript{th} graders, compared with students that had access to 0 source of information, students having had access to 1, 3, or 4 sources had significantly greater odds of ever having had sex (ORs= 2.3; 95% CI= 1.2, 4.7; 2.8; 95% CI= 1.7, 4.7, and 3.4; 95% CI= 1.9, 5.9, respectively). Among 9\textsuperscript{th}-12\textsuperscript{th} graders, significantly greater odds of ever had sex were found for students that had access to 4 sources of information compared with students that had access to 0 source of information (OR= 4.3; 95% CI= 1.1, 16.1) while access to 1 source, 2 sources and 3 sources showed no significant associations. Among the 6\textsuperscript{th}-8\textsuperscript{th} graders, no significant associations were detected in any number of sources (1 to 4) of sex information/education information compared with students that had access to 0 source of information.

Also shown in Table 2.3 are the results of the multiple logistic regression models examining the associations between individual source of education/ prevention information and students’ ever versus never having had sex. There was no association between having had access to school-based HIV/STD education and having had sex or not. Students that reported talking to a healthcare provider about ways to prevent pregnancy, STDs and HIV/AIDS had greater odds of ever having had sex, and the associations were significant among 9\textsuperscript{th}-12\textsuperscript{th} graders (ORs= 2.6; 95% CI=1.7, 3.9) and among all the 6\textsuperscript{th}-12\textsuperscript{th} graders (2.4; 95% CI= 1.8, 3.3). The odds of students’ ever having had sex were lower for students whose parents/family talked to them about their expectations related to sex in the three grade-related subgroups, but the association was significant only for 6\textsuperscript{th}-12\textsuperscript{th} graders (OR=0.6; 95% CI= 0.4, 0.95). Having a non-parental adult (a teacher or non-teacher) that the student can talk to was associated with lower odds of students’ ever having had sex, and the odds were significantly lower for 9\textsuperscript{th}-12\textsuperscript{th} graders (ORs= 0.3; 95% CI= 0.09, 0.77) and for the full sample of 6\textsuperscript{th}-12\textsuperscript{th} graders (0.3; 95% CI = 0.16, 0.72).

Among the ethnic groups, greater odds of ever having had sex were found for Native Hawaiian, African-American, White/Caucasian, and Filipino-American students,
compared to Japanese-American students (the reference group), for the full sample of 6\textsuperscript{th}-12\textsuperscript{th} graders (ORs=4.2; 95% CI= 2.2, 8.3; 3.6; 95% CI= 1.9, 6.4; 2.3; 95% CI= 1.3, 3.9; 2.0; 95% CI= 1.3, 3.5, respectively) and for 9\textsuperscript{th}-12\textsuperscript{th} graders (ORs=4.3; 95% CI= 2.2, 8.5; 3.1; 95% CI= 1.6, 6.3; 2.3; 95% CI= 1.2, 4.3; 2.4; 95% CI= 1.6, 6.3, respectively).

Among the 6\textsuperscript{th}-8\textsuperscript{th} graders, African-American and Native Hawaiian students had significantly greater odds of ever having had sex (ORs=4.6; 95% CI= 1.8, 11.9; 3.4; 95% CI= 1.3, 8.9, respectively), while odds ratios for Filipino-American and Other Asian/Pacific Islander students were did not differ significantly from that of Japanese-American students. Gender was not a significant predictor of ever having had sex. But odds increased with grade level. Compared with 8\textsuperscript{th} graders (the reference group for middle school students), 6\textsuperscript{th} and 7\textsuperscript{th} graders had lower odds of ever having had sex (ORs= 0.3; 95% CI= 0.1, 0.5; 0.5; 95% CI= 0.3, 0.9, respectively), and compared with 9\textsuperscript{th} graders (the reference group for high school students), 10\textsuperscript{th}, 11\textsuperscript{th} and 12\textsuperscript{th} graders had greater odds of ever having had sex (ORs=1.8; 95% CI= 1.3, 2.5; 3.0; 95% CI= 2.3-3.9 and 3.1; 95% CI=1.5, 6.2, respectively). (Table 2.3)

Shown in Table 2.4 are the results of the multiple logistic regression analyses examining associations between condom use by participant or partner during the last sexual intercourse (vs. nonuse) and access to four sources of prevention information/education. There were no differences in condom use among students by any number of sources (1 to 4) of sex information/education compared with 0 source of information. Significantly greater odds of using condom during last sex was found among 6\textsuperscript{th}-8\textsuperscript{th} graders who reported talking to a healthcare provider (OR=3; 95% CI= 1.07-8.38). Other than that, no significant associations were seen between condom use during last sex and access to any of the individual source of information (school, family and non-parental adult).
Table 2. 4 – Multiple Logistic Regression examining associations between condom use by participant or partner during the last sexual intercourse (vs. nonuse) by access to prevention information/education, HYRBS\textsuperscript{a} 2009 (Weighted N=20,954)

<table>
<thead>
<tr>
<th>Access to information/education</th>
<th>Weighted Grade 6 thru 8 (N=2,923)</th>
<th>Weighted Grade 9 thru 12 (N=17,263)</th>
<th>Total Sample (N=20,186)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>OR (95% CI)</td>
<td>OR (95% CI)</td>
<td>OR (95% CI)</td>
</tr>
<tr>
<td>No access (0 sources)</td>
<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
</tr>
<tr>
<td>Access to 1 source</td>
<td>2.12 (0.11-41.93)</td>
<td>0.12 (0.01-2.73)</td>
<td>1.36 (0.01-264.29)</td>
</tr>
<tr>
<td>Access to 2 sources</td>
<td>2.01 (0.20-20.78)</td>
<td>0.08 (0.01-1.09)</td>
<td>1.03 (0.01-156.94)</td>
</tr>
<tr>
<td>Access to 3 sources</td>
<td>4.15 (0.57-30.24)</td>
<td>0.08 (0.01-1.04)</td>
<td>1.19 (0.01-148.32)</td>
</tr>
<tr>
<td>Access to 4 sources</td>
<td>5.07 (0.39-65.40)</td>
<td>0.12 (0.01-1.79)</td>
<td>1.55 (0.01-248.73)</td>
</tr>
</tbody>
</table>

Access to individual source

| School: Ever taught about HIV in school (Yes vs No) | 0.87 (0.21-3.58) | 1.81 (0.64-5.15) | 1.50 (0.61-3.67) |
| Healthcare provider: Ever discussed ways to prevent pregnancy, AIDS or HIV infection (Yes vs No) | 3.00 (1.07-8.38)* | 0.82 (0.42-1.59) | 0.82 (0.44-1.53) |
| Family: Ever talked about what they expect their child to do or not to do when it comes to sex (Yes vs No) | 0.74 (0.24-2.29) | 0.99 (0.53-1.86) | 1.10 (0.62-1.97) |
| Non-parental Adult: Adult besides parents that can talk to (Yes vs No) | 0.52 (0.07-4.21) | 0.48 (0.14-1.63) | 0.51 (0.18-1.45) |

\textsuperscript{a}HYRBS: Hawai`i Youth Risk Behavior Survey; Note: CI: confidence interval; OR: odds ratio. *Denotes statistically significant odds ratio, p<.05.

Discussion

This paper has several important findings. It demonstrates that most Hawai`i youth have access to sex education and prevention information from non-parental adults and school, but not all youth receive messages and information from their family or health care providers. We found significant variation in association between access to four sources of sex education/prevention information and teens’ ever having had sex. Of particular note, youth that have access to family and non-parental adults were less likely to report ever having had sex. This finding agrees with the literature and supports efforts to increase the frequency and quality of communication about sex between teens and their parents (Green & Documet, 2005; Jonathan D. Klein et al., 2005; Robert & Sonenstein, 2010). Non-parental adults that students referred to in this study were teachers or other adults in the school or/and outside of the school that teen could talk to.
This supports increasing the availability of charismatic and responsible adult staff in school or/and after school youth development programs that can connect with teens to give a strong clear message about postponing sex and avoiding unprotected sex and can facilitate access to reproductive health services if teens chose to engage in sex (Kirby, 2009). This has implications for the meaningfulness of getting these two groups (parents and responsible non-parental adults) involved in teen pregnancy prevention programs and this may be an important area to consider in planning effective interventions on teens’ sex behaviors in Hawai`i (Kegler et al., 2005; Kirby, Laris, & Rolleri, 2007; Vesely et al., 2004).

We also found that school HIV/AIDS education was not associated with having had sex. This may be due to the wording of the YRBS question, which asked only about HIV/AIDS education and not sex education. Another probable reason for lack of association could be variation in the content of sex education in Hawai`i public schools. The Hawai`i State education policy mandates sex education and sexually transmitted infections (STI)/HIV education as part of the school curriculum. Although information on both abstinence and contraception shall be provided, there are no particular curricula guidelines providing detail on what should be discussed (Sexuality Information and Education Council of the United States, 2009). National organizations call for use of evidence-based curricula, such as Making Proud Choices and Be Proud, Be Responsible, but using evidence-based programs is not yet a federal or State mandate (Advocates for Youth, 2008a, 2008b; Collins, Alagiri, & Summers, 2002; Guttmacher Institute, 2011; Kirby et al., 2004). Thus, it is difficult to make generalizations about the effectiveness (or lack of) school-based sex education in affecting teen sex behavior.

Our findings suggest that teens who were most interested in sex or already engaged in sex were seeking preventive education from healthcare providers. In general, teens view healthcare providers as credible-sources of health-related information (Klein & Wilson, 2002). Primary care providers should provide sexual risk prevention messages to their teen patients irrespective of their sex behavior status because early initiation of sexual intercourse is related to higher risk of pregnancy risk, lower condom use, and higher risk for contracting HIV/STDs (Burstein, Lowry, Klein, & Santelli, 2003; Klein & Wilson, 2002; Meschke, Bartholomae, & Zentall, 2002). Physicians should talk to teen
boys as well as girls, as boys were more likely to report having had more than one sexual partner and having had first sex at age 13 or younger.

Finally, it is important to consider gender, developmental, and cultural differences. In our study, more girls reported access to sex education/prevention information than boys in all four sources assessed: school, healthcare provider, family and non-parental adult. We found greater condom use among 6th-8th graders than 9th-12th graders. These findings were consistent with other studies that found that condom use declines with age and in longer, more committed relationships with more frequent sexual activity in which female partners use other contraceptive methods (Fortenberry, Tu, Harezlak, Katz, & Orr, 2002; Manlove, Ikramullah, & Terry-Humen, 2008). No association was found between four sources assessed and teens’ condom use behavior during last sex. This is important baseline information for further studies on this topic and should be relevant to school-based sex education policy and healthcare provider’s reproductive health education practices with teen patients. Ethnic differences also were present in access to prevention information and teens’ ever having had sex. Although access to family was a protective factor in teens engaging in sex, this may not be true across all ethnic groups. We found that the group least likely to report having had sex (Japanese) also was least likely to report that their parents/family talked to them about what they expect them to do or not to do when it comes to sex. Exploring factors/explanations behind these differential patterns may help us understand the underlying reasons by which cultural norms and family values may affect teen engagement in sex. For example, Sasaki & Kameoka’s (2009) study about Asian and Pacific Islander teens in Hawai‘i pointed out that the Native Hawaiian value of Ohana (family) and Filipino value of pakikisama (getting along harmoniously) may compromise Native Hawaiian and Filipino girls’ ability to say “no” or to negotiate condom use (Sasaki & Kameoka, 2009). Understanding cultural variations can advance our understanding about teen sex behavior and provide critical insights needed for developing effective sex education and intervention programs.

Limitations

The HYRBS is the largest, population-based, representative dataset on youth risk behaviors. However, using the HYRBS is not without limitations. For example, we had
to exclude 557 (weighted n=14,757) students in our final analysis due to missing or unreliable data. Excluded records included more of boys than girls, more older than younger students, and more Native Hawaiians than students of other ethnicities compared to the included teens, although the difference was not statistically significant. Because of missing data, there is no way to know if excluding 18% of the records compromised our findings. Second, HYRBS data are self-reported, and a student’s report of his/her sexual behavior can be influenced by cognitive, social, and situational factors. Third, HYRBS data are cross-sectional, making it impossible to draw inferences about the causal directions of the relationships found in this study. However, we have no universal standard to validate sexual behavior (CDC, 2004), and the YRBS is the best source of data available. The analysis of the population-based, cross-sectional data gives prevalence determinations that are generalizable to the overall youth population in Hawai‘i attending public schools.

Conclusions

Overall, this study should alert school-based sex education policy makers, program planners, teen pregnancy prevention service providers, clinicians, and researchers that effective education is needed to prevent teens from engaging in risky sex behavior. Teen pregnancy is a health and social issue. In-school sex education is important, but perhaps not enough. Our findings suggest that communication with family and non-parental adults may delay teens from engaging in sex and that many teens engaging in sex were accessing healthcare providers. These findings can inform the design of programs to promote adult-child communication about sex and better access to healthcare providers for teens considering sex. These findings also suggest that more research is needed on cultural and familial values related to sex, as these may vary across ethnic groups.
CHAPTER 3. PARENT-TEEN SEX COMMUNICATION PATTERNS IN MULTI-ETHNIC HAWAI`I

Abstract

Objectives: Parents play an integral part in teens’ decision making process about sex behaviors. This study explored 1) parent communication patterns in multi-ethnic Hawai`i and, 2) communication differences between mothers and fathers. Methods: A self-administered questionnaire was used to gather data. Study participants were 182 parents of a teen between ages 14 and 17 years in Hawai`i. Survey items assessed the patterns of general and sexual communications, and parental monitoring as well as parental perceptions of teens’ sex behavior and teen pregnancy. Multiple logistic regression analyses were used to examine parental communication patterns, comparing the parent (mothers to fathers) and the teen (daughters to sons). Results: Among the 182 respondents, 98% believed parents are responsible to talk to their teen about sex. Doctors, nurses, and schools were seen as secondary, but major, sources of a teen’s information about sex. The majority of the parents (85%) disapproved of their teen having sex; however, most parents had not had extensive discussions with their child about condoms (70%) and birth control (73%). Mothers reported more extensive communication, generally and specifically about sex, as well as more frequent child monitoring than fathers, who reported a moderate amount of communication with their teens. Conclusion: This study provides data and information that can be used to better understand parental perceptions of teen’s sex and pregnancy in Hawai`i parents. Findings are useful in developing programs to strengthen parental sexual communication and family ties.
Introduction

The early onset of sexual behavior, as well as unsafe sexual activity, have negative health consequences, including infection with human immunodeficiency virus/acquired immune deficiency syndrome (HIV/AIDS) and other sexually transmitted diseases (STD, e.g., chlamydia, gonorrhea, syphilis) and the occurrence of unintended pregnancy. In 2006, 742,990 women age between 15 and 19 years became pregnant in the United States (US) (Kost, Henshaw, & Carlin, 2010). According to the Centers for Disease Control and Prevention (CDC, 2009), in 2006, 21,890 teens and young adults aged 10 to 24 years in 33 states were living with HIV/AIDS, and 467,164 teens aged 10 to 19 years were reported to have chlamydia, gonorrhea, or syphilis. Recent data from the Youth Risk Behavior Survey (YRBS), a national survey of high school students (grades 9–12), indicated that 46% of students in US have ever had sexual intercourse, and 5.9% had sexual intercourse for the first time before age 13 (CDC, 2010). Among the 34% of high school students who are sexually active, 39% reported that neither they nor their partner used a condom during last sexual intercourse (CDC, 2010).

Hawai`i ranks 17th highest in teen pregnancy nationwide (Kost et al., 2010) and has the 8th highest chlamydia rate in the nation in 2008 (CDC, 2009). According to the 2009 data from the Hawai`i Youth Risk Behavior Survey (HYRBS), 44% of Hawai`i’s high school students have ever had sexual intercourse. About 6% of high school students reported having had sexual intercourse for the first time before age 13 (CDC, 2010). Among students who were currently sexually active, 52% did not use a condom during last sexual intercourse (CDC, 2010). Furthermore, teens tend to have multiple sexual partners, which increase their risk of contracting HIV and other STD.

Many factors (biological, environmental, social and economic) contribute to teens’ decision to initiate sexual behavior (Aspy et al., 2007). However, the factor that is consistently shown by research to protect teens from risky sexual behaviors is positive parent and familial influences (Aspy et al., 2007; Baker et al., 1999; Borawski, Levers-Landis, Lovegreen, & Trapl, 2003; Crosby et al., 2002; DiClemente et al., 2001; Guilamo-Ramos, Jaccard, Dittus, & Collins, 2008; Khaleque & Deperry, 2005; Li, Stanton, & Feigelman, 2000; Rai et al., 2003; Rupp & Rosenthal, 2007; Schouten, van den Putte, Pasmans, & Meeuwesen, 2007; Wight, Williamson, & Henderson, 2006;
Parents are the primary source of information about sex and behavioral values and can deliver age-appropriate and timely prevention messages to their children (DiIorio, Pluhar, & Belcher, 2003; Rupp & Rosenthal, 2007; Wyckoff et al., 2008). In a recent national survey conducted by “The National Campaign to Prevent Teen Pregnancy” (2010), 57% of the teens aged 12 to 14 years and 39% of the teens aged 15 to 19 years stated that among all sources (e.g. friends, religious leaders, siblings, teachers, sex educators, and media), parents most influenced their decisions about sex. Six in ten teens (62%) wished they were able to talk more openly about relationships with their parents (Albert, 2010).

In a study by Aspy et al. (2007), teens were much less likely to have initiated sexual intercourse if their parents taught them to say no, set clear rules, and talked about what is right and wrong and about delaying sexual activity (Aspy et al., 2007). Mothers have more influence on their daughters’ sexual decision making than mothers have on sons (DiIorio et al., 2003; McNeely et al., 2002). The more positive the relationship between mothers and daughters and the more disapproving daughters perceived their mothers to be toward their engaging in sexual intercourse, the less likely they were to initiate sexual activity or to become pregnant (Dittus & Jaccard, 2000). The greater the level of discussion about negative consequences of pregnancy, the stronger the level of perceived maternal disapproval. Also, the higher the level of mother-daughter relationship satisfaction, the more negative the teen’s attitudes towards pregnancy (Jaccard, Dodge, & Dittus, 2003).

McNeely et al. (2002) also explored maternal influence on the timing of first intercourse for teens. The results indicated that, for teen girls, mother's satisfaction with her relationship with her daughter, mother's strong disapproval of her daughter having sex, and frequency of communication with the parents about the daughter's friends were associated with later sexual debut (McNeely et al., 2002). Fathers communicate less than mothers about sexuality with their daughters (Wyckoff et al., 2008); however fathers are likely to talk with their sons about sex (Hutchinson & Cooney, 1998; Wyckoff et al., 2008).

In addition to parent-teen sex communication, existing literature showed that parental monitoring and general communication prevented teens from engaging in several
risk behaviors, such as early sex activity, unprotected sex, substance use, and alcohol use (Borawski et al., 2003; Huebner & Howell, 2003; Li et al., 2000; Rai et al., 2003; Wight et al., 2006). Having a parent who knows their child’s whereabouts and with whom their child is spending unsupervised time also is protective against child sex activity (B. C. Miller, Benson, & Galbraith, 2001). A prospective study on minority girls age 14-18 years found that low parental monitoring was associated with the incidence of pregnancy (Crosby et al., 2002). Teen girls perceiving less parental monitoring were more likely to report multiple sexual risk behaviors, such as not using a condom at last sexual intercourse, having multiple sexual partners, and testing positive for an STD (DiClemente et al., 2001). Even general parent-child communication is protective, as Miller et al. (1999) found that higher levels of parent-teen general communication were associated with lower levels of teen’s sex behavior. Teens who had never engaged in sex were more likely to report talking to their parents about problems and having parents with high expectations and clear rules (Aspy et al., 2007). Among sexually active teens, those whose parents talked to them about birth control and STD prevention were significantly more likely to use birth control (Aspy et al., 2007).

These findings showed that parents fill the most important role in a teen’s sexual decision making. Parents should be aware of their influential role and the importance of interpersonal parent-teen communication as part of their parenthood responsibility to protect teens from engaging in risky sex behaviors. However, studies have shown that most parents are not prepared to deliver age-appropriate messages to their children. According to Pluhar, Jennings & DiLorio (2006), mothers reported feeling shocked and embarrassed when sex-related questions came from their child earlier than they expected. Another study pointed out that many parents wait to talk to their children about sexuality until they believe their child is in a romantic relationship (Eisenberg, Sieving, Bearinger, Swain, & Resnick, 2006; Swain & Resnick, 2006). By doing so, parents may miss important opportunities to influence a child’s sex behaviors (Eisenberg et al., 2006).

The state of Hawai`i has a unique nature with great diversity and rich culture because of its diverse populations. In 2000, the state’s ethnic distribution was estimated to be 24.3 percent Native Hawaiian, 24.3 percent Caucasian, 18.9 percent Japanese, 16.5 percent Filipino, 7.4 percent Chinese, 2.4 percent Korean, 1.8 percent Samoan, and 9
percent other (including African Americans; Hispanics; Lao, Thai, Vietnamese, and other Asians; Micronesians, Marshallese, Tongans, and other Pacific Islanders; and others) (Park, Braun, Horiuchi, Tottori, & Onaka, 2009). The highest prevalence of sexual risk behaviors was reported among Native Hawaiian teens followed by Filipino teens, and the lowest prevalence was among Japanese teens (Sasaki & Kameoka, 2009). Yet parent-child communication about sex has not been studied in Hawai`i’s multicultural population. Thus, this study examined: 1) parent-teen communication patterns in multi-ethnic Hawai`i and, 2) parent-teen communication differences between mothers and fathers. The study further explored messages that parents convey to the child related to sex and age at which they start talking to the child about sex-related topics.

Methods

The discussion of sex education for youth is a sensitive issue in most cultures, even in the US. Thus, a self-administered questionnaire was used to gather data to explore parent-teen communication about sex among parents in Hawai`i. This method increases the completion and accuracy of data when a sensitive subject is being assessed (Pasternak, Geller, Parrish, & Cheng, 2006).

Participants

To be eligible to participate in the parent-teen communication questionnaire, participants had to be able to read and write English, to be age 18 or older, and to identify themselves as a parent or legal guardian of at least one child age 14 to 17 years. If a participant had more than one child between ages 14 and 17, the participant was asked to respond to the questionnaire in relation to the child who most recently had his/her birthday.

Procedures

To assure a diversity in respondents in terms of ethnicity in Hawai`i and parent’s gender (mothers and fathers), the study recruited participants from 11 different neighborhoods on the island of O`ahu during the months from January to June, 2011. Respondents were recruited from community shopping centers over multiple dates, but especially during weekends. Other respondents were recruited from community health fairs in five different communities. A poster announcing the study was placed at the site
at the time of the recruitment, and participants approached principal investigator if they were willing to participate.

All participants were asked to sign informed consent. The questionnaire was described as a survey to gather information about parental communication on sex behaviors for purposes of helping develop programs for parents as a group, rather than individual respondents. We ensured anonymity by not collecting any identifying information or names on the questionnaire. Participants were provided with an envelope in which to seal the survey before returning it to the graduate student. Each participant was provided with a $5 gift card to a leading variety store in Hawai`i in appreciation of his/her time and effort. The study and all forms and questions were approved by the Institutional Review Board of the University of Hawai`i.

**Key Variables**

In developing the questionnaire, scales were selected from other studies on parent-child communication about sex behaviors (Aspy et al., 2007; Hutchinson, 2002, 2007; Hutchinson & Cooney, 1998; K. S. Miller et al., 1999; Rose et al., 2005; Walker, Rose, Squire, & Koo, 2008). The final survey included items in five areas: 1) parent-teen sexual communication; 2) parental monitoring of teen activities; 3) parent-teen general communication; 4) parental perceptions on child’s sex behaviors and teen pregnancy; and 5) demographics.

**Parent-teen sexual communication.** The study used the 8-item Parent Teen Sexually Related Communication Scale (PTSRC-III) developed by Hutchinson (2007). This scale asked parents to rate how much information (from 1=none to 5=an extensive amount) they have shared with their daughter or son about eight topics: birth control; STD; HIV/AIDS; condoms; how to protect yourself from HIV/AIDS; postponing or not having sex; peer pressure to have sex; and how to handle sexual pressure. The Cronbach $\alpha$ for the PTSRC-III Scale in this study was 0.96 for all participants, 0.95 for fathers, and 0.96 for mothers. In addition to the eight PTSRC-III items, the survey included a global question – How much information did you share with your daughter (or) son about human sexuality? (from 0=none to 4=an extensive amount).

**Parental monitoring.** The study used the 4-item parental monitoring scale developed by Rai et al. (2003) to measure parental monitoring of teen activities. The
scale asked parents to report the frequency for each of four statements about child monitoring on a scale from 1=never to 5=always: 1) I know where my child is going to be after school; 2) My child tells me whom he/she is going to be with before he/she goes out; 3) When my child goes out at night, I know where he/she is; and 4) My child talks to me about the plans that he/she has with friends. The scale’s Cronbach’s $\alpha$ in this study was 0.88 for all participants, 0.80 for fathers, and 0.90 for all mothers.

**Parent-teen general communication.** The study used a single-item scale to measure general parent-teen communication by asking parents “How well do you and your child share ideas or talk about things that really matter to him/her?” with 5 response choices ranged from 0=not well at all to 4=very well (Hutchinson, 2002).

**Parental perceptions of child’s sex behaviors and teen pregnancy.** Questionnaire items to assess parental approval of teen’s sex and perception of teen pregnancy also were drawn from previous studies (Albert, 2007; The Annie E. Casey Foundation, 1993; Walker et al., 2008). Parental approval of teen’s sex was assessed by asking parents “How would you feel if you found out that this child was having sex? with 3 response choices “It would be ok,” “I would disapprove,” and “I wouldn’t care” (Walker et al., 2008). Perception on teen pregnancy was assessed by asking parents “What do you think girls do most of the time if they get pregnant? with 4 response choices “Have an abortion,” “Put child up for adoption,” “Raise the child themselves,” and “Raise the child with a husband” (The Annie E. Casey Foundation, 1993). The study further dichotomized those 4 choices into 2 “have an abortion and put child up for adoption” as anti-teen pregnancy and “raise the child themselves or with a husband” as pro-teen pregnancy. Other questions were: 1) Do you think you would know if this child was having sex? (Yes/No); 2) Who should be responsible for talking with this child about sex? (eight choices, including parent, doctors/nurses, schools, etc); 3) When it comes to this child’s decision about sex, who is most influential? (eight choices including parent, friends, siblings, etc); 4) At which age would like your male child (or female child) to be when he (she) first has sex (<17, 17-18 years, 19-20 years, or 21 years or older); and 5) When this child comes to you with questions about sex, your immediate action might be? (eight choices including seek information, be supportive, joke about it, stop what I am doing and engage in discussion, etc). Participants were asked to report the age of the
child when they first talked to him/her about each of 12 sex-related items, including menstrual cycle, homosexuality, birth control, and STDs. Finally, parents were asked: “Suppose your teen son/daughter were to come to you and say that he/she needed protection or birth control because he/she is having sex, what would you say or do?” One question was asked about teen daughters, and another for teen sons to see if parents had different standards for girl and boy children.

**Demographic Control Variables.** Participants were asked if they were married (yes/ no), the highest grade in school they completed, total pre-tax household income during the past 12 months, sex, age, and ethnicity. They also were asked to report if they were a mother or a father as well as the age and sex of the child about which they answered questions on parent-teen communication.

**Statistical Analysis**

All analyses were conducted using SAS (version 9.2). Descriptive statistics were computed to examine responses to the eight PTSRCIII items, the single human sexuality item, the four parental monitoring items, and the single parent-teen general communication item. Scores on the eight individual PTSRCIII items (range=1-5), on the composite scale score for parental monitoring calculated by averaging the responses to the four items by each respondent (range=1-5), the parent-teen general communication scale (range=0-4) and on the parent-teen communication about human sexuality (range=0-4) were not normally distributed. Thus, scores were dichotomized at the 50th percentile (scores below the 50th percentile were coded as “low” and scores at the 50th percentile and above were coded as “high”). Nine multivariate logistic models were used to explore eight PTSRCIII topics and parent-teen communication of human sexuality in general, adjusting for the control variables, and odds ratios with 95% Confidence Intervals (CI) were computed. The relationship of having had a high versus low level of parent-teen sexual communication, general communication, and parental monitoring reported by mothers and fathers with their teen daughter or son were compared by using chi-square analyses.

To examine the timing that parents first talked to their child about sex topics, age means, standard deviations, and ranges were calculated for the 12 items of parent-teen
sex communication topics. Participants’ responses to open-ended questions were post-coded to examine themes.

**Results**

The demographic data for all the participants are presented in Table 3.1.

Table 3. 1– Demographic characteristics of study participants

<table>
<thead>
<tr>
<th></th>
<th>Total Sample n=182 (100%)</th>
<th>Mothers n=126 (100%)</th>
<th>Fathers n=56 (100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (mean, SD)</td>
<td>43.8 (7.6)</td>
<td>42.8 (6.9)</td>
<td>45.9 (8.7)</td>
</tr>
<tr>
<td>Ethnicity/Race (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black/African American</td>
<td>10 (5.6)</td>
<td>6 (4.8)</td>
<td>4 (7.1)</td>
</tr>
<tr>
<td>Filipino</td>
<td>36 (19.8)</td>
<td>29 (23.0)</td>
<td>7 (12.5)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>7 (3.9)</td>
<td>2 (1.6)</td>
<td>5 (8.9)</td>
</tr>
<tr>
<td>Japanese</td>
<td>12 (6.6)</td>
<td>8 (6.4)</td>
<td>4 (7.1)</td>
</tr>
<tr>
<td>Native Hawaiian</td>
<td>65 (35.7)</td>
<td>48 (38.1)</td>
<td>17 (30.4)</td>
</tr>
<tr>
<td>Other Asian &amp; Pacific</td>
<td>31 (17.0)</td>
<td>20 (15.9)</td>
<td>11 (19.6)</td>
</tr>
<tr>
<td>Islander</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>21 (11.5)</td>
<td>13 (10.3)</td>
<td>8 (14.3)</td>
</tr>
<tr>
<td>Education (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some high school</td>
<td>6 (3.3)</td>
<td>2 (1.6)</td>
<td>4 (7.1)</td>
</tr>
<tr>
<td>High school</td>
<td>48 (26.7)</td>
<td>31 (25.0)</td>
<td>17 (30.4)</td>
</tr>
<tr>
<td>Trade School</td>
<td>18 (10.0)</td>
<td>12 (9.7)</td>
<td>6 (10.7)</td>
</tr>
<tr>
<td>College</td>
<td>44 (24.4)</td>
<td>34 (27.4)</td>
<td>10 (17.9)</td>
</tr>
<tr>
<td>Some University</td>
<td>17 (9.4)</td>
<td>12 (9.7)</td>
<td>5 (8.9)</td>
</tr>
<tr>
<td>University graduate or more</td>
<td>47 (26.1)</td>
<td>33 (26.6)</td>
<td>14 (25.0)</td>
</tr>
<tr>
<td>Household Income (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $10,000</td>
<td>20 (11.1)</td>
<td>14 (11.2)</td>
<td>6 (10.7)</td>
</tr>
<tr>
<td>$10,000 to 14,999</td>
<td>7 (3.9)</td>
<td>6 (4.8)</td>
<td>1 (1.8)</td>
</tr>
<tr>
<td>$15,000 to 19,999</td>
<td>3 (1.7)</td>
<td>2 (1.6)</td>
<td>1 (1.8)</td>
</tr>
<tr>
<td>$20,000 to 24,999</td>
<td>12 (6.6)</td>
<td>10 (8.0)</td>
<td>2 (3.6)</td>
</tr>
<tr>
<td>$25,000 to 34,999</td>
<td>13 (7.2)</td>
<td>7 (5.6)</td>
<td>6 (10.7)</td>
</tr>
<tr>
<td>$35,000 to $49,999</td>
<td>31 (17.1)</td>
<td>25 (20.0)</td>
<td>6 (10.7)</td>
</tr>
<tr>
<td>$50,000 or more</td>
<td>95 (52.5)</td>
<td>61 (48.8)</td>
<td>34 (60.7)</td>
</tr>
<tr>
<td>Married (%)</td>
<td>133 (73.1)</td>
<td>89 (70.6)</td>
<td>44 (78.6)</td>
</tr>
<tr>
<td>Age of the index child (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14 years</td>
<td>55 (32.5)</td>
<td>36 (31.0)</td>
<td>19 (35.9)</td>
</tr>
<tr>
<td>15 years</td>
<td>28 (16.6)</td>
<td>22 (19.0)</td>
<td>6 (11.3)</td>
</tr>
<tr>
<td>16 years</td>
<td>47 (27.8)</td>
<td>29 (25.0)</td>
<td>18 (34.0)</td>
</tr>
<tr>
<td>17 years</td>
<td>39 (23.1)</td>
<td>29 (25.0)</td>
<td>10 (18.9)</td>
</tr>
<tr>
<td>Index child a daughter (%)</td>
<td>99 (55.0)</td>
<td>72 (57.6)</td>
<td>27 (49.1)</td>
</tr>
</tbody>
</table>

1. Number may not sum to total because of non-responses.

The sample consisted of 182 parents, including 126 mothers (69.2%) and 56 fathers (30.8%). Respondents had a mean age of 43.8 year and were parents of children
age 14 (32.5%), 15 (16.6%), 16 (27.8%), and 17 years old (23.1%). Just more than half (55%) reported on communication with a daughter, and 45% reported on communication with a son. The sample reflected Hawai`i’s ethnic diversity; 35.7% of the sample was Native Hawaiian (including full and part Hawaiian), 19.8% Filipino, 11.5% White; 6.6% Japanese, 5.6% African American, 3.9% Hispanic 17% other Asian & Pacific Islander.

**Parental Sexual Communication**

Results indicate that parents are communicating about sex with their teens (Table 3.2). Mothers were more likely than fathers to talk with their teen about human sexuality in general (35.5% of mothers vs. 11.3% of fathers, p= .001). Among the sexual communication items, mothers were more likely than fathers to talk with their teen about postponing or not having sex (58.7% of mothers vs. 21.4% of fathers, p< .001), peer pressure to have sex (49.2% vs. 21.4%, p< .001), how to handle sexual pressure (44.4% vs. 17.9%, p< .001), HIV/AIDS (34.9% vs. 17.9%, p=.02), how to protect yourself from HIV/AIDS (36.5% vs. 19.6%, p=.02), birth control (31.8% vs.16.1%, p=.03), STD (35.7% vs. 19.6%, p=.03), and condoms (34.9% vs. 19.6%, p=.04).

As shown in Table 3.3, mothers were more likely to share high levels of sex information with their teen daughter than teen son in most topics. Particularly, mothers were significantly more likely to share information with a daughter than a son on: peer pressure to have sex (61.1% mother-daughter vs. 34.0% mother-son); how to handle sexual pressure (54.2% mother-daughter vs. 34.0% mother-son); HIV/AIDS (45.8% mother-daughter vs. 20.8% mother-son); how to protect yourself from HIV/AIDS (45.83% mother-daughter vs. 24.5% mother-son); and STD (44.4% mother-daughter vs. 24.5% mother-son). Fathers communicate less than mothers about sexuality with their child on all the sexual topics assessed. Fathers are likely to talk with their son about sex than their daughter, although the chi-square test was not significant.

Findings from the logistic regression analyses (controlling for parental gender, education, income, marital status, ethnicity, parental approval on teens’ sex, parental perception on teen pregnancy, child’s age, and child’s gender) showed that mothers were more likely than fathers to report a high level of communication on human sexuality in general and on all sexual topics except birth control and STD (Table 3.4). The odds ratios were similar across significant models for sexual topics, ranging from 5.1 (95% CI: 2.1-
on communicating about postponing or not having sex to 3.0 (95% CI: 1.1-8.6) about condoms. As also shown in Table 3.4, parents were more likely to share extensive amount of sex information with their teen daughter than their teen son. In particular, significant odds ratios were found for four topics: how to handle sexual pressure (OR=4.3; 95% CI: 1.7-10.9); peer pressure to have sex (OR=4.2; 95% CI: 1.8-10.0); HIV/AIDS (OR=3.2; 95% CI: 1.3-8.2) and postponing or not having sex (OR=2.7; 95% CI: 1.2-6.3).

**Parental General Communication**

More than a third of all parents (37.1%) mentioned having had a high level of general communication about things that really matter to their teen (Table 3.2). Mothers reported communicating more with their child than did fathers (43.4% of mothers vs. 22.6% of fathers, p=.01), but no significant differences were found between mother’s general communication with teen daughter or son or father’s general communication with teen daughter or son (Table 3.3).

**Parental Monitoring**

Less than half of all the parents always or most of the time knew where and with whom their child was with (45.6%) (Table 3.2). No significant differences were found for parental monitoring by mother and father (Table 3.2) and parental monitoring of teen sons or daughters (Table 3.3).

**Parental Perception on Teen’s Sex**

As shown in Table 3.2, the majority of all the parents (85.3%) reported they would disapprove if they found out that their teen was having sex, and 62.6% thought that most pregnant teen girls would try to keep and raise the child. Two thirds (65.4%) of the parents reported they would know if their child was having sex. The majority (99%) felt that parents should be responsible for talking with their child about sex. Other responsible sources were doctors and nurses (44%) and schools (38%). In terms of who was most influential in a teen’s decision about sex, 72.3% of participants said “parents.” The majority of parents would like their child to be “21 years or later” before having sex for the first time (57% for male child and 71% for female child). In response to the immediate action if their teen son or daughter came to them with questions about sex, about two-thirds of parents listed “stop and engage in discussion” (no gender
differences). Other actions supported by parents were “be supportive,” “seek information,” and “think through the responses.” Mothers were significantly more likely to be supportive of teen daughters than were fathers (61.1% vs. 37%, p=.03).

Table 3. 2–Patterns of parental communication, parental perception on teen’s sex/pregnancy and differences between mothers and fathers

<table>
<thead>
<tr>
<th>Parental communication about Human Sexuality in General</th>
<th>Total Sample n=182 Frequency (%)</th>
<th>Mothers n=126 Frequency (%)</th>
<th>Fathers n=56 Frequency (%)</th>
<th>Chisq (df) difference between mothers and fathers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent-teen communication about human sexuality in general</td>
<td>50 (28.3)</td>
<td>44 (35.5)</td>
<td>6 (11.3)</td>
<td>10.70 (1)**</td>
</tr>
<tr>
<td>Parent-teen sex communication</td>
<td>86 (47.3)</td>
<td>74 (58.7)</td>
<td>12 (21.4)</td>
<td>21.64 (1)**</td>
</tr>
<tr>
<td>Postponing or not having sex</td>
<td>74 (40.7)</td>
<td>62 (49.2)</td>
<td>12 (21.4)</td>
<td>12.40 (1)**</td>
</tr>
<tr>
<td>Peer pressure to have sex</td>
<td>66 (36.3)</td>
<td>56 (44.4)</td>
<td>10 (17.9)</td>
<td>11.86 (1)**</td>
</tr>
<tr>
<td>How to handle sexual pressure</td>
<td>54 (29.7)</td>
<td>44 (34.9)</td>
<td>10 (17.9)</td>
<td>5.41 (1)*</td>
</tr>
<tr>
<td>How to protect yourself from HIV/AIDS</td>
<td>57 (31.2)</td>
<td>46 (36.5)</td>
<td>11 (19.6)</td>
<td>5.13 (1)*</td>
</tr>
<tr>
<td>Birth control</td>
<td>49 (26.9)</td>
<td>40 (31.8)</td>
<td>9 (16.1)</td>
<td>4.84 (1)*</td>
</tr>
<tr>
<td>Sexually transmitted diseases</td>
<td>56 (30.8)</td>
<td>45 (35.7)</td>
<td>11 (19.6)</td>
<td>4.70 (1)*</td>
</tr>
<tr>
<td>Condoms</td>
<td>55 (30.2)</td>
<td>44 (34.9)</td>
<td>11 (19.6)</td>
<td>4.29 (1)*</td>
</tr>
<tr>
<td>Parent-teen general communication</td>
<td>65 (37.1)</td>
<td>53 (43.4)</td>
<td>12 (22.6)</td>
<td>6.85 (1)**</td>
</tr>
<tr>
<td>Parental monitoring</td>
<td>83 (45.6)</td>
<td>61 (48.4)</td>
<td>22 (39.3)</td>
<td>1.30 (1)</td>
</tr>
<tr>
<td>Parental approval on teen’s sex</td>
<td>151 (85.3)</td>
<td>106 (86.9)</td>
<td>45 (81.8)</td>
<td>.78 (1)</td>
</tr>
<tr>
<td>I would disapprove</td>
<td>26 (14.7)</td>
<td>16 (13.1)</td>
<td>10 (18.2)</td>
<td>.78 (1)</td>
</tr>
<tr>
<td>Pro: Raise child themselves/ with husband</td>
<td>107 (62.6)</td>
<td>72 (60.5)</td>
<td>35 (67.3)</td>
<td>.72 (1)</td>
</tr>
<tr>
<td>Anti: Abortion/Put child up for adoption</td>
<td>64 (37.4)</td>
<td>47 (39.5)</td>
<td>17 (32.7)</td>
<td>.72 (1)</td>
</tr>
<tr>
<td>Know if this child was having sex</td>
<td>119 (65.4)</td>
<td>82 (65.1)</td>
<td>37 (66.1)</td>
<td>.02 (1)</td>
</tr>
<tr>
<td>Person responsible for talking with this child about sex</td>
<td>180 (98.9)</td>
<td>126 (100)</td>
<td>54 (96.4)</td>
<td>-</td>
</tr>
<tr>
<td>You as a parent</td>
<td>80 (44.0)</td>
<td>59 (46.8)</td>
<td>21 (37.5)</td>
<td>1.37 (1)</td>
</tr>
<tr>
<td>Schools</td>
<td>69 (39.7)</td>
<td>51 (40.5)</td>
<td>18 (32.1)</td>
<td>1.14 (1)</td>
</tr>
<tr>
<td>Religious leaders</td>
<td>39 (21.4)</td>
<td>26 (20.6)</td>
<td>13 (23.2)</td>
<td>.15 (1)</td>
</tr>
<tr>
<td>Older relatives</td>
<td>37 (20.3)</td>
<td>22 (17.5)</td>
<td>15 (26.8)</td>
<td>2.08 (1)</td>
</tr>
<tr>
<td>Siblings</td>
<td>21 (11.5)</td>
<td>12 (9.5)</td>
<td>9 (16.1)</td>
<td>1.63 (1)</td>
</tr>
<tr>
<td>Friends</td>
<td>12 (6.6)</td>
<td>7 (5.6)</td>
<td>5 (8.9)</td>
<td>.72 (1)</td>
</tr>
<tr>
<td>Media</td>
<td>8 (4.4)</td>
<td>7 (5.6)</td>
<td>1 (1.8)</td>
<td>1.31 (1)</td>
</tr>
</tbody>
</table>
Table 2.3 cont’d

<table>
<thead>
<tr>
<th>Person most influential in this child’s decision about sex</th>
<th>All n=182</th>
<th>Mothers n=126</th>
<th>Fathers n=56</th>
<th>Chisq (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>You as a parent</td>
<td>94 (72.3)</td>
<td>64 (71.1)</td>
<td>30 (75.0)</td>
<td></td>
</tr>
<tr>
<td>Friends</td>
<td>20 (15.4)</td>
<td>15 (16.7)</td>
<td>5 (12.5)</td>
<td></td>
</tr>
<tr>
<td>Siblings</td>
<td>3 (2.3)</td>
<td>2 (2.2)</td>
<td>1 (2.5)</td>
<td></td>
</tr>
<tr>
<td>Doctors/Nurses</td>
<td>2 (1.5)</td>
<td>2 (2.2)</td>
<td>-</td>
<td>2.98 (7)</td>
</tr>
<tr>
<td>Older relatives</td>
<td>2 (1.5)</td>
<td>1 (2.5)</td>
<td>1 (2.5)</td>
<td></td>
</tr>
<tr>
<td>Media</td>
<td>1 (0.8)</td>
<td>1 (1.1)</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Religious leaders</td>
<td>1 (0.8)</td>
<td>1 (1.1)</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>I don’t know</td>
<td>7 (5.4)</td>
<td>4 (4.4)</td>
<td>3 (7.5)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age would like your male child to be when he first has sex</th>
<th>All n=182</th>
<th>Mothers n=126</th>
<th>Fathers n=56</th>
<th>Chisq (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 years or younger</td>
<td>3 (1.9)</td>
<td>3 (2.9)</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>17-18 years</td>
<td>20 (12.7)</td>
<td>11 (10.5)</td>
<td>9 (17.0)</td>
<td>2.76 (3)</td>
</tr>
<tr>
<td>19-20 years</td>
<td>45 (28.5)</td>
<td>30 (28.6)</td>
<td>15 (28.3)</td>
<td></td>
</tr>
<tr>
<td>21 years or older</td>
<td>90 (57.0)</td>
<td>61 (58.1)</td>
<td>29 (54.7)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>At what age would like your female child to be when she first has sex</th>
<th>All n=182</th>
<th>Mothers n=126</th>
<th>Fathers n=56</th>
<th>Chisq (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>16 years or younger</td>
<td>2 (1.2)</td>
<td>2 (1.7)</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>17-18 years</td>
<td>15 (8.6)</td>
<td>9 (7.5)</td>
<td>6 (11.1)</td>
<td>5.20 (3)</td>
</tr>
<tr>
<td>19-20 years</td>
<td>34 (19.5)</td>
<td>19 (15.8)</td>
<td>15 (27.8)</td>
<td></td>
</tr>
<tr>
<td>21 years or older</td>
<td>123 (70.7)</td>
<td>90 (75.0)</td>
<td>33 (61.1)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>When this child comes to you with questions about sex, your immediate action might be: (% among parents of teen boy)</th>
<th>All n=182</th>
<th>Mothers n=126</th>
<th>Fathers n=56</th>
<th>Chisq (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop what I am doing and engage in discussion</td>
<td>53 (65.4)</td>
<td>36 (67.9)</td>
<td>17 (60.7)</td>
<td>.42 (1)</td>
</tr>
<tr>
<td>Be supportive</td>
<td>46 (56.8)</td>
<td>32 (60.4)</td>
<td>14 (50.0)</td>
<td>.80 (1)</td>
</tr>
<tr>
<td>Seek information</td>
<td>35 (43.2)</td>
<td>21 (39.6)</td>
<td>14 (50.0)</td>
<td>.80 (1)</td>
</tr>
<tr>
<td>Step back and think through my response</td>
<td>34 (42.0)</td>
<td>20 (37.7)</td>
<td>14 (50.0)</td>
<td>1.13 (1)</td>
</tr>
<tr>
<td>Joke about it</td>
<td>7 (8.6)</td>
<td>3 (5.7)</td>
<td>4 (14.3)</td>
<td>1.73 (1)</td>
</tr>
<tr>
<td>Send him to someone else</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(% among parents of teen daughter)</th>
<th>All n=182</th>
<th>Mothers n=126</th>
<th>Fathers n=56</th>
<th>Chisq (df)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stop what I am doing and engage in discussion</td>
<td>64 (64.6)</td>
<td>47 (65.3)</td>
<td>17 (63.0)</td>
<td>0.05 (1)</td>
</tr>
<tr>
<td>Be supportive</td>
<td>54 (54.5)</td>
<td><strong>44 (61.1)</strong></td>
<td><strong>10 (37.0)</strong></td>
<td><strong>4.59 (1)</strong>*</td>
</tr>
<tr>
<td>Seek information</td>
<td>41 (41.4)</td>
<td>31 (43.1)</td>
<td>10 (37.0)</td>
<td>.29 (1)</td>
</tr>
<tr>
<td>Step back and think through my response</td>
<td>39 (39.4)</td>
<td>30 (41.7)</td>
<td>9 (33.3)</td>
<td>.57 (1)</td>
</tr>
<tr>
<td>Joke about it</td>
<td>8 (8.1)</td>
<td>6 (8.3)</td>
<td>2 (7.4)</td>
<td>.02 (1)</td>
</tr>
<tr>
<td>Send her to someone else</td>
<td>2 (2.0)</td>
<td>1 (1.4)</td>
<td>1 (3.7)</td>
<td>.53 (1)</td>
</tr>
</tbody>
</table>

1. *indicates communication above 50th percentile or extensive amount
2. Bold indicates comparison between mothers and fathers is significant at *p<.05; **p<.01, ***p<.001 level; 3. Number may not sum to total because of non-responses
Table 3. 3 – Patterns of parent-teen sex communication, general communication, parental monitoring: differences between mothers/fathers and their teen daughter/son

<table>
<thead>
<tr>
<th>Human sexuality in general</th>
<th>All n=182 (100%)</th>
<th>Mother’s report of sharing high level of information with teen</th>
<th>Father’s report of sharing high level of information with teen</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Daughter</td>
<td>Son</td>
</tr>
<tr>
<td></td>
<td></td>
<td>n (%)</td>
<td>n (%)</td>
</tr>
<tr>
<td>Birth control a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>49 (26.9)</td>
<td>28 (38.9)*</td>
<td>12 (22.6)*</td>
</tr>
<tr>
<td>Condoms a</td>
<td>55 (30.2)</td>
<td>27 (37.5)</td>
<td>17 (32.1)</td>
</tr>
<tr>
<td>Sexually transmitted diseases a</td>
<td>56 (30.8)</td>
<td>32 (44.4)</td>
<td>13 (24.5)</td>
</tr>
<tr>
<td>HIV/AIDS a</td>
<td>54 (29.7)</td>
<td>33 (45.8)</td>
<td>11 (20.8)</td>
</tr>
<tr>
<td>How to protect yourself from HIV/AIDS a</td>
<td>57 (31.2)</td>
<td>33 (45.8)</td>
<td>13 (24.3)</td>
</tr>
<tr>
<td>Postponing or not having sex a</td>
<td>86 (47.3)</td>
<td>48 (66.7)*</td>
<td>26 (49.1)*</td>
</tr>
<tr>
<td>Peer pressure to have sex a</td>
<td>74 (40.7)</td>
<td>44 (61.1)</td>
<td>18 (34.0)</td>
</tr>
<tr>
<td>How to handle sexual pressure a</td>
<td>66 (36.3)</td>
<td>39 (54.2)</td>
<td>17 (32.1)</td>
</tr>
<tr>
<td>Parent-teen general communication a</td>
<td>65 (37.1)</td>
<td>32 (45.7)</td>
<td>21 (41.2)</td>
</tr>
<tr>
<td>Parental monitoring a</td>
<td>83 (45.6)</td>
<td>39 (54.2)</td>
<td>22 (41.5)</td>
</tr>
</tbody>
</table>

1. a indicates communication above 50th percentile or extensive amount
2. Bold indicates comparison between mother or father’s sharing of information with daughter and son is significant at p<.05; and * indicates p=.05
3. Number may not sum to total because of non-responses

Table 4. 4 – Results of Logistic Regression Models for parent-teen sex communication: differences between mother (vs. father) and daughter (vs. son)

<table>
<thead>
<tr>
<th>Parent-teen Sex Communication</th>
<th>High level of communication by mother (vs. father)</th>
<th>Parents shared extensive amount of information with daughter (vs. son)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human sexuality in general</td>
<td>4.0 (1.20-13.03)</td>
<td>1.8 (0.72-4.70)</td>
</tr>
<tr>
<td>Birth Control</td>
<td>2.3 (0.83-6.49)</td>
<td>1.9 (0.74-4.93)</td>
</tr>
<tr>
<td>Condoms</td>
<td>3.0 (1.05-8.56)</td>
<td>1.2 (0.49-3.11)</td>
</tr>
<tr>
<td>Sexually Transmitted Diseases (STDs)</td>
<td>2.3 (0.88-5.97)</td>
<td>2.4 (0.93-5.95)</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>3.1 (1.06-8.85)</td>
<td>3.2 (1.25-8.18)</td>
</tr>
<tr>
<td>How to protect yourself from HIV/AIDS</td>
<td>3.6 (1.16-11.04)</td>
<td>2.2 (0.89-5.46)</td>
</tr>
<tr>
<td>Postponing or not having sex</td>
<td>5.1 (2.13-12.11)</td>
<td>2.7 (1.18-6.31)</td>
</tr>
<tr>
<td>Peer pressure to have sex</td>
<td>3.5 (1.39-8.95)</td>
<td>4.2 (1.76-9.98)</td>
</tr>
<tr>
<td>How to handle sexual pressure</td>
<td>4.4 (1.65-11.62)</td>
<td>4.3 (1.73-10.85)</td>
</tr>
</tbody>
</table>

1. Logistic regression for having a high level of parental communication controlling for parental sex, child’s sex, parental education, parental income, parental marital status, parental ethnicity, parental approval on teens’ sex, parental perception on teen pregnancy and child’s age; 2. Significant associations are bolded
Table 3. Parents report age of the child at the time they first talked about sexual topics

<table>
<thead>
<tr>
<th>Sex communication</th>
<th>Mother’s report of discussion with</th>
<th>Father’s report of discussion with</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Daughter</td>
<td>Son</td>
</tr>
<tr>
<td></td>
<td>n= Mean, Std dev, Range</td>
<td>n= Mean, Std dev, Range</td>
</tr>
<tr>
<td>Reproduction “how babies are made”</td>
<td>66 10.29, 2.63, 3-16</td>
<td>43 10.84, 2.54, 3-15</td>
</tr>
<tr>
<td>Menstrual cycle</td>
<td>69 10.67, 1.95, 4-15</td>
<td>17 11.18, 2.58, 6-16</td>
</tr>
<tr>
<td>Dating and relationships</td>
<td>66 12.09, 2.05, 5-16</td>
<td>47 11.87, 2.36, 5-15</td>
</tr>
<tr>
<td>Homosexuality</td>
<td>62 11.34, 2.40, 6-16</td>
<td>38 11.16, 2.47, 3-15</td>
</tr>
<tr>
<td>Sexually Transmitted Diseases</td>
<td>57 12.47, 1.97, 8-16</td>
<td>39 12.00, 2.21, 6-15</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>57 12.53, 1.96, 7-16</td>
<td>40 11.98, 2.20, 6-15</td>
</tr>
<tr>
<td>Birth Control</td>
<td>59 12.53, 2.05, 9-16</td>
<td>35 12.11, 2.05, 7-15</td>
</tr>
<tr>
<td>Condoms</td>
<td>53 12.79, 1.89, 9-16</td>
<td>35 11.91, 2.41, 7-15</td>
</tr>
<tr>
<td>How to protect yourself from HIV/AIDS</td>
<td>53 12.64, 2.12, 4-16</td>
<td>36 11.97, 2.31, 6-15</td>
</tr>
<tr>
<td>Postponing or not having sex</td>
<td>60 12.22, 2.15, 6-16</td>
<td>43 11.95, 2.36, 5-15</td>
</tr>
<tr>
<td>Peer pressure to have sex</td>
<td>56 12.43, 1.90, 9-16</td>
<td>37 11.89, 2.22, 5-15</td>
</tr>
<tr>
<td>How to handle sexual pressure</td>
<td>56 12.46, 1.84, 9-16</td>
<td>38 11.89, 2.35, 5-15</td>
</tr>
</tbody>
</table>
Table 3.5 presents the child’s age that parent reported first talking to their teen about sex. Overall, mean ages reported by mothers and fathers for their first discussion with their daughters or sons ranged between 11 and 13 years old. No significant differences were seen by gender of parent or child.

In response to the open-ended questions: “Suppose your teen son/daughter were to come to you and say that he/she needed protection or birth control because he/she is having sex, what would you say or do?,” parents most mentioned four factors: 1) get protection/birth control whether they agree or disagree with their teen having sex; 2) disapprove of teen’s sex, 3) discuss the issue; and 4) take the child to a doctor for professional help. To explore gender differences, we asked parents to respond for both girl and boy children; a total of 157 parents answered for a teen son and 166 parents answered for a teen daughter. Among those, most parents would get birth control/protection for the teen (58% for teen son and 50.6% for teen daughter) and discuss the issue (57.3% with teen son and 48.2% with teen daughter). Only a fifth of parents said they would disapprove of their teen’s sex behavior (21.7% for teen son and 21.7% for teen daughter). Few parents would take their teen daughter to a doctor for professional advice or help (16.9%) or their teen son (7.6%).

Discussion

We found that 98% of parents believed that parents are responsible to talk to their child about sex, and 72% believed that parents were the most influential factor in a teen’s decision about sex. Doctors, nurses, and schools were seen as secondary, but major sources of a teen’s information about sex. These findings are encouraging, given that teens in general identify parents as most influential in their decisions about sex (Albert, 2010). Our study also confirms that mothers are more likely to report communicating about sex with their teens. Previous studies have demonstrated mothers are the major communicator about sex with their teen daughter as well as with their teen son, and that many fathers also communicate about sex with their teens (DiLorio et al., 2003; Hutchinson & Cooney, 1998; McNeely et al., 2002; Wyckoff et al., 2008). Notably, most of the parents mentioned they are willing to immediately engage in discussion and will be supportive if their teen child comes to them with questions about sex. Furthermore, although mothers seem to take a more active role in sex and general
communication with teens, we found no differences between mothers’ and fathers’ perceptions of teen sex and teen pregnancy and their belief that parents are responsible for and the most influential source of sex communication for teens. These findings may suggest planning interventions based on these family values. Moreover, despite variations in Hawai`i’s ethnic groups, parental ethnicity was not a significant predictor of parental sexual communication, general communication, and parental monitoring in multivariate models. Lack of significance ethnic differences may be due to small sample sizes, and ethnic differences in communication should be further explored since we do see ethnic differences in teen sexual engagement, with greater prevalence among Native Hawaiian and Filipino teens than Japanese teens in Hawai`i (Sasaki & Kameoka, 2009). Future research including larger sample sizes and/or qualitative methods could help expand our findings. Understanding more about ethnic differences in teen sex behaviors in Hawai`i can advance our understanding of the sources and predictors of health disparities, and provide critical insights for developing effective culturally appropriate interventions.

However, we found variability in talking about the eight sex-communication topics assessed and overall frequencies less than 50% of parents. Parents were most likely to talk about postponing or not having sex, peer pressure to have sex, and how to handle sexual pressure with their teen. Only 30% or less said they talked about HIV/STDs, birth control, and condoms. Yet, in response to open-ended questions, about half of parents said they would get birth control/protection if their teen son/daughter were having sex. This discrepancy may be due to the fact that two-thirds of parents felt confident that they would know if their child was having sex and would want their child to wait until he or she is 21 or older. Many Hawai`i’s high school students are already having sexual intercourse, some initiated sex at age 13 or younger, and half of two sexually active students in Hawai`i are not using condoms (CDC, 2010).

In our study, parents indicated that parent-teen sexual communication generally took place when the child was 11-13 years old. Considering that parents play an integral part in teen’s behavioral values and decision making about sex (DiIorio, Pluhar, & Belcher, 2003; Rupp & Rosenthal, 2007; Wyckoff et al., 2008), parenting programs should support parents in how to deliver age-appropriate prevention messages to their
child. Further studies should explore communication barriers that parents may face in delivering sex messages to their children, which may possibly be varied by ethnicity. Parents should be encouraged to communicate more about sex, birth control and condoms with their teen, even if they do not think their teen is engaging in sex, in order to protect the teen from engaging in risky sex behaviors (Aspy et al., 2007). These findings also support of inclusion of parent communication workshops and parent-child communication homework in school- and community-based sex education curricula. Including healthcare providers as speakers in the curricula may also be effective.

Finally, we found that only about one-third of parents report high levels of parent-teen general communication and less than half report high levels of parental monitoring. The study found no significant gender differences in these variables (mothers vs. fathers communicating with teen daughter vs. son). Considering the importance of parental monitoring and general communication in preventing teens from engaging in several risk behaviors (Borawski et al., 2003; Huebner & Howell, 2003; Li et al., 2000; Rai et al., 2003; Wight et al., 2006), further studies should explore ways to increase parental skills in general communication with their teens as well as parental monitoring (although this is likely limited by the fact that, in many families, both parents work at least one job, leaving their children on their own or in the care of others). Exploring possible economic and ethnic variations in parental monitoring and general communication could shed more light on these variables.

Limitations

This study has a number of strengths. Measures used for parent-teen communication and monitoring were validated in previous studies (Hutchinson, 2002, 2007; Rai et al., 2003). We included both mothers and fathers of a teen child. The ethnic distribution of the study participants reflected Hawai`i’s multicultural population. We also found that parents in Hawai`i were willing to cooperate in research on teen sex communication, and researchers should be encouraged to intensively explore this important matter in larger sample sizes and/or qualitative methods.

This study also has limitations. First, we did not use random sampling, limiting the generalizability of our study findings. Also, we recruited participants from 11 neighborhoods on the island of O`ahu, so the sample may not represent all parents in
Hawai`i (a state with seven inhabited islands). The study was limited to participants who were able to speak English. The study recruited participants at shopping centers and community health fairs, each attracting select populations of parents. Participation in this study was voluntary, and there may be differences in parents choosing to participate and those who did not. However, we believe that findings from this study add evidence that parents are willing to cooperate in research on teen sex communication and that findings can inform future studies and interventions for these populations. Researchers should consider interviewing matched pairs of teens and parents to explore and compare teen and parent perceptions on sex communication, general communication, and monitoring.

**Conclusions**

Overall, this study explored parental communication with teens about sex. Preventing teens from early initiation of sex, as well as unsafe sex, are important social issues, and school- and community-based sex education is not enough. Many parents in this study correctly believed that they are responsible to talk to their child about sex and that they are the most influential factor in teen’s decision about sex. But they may need more assistance and training in when and how to initiate important discussions about sex. Our findings have implications for increasing the capacity to build strong parent-child relationships, with a goal of protecting our teens from STD and premature pregnancy.
CHAPTER 4. YOUTH’S PERCEPTION ON PARENTAL MESSAGES ABOUT SEXUAL BEHAVIOR

Abstract

Objectives: Lack of guidance from parents generally increases teens’ risk of engaging in risky behaviors. This study explored messages that Hawai`i youth receive from parents about sex behavior and how they perceive these messages.

Methods: PhotoVoice, a participatory research method in which participants take and describe photos, was used. Nine youth between the ages of 12 and 15 years took photos, wrote captions for them, and created storyboards about the messages they received from their parents about sex behaviors. This was followed by a discussion on parental communication about sex.

Results: Youth received guidance from their parents about planning for the future, preparing for their adult lives, and the negative consequences of sex. All said parents shared family values and personal opinion about teen sex behavior indirectly through everyday conversation. Half of the youth also said their parents initiated one-on-one talks about sex when they started to develop sexually or had their first boy/girlfriends. Youth were appreciative of parents’ efforts to communicate about sex, although many did not agree with the ways their parents delivered messages about sex or the timing of messages. They wished that awkwardness could be lessened and that parents wouldn’t assume that the teen was sexually active when he/she asked questions about sex. Starting appropriate parental-child communication about sex at earlier age may be helpful in preventing teen risk behavior and may reduce communication tensions at a later age.

Conclusion: PhotoVoice was an effective way to stimulate discussion with youth on parent-teen sex communication in a multi-ethnic population. Findings suggest ways to strengthen family communications related to teen sex and pregnancy.
Introduction

Recent data from the Youth Risk Behavior Survey (YRBS), a national survey of high school students (grades 9–12), indicate that nearly one in two students in United States (US) have had sexual intercourse and one in three high school students are currently sexually active (Centers for Disease Control and Prevention, 2010). Among those who are sexually active, 39% reported that neither they nor their partner used a condom during last sexual intercourse (CDC, 2010). Hawai`i ranks 17th highest in teen pregnancy nationwide (Kost et al., 2010) and has the 12th highest chlamydia rate in the nation in 2009 (CDC, 2011a). Data from the 2009 Hawai`i Youth Risk Behavior Survey (HYRBS) indicate that the proportion of Hawai`i’s high school students having ever had sexual intercourse and the proportion having had sexual intercourse for the first time before age 13 is similar to the national average (CDC, 2010). However, among high school students in Hawai`i who were currently sexually active, significant more (52%) did not use a condom during last sexual intercourse (CDC, 2010). Furthermore, teens tend to have multiple sexual partners, which increases their risk of contracting HIV and other sexually transmitted diseases (STDs, Sasaki & Kameoka, 2009). The early onset of sexual behavior is the major factor in teenage pregnancy, as well as in the transmission and the acquisition of STDs (Goodson, Evans, & Edmundson, 1997).

Positive parent and familial influences are consistently shown by research to help protect teens from engaging in sexual risk behaviors (Aspy et al., 2007; Baker et al., 1999; Borawski, Ivers-Landis, Lovegreen, & Trapl, 2003; Crosby et al., 2002; DiClemente et al., 2001; Guilamo-Ramos, Jaccard, Dittus, & Collins, 2008; Khaleque & Deperry, 2005; Li, Stanton, & Feigelman, 2000; Rai et al., 2003; Rupp & Rosenthal, 2007; Schouten, van den Putte, Pasmans, & Meeuwesen, 2007; Wight, Williamson, & Henderson, 2006; Wyckoff et al., 2008). Parents are the primary source of information about sex and behavioral values and can deliver age-appropriate and timely prevention messages to their children (DiIorio, Pluhar, & Belcher, 2003; Rupp & Rosenthal, 2007; Wyckoff et al., 2008). A good parent-teen relationship generates good personal values, norms, and attitudes toward sexual behavior in accordance with the family values (Wyckoff et al., 2008). Few studies have explored how Hawai`i youth perceive parental
communication about sex behaviors. Thus, this study explores messages that Hawai`i youth receive from parents about sex behavior and how they perceive these messages.

**Method**

We used PhotoVoice to gather data. PhotoVoice is a qualitative research method originally developed by Wang and Burris while they were working in China’s Yunnan province with rural village women in 1994 (Israel, Eng, Schulz, & Parker, 2005). PhotoVoice is a process in which participants present their concerns by way of photos and add the story or voice by way of caption. Sharing these captioned photos helps participants take others into their personal lives and their day-to-day realities. Photos and feelings are elaborated upon through group discussion, which is recorded and analyzed for themes. Participating in the PhotoVoice generally requires a series of five or six meetings, and the group size is usually 6 to 10 participants (Hergenrather, Rhodes, Cowan, Bardhoshi, & Pula, 2009; Wang & Pies, 2004). PhotoVoice has been used in many social and behavioral research studies as a community-based participatory research tool. To our knowledge, PhotoVoice has not been used with youth to explore communication with parents about sex.

**Participants**

Participants were youth in an after-school youth development program operated by a boys and girls club on the island of O`ahu. This program was chosen, in part, because it was in a semi-rural community of Hawai`i, where the rates of teen pregnancy and teen birth are relatively high (Aung, Hurwitz, & Partika, 2010). Participants attended public school and were living with a parent (father or mother or both) or legal guardian at the time of the study. All youth signed an assent form and got written consent from their parent or legal guardian to participate. The study and all forms and questions were approved by the Institutional Review Boards of the Hawai`i Department of Education and the University of Hawai`i.

**Procedures**

Participating in PhotoVoice required attending five one-hour sessions and being willing to participate in group discussion. Since discussions about parental communication about sex contain some confidential and sensitive issues, participants were warned to keep confidential anything discussed during the PhotoVoice sessions.
The healthy snacks were provided at each PhotoVoice Session, and each participant was offered a gift worth of $20 (2 movie tickets to local theatre) for his/her participation in the project.

**Session 1.** Youth spent time in self-introduction and completed a brief demographic survey asking about ethnicity, number of siblings, and family structure. They learned about the PhotoVoice process and the ethical use of the camera. Then they conducted a pilot photo shoot on the program campus. Subsequently, participants were given a homework assignment to take 5 to 7 pictures of “things they learned in the family about sex, and messages that they received from parents about sex behaviors.” They were asked to complete the assignment before the next meeting date. Participants were allowed to use club-owned digital cameras for individual photo-shooting on campus while they were at the club during the weekdays after school. After several days, they returned the digital cameras to a after-school program director. Photos were developed and printed by the researcher.

**Session 2.** The developed photos were distributed to the respective youth. Then, participants were asked to write a caption (one or two sentences) for each photograph taken.

**Session 3.** Youth were asked to choose 3 to 5 of their photos to create a storyboard. This consisted of arranging photos, captions, and drawings (if desired) to describe: 1) why he/she took the photo and what someone else might see in the photo; 2) what he/she thought or felt about the subject of the photo; 3) what might have happened right before the photo was taken; 4) why it happened; 5) what would happen next in the story; and 6) what they hoped would happen in the future (Wilson et al., 2007).

**Session 4.** Youth were asked to continue working on their story boards and then present about their storyboards to researcher and others.

**Session 5.** Youth gathered for group discussion on parental communication about sex. The researcher guided the discussion with three questions: 1) How do participants feel about parental communication?; 2) When and how did parents talk about sex with them?; and 3) What would they want to change about their communication with parents about sex, or what messages they like to get from their parents?
The presentations and group discussion were audio recorded with the permission of the study participants and their parents. The recordings were transcribed by the lead researcher (N.A.) for analysis.

**Data Analysis**

Data were analyzed by: 1) listening to discussion tapes; 2) reviewing the photo captions and the notes written by the researcher about the discussion sessions; 3) transcribing the discussion tapes and notes; 4) creating data categories and relationships; 5) coding the captions and transcripts; and 6) developing conclusions and recommendations.

**Results**

Eleven youth were enrolled in the study, nine completed the PhotoVoice assignment, and six (all girls) participated in the final discussion session. Two youth had to drop their participation because of the time conflict with other classes. The nine participants completing the assignment consisted of eight girls and one boy (Table 4.1). The age range was 12 to 15 years old, with a mean age of 13.4 years. Four youth were Native Hawaiian (44%), four were White/Caucasian (44%), and one was Asian (12%). Six participants had siblings in the family. Seven participants mentioned they lived with immediate family (78%), and two participants lived with extended family (22%). Five participants mentioned they lived in a rented house/apartment (63%), and three participants lived with family in their own house/apartment.
Table 4. 1 – Characteristics of study participants

<table>
<thead>
<tr>
<th>Demographics (Total n= 9)</th>
<th>n=</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Female</td>
<td>8</td>
<td>89</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>13</td>
<td>4</td>
<td>44</td>
</tr>
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<td>14</td>
<td>3</td>
<td>33</td>
</tr>
<tr>
<td>15</td>
<td>1</td>
<td>11</td>
</tr>
<tr>
<td>Ethnicity</td>
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<td></td>
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<td>White/Caucasian</td>
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<td>44</td>
</tr>
<tr>
<td>Hawaiian/Part Hawaiian</td>
<td>4</td>
<td>44</td>
</tr>
<tr>
<td>Other Asian and Pacific</td>
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<td>11</td>
</tr>
<tr>
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<td>Siblings</td>
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<td>Yes</td>
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<td>67</td>
</tr>
<tr>
<td>No</td>
<td>3</td>
<td>33</td>
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<td>Living arrangements</td>
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</tr>
<tr>
<td>With immediate family</td>
<td>7</td>
<td>78</td>
</tr>
<tr>
<td>With extended family</td>
<td>2</td>
<td>22</td>
</tr>
<tr>
<td>Housing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rent</td>
<td>5</td>
<td>63</td>
</tr>
<tr>
<td>Own</td>
<td>3</td>
<td>37</td>
</tr>
</tbody>
</table>

1. Percentages are based on the actual number answered.
2. Number may not sum up to total because of missing data.

Messages that Youth receive from Parents about Sex Behaviors

The nine youth presented a total of 67 photos (an average of 7 per participant), each with a one-or-two-sentence caption. Seven presented storyboards to the lead researcher (N.A.) and to other participants. Analyzing the storyboards and 67 captioned pictures suggested seven themes related to parent–teen sex communication messages. Table 4.2 lists these themes and gives examples illustrating the themes. Representative photos for each theme are shown in Figures 4.1 through 4.7.

Theme 1: Make good choices in your life!

Theme 1: Make good choices in your life! In their photos and captions, seven youth said their parents were supporting them to become independent and capable of making good choices to start their adult lives. Most of the parental messages centered on the importance of making good choices, and parents talked with them about good and bad choices in life. Parents reminded youth to think about their future and what they would like to do when they got older, and to make choices that would help them achieve their plans. They learned from parents that they should be happy with their decisions, but to remember to think about what would make them happy in the long term. One participant interpreted her parent’s message as “try to keep your interests on a simple and easy track,
so that you can help yourself by thinking of what to do beforehand.” Another participant said “Should I or shouldn’t I ??? …because you have two choices—to go get pregnant or [to] have a healthy life.” (Figure 4.1)

**Figure 4.1 – Theme 1: Make good choices in your life!**
Caption: There is always a bigger gateway for good opportunities! There is always an open gateway to bad things, but there is always a bigger one for good things

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**Theme 2: Stand strong for yourself!**

Six youth mentioned that parents were supporting them to build their own identities and their capacity to handle peer pressure. Parents realized that their teen children were subject to pressure to engage in risk behaviors, sometimes to save friendships. One participant mentioned how his/her parents taught him/her not to be influenced by others to do something bad, for example saying, “Don’t smoke; it’ll ruin your life! When you smoke it’ll bring you down cuz knowing in your life people will crush you so but it’s really good to say no” Another participant described that “If you say “NO,” [it’s OK]. Sometimes “NO” is the right answer. [You] should have the strength to say NO.” Another student shared a photo of a tree, with this caption: “Knowing that tree looks kind of old, it’s been there, it’s stood strong for a lotta years so – basically be strong, be yourself” (Figure 4.2).
Figure 4. 2 – Theme 2: Stand strong for yourself!
Caption: Knowing that tree looks kind of old, it’s been there, it’s stood strong for a lotta years so – basically be strong, be yourself.

**Theme 3: Do the right thing at the right time!**

Six youth heard from parents that thinking and planning for the future is related to taking one step at a time. One participant mentioned “Life is like a tree, but don’t grow too fast!” Parents warned youth that the first priority in their life is education. After education, they know they would need a job before they could get married and start a family. One participant said, “Choose the right time. Because sometimes you might not be ready for it because of either financial or mental or emotional or physical problems…So, it’s always best in the long run to consider the consequences and choose the right time.” Parents also were aware of their youth’s relationship and dating, thus, one parent gave an advice to youth about developing a long-term relationship: “Make sure you have love always. Just because you love someone one day, this may not be every day. Look for somebody that you are happy with [in the long term].” Another student shared a photo of some stairs and commented that it was important to take life a step at a time (Figure 4.3).
Figure 4.3 – Theme 3: Do the right thing at the right time!
Caption: Take one step at a time – knowing that each part of your life will be hard to – it’s easier to just take it easy.

**Theme 4: Sex has consequences!**

Theme 4: Sex has consequences! Theme 4 described how parents talked about sex and the consequences. Six youth said their parents talked to them about how engaging in sex could limit their opportunities in life. One participant showed a photo of a handicap parking sign and explained that “If you get pregnant, your options and opportunities in life become limited. You’re limited to certain things you can do with your life because, you know, if you wanted to travel the world or something, it’s hard to do with a child.” Four youth mentioned that parents talked to them about HIV and other STDs. One participant explained how he/she perceived sex and the consequences as “— think about what is going to happen if you do this and there’s lots of things that could happen – you could become a victim of AIDS or HIV or other STDs, or you could have a child that’s either like disabled or deformed or a child that requires a lot of attention from you and if you’re a minor [that’s hard, and] that’s going to take a lot of time and money and stuff.” Another student shared a photo of a patch of ground, half covered with grass and half covered with sand. The student who took this photo said that it represented the
sudden and potentially devastating transition that teen girls who become pregnant may experience (Figure 4.4).

![Image](image_url)

Figure 4. 4 – Theme 4: Sex has consequences!
Caption: Grass \(\rightarrow\) Sand: The grass with flowers is supposed to show how full, beautiful, and promising life can be without a child. The abrupt transition to sand is supposed to show how immediately your life can be changed to hard and painful if you make bad decision

**Theme 5: Take precaution!**

Four parents warned youth to think before their actions. One participant showed her understanding of this message by sharing a photo of a do-not-enter gate, with a caption, “NO … Think before your actions! I should stop and think before I do something” (Figure 4.5). Another participant showed a photo of student locker with a caption on “Secrets await you! People put notes in your locker that hold the secrets in until you open it.”
Theme 6: Beware of family values about teen’s sex!

Four youth said that their parents generally talked to them about family values related to teen’s sex behavior. Parents wanted their youth to wait until they get married or to at least be engaged before to be sexually active. One youth showed her belief and her family’s value toward sex by presenting a picture of a ring and said “The ring represents waiting till you are married. I took this photo because it explains easily what my parents tell me I should do regarding being sexually active; A ring shows that you have to wait until you’re married or at least engaged to be married before you become sexually active so that you have a stable condition to have a child, if that happens”.

Another shared a photo of an off-limits sign and wrote this caption; “You should avoid being sexually active till married” (Figure 4.6). Other youth also perceived strong disapproval by their parents for teen’s sex behavior, sharing photos with captions of “It’s off limits”; “Stay out”; “Stop! Don’t do it! I am not allowed to do anything involving sexual intercourse”. Two parents tied together family values and religious values, with a youth saying, “Bible is the only time I talk to them about it” and another explaining, “in
my house you can’t have sex until you’re married and that’s also in my religion.”

Exceptionally, one youth mentioned that parents relayed their messages to him/her through mistakes of people’s in the family “my family has plenty of people, so we learn from people’s mistakes.”

Figure 4. 6 –Theme 6: Beware of family values about teen’s sex!
Caption: Off limits here means that you should avoid being sexually active till married.

**Theme 7: Feeling uncomfortable talking about sex with parents!**

Six youth agreed that they felt uncomfortable receiving sex messages from their parents. One participant explained how he/she felt asking questions of parents about sex. “[I feel] a dark empty space! That I feel when I talk to my parents about sex, Yeah, I don’t really like to know about these stuff.” Another youth shared feelings of discomfort and awkwardness in asking questions about sex to parents by presenting a photo of a locked door, with a caption, “Keep out door! I chose this because whenever I try to talk to my parents about sex, I change my mind (Figure 4.7). Another youth commented “I don’t think like we need to know at this age, because like normally it won’t really happen.” Another youth presented a photo of a school alarm bell and shared a message to parents that they should not be overreacting or judgmental with a caption, “Don’t bring
up alarming subjects too fast! Don’t bring up things too alarming so quickly” and four other youth agreed on that parents overreacted when teens asked them questions about sex. Some of the youth did not remember their parents explaining anything about human sexuality to them when they were younger.

Figure 4. 7 – Theme 7: Feeling uncomfortable talking about sex with parents! Caption: Keep out door! I chose this because whenever I try to talk to my parents about sex, I change my mind.
<table>
<thead>
<tr>
<th>Study Themes</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make good choices in your life! (n=7)</td>
<td>“Think about what you are going to do when you get older! Should make good choices in your life/should always be happy with the choices that you made” “Make a healthy choice: you have to be safe and take precautions and stuff” “Make a final choice”</td>
</tr>
<tr>
<td>Stand strong for yourself! (n=6)</td>
<td>“Knowing in your life people will crush you, so it’s really good to say no” “Sometimes situations can be rocky and bumpy, but you can always get through it” “Life is like a climb so keep on going; don’t stop!”</td>
</tr>
<tr>
<td>Do the right thing at the right time! (n=6)</td>
<td>“Take time with things.” “Life is like a tree but don’t grow too fast!” “Not even once! Cuz it applies when you’re like a minor and you’re still young and stuff...”</td>
</tr>
<tr>
<td>Sex has consequences! (n=6)</td>
<td>“If you get pregnant, your options and opportunities in life become limited” “A child or an infection would ruin your life!” “I felt and thought that once you get into something you can’t get out” “Life is not a game; don’t play with it!”</td>
</tr>
<tr>
<td>Take precaution! (n=4)</td>
<td>“NO … Think before your actions!” “Be careful!” “Don’t let people treat you like trash!”</td>
</tr>
<tr>
<td>Beware of family values about teen’s sex! (n=4)</td>
<td>“It’s off limits! Well, it’s off limits – that’s it.” “Wait until you’re married or at least engaged to be married before you become sexually active” “My family has plenty of people, so we learn from people’s mistakes” “Bible is the only time I talk to them about it”</td>
</tr>
<tr>
<td>Feeling uncomfortable talking about sex with parents! (n=6)</td>
<td>“A dark empty space! That I feel when I talk to my parents about sex Yeah, I don’t really like – to know about these stuff.” “Grandma wants to talk to me about it, but I told her wasn’t ready yet” “Don’t bring up alarming subjects fast! Don’t bring up things too alarming so quickly”</td>
</tr>
</tbody>
</table>

**Teens’ Perception on Parental Communication about Sex Behaviors (6 participants)**

In addition to the participant’s storyboard presentation, youth were asked to respond to three questions during the group discussion. These questions further explored their perception of parent-teen communication about sex.
**How do participants feel about parental communication?**

Five youth agreed that they appreciated their parents in their efforts to communicate about sex. Youth that had strong relationships with their parents were more likely to have had discussed sex with their parents, to feel free to bring up the topic in the family conversation, and to listen to their parents’ opinions on teen’s sex behaviors. The following excerpts from the discussion showed how they felt about parental communication: “I guess it’s easy, I guess, cuz like, like I don’t really disagree with my parents...because, like, they’re older than me and I should just listen to them and take their good advice. So whenever like we have something to talk about, we just bring it up as a family.” Another said, “It’s actually kinda like real easy talking to my parents about it cuz sometimes they’re understanding about it and sometimes they’re just really bugged about it.” Another said, “My family is fine. Not only my mom but my other families cuz it’s mostly girls so, you know.” Youth may not be pleased when having a disagreement with their parents and getting disapproval for their behaviors. But they said they appreciated that their parents were concerned about them. For example, one participant mentioned “I like when my mom is concerned about me, because like I know I can’t just go out and do anything without her yelling at me.”

**When and how did parents talk about sex to the participant?**

From discussion with the youth, it appeared that parents had started communicating with their children about sex by the time the youth started to exhibit biological changes to the reproductive system, such as first stages of breast development and menarche in girls and testicular enlargement in boys. Also, youth said that parents noticed when teens started dating and were in relationships. Two youth mentioned that their mothers spent one-on-one time frequently with them just to talk about family values and sex. One youth mentioned her memory of first conversation as, “We started talking about that stuff when I got my first boyfriend and so like I just came home and I like told my mom and she was like, oh, you have to be careful of this and that and I’m like Whoa! Okay!” Another youth remembered her first parental sex communication as “Well, my mom started talking to me about it when my sister started dating, so she thought she’d cram it all together.” Another youth shared how she learned about condom from her parent “Well, my older brother, my mom was always talking to him. She was like oh did
you wear a condom or whatever. It’s like – at first I didn’t know what that was. I honestly didn’t know what that was. So, she talked to me about it and it was okay.” One youth did not have strong connection with her mother, saying, “My mom really never talked to me about it, but me and my mom really didn’t have like a strong connection as I was growing up …and my grandma tries to talk to me but I tell her no, I don’t really wanna talk to you. Just leave me alone because me and her don’t really have a strong connection [either].”

On the other hand, four youth mentioned their parents only communicated about sex indirectly through comments and reactions to everyday life.

**What would youth like to change about parental communication about sex? (or)**

**What messages they like to get from their parents?**

When asking about how parents could improve their communication about sex, all of the youth said they would like to change the awkwardness in the conversations. To ease the awkwardness, youth suggested that parents should only give the basic facts, family values, and perceptions (approval or disapproval) of teen’s sex behavior. Youth prefer to learn about the details of how babies are made from school guidance counselors or health teachers. One youth wished to have a one-on-one parent-teen communication instead of a family conversation by saying that, “Instead of talking to my whole family, I wish I could just go to my mom. But she’s too busy so, yeah.” Youth also wished that parents had more understanding about teen curiosity. One participant said, “Just because I ask a question doesn’t mean I’m gonna go do something.” And another youth shared her feeling that “…I wish my parent could be a little more understanding and a little bit nicer and not always angry when somebody asks the question [about sex. They should] already realize that it’s very hard to ask something like that.” Another youth wished parents be not overreacting on things “I talk to my parents but they always overreact about everything so”.

**Discussion**

This paper has five important findings. First, it confirms that youth in general are full of curiosity and energy to start their lives, and they want to explore many different new things. Youth in this study were early adolescents (ages 12 to 15 years). During this period, they are not only forming their identities but also beginning their transition to adulthood. Thus, it is appropriate that youth were getting guidance from their parents
focusing more on role changes in family, new responsibilities, plans for the future, emerging sexuality, and others issues imposing direct and indirect pressures on them (Aspy et al., 2007; Center on the Family, 2007; Eisenberg, Sieving, Bearinger, Swain, & Resnick, 2006). Youth reported that, for the most part, parents were aware of peer pressure and how dating and relationship could lead youth to engage in sex behavior. Parents talked to youth about good and bad choices, the importance of making good ones, and how bad choices could limit their future opportunities.

Our second key finding suggests that parents do not talk to their teens about sex before age 12, as no youth in this study could recall their parents talking to them about human sexuality in general when they were younger. Parents normally started the communicating about sex (if only to give alarming messages) when youth started having developmental changes. Parents should be encouraged to have more intimate communication with youth when they were younger so that they can open communication avenues about this topic. Also, parents should build flexible communication skills to give age-appropriate messages to youth. Our findings are in line with other studies that have found that most parents wait to talk to their youth about sexuality when they believe their child is in a romantic relationship (Eisenberg, Sieving, Bearinger, Swain, & Resnick, 2006). By doing so, parents may miss important opportunities to influence behavior. To gain the optimum level of influence, prevention messages should be relayed before sexual behavior is initiated, and early youth (age 9 to 11) is an optimal time for parents to begin communicating sexual risk prevention messages (Pluhar, Jennings, & DiLorio, 2006; Wyckoff et al., 2008).

Third, we found that most youth grasped that their parent disapproval of teen sex. Most learned about parental and family values related to teen sex indirectly through family conversations and comments on daily life events. Youth whose parents talked to them directly (one-on-one) strongly perceived their parents’ disapproval about teen sex and had a clear understanding about the negative consequences of teen sex. Parents should be aware of their important role in influencing youth’s decision about risky behaviors, and parents should exercise their influential role in youth’s life. Further studies should explore ways to increase parental skills in general communication with their youth, as well as sex communication skills. Exploring possible ethnic variations in
parental sex communication and general communication could shed more light on these important issues.

Fourth, we found that parents were most likely to talk about postponing or not having sex and about how to handle sexual pressure with their youth. No youth reported that they parents talked to them about birth control or condoms unless they believed their youth are in relationship or/and engaging in sex. This may be because of the common misconception that talking about birth control and condoms may contradict a parent’s message of strongly disapproving of teen sex. In reality, many high school students are already having sexual intercourse, some teens initiated sex at age 13 or younger, and about half of sexually active teens in Hawai`i are not using condoms. Thus, parents should be encouraged to communicate more about birth control and condoms with their youth, even if they do not think their teen is engaging in sex, so that the parent can help protect the teen from engaging in risky sex behaviors (Aspy et al., 2007).

Finally and most importantly, we learned from the participating youth that although they felt uncomfortable and awkward in learning about sex messages from parents, they still appreciated their parents in their efforts to communicate about sex. They would like to learn more about their parents’ perceptions of teen sex and their family values related to sex if the awkwardness could be lessened. These findings suggest that parenting programs should support parents in how to deliver age-appropriate prevention messages to their child. For example, Green and Documét (2005); Grossman, Walker, Kotloff and Pepper (2001); and Klein, Sabaratnam, Pazos, Auerbach, Havens and Brach (2005) documented the effectiveness of training parents and community adults in promoting parent-teen communication about sexuality, teen pregnancy prevention, and related issues. Findings showed that participants increased their comfort in talking with their teens about sexuality-related issues, discussed multiple topics, and recognized the importance of talking with teens at an early age. Thus, there is evidence that parents appreciate getting guidance on age-appropriate sexual messages and can increase their skills to initiate communication about sex with their teens. Further studies should explore communication barriers that parents may face in delivering sex messages to their children, which may possibly vary by ethnicity.
Limitations

This study has limitations. First, participation in this study was voluntary, and we were dependent on finding a willing venue for the project. We initially approached a public high school that was unwilling to host the project. However, the after-school program that attracted public school students was willing. Membership in this after-school program was limited, and participants may not reflect the broader youth population. We had many more girls than boys take part in the project. Daughters especially are less likely to initiate sexual activity or to become pregnant if they have a positive relationship with their mother, the mother discusses the negative consequences of pregnancy, and the daughter perceives her mother as disapproving toward engaging in sexual intercourse (Dittus & Jaccard, 2000). However, we believe that findings from this study confirm that parents are a key influence in teens’ lives, and that researchers and parents can learn a lot from youth that can help strengthen parental sex communication. Findings also can inform interventions for these populations.

This study also has a number of strengths. To the author's knowledge, this is the first time PhotoVoice has been used to explore teen’s perception of parental sex communication. The discussion of sex education with youth is a sensitive issue in most cultures, even in the US. Securing of parental consent and youth assent to take photos about and discuss this sensitive issue were both successful. None of the participants had been exposed to the PhotoVoice method, but appeared to enjoy it. The quality of the photos taken by youth and the ensuing discussion suggests that PhotoVoice is an appropriate method in engaging youth in this sensitive and emotionally-charged topic.

Conclusions

Overall, study findings showed that youth perceived parental sex communication as good, although many did not agree with their parents’ delivery method. Youth were willing to learn about parental perceptions and family values about sex behaviors if awkwardness could be lessened. Starting appropriate parental-child communication about sex at earlier age may be helpful in preventing teen risk behavior and may reduce communication tensions at a later age. Youth were getting guidance from their parents about making good choices. Most parents shared family values and parental opinion on teen sex indirectly through daily conversation. One-on-one conversations about sex
usually were postponed until youth were maturing sexually. Parents could benefit from training in when and how to initiate discussions about sex and provide age-appropriate messages. Parents could benefit from training in when and how to initiate discussions about sex and how to delivery information in accordance with the developmental and age-appropriate level of the child. Finally, PhotoVoice appears to be an effective way to stimulate discussion with youth about parental messages about sex in a multi-ethnic population.
CHAPTER 5. CONCLUSION

Considering the findings from the three empirical research studies, five conclusions are prominent. First, among the four major sources of sex education and prevention information assessed in Chapter 2, access to family and non-parental adults were more likely to protect teens from engaging in sex behavior. However, not all youth receive messages and information from their family, even though (in Chapter 3) Hawai`i parents believe that parents are responsible to talk to their child about sex and that parents were the most influential person in a teen’s decision about sex. The literature suggests that teens identify parents as most influential in their decisions about sex (Albert, 2010), and this was supported by the findings in Chapter 4. Youth appreciate their parents in their efforts to communicate about sex and they would like to learn more about their parents’ perceptions of teen sex and their family values related to sex if the awkwardness could be lessened. Taken together, these findings support efforts to increase the frequency and quality of communication about sex between teens and their parents as a way to keep teens from engaging in risky sexual behaviors (Green & Documét, 2005; Klein et al., 2005; Robert & Sonenstein, 2010; Wyckoff et al., 2008).

The second conclusion relates to the need for widespread replication of effective school-based sex education programs. Unfortunately, exposure to school-based HIV/AIDS education was not associated with a youth’s sex behavior (Chapter 2). This is likely because Hawai`i schools do not uniformly use sex education curricula that are evidence-based, such as Making Proud Choices or Be Proud, Be Responsible (Advocates for Youth, 2008a, 2008b; Collins, Alagiri, & Summers, 2002; Guttmacher Institute, 2011; Kirby et al., 2004). Also, teens should have access to healthcare providers who can discuss reproductive health practices with teen patients. In general, teens view healthcare providers as credible sources of health-related information (Klein & Wilson, 2002), and Hawai`i parents see healthcare providers as having some responsibility for talking with their child about sex (Chapter 3). Primary care providers should provide sexual risk prevention messages to teen patients irrespective of their sex behavior status to prevent early initiation of sexual intercourse, teen pregnancy, and HIV/STDs and to increase condom use (Burstein, Lowry, Klein, & Santelli, 2003; Klein & Wilson, 2002; Meschke,
Bartholomae, & Zentall, 2002). At the same time, policies need to ensure that every youth has an equal access to school-based sex education and reproductive health services.

Third, study findings in Chapter 3 and 4 suggested that parents start sex communication with their child when he or she is 11-13 years old, and no youth in the study (Chapter 4) could recall their parents talking to them about human sexuality at a younger age. However, the literature suggests that parents should begin intimate communication with youth when they were younger, so that they can open communication avenues about this topic. Notably, most of the parents mentioned they are willing to immediately engage in discussion and will be supportive if their teen child comes to them with questions about sex (Chapter 3), however, youth in the study (Chapter 4) felt uncomfortable and awkward in receiving sex messages from parents or asking questions about sex to parents. These contradictory findings suggest that Hawai`i parents need help in building strong parent-child relationships and flexible communication skills to give age-appropriate messages about sex to their children.

Fourth, findings confirm those of other studies that mothers are the major communicators about sex with their teen daughters and sons, and that many fathers also communicate about sex with their teens (DiIorio et al., 2003; Hutchinson & Cooney, 1998; McNeely et al., 2002; Wyckoff et al., 2008). Although parental ethnicity was not a significant predictor of parent-teen sexual communication patterns in Chapter 3, significant ethnic differences were found in youths’ reports of access to information about sex from parents and family, as well as in teen sex behavior (Chapter 2). Youth whose parents talked to them directly (one-on-one) strongly perceived their parents’ disapproval of teen sex and had a clear understanding about the negative consequences of teen sex (Chapter 4). Thus, further studies focusing on the timing and content of parent-teen communications among families in multi-ethnic Hawai`i may help clarify these ethnic contradictions and can advance our understanding of the sources and predictors of health disparities. Future qualitative research on these topics also could provide critical insights for developing effective culturally appropriate interventions.

Finally, and most importantly, the findings from the three studies proved that a teen’s sex behavior is affected by specific social norms, parent and teen relationship characteristics, the larger system (school sex/HIV education, access to health care
providers), and the cultural environment. Findings support the development and testing of interventions, or for adapting evidence-based interventions from other communities, that consider or address these various factors.

According to the literature, there are a number of programs shown effective in promoting parent-teen communication about sex. For example, Green and Documét (2005) documented the effectiveness of the Parent Peer Education (PPE) program, which promotes parents’ skills in parent-teen communication about sexuality, teen pregnancy prevention, and related issues. Initially, the PPE program trained a total of 35 parents as peer educators to lead interactive workshops with other parents and caregivers in their neighborhood on how to talk with their teens about sexuality, with the use of age-appropriate guidebooks for reference. A total of 721 community residents attended the parent peer educators’ workshops. The post-workshop survey of all the participants and a random-sample follow-up telephone survey 4 to 6 weeks later showed that participants had increased their comfort in talking with their teens about sexuality-related issues, discussed multiple topics, and recognized the importance of talking with teens at an early age. Parent peer educators found the training valuable and enjoyed involvement in the program.

Another program, by Grossman, Walker, Kotloff and Pepper (2001), documented the effectiveness of the “Plain Talk Initiative” in educating community members to increase the amount and quality of communication that parents and community adults provide youth regarding responsible sexual decision making. Plain Talk was implemented in five ethnically diverse, low-income, urban neighborhoods in five states. It offered parents and other community adults information and skills necessary to communicate more effectively with teens about responsible sexual behavior. Overall, Plain Talk changed the way adults communicated with teens about sexuality. Communication between youth and knowledgeable adults about sexuality, combined with increased access to contraceptives, was positively associated with improved teens’ sexual knowledge and reduced sex risk behavior.

Klein, Sabaratnam, Pazos, Auerbach, Havens and Brach (2005) determined the effectiveness of a sexuality education program designed to help parents become more confident and competent in communicating with their teens about sex and sexuality.
Program impact was measured through pre and post workshop surveys and a follow-up telephone survey with participants 10 weeks after the last workshop. The results suggested that participants increased in their agreement that discussing sexuality with their teens was very important. More participants reported initiating conversations with their teens on a variety of topics. More importantly, participants reported more comfort in discussing sensitive topics with their teens.

Thus, there is evidence that parents appreciate receiving guidance on age-appropriate sexual messages and increasing their skills to initiate communication about sex with their teens. One of these programs may work in Hawai`i. Using a community-based participatory approach in adapting proven interventions or developing new ones should help build support for a culturally appropriate and effective parent-child communication programs for Hawai`i parents and teens. Promoting interventions in parent-teen communication is critical in reducing the risk that teens will engage in risky sex behaviors, which will also prevent teen pregnancy and the acquisition and transmission of STDs among teens.

**Future Directions**

This three-study dissertation added evidence to the literature confirming that access to education and prevention information is important in preventing the early onset of teens’ sexual behaviors, teen pregnancy, and STDs. Study 1 analyzed a respected, population-based dataset. Study 2 used previously validated research tools in assessing parental perceptions on teens’ sex behaviors and teen pregnancy. The use of these tools in a larger sample would be appropriate to confirm the results. Study 3 employed the innovative PhotoVoice research method with youth to discuss parental sex messages, and this method appears suitable with Hawai`i youth in engaging discussion of this sensitive and emotionally-charged topic. Future research can be informed by these findings. As noted above, future research should explore ethnic differences in parent-teen communication about sex and should adapt and test proven interventions to increase parent-teen communication in Hawai`i’s multicultural population. These studies should engage members of our community in the adaptation process through community-based participatory methods, as these methods can help build community buy-in for these interventions (Chung et al., 2007; Minkler & Wallerstein, 2003).
Findings also should alert school-based sex education policy makers, program planners, teen pregnancy prevention service providers, and clinicians of the need to revisit policies around school-based sex education. Evidence-based programs exist, and Making Proud Choice (for example) has been shown to work in Hawai`i schools (Clark, 2008). Unfortunately, sex education in public schools is still a controversial issue in the US. Thus, promoting home-based, parent-based approaches to provide prevention messages also is needed. Promoting parent-based approaches is the most appropriate way in providing timely, effective messages in accordance with the child’s developmental level as well as in accordance with the family’s values.
APPENDIX A: UH-IRB APPROVAL FOR RESEARCH #1

UNIVERSITY OF HAWAI‘I
Committee on Human Studies

May 24, 2010

TO: Nandar Aung
Principal Investigator
Public Health Sciences

FROM: Nancy R. King
Director

Re: CHS #18189- “Parent-Teen Communication and Adolescent Sexual Behavior in Hawaii (#1)”

This letter is your record of CHS approval of this study as exempt.

On May 21, 2010, the University of Hawai‘i (UH) Committee on Human Studies (CHS) approved this study as exempt from federal regulations pertaining to the protection of human research participants. The authority for the exemption applicable to your study is documented in the Code of Federal Regulations at 45 CFR 46 (4).

Exempt studies are subject to the ethical principles articulated in The Belmont Report, found at http://www.hawaii.edu/irb/html/manual/appendices/A/belmont.html.

Exempt studies do not require regular continuing review by the Committee on Human Studies. However, if you propose to modify your study, you must receive approval from CHS prior to implementing any changes. You can submit your proposed changes via email at uhirb@hawaii.edu. (The subject line should read: Exempt Study Modification.) CHS may review the exempt status at that time and request an application for approval as non-exempt research.

In order to protect the confidentiality of research participants, we encourage you to destroy private information which can be linked to the identities of individuals as soon as it is reasonable to do so. Signed consent forms, as applicable to your study, should be maintained for at least the duration of your project.

This approval does not expire. However, please notify CHS when your study is complete. Upon notification, we will close our files pertaining to your study.

If you have any questions relating to the protection of human research participants, please contact CHS at 956-5007 or uhirb@hawaii.edu. We wish you success in carrying out your research project.

1960 East-West Road, Biomedical B104, Honolulu, Hawaii 96822-2203
Telephones: (808) 956-5007, Facsimile: (808) 956-6085, Website: www.hawaii.edu/irb
An Equal Opportunity/Affirmative Action Institution
APPENDIX B: UH-IRB APPROVAL FOR RESEARCH #2

UNIVERSITY OF HAWAI'I
Committee on Human Studies

MEMORANDUM

January 6, 2011

TO: Nandar Aung
   Principal Investigator
   Public Health Sciences

FROM: Nancy R. King
   Director

SUBJECT: CHS # 18446, "Parent-Teen Communication and Adolescent Sexual Behavior in Hawaii (#2 Parent-Survey)"

This is to acknowledge receipt of your email response dated December 8, 2010, to the stipulations issued by the Committee on Human Studies (CHS) during its review of the project identified above at its meeting on September 17, 2010. The information you provided satisfactorily addressed CHS stipulations, and the project is approved for one year effective January 6, 2011.

This memorandum is your record of CHS approval of this study. Please maintain it with your study records.

CHS approval for this project will expire on January 5, 2012. If you expect your project to continue beyond this date, you must submit an application for renewal of this CHS approval. CHS approval must be maintained for the entire term of your project.

If, during the course of your project, you intend to make changes, you must obtain CHS approval prior to implementing them. Unanticipated problems that are likely to affect study participants must be promptly reported to the CHS.

You are required to maintain complete records pertaining to the use of humans as participants in your research. This includes all information or materials conveyed to and received from participants as well as signed consent forms, data, analyses, and results. These records must be maintained for at least three years following project completion or termination, and they are subject to inspection and review by CHS and other authorized agencies.

Please notify this office when your project is completed. Upon notification, we will close our files pertaining to your project. Reactivation of CHS approval will require a new CHS application.

Please contact this office if you have any questions or require assistance. We appreciate your cooperation, and wish you success with your research.

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APPENDIX C: UH-IRB APPROVAL FOR RESEARCH #3

UNIVERSITY OF HAWAI'I
Committee on Human Studies

MEMORANDUM
June 18, 2010

TO: Nandar Aung
Principal Investigator
Public Health Sciences

FROM: Nancy R. King
Director

SUBJECT: CHS #18211- "Parent-Teen Communication and Adolescent Sexual Behavior in Hawaii (#3)"

Your project identified above was reviewed by the Chair of the Committee on Human Studies through Expedited Review procedures. The project qualifies for expedited review by CFR 46.110 and 21 CFR 56.110, Category (6,7) of the DHHS list of expedited review categories.

This project was approved on June 14, 2010 for one year. If in the active development of your project you intend to change the involvement of humans from plans indicated in the material presented for review, prior approval must be received from the CHS before proceeding. If unanticipated problems arise involving the risks to subjects or others, report must be made promptly to the CHS, either to its Chairperson or to this office. This is required in order that (1) updating of protective measures for humans involved may be accomplished, and (2) prompt report to DHHS and FDA may be made by the University if required.

In accordance with the University policy, you are expected to maintain, as an essential part of your project records, all records pertaining to the involvement of humans in this project, including any summaries of information conveyed, data, complaints, correspondence, and any executed forms. These records must be retained for at least three years from the expiration/termination date of this study.

The CHS approval period for this project will expire on June 14, 2011. If your project continues beyond this date, you must submit a continuation application to the CHS at least four weeks prior to the expiration of this study.

We wish you success in this endeavor and are ready to assist you and your project personnel at any time.

Enclosed is your certification for this project.

Enclosure
Protection of Human Subjects
Assurance Identification/IRB Certification/Declaration of Exemption
(Common Rule)

Policy: Research activities involving human subjects may not be conducted or supported by the Department of Health and Human Services. This assurance is valid for up to 90 days, unless this activity is exempt from Federal regulatory requirements. Institutions must ensure that they have an assurance of compliance that applies to the research to be conducted and provide certification of IRB review and approval with each application or proposal unless otherwise advised by the Department of Health.

1. Request Type
   [ ] ORIGINAL
   [ ] CONTINUATION
   [ ] EXEMPTION
   [ ] OTHER:

2. Type of Mechanism
   [ ] GRANT
   [ ] CONTRACT
   [ ] FELLOWSHIP
   [ ] COOPERATIVE AGREEMENT

3. Name of Federal Department or Agency and, if known, Application or Proposal Identification No.

4. Title of Application or Activity
   "Parent-Teen Communication and Adolescent Sexual Behavior in Hawaii (R3)"
   Nander Aung

6. Assurance Status of this Project (Respond to one of the following)
   [X] This Assurance, on file with Department of Health and Human Services, covers this activity.
   Assurance Identification No. F-3566, the expiration date September 15, 2011, IRB Registration No. D000001009.

   [ ] This Assurance, on file with (agency/dept), Assurance No., the expiration date, IRB Registration Identification No., covers this activity.

   [ ] No assurance has been filed for this institution. This institution declares that it will provide an Assurance Certification of IRB and approval upon request.

   [ ] Exemption Status: Human subjects are involved, but this activity qualifies for exemption under Section 101(b), paragraph.

7. Certification of IRB Review (Respond to one of the following if you have an Assurance on file)
   [X] This activity has been reviewed and approved by the IRB in accordance with the Common Rule and any other governing regulations.
   by:

   [ ] This activity contains multiple projects, some of which have not been reviewed. The IRB has granted approval on condition that all projects covered by the Common Rule will be reviewed and approved before they are initiated and that appropriate further certification will be submitted.

8. Comments

9. The official signing below certifies that the information provided above is correct and that, as required, future reviews will be performed until study closure and certification will be provided.

   Nancy R. King
   June 15, 2010

10. Name and Address of Institution
   University of Hawaii at Manoa
   2444 Dixie Street, Bachman Hall
   Honolulu, HI 96822

11. Phone No. (with area code)
    (808) 956-5007

12. Fax No. (with area code)
    (808) 956-6853

13. Email
    nking@hawaii.edu

14. Name of Official
   Nancy R. King

15. Title
    Director

17. Date
    June 16, 2010

Public reporting burden for this collection of information is estimated to average less than an hour per response. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to OBG Reports Clearance Office, Room 351 200 Independence Avenue, SW, Washington, DC 20501. Do not return the completed form to this address.
APPENDIX D: PARENT SURVEY

“Parent-Teen Communication and Adolescent Sexual Behavior in Hawai‘i Study”

This research project is being conducted as a component of a dissertation for a doctoral degree. This research is an independent project.

This survey is about parent and teen communication about sex education and sex behavior messages. The information you give will be used to develop better health education for parents like yourself.

DO NOT write your name on this survey. The answers you give will be kept private. No one will know what you write. Answer the questions based on what you really do.

Completion the survey is voluntary. If you are not comfortable answering a question, just leave it blank.

The questions that ask about your background will be used only to describe the types of participants completing this survey and will not affect any services you are now getting.

Make sure to read every question. When you are finished, return this survey to the person giving you the survey. You will receive a $5 gift certificate for your participation.

Thank you very much for your help.

First, we would like to ask a few questions about you. Please check the box next to your answer.

1. What is your sex?
   - [ ] Male   [ ] Female

2. How old are you?
   [ ] years old

3. What is your race: (Select one or more responses.)
   - [ ] American Indian or Alaska Native
   - [ ] Black or African American
   - [ ] Filipino
   - [ ] Japanese
   - [ ] Native Hawaiian/Part Hawaiian
   - [ ] Other Asian
   - [ ] Other Pacific Islander
   - [ ] White

4. Are you married?
   - [ ] Yes   [ ] No
5. What is your living arrangement? (Please check all that apply)
   - □ With immediate family
   - □ With extended family
   - □ With Partner
   - □ With Friends
   - □ Other __________________________

6. How many children (age between 14 and 17 years) do you have?

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
</tr>
</tbody>
</table>

If you have more than one children of age between 14 and 17 years old, choose a child who just had his/her birthday:

   What is the age of the child who just had his/her birthday?
   - □ 14 years old
   - □ 15 years old
   - □ 16 years old
   - □ 17 years old

   What is the gender of the child who just had his/her birthday?
   - □ Male  □ Female

The next 3 questions ask about relationship between you and your child who just had his/her birthday:

7. On a scale of “0 to 4”, with “0” being “Never” to “4” being “Always”, please rate each statement –

<table>
<thead>
<tr>
<th>Statement</th>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Most of the time</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>I know where my child is going to be at after school.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My child tells me whom he/she is going to be with before he/she goes out.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>When my child goes out at night, I know where he/she is.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>My child talks to me about the plans that he/she has with friends.</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

8. What concern do you have for him (or) her?
   (Please check all that apply)
   - □ Drug use
   - □ Alcohol
   - □ Smoking
   - □ Pregnancy
   - □ Dating/relationships
   - □ Education
   - □ Friendships
9. On a scale of “0 to 4”, with “0” being “Not well at all” to “4” being “Very well”, please rate—

<table>
<thead>
<tr>
<th>How well you and this child share ideas or talk about things that really mattered to him/her?</th>
<th>Not well at all</th>
<th>A little</th>
<th>Somewhat</th>
<th>Well</th>
<th>Very Well</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

The next 8 questions ask about parental sex communication between you and your child who just had his/her birthday:

On a scale of “0 to 4”, with “0” being “None” to “4” being “Extensive Amount”, please rate—

<table>
<thead>
<tr>
<th>10. How much information did you share with this child about:</th>
<th>None</th>
<th>A little</th>
<th>Some</th>
<th>A lot</th>
<th>Extensive Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Birth Control</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Sexually transmitted diseases (STDs)</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>HIV/AIDS</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Condoms</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>How to protect yourself from HIV/AIDS</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Postponing or not having sex</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Peer pressure to have sex</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>How to handle sexual pressure</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>11. How much information did you share with this child about human sexuality?</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

12. Who should be responsible for talking with this child about sex? (Check all that apply)
- You as a Parent
- Older relatives
- Siblings
- Friends
- Doctors/Nurses
- Schools
- Religious leaders
- Media
- No one

13. Do you think you would know if this child was having sex?
- Yes
- No
- Not Sure

14. How would you feel if you found out that this child was having sex?
- It would be ok
- I would disapprove
- I wouldn’t care

15. When it comes to this child’s decision about sex, who is most influential? (Check one)
16. How old was this child when you first talked to him/her about:

<table>
<thead>
<tr>
<th>Age</th>
</tr>
</thead>
<tbody>
<tr>
<td>Menstrual cycle</td>
</tr>
<tr>
<td>Homosexuality</td>
</tr>
<tr>
<td>Reproduction “how babies are made”</td>
</tr>
<tr>
<td>Dating and relationships</td>
</tr>
<tr>
<td>Birth Control</td>
</tr>
<tr>
<td>Sexually transmitted diseases (STDs)</td>
</tr>
<tr>
<td>HIV/AIDS</td>
</tr>
<tr>
<td>Condoms</td>
</tr>
<tr>
<td>How to protect yourself from HIV/AIDS</td>
</tr>
<tr>
<td>Postponing or not having sex</td>
</tr>
<tr>
<td>Peer pressure to have sex</td>
</tr>
<tr>
<td>How to handle sexual pressure</td>
</tr>
</tbody>
</table>

17. When this child comes to you with questions about sex, your **immediate action** might be (check all that apply):

- Seek information
- Joke about it
- Send him/her to someone else
- Ignore him/her
- Punish him/her
- Be supportive
- Stop what I am doing and engage in discussion
- Step back and think through my response
- Other (what?) __________________________

The next 4 questions ask about your perceptions on teen’s sex behaviors and teen pregnancy in general:

18. At what age would like your **male child** to be when he first has sex?

- 16 years or younger
- 17-18 years
- 19-20 years
- 21 years or older
19. At what age would you like your female child to be when she first has sex?
   - 16 years or younger
   - 17-18 years
   - 19-20 years
   - 21 years or older

20. What do you think girls do most of the time if they get pregnant? (check one)
   - Have an abortion
   - Put child up for adoption
   - Raise the child themselves
   - Marry and raise child with a husband

21. Suppose your teen son were to come to you and say that he needed protection or birth control because he is having sex? What would you say or do?

Now imaging that your teen daughter asks for help getting protection or birth control? What would you say or do?

The next few questions ask background information about you:

22. During the 12 months, what is your total household income before taxes? Include your income, your husband’s or partner’s income, and any other family income you may have used. (All information will be kept private and will not affect any services you are now getting.) (Check one answer)
   - Less than $10,000
   - $10,000 to $14,999
   - $15,000 to $19,999
   - $20,000 to $24,999
   - $25,000 to $34,999
   - $35,000 to $49,999
   - $50,000 or more

23. Which was the highest grade in school you and your spouse (or) partner were able to complete?

<table>
<thead>
<tr>
<th>You</th>
<th>Your Spouse (or) Partner</th>
</tr>
</thead>
<tbody>
<tr>
<td>Some High School</td>
<td>Some High School</td>
</tr>
<tr>
<td>High School</td>
<td>High School</td>
</tr>
<tr>
<td>Trade School</td>
<td>Trade School</td>
</tr>
<tr>
<td>College</td>
<td>College</td>
</tr>
<tr>
<td>Some University</td>
<td>Some University</td>
</tr>
<tr>
<td>University graduate or more</td>
<td>University graduate or more</td>
</tr>
</tbody>
</table>

This is the end of the survey.
Thank you very much for your help.
Return this survey to the person giving you the survey.
Seal the Survey in the envelope provided to you prior to turning it in.
APPENDIX E: PARENT SURVEY CONSENT FORM

Agreement to Participate in
“Parent-Teen Communication and Adolescent Sexual Behavior in Hawai`i”

Parent Survey
Nandar Aung, Primary Investigator
(808) 371-8646

This research project is being conducted as a component of a dissertation for a doctoral degree. This research is an independent project. The purpose of the project is to learn more about how parents and teens communicate about the teen’s sex behavior. You are being asked to participate because you are a parent of a 14 to 17-year-old child.

Participation in the project will consist of filling out a survey. Questions ask about your background and messages you give your child about sex education and behaviors. Data from the questionnaire will be summarized, so that your answers will be combined with the answers of other parents. No personal identifying information will be included with the research results. It should take about 20 minutes to finish the survey. About 200 parents will participate in the study.

There is little or no risk to participating in this research project. However, there may be a small risk that you will experience anxiety when thinking of communicating about sex with your child.

Participating in this research may be of no direct benefit to you. It is believed, however, the results from this project will help public health workers develop programs that may help parents communicate with teens about sex.

To thank you for your time, you will receive a $5 gift certificate to Longs Drug Store.

Research data will be confidential to the extent allowed by law. Agencies with research oversight, such as the UH Committee on Human Studies, have the authority to review research data. All research records will be stored in a locked file in the primary investigator’s office for the duration of the research project.

Participation in this research project is completely voluntary. You are free to withdraw from participation at any time during the duration of the project with no penalty or loss of benefit to which you would otherwise be entitled.

If you have any questions regarding this research project, please contact the researcher, Nandar Aung, at 371-8646.

If you have any questions regarding your rights as a research participant, please contact the UH Committee on Human Studies at (808)956-5007, or uhirb@hawaii.edu

Participant:
I have read and understand the above information, and agree to participate in this research project.

_______________________________
Name (printed)

_______________________________
Signature  Date
Sample Recruitment Flyer

Are you a parent or legal guardian of a child of age between 14 to 17 years old!

Please participate in a survey!

**Just 15 minutes** to complete the survey and you will receive a **$5 gift certificate to Longs.**

This research project is being conducted as part of a dissertation for a doctoral degree at the University of Hawaii. This research is an independent project. The purpose of the project is to understand the influences of parent-teen communication on teens’ sexual behavior.

- The survey will not include any personally identifiable information (like participant name). All information will be kept confidential.

If you are —
- Age 18 or older
- A parent or legal guardian of a child that is 14 to 17 years old
- Able to read and write English

Yes, you are eligible to participate.

Participation in this project is completely voluntary!

To participate or questions about this Project:
Contact Nandar Aung at (808) 371-8646 or nandar@hawaii.edu. Mahalo!
If you have any questions regarding your rights as a research participant, please contact the UH Committee on Human Studies at (808)956-5007, or uhircb@hawaii.edu
APPENDIX G: PHOTOVOICE PICTURES

11/2/2011

1

79
Stop and smell the flowers!
Sometimes that isn’t a good place and time.
Think about what you are going to do when you get home.
Sometimes rain isn’t as good as sun!
You should think about what makes you happy!
If you say “NO” be sweet about it.
Life is like a game don’t jump wrest!
Black wall!
The reason I liked this photo is because it’s important for me to understand what is happening.
Sleep eat don’t!
86
APPENDIX H: PHOTOVOICE PARENTAL CONSENT FORM

Agreement to Participate in
“Parent-Teen Communication and Adolescent Sexual Behavior in Hawai`i”

Nandar Aung
Primary Investigator
(808) 371-8646

This research project is being conducted as part of a dissertation for a doctoral degree at the University of Hawai`i. This research is an independent project and not a project of your child’s school. The purpose of the project is to learn the influences of parent-teen communication on teens’ sexual behavior. We are asking for your permission for your child to participate in this research study.

Your child’s participation in this research project is completely voluntary. Participation in this research study will consist of 5 meetings after school. These meetings will take place at Boys & Girls Club of Hawai`i-Windward (145 S. Kainalu Drive Kailua, HI 96734, Phone: (808) 263-0555). Each meeting should last no longer than 1 hour. One group of about 15 boys and girls will participate in the 5 meetings. Healthy snacks will be provided at each meeting.

If your child gives his/her approval and participates, he/she will receive training in communicating messages with photos. Your child will then be asked to take photos of “things that he/she learns in your family about sex, and messages that he/she receives from his/her parent about sex behaviors.” The project will not allow any photos of people, including no pictures of body parts. Your child will only take pictures of things, objects, symbols (highway signs) or scenery pictures (ocean, trees) to express his/her thoughts about parental messages related to sex education. Those pictures will be used in discussing his/her perception of parental messages about sexual behavior he/she gets from parents. Discussions will be audio recorded for the purpose of transcription. Data from this project will be summarized into broad categories. No personal identifying information will be included with the research results.

Your child will also be asked to complete a brief survey on the family. The survey will NOT include any personally identifiable information (like your child’s name). All information will be kept confidential. All research records will be stored in a locked file in the researcher’s office for the duration of the research project. Audio tapes will be destroyed after they are transcribed. All other research records will be destroyed at the end of the project.

Although child abuse is not the focus of this study, we must report to the state suspected cases of child abuse. We also must report any plans a child might tell us about that would cause seriously harm to him/herself or others.

The possible risks to your child are small and may include emotional discomfort because questions regarding their personal opinions are asked. A trained individual will be there...
should your child have any questions or concerns. Although unlikely, if your child feels any harm from being in this study, your child will be able to stop participating at any time without penalty. Some small risk is noted if what is discussed is told to others outside of the group. However, we will have all participants sign a “confidentiality pledge.” Although the risk of harm is very small, if any treatment is required on the part of your child, we will refer him/her to a school counselor. You also should seek treatment from your medical provider. However, there will be no compensation for such harm.

Although no direct benefit is expected for your child, your child will be helping to enhance knowledge about communication and may lead to beneficial youth programs for Hawai`i.

For your child’s participation, he/she will be given a gift worth of $20 (e.g. 2 movie tickets).

I certify that I have read and understand the above, and that I have been given satisfactory answers to any questions. I have been told that I am free to withdraw my permission for my child, and that I can refuse to give my permission for my child to take further part in the study at any time. My decision will not in any way affect my care or cause a loss of benefits to which I or my child might otherwise be entitled.

I agree for my child to be part of this study with the understanding that such approval does not take away any of my or my child’s legal rights, nor does it release the investigators or the institution or any employee or agent thereof from liability for negligence.

If I cannot obtain satisfactory answers to my questions or have comments or complaints about my participation in this study, I may contact: Committee on Human Studies (CHS), University of Hawai`i at Mānoa 1960 East-West Road, B-104, Honolulu, HI 96822. Phone: (808) 956-5007 or uhirb@Hawai`i.edu

Print Your Name: ________________________________
Sign Your Name: ________________________________
Print the Name of Your Child: ________________________________
Date: _____/_____/_____ 

Phone Number(s) that I can be reached just in case:

(1) _____________ (2) _____________ (3) _____________

Mailing Address: __________________________________

[Note: Please sign one copy of this form and have your child return it to Boys & Girls Club of Hawai`i-Windward, no later than _______. You can keep the other copy for your future reference.]
APPENDIX I: PHOTOVOICE TEEN ASSENT FORM

Agreement to Participate in
“Parent-Teen Communication and Adolescent Sexual Behavior in Hawai`i”

Nandar Aung
Primary Investigator
(808) 371-8646

This research project is being conducted as a part of a dissertation for a doctoral degree at the University of Hawai`i. This research is an independent project and not a project of your school. The purpose of the project is to learn the influences of parent-teen communication on teens’ sexual behavior. We are asking for your approval to take part in this research study. If you give your approval, you will participate in 5 meetings after school. These meetings will take place at Boys & Girls Club of Hawai`i-Windward (145 S. Kainalu Drive Kailua, HI 96734 Phone: (808) 263-0555). Each meeting should last no longer than 1 hour. One group of about 15 boys and girls will be held. Healthy snacks will be provided.

As part of this PhotoVoice research study, you will receive training on how to take photos to express yourself. You will be asked to take photos of “things that you learn in your family about sex, and messages that you receive from your parents about sex behaviors.” The project will not allow any photos of people, including no pictures of body parts. You will only take pictures of things, objects, symbols (highway signs) or scenery pictures (ocean, trees) to express your thoughts about parental messages related to sex education. Those pictures will help show your thoughts on messages you get from your parents. Discussions will be audio recorded for the purpose of transcription. Data from this project will be summarized into broad categories. No personal identifying information about you will be included with the research results.

You will also need to complete a brief survey about your family. The survey will NOT include any personally identifiable information (like your names), and all information will be kept confidential. All research records will be stored in a locked file in the researcher’s office for the duration of the research project. Audio tapes will be destroyed right after we transcript them. All other research records will be destroyed at the end of the project. However, we must report to the state suspected cases of child abuse, or if you tell us plans to seriously hurt yourself or others.

The possible risks are small and may include emotional discomfort, such as stirring up uncomfortable feelings. You also will lose some privacy among participating members in this study. A trained individual will be there should you have any questions or concerns. Although unlikely, if you feel any harm from being in this study, you will be able to stop participating at any time without penalty. If any treatment is required, treatment consisting of the normal range of services offered by your school will be available, including being referred to the school counselor or another school official. However, there will be no compensation for such harm. Some small risk is noted in that what is discussed in the focus groups may be disclosed to others outside of the group, however, we will have all participants sign a “confidentiality pledge.”
Although no direct benefit is expected for you, you will be helping scientists learn about student perspectives of parent-child communication about sex, and this information may help create better youth programs in the Hawai`i school and community.

For your participation, you will be given a gift worth of $20 (e.g. 2 movie tickets).

You certify that you have read and understand the above, and that you have been given satisfactory answers to any questions. You have been told that you are free to withdraw your approval, that you can stop taking further part in the study at any time, and that your decision will not in any way affect your care or cause a loss of benefits to which you might otherwise be entitled. You agree to be part of this study with the understanding that such approval does not take away any of your legal rights, nor does it release the investigators or the institution or any employee or agent thereof from liability for negligence. If you cannot obtain satisfactory answers to your questions or have comments or complaints about your participation in this study, you may contact:

Committee on Human Studies (CHS), University of Hawai`i at Mānoa
1960 East-West Road, B-104, Honolulu, HI 96822.
Phone: (808) 956-5007 or uhirb@Hawai`i.edu

Do you give your consent to be audio taped the PhotoVoice discussion session?

☐ Yes     ☐ No

Name of Parent/Guardian #1: _______________________________________________

Phone numbers: (a) _____-_______; (b) _____-_______; (c) _____-_______

Your Phone numbers: (a) _____-_______

_______________________________________  ____/____/_____
(print your name) (date)

_______________________________________
(signature)

[Note: A copy of this form will be given to you for your future reference.]
APPENDIX J: PHOTOVOICE STUDENT SURVEY

Student Survey

Tell us a little bit about yourself.

1. Are you a _____ Male _____ Female

2. What is your race or ethnicity? (Select one or more responses.)
   _____ Hawaiian/Part Hawaiian
   _____ Black/African American
   _____ Filipino
   _____ Japanese
   _____ White/Caucasian
   _____ Other Asian (what?)
   _____ Other Pacific Islander (what?)
   _____ Something else (what?)

3. How old are you? _____ Years old

4. How many brothers and sisters do you have and how old are they?
   brothers and sisters
   
   
   
   
   
   
   
   

5. What is the zip code where you live? ______

6. How far did your mother get to go in school? Was it...
   _____ Less than high school
   _____ She finished high school
   _____ She went to some college
   _____ She finished college or more

7. How far did your father get to go in school? Was it...
   _____ Less than high school
   _____ He finished high school
   _____ He went to some college
   _____ He finished college or more

8. Where do you usually go for medical care?
   _____ A private doctor
   _____ A hospital emergency room (which one?)
   _____ A hospital clinic (which one?)
   _____ Some other clinic (which one?)
   _____ Someplace else (where?)

9. Housing
   _____ Own Apartment
   _____ Rent Apartment

10. Living Arrangements:
    _____ With immediate family (your parents and brothers and sisters)
    _____ With extended family (your family + grandparents)
    _____ Other ________
APPENDIX K: PHOTOVOICE RECRUITMENT FLYER

Photovoice!  A Participatory Research Tool
Making your voice heard thru photos

This is not a School Project

This research project is being conducted as part of a dissertation for a doctoral degree at the University of Hawaii. This research is an independent project and not a project of your school.

What is the purpose of the project?
- Understand the parent-teen communication on sex education messages.

What will you do in this project?
- Take pictures of things, objects, symbols (highway signs) or scenery pictures (ocean, trees) to express your thoughts about parental messages related to sex education.
- Participate in the group discussions.

In order to participate we need:
- Your parent’s signed approval
- Attendance in all 5 meetings on (………..) from 3:00 to 4:00 pm after school.
- A brief survey on the family. The survey will not include any personally identifiable information (like participant name). All information will be kept confidential.
- Your permission to let the project use pictures that you have taken in discussing participant’s perception of parental messages about sexual behavior and type of messages he/she gets from parents.

    J  Project will provide a camera for picture taking!  J
    J  Light Refreshments will be served at each meeting!  J
    J  Your participation in this project is much appreciated!  J

What are the benefits of participation in this project?
- Learning about PhotoVoice methodology/ Experience in team work
- A set of photos that you have taken for this study
- A gift worth of $20 (e.g. 2 movie tickets)

Questions about this Project:
Contact Nandar Aung at (808) 371-8646 or nandar@hawaii.edu.
Mahalo!
REFERENCES


Anderson, S.E., Dallal, G.E., & Must, A., (2003), Relative weight and race influence average age at menarche: results from two nationally representative surveys of US girls studied 25 years apart, Pediatrics, 111 (4), 844-850


Center on the Family, University of Hawai`i, (2002), Profile of Hawai`i’s teens, Center on the Family, University of Hawai`i, Retrieved March 14, 2010 from http://www.uhfAMILY.hawaii.edu/publications/HawaiiTeens/Index.asp


