Mixed Messages: The Effect of Social Location, Parental Communication About Sex, and Formal Sexual Education on Protective Sexual Behaviors

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MIXED MESSAGES: THE EFFECT OF SOCIAL LOCATION, PARENTAL COMMUNICATION ABOUT SEX, AND FORMAL SEXUAL EDUCATION ON PROTECTIVE SEXUAL BEHAVIORS

by

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ABSTRACT

This dissertation tests if a young adult’s social location determines what type of information he or she will receive about sexual health from parents and formal sexual education programs. I also test whether sexual education mediates direct associations between social location and 4 protective sexual health behaviors: condom communication, consistent condom use, delaying sexual debut, and reducing the number of lifetime sexual partners. Using the 2011-2013 wave of the National Survey of Family Growth, I look for differences in sexual education and engaging in protective sexual health behaviors among white, Hispanic, and African American men and women ages 15-24. I find that communication about sex from parents and formal sex education programs varies by race and gender. I also find that direct associations exist between social location, parental communication, formal sexual education, and protective sexual health behaviors. However, all of these operate independently from one another, and I find that parental communication and formal sexual education does little to mediate the direct associations between social location and protective sexual behaviors. Policy implications, limitations, and directions for future research are also discussed.

INDEX WORDS: social location, race, gender, parental communication, formal sexual education, self-silencing, condom use, sexual debut, sexual partners
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DEDICATION

This dissertation is dedicated to the loves of my life. To my husband, Carlos, who has always supported me—no matter what. When we first met, you referred to me as “your little professor.” 13 years later, with your love, help, and support, I actually made it a reality. I love you.

To my daughters, Emmy and Elly, who are the reason I keep going. Please believe that even though something seems impossible, you can achieve it. I love you, my sweet babies!

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1 INTRODUCTION

American young adults have far worse sexual health outcomes than young adults in other developed countries (Rose 2005; Luker 2006; McKay and Barrett 2010; Schalet 2011). Despite increases in contraceptive use since the 1970s (Panchaud et al. 2000; Martinez et al. 2011; Kost and Henshaw 2014), decreases in the teen pregnancy rate (Kost and Henshaw 2014; CDC 2016d) and increases in delayed onset of sexual activity (Finer and Philbin 2013), American young adults are much more likely to contract sexually transmitted infections (STIs) like chlamydia, gonorrhea, and HIV, and have higher rates of unintended pregnancy than their European and Canadian counterparts (Santelli, Sandfort, and Orr 2008; McKay and Barrett 2010). Within the United States, these negative sexual health outcomes are higher for African Americans, Hispanic men, and women (Finer and Zolna 2014; CDC 2015). To prevent STIs and unintended pregnancy, the Centers for Disease Control (CDC) and the World Health Organization (WHO) have outlined several protective behaviors young adults can engage in that will reduce the risk of negative sexual health outcomes. These behaviors include discussing condom use with a sexual partner, consistent condom use, delaying the onset of sexual activity, and reducing the number of sexual partners.

African Americans, Hispanics, and young women are less likely to engage in these protective behaviors (CDC 2015; CDC 2016). The reduced likelihood of engaging in these protective behaviors may account for the higher rates of unintended pregnancy, STIs, and HIV in these groups of young people (CDC 2015; CDC 2016). One possible explanation for the reduced likelihood of engaging in protective behaviors for minorities and women is the inadequate and differing sexual education these groups receive from both formal sources such as schools,
community centers, and churches (Irvine 2002; Rose 2005; Luker 2006; Fields 2008; CDC 2016a; WHO 2016) as well as informal sources1 such as parents (Schalet 2011; Elliott 2012).

According to Intersectional theory, knowledge is produced by the dominant group and doled out differentially to people based on a person’s race and gender—also known as her “social location” (Collins 2000). Therefore, young people may or may not receive information on different sexual topics because of their race and gender. Using the 2011-2013 wave of the National Survey of Family Growth (NSFG), a nationally representative survey of the reproductive behaviors of 15-44 year olds in the United States, I will examine the variation across race and gender in young adults (ages 14-25) receive from formal and parental of sexual education. I will then investigate if the variation across groups mediates racial and gendered patterns for 4 protective sexual health behaviors outlined by the CDC and WHO as important in protecting against HIV, STIs, and unintended pregnancy—condom communication, consistent condom use, delayed onset of sexual activity, and limiting the number of sexual partners. Sexual and Reproductive Health Disparities Within and Across Cultures

1.1 Sexual and Reproductive Health Disparities Within and Across Cultures

1.1.1 Unintended Pregnancy

More pregnancies in the United States are unintended than intended, and the United States has one of the highest unintended pregnancy rates in the industrialized world (Finer and Zolna 2011). Unintended pregnancy has serious health implications for both mother and child, and is a growing public health concern. Unintended pregnancies are significantly more likely to have adverse health outcomes such as delayed prenatal care, premature birth, and negative mental and physical health outcomes for children (Lawrence 2011; Gibbs et al. 2012; Sonfield et al. 2013). Young women under 25 have the highest rates of unintended pregnancy compared to
all sexually active adult women. The unintended pregnancy rate for young women is nearly three times the national average (Finer 2010).

Unintended pregnancies and births can have serious implications for women. Due to the lack of educational and work opportunities, these women are more likely to be in poverty and rely on public assistance (Luker 1996; Klima 1998; Bissell 2000; Finer and Zolna 2011; Monea and Thomas 2011). In Europe, where there are more social and economic support programs for its citizens, especially young mothers, women may not feel the effects of an unintended birth as significantly as a young woman in the United States (Schalet 2011).

1.1.2 Chlamydia

Similar trends can be seen between the United States and other western countries with regards to sexually transmitted infections. For example, the rates of chlamydia—the most commonly reported sexually transmitted infection—illustrate differences in disease prevalence and disparities among the United States and other western nations. In 2010, the European Centre for Disease Prevention and Control (ECDC) reported 345,421 new cases of chlamydia in 24 European countries. Two-thirds of these cases, according to the ECDC, are young people between the ages of 15 and 25 (2010). By contrast, the rate of new chlamydia infections in Americans was 1,422,976 in 2012, and 68% of these cases are young adults ages 15-24 (CDC 2014).

In the United States, and in Europe, women are more likely to be infected with, and affected by chlamydia than men. If the infection goes untreated, women can experience significant reproductive health issues such as pelvic inflammatory disease and infertility as a result of the infection (CDC 2014). Since women’s reproductive health is affected more significantly by chlamydia, there is more testing for chlamydia for women. Therefore, the higher
rates of chlamydia in women may be due to better screening practices for women. However, disparities still exist. According to the ECDC, European young women had a chlamydia infection rate of nearly 1,800 cases per 100,000 for women ages 15-19. Similar rates were observed for European women ages 20-24 (ECDC 2014). By contrast, the rates of chlamydia infection for young men in Europe is approximately 500 cases per 100,000 people for 15-19 year olds, and 1,200 cases per 100,000 for young men ages 20-24 (ECDC 2014).

The rates of chlamydia are even higher for American women than European women. The rate of chlamydia infection for young women ages 15-19 in the United States is 3,291.5 cases per 100,000 women and 3,695.5 cases per 100,000 women ages 20-24 (CDC 2014). For young American men, the rates of chlamydia infections are highest for men ages 15-24. However, as the CDC acknowledges, the rates of chlamydia infection for young men are significantly lower than for young women. There are only 774.8 cases per 100,000 men ages 15-19 and 1,350.4 cases per 100,000 men for ages 20-24 (CDC 2014).

1.1.3 HIV

HIV is a virus in which one of the main ways a person can become infected is through sexual activity (CDC 2016c). HIV works by attacking a person’s immune system—specifically, the CD4 cells (T cells)—making it harder for infected individuals to fight off infections (CDC 2016c). As the immune system weakens, opportunistic infections and diseases such as cancer can cause serious health complications and even death (CDC 2016c). Since the early 1980s, 34 million people have died from AIDS (WHO 2016). Despite increases in antiretroviral therapy since the beginning of the epidemic, AIDS still causes a significant number of deaths. In 2014 alone, 1.2 million people worldwide died from AIDS, and another 39.6 million people are
currently living with HIV/AIDS (WHO 2016). There is no known cure for HIV/AIDS (CDC 2016c).

Similar to chlamydia, rates of HIV infection are also higher in the United States than Europe among all sexually active adults. According to a UNAIDS report, 91,000 new HIV diagnoses were made in Western Europe, Central Europe and North America. Approximately half of all of the new diagnoses of HIV were in the United States of America (UNAIDS 2016). According to the ECDC (2015), in 2014, 29,992 new HIV infections were diagnosed by 31 European countries (a rate of 5.9 per 100,000 population). 11% of these new HIV infections occurred in youth ages 15-24. (Two countries—Iceland and Lichtenstein—reported no new HIV cases for young adults). In the United States, there are more than 1.2 million people living with HIV/AIDS, and approximately 50,000 new diagnoses occur each year. Of those who are newly diagnosed with HIV in America, 22% of new HIV diagnoses are young adults ages 13 to 24 (CDC 2016a).

1.1.4 Racial, Ethnic and Gender Inequality and Its Impact on Sexual Health in the United States

A major contributor to the discrepant sexual health outcomes between America and other developed countries is that many other western nations are more homogenous racially and economically than America and also offer greater social programs and economic support to their citizens such as universal healthcare, family support, and paid educational opportunities (Schalet 2011). Therefore, the racial, cultural, and economic inequality that exists in American culture is less pronounced in other western countries. Since America does not offer the same types of social and economic programs as other western nations, America has higher rates of economic inequality than its European counterparts. Particular groups such as women and racial/ethnic
minorities who are disproportionately concentrated in the lower socioeconomic strata of American society (DeNavas-Walt and Proctor 2015) are particularly affected by the lack of social and economic programs that could provide greater health equity. If lower SES women in the United States were offered childcare credits, paid maternity leave, universal healthcare, and other economic support that are routinely given to women in some European countries, then the impact of a negative health outcome such as unintended pregnancy would not be as severe. Essentially, women in European countries that are given these benefits are provided a safety net that lower SES women and minority women in the United States do not receive (Luker 1996).

Race, female gender, and lower socioeconomic status are associated with increased health risks for a variety of conditions, including sexually transmitted infections and unintended pregnancy (CDC 2014b). In fact, when the rates of unintended pregnancy and sexually transmitted infections are examined by a number of socio-demographic variables in the United States, the health inequities that exist for different groups of young Americans are apparent. In both Europe and the United States, gay, bisexual and other men who have sex with men (MSM) make up the majority of HIV diagnoses (ECDC 2015; CDC 2016a). In the United States, young MSM are the highest number of those infected, and young African American MSM (ages 13-24) have the highest rates of new HIV infections (CDC 2016a). 55% of MSM HIV diagnoses were young African American men, 23% were young Hispanic MSM, and only 16% of new HIV diagnoses were young white MSM (CDC 2016a).

This same pattern can be seen for the entire young adult population. African Americans are disproportionately affected by HIV. For all adults, African Americans made up 44% of all new HIV diagnoses in 2010 despite only being 12% of the population (CDC 2014b). Young African American males in 2014 were more likely than any other group to be diagnosed with
For all adults, Hispanics are also more likely to be infected with HIV than white men. Hispanics are 16% of the American population, but are 21% of new HIV cases in 2010 (CDC 2015).

For young American women, heterosexual women are more likely to be infected with HIV than heterosexual men. HIV is transmitted most commonly through heterosexual vaginal intercourse for women. However, not all heterosexual young women are equally as likely to be infected by HIV. For the entire adult population, after MSM, African American women comprise the next largest number of new HIV infections in 2010 (CDC 2015). Young African American women ages 13-24 were more likely to be diagnosed with HIV in 2014 than Hispanic and white women (CDC 2016a).

1.2 Racial, Ethnic and Gender Inequality and Its Impact on Sexual Health in the United States

However, regardless of race, young Americans are more likely to be affected by a number of sexually transmitted infections more than older adults. The Centers for Disease Control (2015b) reports that “despite being a relatively small portion of the sexually active population, young people between the ages of 15 and 24 accounted for the highest rates of chlamydia and gonorrhea in 2014 and almost two thirds of all reported cases” (2). Young American women are also more likely to be diagnosed with sexually transmitted infections such as chlamydia and gonorrhea at “substantially higher” rates than young men (CDC 2014; CDC 2015b). Of those infected with chlamydia, rates were highest for African American women ages 15-19 who are 5 times more likely to be infected with chlamydia than young white women (CDC 2014b). These statistics for young women are troublesome because, as noted previously, bacterial sexually transmitted infections such as chlamydia have greater repercussions on young
women’s long-term reproductive health. Untreated bacterial STIs can cause pelvic inflammatory disease and ultimately lead to infertility in women (CDC 2014), and based on the statistics on chlamydia, African American women’s reproductive health may be especially at risk due to higher rates of chlamydia infections in this population.

In addition to sexually transmitted infections, young women’s long term health and economic security are also affected by unintended pregnancy (Sonfield et al. 2013). While unintended pregnancy has decreased slightly in recent years, a large percentage of pregnancies in the United States are still unintended. In 2008, 51% of all pregnancies were unintended, and this rate has decreased slightly to 45% of all pregnancies in 2011 (Finer and Zolna 2014). Among women who experience unintended pregnancy, young women ages 18-24 make up the largest group of women who experience unintended pregnancy (Finer and Zolna 2014). For women ages 19 and younger, 4 out of 5 pregnancies are unintended (Finer and Zolna 2006).

Similar to the trends in HIV and other STIs, African American and Hispanic women are significantly more likely to have at least one unintended pregnancy. African American and Hispanic women have unintended pregnancy rates that are double the rate of unintended pregnancies in similarly-aged white women (Zolna and Lindberg 2012). Despite a decrease in the unintended pregnancy rate for African American women over the seven year period, young African American women still have the highest unintended pregnancy rates of any race or ethnicity of women of childbearing age (Finer and Zolna 2006). 69% of pregnancies for African American women were unintended—compared to 56% of pregnancies for Hispanic women and 40% of pregnancies for white women (Finer and Zolna 2014). Hispanic women have the highest rates of unintended pregnancies that result in births. 43% of pregnancies result in birth for
Hispanic women. For African American women, 40% of unintended pregnancies result in births compared to only 20% of pregnancies for white women (Finer and Zolna 2014).

Since African American women and Hispanic women are more likely to experience unintended pregnancies and births, these women are more likely to experience the negative outcomes associated with unintended pregnancy and birth. Hispanic and African American young mothers are at a greater risk of decreased educational and employment opportunities (Anderson 1989; Monea and Thomas 2011). Since these young mothers may not be able to get the necessary education or work experience needed for advancement, they are more likely to stay in the lower socioeconomic strata of America, thus reinforcing pre-existing inequalities.

1.2.1 Protective Behaviors

Prevention education, or sexual education, is key in informing youth about how to reduce their risk of STIs and unintended pregnancy (WHO 2016). Through sexual education, youth can learn about a variety of protective behaviors that can reduce or eliminate their risk of negative sexual health outcomes such as vaccinations, pre and post exposure prophylaxis, condom use, and delaying sexual activity (Epstein et al. 2013; Carmine, Castillo and Fisher 2014; WHO 2016). I will focus on four behaviors that are most commonly identified by health organizations and physicians as effective preventative measures—discussing condom use with partners, consistent condom use, delaying sexual activity, and limiting the number of sexual partners.

1.2.2 Condom Communication

Discussing condom use before engaging in intercourse for the first time is a predictor of increased condom use among youth (Widman et al.; Henderson et al 2002), and using condoms in the first sexual encounter is associated with subsequent condom use (De Visser and Smith...
In a study of Portuguese youth, if a young woman discussed condom use with her partner before sex, then the couple was more likely to use condoms (Alvarez and Garcia-Marques 2011). The authors of the study encouraged young women to initiate the discussion about condom use with her partner.

However, other studies have found that young women report being hesitant to discuss condom use with a sexual partner (Panchaud et al. 2000; Widman et al. 2006). The reluctance to discuss condoms with a partner may stem from a young woman’s perceived self-efficacy about condom discussion and condom use (Casey et al. 2009). Self-efficacy is defined as a person’s belief that her efforts in a particular endeavor will be successful and result in her desired outcome (Casey et al. 2009). If a young person has a high level of perceived self-efficacy regarding condom use, then he or she is more likely to use condoms, and many young women have lower levels of self-efficacy (Casey et al. 2009). Since young women have lower levels of self-efficacy regarding condom use, women are more likely to “self-silence”—not discuss condom use with their sexual partner(s)—because they feel their partners will react negatively to the discussion. Research has found that these self-silencing behaviors were more common in relationships in which the young women has reported low levels of relationship satisfaction (Widman et al. 2006; Zimmer-Gembeck 2013). Therefore, in an effort to avoid conflict—especially in poor relationships—young women will not bring up condom use before sex, which leaves them at a higher risk for STIs and unintended pregnancy.

Race, ethnic and gender differences exist in rates of condom communication and condom use. Adherence to traditional gender ideology—and gender roles—can influence condom communication and use for Hispanics. For young Hispanic women, high levels of perceived self-efficacy about condom use are important predictors of actual condom use (Deardorff et al. 2013).
Hispanic women are less likely to use condoms than whites (Daniels, Daugherty, and Jones 2014). Condom use increases among Hispanics if Hispanic women feel comfortable discussing sexual topics, including condom use (Deardorff et al. 2013). However, other contextual factors may influence condom discussion and use. The characteristics of the romantic partner may also play a role in condom use. In Hispanic culture, there is an idea of “machismo” amongst Hispanics in which men are seen as having all the power and control in the relationship. This concept is similar to what American sociologists call a “traditional gender ideology.” Previous studies have noted that machismo is one of the determining factors of whether or not condoms are used in a relationship (Galanti 2003; Sable et al. 2009). Therefore, if a young Hispanic women’s partner has a high degree of machismo, then communication about condoms will not be effective in getting her partner to use a condom.

A similar pattern was noted in African American males’ condom use. A study by Otto-Salaj and colleagues (2010) found that the strategies in which young African American women used to get their partners to use condoms were not as significant of a predictor of condom use as was partner characteristics. In the study, African American men who were less likely to use condoms exhibited higher levels of traditional gender ideology (539). Therefore, sexual communication is an important step towards increased condom use; however, this association between condom communication and condom use may be mitigated by partners with high levels of traditional gender ideology. Young women who are in male-dominated relationships with men may contribute to increased levels of self-silencing.

1.2.3 Consistent Condom Use

Proper, consistent use of male condoms can reduce HIV transmission by 85% and almost 100% of other sexually transmitted infections (Carmine, Castillo and Fisher 2014). Condoms, if
used properly, can also reduce the likelihood of unintended pregnancy. Condoms, while not 100% effective, do have low failure rates—the rate in which a contraceptive does not work effectively—and can reduce the likelihood of an unintended pregnancy (Valappil et al. 2005).

Condoms are the most commonly used contraceptive when teens engage in sex (Mosher and McNally 1991; Manning, Longmore, and Giordano 2000; Parkes et al. 2009; Abma, Martinez, and Copen 2010). However, condom use is not consistent by all groups of young adults in the United States. A gender gap exists among condom use for young adults. Women are significantly less likely to use condoms than men. In one study of condom use over the past month, slightly less than half of young women in the United States report having consistently used condoms, and 39% report never using condoms (Martinez, Copen, and Abma 2011). In contrast, two-thirds of young men reported using condoms (Martinez, Copen, and Abma 2011).

Racial and ethnic patterns in condom use also exist. Among women who used condoms during their most recent sexual experience, young African American women were more likely to report using a condom than Hispanic and white women (Welti, Wildsmith, and Manlove 2011). White women in the study were more likely to use hormonal methods which are effective at preventing pregnancy, but still leave themselves vulnerable to STIs. Among young male condom users, Hispanics are less likely to use condoms than African American and white men at most recent sex (Welti, Wildsmith, and Manlove 2011).

1.2.4 Delaying Sexual Debut

Sexual debut is defined as the first time an adolescent voluntarily engages in sexual (vaginal) intercourse (Davis and Friel 2001; Campa and Eckenrode 2006; Regnerus and Luchies 2006; Cavazos-Rehg et al. 2009; Price and Hyde 2011). However, if the adolescent engages in intercourse at a young age, this can have negative sexual health outcomes that persist throughout
the youth’s life course (O’Donnell, O’Donnell, and Steuve 2001; Brauner-Otto and Axinn 2009; Cavazos-Rehg et al. 2009). The literature notes several links with early transitions into sexual activity and negative sexual health outcomes including an increased risk of sexually transmitted infections (STIs) (de Graaf et al. 2012), sexual coercion (O’Donnell, O’Donnell, & Stueve 2001; de Graaf et al. 2012), unintended pregnancy (Davis and Friel 2001; Albrecht and Teachman, 2003; Campa and Eckenrode 2006; Brauner-Otto and Axinn, 2009) increased number of sexual partners (Wight, Williamson, and Henderson 2006), decreased contraceptive use (Wight, Williamson, and Henderson 2006), and engaging in sexual intercourse while also using drugs or alcohol (O’Donnell, O’Donnell, and Stueve 2001). Therefore, the WHO and other public health scholars believe that abstaining from or encouraging young adults to delay sexual intercourse should be the “central aim” of prevention efforts (Epstein et al. 2014; WHO 2016).

While nearly two-thirds of all American youth have engaged in heterosexual intercourse by age nineteen (Manlove et al. 2012), there is considerable variability in the timing of sexual debut for young Americans (O’Donnell, O’Donnell and Stueve 2001; Davis and Friel 2001; Albrecht and Teachman 2003; Browning, Leventhal and Brooks-Gunn 2005; Brauner-Otto and Axinn 2009; Cavazos-Regh et al. 2009; Manlove et al. 2012). Similar to the patterns in STI and HIV infection in the United States, African Americans and Hispanics are the most likely to have sex at an earlier age, on average, than white youths. By the age of 17, 82% of African American men and 74% of African American women have engaged in vaginal intercourse. For Hispanics, 69% of Hispanic men and 59% of Hispanic women have engaged in vaginal intercourse. The rates for whites are lower with 58% of white women and 53% of white men have had a sexual debut before the age of 17 (Cavazos-Rehg et al. 2009).
1.2.5 Reducing the Number of Lifetime Sexual Partners

The fourth protective behavior that is often recommended by health organizations such as the CDC and the WHO is reducing the number of sexual partners. Since many young adults do not use condoms consistently, the number of sexual partners a young person has is a key risk factor for negative sexual health outcomes. An increased number of sexual partners is associated with unintended pregnancy, HIV transmission, and other STIs (Santelli et al. 1998; Valois et al. 1999; Rosenberg et al. 1999; Miller, Forehand, and Kotchick 2000). These higher numbers of negative health outcomes may be associated with reduced condom use in teens that have more than one lifetime sexual partner. In a study of youth ages 13-17, condom use was lower among teens who had a greater number of sexual partners (Ford, Sohn, and Lepkowski 2002).

Among different groups of youth, youth who have an early sexual debut are more likely to have a higher number of lifetime sexual partners (Santelli et al. 1998). As noted earlier, African American youth have earlier sexual debuts than other races, and therefore, it is not surprising that African Americans also have a higher number of lifetime sexual partners. Young African Americans and Hispanic men have an increased likelihood of multiple sexual partners than other races of youth (Santelli et al. 1998). Among women, African American women are more likely to have two or more lifetime sexual partners than other races of women (Howard and Wang 2004).

In addition to a higher number of lifetime sexual partners, African Americans also have higher numbers of sexual partners at the same time—also known as “concurrent” sexual partners. Just as a higher number of lifetime sexual partners is associated with sexual health risks, having concurrent sexual partners is also associated with increased likelihood of STI transmission and unintended pregnancy (Rosenberg et al. 1999; Morris et al. 2009). Young African American men
between the ages of 19 and 25 are 2.9 times more likely to have concurrent sexual partners than white men, and 2.5 times more likely to have concurrent sexual partners than other minority men (Morris et al. 2009). African American women are 1.4 times more likely to have concurrent sexual partners than white women, and 2.9 times more likely to have concurrent sexual partners than women of other minority races (Morris et al. 2009). Of those who have concurrent sexual partners, the majority of people have partners all from the same racial or ethnic group, which may contribute to higher rates of STI infection and unintended pregnancy among African American youth.

1.3 Inadequate Formal and Informal Sexual Education for Youth

Racial, ethnic and gendered patterns have been noted with regards to a number of protective behaviors that could reduce a young person’s likelihood of contracting a STI or experiencing an unintended pregnancy. What accounts for these differential patterns in rates of STI, unintended pregnancy, and the protective behaviors that could prevent negative sexual health outcomes? Previous research has focused on the associations between social class (Luker 1996; Furstenburg 2003; Edin and Kefalas 2005; Erdmans and Black 2015), peer influence (Lefkowitz, Boone, and Shearer 2004; Brandhorst et al. 2012; Levin, Ward, and Nielsen 2012), and media socialization (Brown and Keller 2000; Ward 2003; Strasburger 2005; Ward and Friedman 2006) as possible explanations for negative sexual health outcomes for young Americans. However, in the last decade, a growing body of research has pointed to inadequate sexual education for groups of young Americans—especially for women and minority youth-- as a contributor to the disparate sexual health outcomes (Fields 2008; Garcia 2009; Elliott 2010; CDC 2016a). Sexual education includes formal sources of sexual education such as schools,
community centers, health clinics and religious centers as well as informal sources of sexual education such as parents, peers, dating partners and the media.

Parents are often seen as the primary source of sexual education outside of a formal setting (Luker 2006; Elliott 2012). However, American parents may not be adequately informing their children about their sexual health as well as their European peers. Amy Schalet (2011) studied American and Dutch parental perspectives towards adolescent sex. Schalet found that Dutch society is much more integrated and socially dependent upon one another. Parents view the journey into adolescent sexuality as a normal and collaborative process between parents and children. By viewing sex as a natural part of life that parents and children can negotiate together, European teenagers, such as the Dutch teens interviewed by Schalet (2011), receive more social support from parents and other institutions. European teens are able to rely on their families and formal sexual education to help them navigate the unfamiliar waters of sex when they decide to engage in it for the first time, which results in lower rates of STIs and unintended pregnancy for Dutch teens.

By contrast, American culture is much more individualistic, and teens often have little social support from their parents or other institutions when they decide they are ready for sex. Schalet (2011) argues that American parents and teens see their relationship as much more adversarial, and teenage sexuality is contested ground where power struggles between parent and child frequently occur. American teens are often unwilling or unable to ask their parents questions about sex because American parents are typically less likely to support their teens having sex (Schalet 2011). (Often times, the only sex education an American youth receives from his or her parents is “I said no!”) Since teenagers receive less social support from their parents, they are often left to understand sexuality and sexual behaviors on their own. American
teens still take part in sexual behaviors, but unlike their European peers, they are engaging in these behaviors without very little knowledge on STIs and pregnancy.

When looking at parental communication by race and gender, the literature notes that the sexual double standard exists when parents discuss sex with their children (DiIorio et al. 1996; DiIorio et al. 2007; Fasula, Miller, and Wiener 2007; Gillmore et al. 2011) where parents are more likely to report discussing sex with their daughters than sons. However, the information parents give to their daughters is not quality information that would help young women learn how to engage in safer sex practices. Instead, communication with daughters is more likely to be prohibitive and define sex as a risk. Parents of daughters emphasize abstinence, how to say no to sex, modesty, and actively prevent their daughters from dating (Kuhle et al. 2015).

This prohibitive approach to sexual education by parents is consistent across races and ethnicities. Hispanic parents, when discussing sex with their daughters, are more likely to discuss relationships and values as opposed to information about birth control and STI prevention (Rafaelli and Green 2003). African American mothers are also more likely to discourage sexual activity in daughters and disapprove of their daughters carrying condoms (Levin and Robinson 2002).

In addition to American youth not receiving proper information from parents regarding sexual health, young adults do not receive proper sexual education from formal education programs. The Centers for Disease control (2016a) notes that formal sexual education varies wildly from one program to the next, and no consistent curriculum is taught in schools throughout the United States. The CDC recommends that 16 specific topics should be covered in a formal sexual education course such as HIV transmission, STI and pregnancy prevention (CDC 2015). The CDC has found that very few formal sex education programs cover all 16 CDC
critical topics (CDC 2106a). The rates at which schools cover these 16 critical topics varies wildly from one state to the next. For example, in a study of 9th through 12th grade sex education courses, the CDC found that ninety percent of New Jersey schools cover all 16 of the critical topics recommended by the CDC while only twenty percent of Arizona high schools cover all of the topics (CDC 2015). What is even more troubling is that middle school programs that can inform a vast majority of students before they engage in sexual activity are not educating their students about sexual health. According to the CDC, in most states only 20% of middle schools cover all 16 critical topics (CDC 2015). As Dr. Stephanie Zasa, the Director of Adolescent and School Health at the CDC notes, “Lack of effective sex education can have very real, very serious health consequences… School-based sex education is a critical opportunity to provide the skills and information [students] need to protect themselves” (CDC 2015:1).

In addition to not fully educating American youth on sexual health behaviors and risks, formal and informal sources of sexual education may also reinforce existing racial, ethnic, and gender inequalities in the United States. Unlike European countries, in which young adults are given the same, consistent information about sex from a variety of social institutions (Luker 2006; Schalet 2011), American young adults are given different information based on their social location—especially from formal sex education programs (Fields 2008; Elliott 2014: Ella and Tokunaga 2015). African Americans and Hispanics are often depicted as hypersexualized and more likely to engage in risky sexual behaviors (Fields 2008; Garcia 2009). Young white women are often depicted as uninterested in sex and only engage in sex if pressured by men (Tannenbaum 2000; Valenti 2011). Informal sex education settings in which parents and teens discuss sexual topics also reinforce racial and gender differences where young men get protective messages about sex while young women receive prohibitive messages about sexual
activity (DiIorio et al. 1996; DiIorio et al. 2007). Formal and informal sexual education reinforce inequality and differential sexual health outcomes by presenting messages that emphasize racial, ethnic, and gendered sexual stereotypes about women and young adults of color (Tannenbaum 2000; Fields 2008; Garcia 2009; Connell and Elliott 2009; Valenti 2010). A discussion of how sexual education serves to perpetuate existing inequalities will be discussed further in the literature review.

1.4 Theoretical Perspective—Intersectionality Theory

Intersectional theory can help us understand how youth are presented different messages about their sexuality and sexual health based on their race and gender, as well as how these raced and gendered messages about sexual health can shape a young adult’s protective sexual health behaviors. There are three areas in which I believe Intersectionality Theory can aid in the understanding how sexual health outcomes vary among different groups of young adults in the United States. First, sexual health behaviors are affected because informal and formal sources of sexual education (what are often referred to as “institutions” in Intersectional theory) reinforce racism and sexism (Crenshaw 1991). The intersection of racism and sexism for people of color (Crenshaw 1991) is what Collins (2000) refers to as the “matrix of domination”—the intersecting inequalities that result from a person’s race, class, gender, and sexual orientation. These institutions perpetuate race, class, and gender hierarchies, and one way in which this is accomplished is through the sexual education of American youth (Fields 2008). Secondly, in order to promote these hierarchies, these institutions give different groups of young adults different messages about sex and sexuality based on the person’s social location (Fields 2008; Garcia 2009; Elliott 2014; Ella and Tokunaga 2015). Patricia Hill Collins (2000) refers to these mixed messages about sexuality as “controlling stereotypes.” Finally, since information
regarding sex and sexuality is presented differently to different groups of teens, intersectionality
theory can help us understand how these controlling stereotypes of sexuality contribute to the
differential rates of protective sexual behaviors among American teens.

One of the greatest resources available to young adults when they engage in sex for the
first time is knowledge about sex, sexuality, and sexual health. (Essentially, “knowledge is
power”). However, these institutions differently educate youth about sexual health based on a
person or group’s social location. Intersectionality theory can help us understand how the
production and dissemination of knowledge from formal and informal institutions can affect the
sexual health outcomes of young adults. Collins (2000), in Black Feminist Thought, argues that
knowledge is often a product of Eurocentric and masculinist thought. Therefore, thoughts and
knowledge about the sexual health and behavior of different groups of young Americans will be
constructed in such a way to reinforce the power of privileged, straight, white men.

One way in which this is accomplished in sex education is through the use of what
Collins (2000) terms “controlling stereotypes.” These stereotypes are produced by elite, white
men in order to limit the sexual behaviors of racial and power minorities. For example, Collins
(2000) argues that white women are often viewed as pure, submissive, and pious. Therefore,
information about white women’s sexuality would reflect these stereotypes, and young white
women would often be told to abstain from sexual activity in order for them to remain “pure.”
Furthermore, Collins (2000) argues that black women are subjected to a different set of
controlling stereotypes that depict black women as sexually aggressive and promiscuous.
Therefore, information about sex for black women would be based on these stereotypes, and
young black females would be expected to be more sexually promiscuous. In fact, based on the
predominant race and class of the students in a particular school, different sexual education
programs are instituted based on these controlling stereotypes regarding different groups of young adults (Fields 2008).

For example, information based on expectations about a certain group of people contributes to disparate sexual health outcomes. As noted before, African Americans have earlier sexual debutsthe age in which an adolescent engages in vaginal intercourse for the first time—as well as higher rates of teenage pregnancy. When we use intersectionality theory and Collins’ controlling stereotypes for African American women as a lens to view sexual behavior, we can see how these rates are higher because society expects and encourages sexual activity for African American youth, especially straight, poor, African American youth. This expectation of sexual activity leads to disparate sexual health outcomes, and these negative sexual health outcomes such as unintended pregnancy have real consequences for African American teens. These young women often experience less educational and career attainment than their higher SES and white counterparts (Luker 1996).

In order to see how sexual health knowledge is produced and disseminated based on intersections of race and gender, we must first examine how formal and informal sources of sexual education shape different groups of young adults’ understanding about sexual health. Then, we will examine how each of these sources of sexual education dissemination of knowledge contributes to unequal sexual health outcomes of teens based on their social locations.
2 LITERATURE REVIEW

2.1 Formal Sexual Education in Schools

2.1.1 The History of Sexual Education in America

Sex education has never purely been just about informing the public of pertinent sexual and reproductive health information. For the sexual conservatives and sexual liberals who are waging war over this topic, sex education is about much more than that. Sex education is about values (Irvine 2002). Sex education has the power to socialize adolescents on political and moral issues such as appropriate sexuality and sexual behavior, (heterosexual) marriage, and traditional gender roles (Luker 2006; Kendall 2008; McNeill 2013), and each side fights desperately to ensure that their values will be the ones presented in sexual education curricula. For people who see sex as less about morality and marriage, and more about knowledge (those whom Luker (2006) defines as “sexual liberals”), the way in which their side can “win” is to give young people as much information about sex, contraception, and abortion as possible so they can make educated decisions about sex. In contrast, for people who see sex as a moral issue and an activity that is in the domain of heterosexual marriage (those whom Luker (2006) terms “sexual conservatives), withholding information about sex and teaching young people that adolescents should wait until marriage to engage in sex is the best way to ensure the moral and physical health of America’s youth. Therefore, sex education, is about much more than public sexual health information. Sex education is a battleground about morality and the role of knowledge in young people’s lives (Irvine 2002; Luker 2006).

In the early 1900s, sex education was not a topic for schools, but a topic of the social hygiene movement. Alan Brandt (1987) in his book, No Magic Bullet, outlines how the creation
of sexual education in the early 1900s was not just to address public health concerns, but also racial concerns about immigrants and minorities. Social hygienists—the major proponents of sexual education during the early 20th century—saw the recent swaths of immigrants to the United States from Eastern and Southern Europe as promiscuous and a threat to the traditional American family, and by extension, the traditional way of American life. Social hygienists thought that immigrants were responsible for the increase in sexually transmitted infections such as syphilis and gonorrhea, and this was a sign that America was falling into moral decay. Therefore, sexual education was not only about teaching the American population about disease prevention. The social hygiene movement also saw sex education as an opportunity to inform the American public—namely the Catholic and Jewish immigrants—about what the social hygienist saw as appropriate morals and norms about sex, i.e. the white, Anglo-Saxon, Protestant, middle class way of life.

This approach to sex education where the curriculum not only focuses on the medical aspects of sex, but the social ones as well, continued into the mid-twentieth century where young people were increasingly educated in schools about sex. Sex education focused more on the moral aspects of sex and less on the sexual health of American youth, and often the public health information in sex education curricula was often misleading or inaccurate. In fact, one sex education program left out the fact that a sperm cell was needed to fertilize an egg (Freeman 2008). Before the 1960s, sex education curricula in schools, like the information presented by the social hygienists, was very white, middle class, and heteronormative (Freeman 2008). Sex education focused more on the nuclear family and traditional gender roles for men and women. Sexual pleasure was completely ignored, and sex and procreation were only acceptable within the context of heterosexual marriage (Freeman 2008).
In the 1960s, the cultural climate regarding sex, sexuality, marriage, and procreation began to change. With the advent of the hormonal birth control pill, women began to have more control over their sex lives and reproduction (Luker 2006). Sex became divorced from marriage, and sex was not about gender roles or marital obligation, but about personal choice of when and with whom to engage in sex (Luker 2006). Furthermore, procreation was no longer a seen as part of sex, and people began to focus on sex as a form of physical pleasure (Irvine 2002; Luker 2006).

The Sexuality Information and Education Council of the United States (SIECUS), led by physician and public health advocate, Mary Calderone, recognized that American views of sex and sexuality were changing, and they thought that Americans, especially adolescents, increasingly needed to be educated about sex. In the 1960s, only 8% of students surveyed saw schools as an important source of information about sex (Irvine 2002). SIECUS recognized that American schools were a place where many young people could learn about sexual and reproductive health issues, and they worked to incorporate a comprehensive sexual education curriculum into American schools (Irvine 2002). This comprehensive curriculum would provide young people with information about sex, sexuality, contraception, sexually transmitted infections, and abortion (Luker 2006). SIECUS, like other sexual liberals, thought that young people needed information in order for them to make the best decisions possible to ensure their sexual health (Luker 2006).

However, SIECUS’ push for a comprehensive sex education curriculum in American schools was met with a great deal of resistance from sexual conservatives who saw sex not only as a health issue, but a moral issue as well. By the early 1970s, sexual conservatives, such as the Christian Right, were actively opposing sex education in schools (Irvine 2002; Luker 2006).
Sexual conservatives, like the social hygienists before them, thought that America’s values (i.e. white, middle class values) were being threatened, and for sexual conservatives, sex education in schools was seen as evidence of this moral decline in the United States (Irvine 2002). Sexual conservatives thought that if a comprehensive sex education curriculum was implemented in American schools, then America would sink deeper into the abyss of moral decay because schools would be actively discussing sex with young people (Irvine 2002). Social conservatives argued that if sex education was taught in schools that this would essentially be giving young people permissive views of sex which would encourage them to be more promiscuous than they would have been if sex was not taught in schools (Irvine 2002).

For those sexual liberals and conservatives debating sex education in the 1960s and 70s, the arguments centered mainly on whether or not sex education should be taught in schools. However, with the AIDS epidemic that started in the 1980s, the debate regarding sex education changed (Irvine 2002). The debate no longer became whether or not sex was a public health issue that should be addressed. The AIDS epidemic showed that it clearly was. Now, the debate shifted from whether sex education should be taught in schools to what kind of sex education should be implemented in American schools in order to prevent STIs like HIV/AIDS (Irvine 2002). This is where the schism between sexual conservatives and sexual liberals becomes wider as the 1980s and 1990s became increasingly more about the morality of sex, traditional gender roles, and the importance of information about sex in young people’s lives (Irvine 2002; Luker 2006).

Sexual conservatives believed that the best way to protect young people from the “dangers” of sex was to not engage in sex at all until marriage. Therefore, sexual conservatives pushed for a sex education curriculum known as “abstinence only” education. Unlike
comprehensive education programs that provide young people with a great deal of information about sex, abstinence only education does not provide any information about sex, sexuality, contraception, STIs, or abortion. Rather, abstinence only education stresses sexual abstinence until (heterosexual) marriage (Luker 2006).

In the 1980s and 1990s, sexual conservatives began to gain more political power in the United States. The “Reagan Revolution” of the 1980s and the “Republican Revolution” of 1994 meant that more political and ideological conservatives were gaining prominence. By 1994, the Republican party, whom a majority of sexual conservatives belong to, had control over the United States Senate and House of Representatives (Clymer 1994). This meant that sexual conservative policies, such as abstinence only education, were implemented into American education curricula. In 1996, as part of the Welfare Reform Act, abstinence only education curriculum received federal funding (Doan and Williams 2008), and this is the first sexual education curriculum that received federal funding ($1 billion dollars by 2008) (Doan and Williams 2008). Since abstinence only education curricula received federal dollars, these programs were increasingly implemented into sex education programs across the country.

By the late 1990s, abstinence only programs were growing, and only 10% of schools had a comprehensive sex education program like the kinds that were favored by sexual liberals in the 1960s and 1970s (Irvine 2002). However, these programs were not as “comprehensive” as the sex education curriculums envisioned by groups such as SIECUS. Many of these comprehensive programs, in order to receive federal funding, stressed abstinence as a young person’s best practice for sexual health, but would also teach young people about contraception as well (Irvine 2002). Since the sex education programs of the 1990s were largely based on abstaining from sex until (heterosexual) marriage, 90s youth received little to no information about sexual and
reproductive health. In fact, a young person’s grandparents in the 1940s actually received more information about sex in their health classes than a young person in the 1990s (Freeman 2008). Sex education programs that stressed abstinence were federally funded and taught in schools from 1998 until 2009 (Schalet et al. 2014), which means that an entire generation of young people were exposed to this limited information sex education curriculum (Doan and Williams 2008).

In the late 2000s, the United States experienced another political shift. In 2006, Democrats, the party of most sexual liberals, won control of the United States Congress, and in 2009, Barack Obama, a Democrat, was elected president. With the election of Barack Obama, the sex education debate began to move to the left once again. In 2010, the United States government agreed that they would continue to fund sex education programs. However, the government stopped funding abstinence only education programs.

From 2010 until present day, in order to receive federal funding for sex education programs, public and private entities must implement “Evidence Based Interventions” or EBIs (Schalet et al. 2014). EBIs are more comprehensive than the abstinence only or abstinence plus education programs of the 1990s. EBIs consist of 35 government approved sex education programs that are determined by the United States government to be effective at preventing unintended pregnancy and STIs through delaying sexual activity and increased contraceptive use (Schalet et al. 2014). While EBIs may have statistical data that shows a link between these programs and a reduction in negative sexual health outcomes, EBIs are often criticized for not being as comprehensive they should be. EBIs still depict a very negative view of sex as “risky” behavior and ignore the diversity that exists in American youth (Schalet et al. 2014).
2.1.2 *Sex Education: Reinforcing Inequalities*

In order for sex education programs to be effective, they must meet the needs of the population in which they serve (Aggleton and Campbell 2000). However, sex education programs routinely overlook the needs of certain groups of young people. For much of the last half of the 20th century and the early part of the 21st century, comprehensive sex education programs saw sex education as “just the facts” about contraception, conception, and STI transmission (Allen 2008; Fields 2008). However, sexual education is not as benign as just giving young people “just the facts” about sex. As Jessica Fields (2008) notes, people should not assume that all young people in the United States are given all of the facts in the same exact manner. Racial and gender inequalities exist, and sexual education programs are not taught uniformly throughout the United States (Kendall 2008). “Historically, sexuality education in school settings in the USA has been biased and has generally not offered an educational experience fostering sexual health for all students” (Elia and Tokunaga 2015: 120). As noted previously, African Americans and Hispanics are often presented as hypersexual and “at risk” (Fields 2008; Garcia 2009). Therefore, since sexual education programs are not the same for all groups of students, sexual education reinforces pre-existing racial and gender inequalities through its curriculum (Connell and Elliott 2009).

As Sinikka Elliott (2014) notes, sexual education programs see sexual education as a matter of personal responsibility, and youth as the “responsible sexual agent” (211). By focusing on the individual actors, sexual education ignores the structural inequalities such as racism and sexism that contribute to disparate health outcomes among youth, and puts the blame on women and people of color as being responsible for their own sexual health. Young women in sexual education programs are often depicted as “responsible sexual agents” who can control their
sexual desires (Valenti 2010; Elliott 2014). Young women are believed to be at risk of sexual advances from predatory, over-sexed boys (Fields 2008), and young women must be protected from this risk. They must learn how to say no to these predatory boys and men. By emphasizing the sexual script of predatory boys and helpless, virginal girls, sex education programs today are reinforcing traditional gender norms—namely the sexual double standard (Fields 2008; Valenti 2010; McNeill 2013). The sexual double standard is a sexual script that promotes male aggressiveness and female passivity (Valenti 2010).

Women are seen as the ones who can (and should) have control over their bodies and their sexuality. Since women are expected to limit their sexuality, formal sex education programs—much like rape prevention programs—focus heavily on female activity and sexuality and often promote strategies whereby young women should control their sexuality and fertility by abstaining from and saying “no” to sex (Tannenbaum 2000; Valenti 2010). By focusing on abstinence and saying no to sex, these programs often leave out other messages that may help promote healthy sexual behaviors among young women as well as limit a young woman’s perception of her own sexual self-efficacy (Fasula, Miller and Wiener 2007; Connell and Elliott 2009). For example, as previously noted, young women who have lower levels of self-efficacy about sex—especially condom use—are less likely to use condoms, which puts them at risk for STIs and unintended pregnancy. However, since sexual education programs emphasize the neo-liberal notion of a responsible sexual agent, if a young woman were to contract a sexually transmitted infection or experience unintended pregnancy, then it is often seen as her fault for not being able to say no or control her own sexuality rather than her not receiving adequate information about sex.
However, as Collins (2000) notes, the idea of a woman as pure and virginal is a conception of white womanhood. By contrast, stereotypes of women of color are very different than the stereotypes about white female sexuality. Hispanics and African Americans are often thought to be more sexually active than their white counterparts (Collins 2000; Fields 2008; Garcia 2009). In fact, as Luker (1996) notes, comprehensive sexual education was implemented in many schools in the 1970s because of fears of a “teenage pregnancy epidemic” that was believed to be fueled by young African American women. Therefore, advocates thought that young women, especially young African American women, should be taught about the use of birth control. This focus on African American female sexuality may seem like it is attempting to help young women of color, but may actually be serving to limit the fertility of what is often perceived as an “undesirable population” (Roberts 1997).

In sexual education programs today, Hispanics and African American men are often presented as domineering and hypersexualized (Connell and Elliot 2009; Garcia 2009), and Hispanic and African American women are routinely highlighted as “cautionary tales” of unintended pregnancy in many formal sex education curricula (Connell and Elliott 2009; Garcia 2009; Ella and Tokunaga 2015). In one study of young Hispanic women, Lopez and Chesney-Lind (2014) found that Hispanic women believe they are perceived by others as “‘lowlifes,’ ‘cholas’ and ‘always pregnant’” (527). These young women’s assumptions were correct, as the same study found that doctors and other health professionals saw these young women as having “problematic behaviors [that are] products of the ‘Latino culture’” (Lopez and Chesney-lind 2014: 527). Therefore, if young Hispanic women are stereotyped in such a way by sexual health educators, then they are less likely to receive important information that may prevent negative sexual health outcomes.
Indeed, controlling stereotypes about white women and racial and ethnic minorities structure the curriculum and implementation of sex education programs in schools. In one study, Jessica Fields (2008) found that different groups of people create and choose sex education programs based on the race, class and gender make-up of the students, parents and educators. Fields found that comprehensive sex education programs were more likely to be favored by well-educated white and African American women. These higher SES women were concerned with at-risk youth (read: lower SES and minority youth) whom they viewed as more sexually active. Fields found in her field-work that working class African American schools were more likely to adopt comprehensive sex education programs in an effort to curtail the perceived highly sexualized activities of minority youth. While on the surface, comprehensive sexual education for these groups of young adults may seem to promote sexual health, as Fields (2008) notes, the information contained in these programs is not quality information.

In contrast, abstinence only education programs are more likely to be favored by highly religious people as well as working class whites (Irvine 2002; Fields 2008; Bleakley, Hennessy, and Fishbein 2010). In a study of public attitudes towards sexual education, the researchers found that religious people, Hispanics, and people with more traditional views on gender were less likely to favor comprehensive sexual education programs in schools (Chappell, Maggard, and Gibson 2010). In Fields’ study of sexual education programs, she also found a link between religiosity, traditional gender ideology, and less support for comprehensive sexual education programs. In Field’s (2008) study, white, Christian women were significantly more likely to favor abstinence only programs. Fields, in her interviews, found that these women held traditional views of gender. They viewed young women as “pure” and in need of protection. However, predatory boys were only part of the picture. These white, Christian women were also
very concerned with their daughters being corrupted by sexually promiscuous youth (i.e. African American and Hispanic youth). Fields found that working class white schools were significantly more likely to adopt the abstinence only education models.

Despite the belief that abstinence will effectively reduce the risk for groups of teens who need “protection,” abstinence only education programs are not effective at encouraging abstinence from sex. However, they are correlated with a decrease in sexual health knowledge that would encourage protective behaviors among sexually active youth. A meta-analysis of abstinence only education programs found that abstinence only curricula had no observable effect on teenage sexual behavior (Kirby 2007; Kirby 2008), and abstinence only education did not reduce teenage sexual activity (Trenholm et al. 2008). However, abstinence only education did reduce access to information about contraception and STIs (Trenholm et al. 2008). Adolescents who were enrolled in an abstinence only education program were significantly less likely to have accurate knowledge about STI transmission and contraceptive use. In fact, adolescents in abstinence only education programs were more likely to believe that contraceptives were less effective than they actually are (Trenholm et al. 2008). Therefore, youth who are not given accurate information about STI transmission and contraception effectiveness are potentially at a greater risk of negative sexual health outcomes since they do not have a working knowledge of sexual health topics.

Fields (2008) found that only elite, white schools implemented a model of sex education that has not been previously found or debated in public schools. Fields terms this new sex education program, a “liberationist model.” The liberationist model of sex education emphasizes the sex positive aspects of sex that are traditionally lacking from the comprehensive and abstinence only sex education programs, i.e. the only type of sexual education that can provide
quality information for young adults about sexual health. Therefore, we can see these class and racial differences at play. Only elite white youth are exposed to a truly comprehensive approach to sex education. In contrast, lower SES white and minority students are exposed to sex education programs that attempt to limit their sexuality. Therefore, sexual education that non-privileged youth receive is “far from just the facts; rather it is an education in the maintenance of inequality” (Connell and Elliott 2009: 83).

2.1.3 Outcomes

Sex education has been widely debated since the sexual revolution of the 1960s (Irvine 2002; Luker 2006). Both sexual liberals and sexual conservatives argue over the assumption that sex education programs have effects on teenage sexual behavior. Sexual conservatives believe that comprehensive sex education encourages adolescents to be sexually active while sexual liberals see sex education as a way to encourage safe sex among adolescents.

Opponents and proponents of sex education programs in the United States are both right and wrong when it comes to the effects of sex education on youth sexual behavior (Luker 2006; Sabia 2006). Opponents of sex education, sexual conservatives, are correct in assuming that sex education can be associated with negative sexual behaviors, but as Sabia (2006) notes, they are incorrect in the fact that this is a causal relationship. There is no evidence that sex education programs directly cause youth to engage in more risky sexual health behaviors (Kirby 2007). In fact, the reverse may actually be true. Youth who are perceived to be more “at risk” of unintended pregnancy and STIs are more likely to have a sex education program implemented at their school, and there is evidence of this link. As mentioned previously, Fields’ (2008) study found that comprehensive sex education programs were more likely to be instituted at schools that had a high proportion of lower SES and minority students who are seen as more “at risk” of
negative sexual health outcomes. Therefore, opponents are correct in arguing that there is a link between sex education and sexual behaviors, but they have it backwards. Sex education does not cause risky behaviors, the stereotype that African Americans and Hispanics as more sexual makes schools more likely to implement sex education programs in minority schools.

In fact, some studies indicate that sexual liberals are correct in assuming that comprehensive sex education can encourage protective behaviors among youth. In a meta-analysis of comprehensive sex education programs, Kirby (2007) found that two-thirds of comprehensive programs had measurable effects on delaying an adolescent’s sexual debut, reducing the number of sexual partners, and increasing contraceptive use. There is also evidence in other studies that teenage pregnancy rates can be reduced through comprehensive sex education programs (Kohler et al. 2008). However, other policy analysis studies of comprehensive sex education have found no association between delaying sexual debut, increased contraceptive use, or a reduction in teenage pregnancy rates (Sabia 2006). Therefore, the literature on the role of formal sexual education programs is mixed and warrants further investigation.

2.2 Parents

Foucault (1990) argued that family is the main source of sexuality. Parents often believe they are the ones primarily responsible for educating their children about sex (Luker 2006). Many debates about the role of schools in discussing sexual topics with children and teens is fueled in part by the fact that parents believe that they should be the ones to control what their children learn about sex (Luker 2006; Elliott 2010). While parents feel that they should be the primary communicators of sexual information, this does not mean that parents are always effective or positive sources of sexual communication for their children.
2.2.1 Parent-Teen Communication

Today’s youth are looking more and more to parents to provide information on how to deter risky behaviors (Cook, Buehler, and Henson 2009). However, parents, like formal sexual education programs, often present sex as a risk—especially for daughters. This prohibitive approach to sexual education by parents is consistent across races and ethnicities. Hispanic parents, when discussing sex with their daughters, are more likely to discuss relationships and values as opposed to information about birth control and STI prevention (Rafaelli and Green 2003). African American mothers are also more likely to discourage sexual activity in daughters and disapprove of their daughters carrying condoms (Levin and Robinson 2002).

Previous literature notes that parents of sons are more likely to discuss safe sex and condom use (DiIorio et al. 1999; Fasula, Miller, and Wiener 2007). However, these samples do not separate men into separate racial categories. When a study includes racial differences in parental sexual education for young men, we find that young men of color do not receive the same quality information that reinforces protection. In a study by Epstein and Ward (2008), black and Hispanic men were more likely to recall “more parental input regarding male sexual stereotypes and regarding abstinence” (p.120). A sample of young black men in Canada also reported a similar trend in which they said their parents told them to “not get a girl pregnant,” but neglected to mention birth control methods that would prevent unintended pregnancy (Davis et al. 2013). Therefore, similar to all young women, young men of color are less likely to get quality information from parents regarding protective behaviors such as birth control and condom use.

Parent-child communication about sex can influence a young adult’s timing of his or her sexual debut (Fisher 1989; Davis and Friel 2001; Fasula and Miller 2006; Pearson, Mueller, and
Frisco 2006; Bersamin et al. 2008; Parkes et al. 2011). However, the contents of the conversations parents have with their children about sex may influence whether children delay sexual intercourse or not. A classic study by Moore, Peterson, & Furstenberg (1986) found the relationship between parent-teen communication and sex outcomes is a result of basic parental attitudes. Subsequent literature suggests that the positive or negative sexual health outcomes experienced by teens appears to be dependent upon the parents’ views regarding engaging in sex, timing of sexual debut, and contraceptive use. Parents who have a strict viewpoint against adolescents engaging in premarital or unprotected sex are more likely to have children who do not engage in sexual intercourse at an early age (Miller, Benson, and Gailbraith 2001). In one study, Manning, Longmore, and Giordano (2007) found that if parents told their children that they should wait until they were 18 years of age to engage in vaginal intercourse, then the children were more likely to wait until 18 years of age or later to engage in sex. A parent emphasizing delayed sexual activity seems to have a long-lasting impact in young adults. In a study by Bersamin and colleagues (2008), the researchers found that adolescents whose families had strict views against premarital sex were less likely to engage in sexual intercourse at subsequent waves of a study. Additional research has found that youth are more likely to have a later sexual debut if their parents discussed certain sexual topics with them such as how to say no to sex and how to use contraception (Karofsky, Zeng, and Kosorok 2001; Aspy et al. 2007).

If parents hold more approving views of sex, the literature suggests that children of these parents are more likely to initiate sex at a younger age. Davis and Friel (2001) found that mothers who talk to their children about sex more often are more likely to have an earlier sexual debut. Adolescent girls were 6% more likely to have an earlier sexual debut, while males were 11% more likely to engage in sex at an earlier age if their parents had more approving attitudes.
towards sex (Davis and Friel 2001). Additional research has also found parents who reported discussing risks of engaging in sexual activity with their adolescents were more likely to have teens who engaged in sex at a younger age (Deptula, Henry, and Schoeny 2010; Parkes et al. 2011). Pearson, Muller, and Frisco (2006) also found an association for whites, Hispanics and female adolescents who discussed sex more often with their parents were more likely to initiate sex. A possible explanation is that strong parent-adolescent relationships may place a higher importance on parental beliefs, which can either deter an adolescent from engaging in sexual intercourse at an early age or encourage it (Pearson, Muller, and Frisco 2006). An alternate explanation is adolescents who are considering sexual initiation are more likely to discuss sex with their parents, or parents may sense their adolescents are close to sexual debut and discuss sex with their teens (Davis and Friel 2001; Pearson, Muller, and Frisco 2006).

Research on parental communication about condoms with their children suggests a more positive association with condom use. If parents discussed STIs and contraception with their teens, then their teens were more likely to use contraception if they were sexually active (Aspy et al. 2007; Gillmore et al. 2011). In a study of young men, if the young men reported a high level of ability to discuss sex with their parents, then they are more likely to use condoms (Halperon-Feisher et al. 2004). This ability to feel comfortable discussing sexual health topics with parents is contingent upon parent-child closeness for young African American men. Higher levels of parent-child closeness are associated with higher levels of condom use self-efficacy, fewer sexual partners, and less unprotected sex (Harris, Sutherland, and Hutchinson 2013). Young African American men who had higher levels of parent-child communication were less likely to engage in risky sexual behaviors, use condoms with more consistency, and were more likely to express intentions of using condoms in the future (Harris, Sutherland, and Hutchinson 2013).
A similar pattern exists for young women of color. In a sample of “inner city girls,” if mothers and daughters had a high level of communication about sex, then the young women in the study were less likely to have unprotected sex. However, this association between communication and contraceptive use was mediated by the young woman’s perceived level of condom self-efficacy (Hutchison et al. 2003). In a study of young Hispanic women, if parents discussed at least one sexual topic with their daughters, then daughters were more likely to use condoms (Rojas-Guyler and King 2007). However, as noted earlier, Hispanic women also have a high degree of self-silencing behavior that may make it more difficult for them to discuss or use condoms with a partner.

2.2.2 Gendered Messages

While there is an association in the literature between communication and contraceptive use, it is unclear what type of messages parents are conveying to their children about sex that leads to contraceptive use. The literature also suggests that the content of communication about sex varies by gender. Parents also reinforce the sexual double standard for men and women in their discussions about sex with their children. Parents are more likely to discuss sex with their daughters than their sons (Gillmore et al. 2011); however, when educating young women about sex, parents are more likely to take a “prohibitive” approach to sex education (Fasula, Miller and Wiener 2007). Young women are often taught about the negative aspects of sex and encouraged to delay sexual activity (DiIorio et al. 2007). In addition to discouraging sexual activity in daughters, parents also discourage protective behaviors that may prevent STI transmission and unintended pregnancy such as condom use. In one study, only half of parents of daughters approved of their daughters using condoms (almost sixty percent approved of the hormonal birth control pill) (Hartman et al. 2013). For racial and ethnic minorities, mothers were less likely to
approve of their daughters carrying condoms than their sons, even if the mother believed that her daughter was sexually active (Levin and Robertson 2002).

Fathers of daughters are likely to also reinforce the sexual double standard and the script that young men are aggressive, and their daughters are helpless, passive human beings (Elliott 2010). Unlike their sons, fathers do not think their daughters have any sexual agency and believe that they can easily be persuaded by others (Wilson, Dalberth, and Koo 2010). Therefore, fathers believe that they must be their daughters’ “protectors” when it comes to sex (Elliott 2010; Solebello and Elliott 2011) and this is particularly pronounced with Hispanic fathers (Wilson, Dalberth, and Koo 2010).

Despite the reinforcement of the sexual double standard, father involvement does encourage sexual agency in daughters and serves as a protective factor against sexual health risks (Ellis et al. 2003; Katz and Van der Kloet 2010; Wright, Randall, and Arroyo 2013). Increased paternal involvement is associated with less self-silencing, refusal of unwanted sexual advances, resistance to male dominance, and increased self-worth in daughters (Katz and Van der Kloet 2010). Involved fathers of daughters feel pressure to model positive male interactions to encourage self-efficacy, self-worth, and sexual agency in daughters. Conversely, daughters whose fathers are not involved in their lives, especially from a young age, are significantly more likely to be at risk for negative sexual health outcomes such as early sexual debut and unintended pregnancy (Ellis et al. 2003).

Unlike young women who are seen as vulnerable and passive, young men are seen as more sexual by their parents. Therefore, parents are more likely to approve of their sons sexual behaviors (Epstein and Ward 2008). Since parents are less restrictive on their sons’ sexual behavior, parents often take a “protective” (DiIorio et al. 2007) or “proactive” approach with
their sons when discussing sex (Fasula, Miller, and Wiener 2007). Parents are more likely to give their sons information about sexual health as opposed to the “just say no” approach that many young women receive. Most notably, research suggests that young men are more likely to be taught about condom use (DiIorio et al. 1999), which will protect them from unintended pregnancy and sexually transmitted infections.

Since young men are stereotyped as more sexually active, mothers are often hesitant to discuss sex with their sons (Aronowitz et al. 2007). Young men also perceive a sense of awkwardness around sexual communication with their mothers. Young men were more likely to rate their mothers’ communication abilities lower than young women. Therefore, fathers are more likely to talk to their sons about sex. Research shows that fathers will discuss sex with their sons at an earlier age than their daughters (Angera et al. 2008).

2.3 Summary and Hypotheses

Associations between race, ethnicity, gender and negative sexual health outcomes such as STIs, HIV, and unintended pregnancy are well documented by researchers and public health organizations. Public health scholars and organizations have also identified several protective behaviors that can reduce the risk of unintended pregnancy and STI transmission such as communicating with a partner about condom use, using condoms consistently, delaying sexual activity, and limiting the number of sexual partners. There are also racial, ethnic and gendered patterns observed with regards to protective behaviors. African Americans, Hispanics, and women are less likely to engage in these protective sexual behaviors than white men.

A growing body of literature points to the unequal sexual education American youth receive from formal and informal sources of sexual education as a possible explanation for these disparate outcomes. The literature suggests that American sexual education reinforces pre-
existing stereotypes about different groups of youth. Therefore, youth differentially receive information about sex based on their social location—the intersections of their race, gender, and social class. By not educating all American youth in the same way, sexual education reinforces existing racial, ethnic, and gender sexual health-based inequalities. While racial and gender inequalities in sexual health and sexual education have been documented, the link between social location, sexual education and protective sexual behaviors has yet to be examined. Could the information that young Americans receive about sexual health mediate the racial, ethnic, and gender differences in protective behaviors?

Taking together the findings of previous literature as well as the intersectional theoretical perspective, I will test the following hypotheses in this research. Hypothesis 1 is based on previous research (Fields 2008; Garcia 2009; Elliott 2014; Ella and Tokunaga 2015) that found racial and ethnic differences in sexual education. Hypothesis 1 states that based on the race/ethnicity and gender of the person, also known as the social location of the young person, they will receive differing information from formal sexual education and parental communication.

Hypothesis 2 is based on the previous research documented by the CDC (2014; 2015; 2016) in which initial raced and gendered patterns in protective sexual behaviors will be observed with African Americans, Hispanics, and women being less likely to engage in protective sexual behaviors. Furthermore, when socioeconomic status is taken into account, the raced and gendered effects are further pronounced by the addition of social class (Fields 2008; Elliott 2014). Therefore, hypothesis 2b states that when race and gender are interacted with social class, the observed effects will be more significant for minorities and women with regards to protective behaviors.
Hypothesis 3 incorporates the findings from the CDC (2014; 2015; 2016) and intersectional scholars (Fields 2008; Garcia 2009; Elliott 2014; Ella and Tokunaga 2015) and state that communication from formal sexual education and parental sources mediate the observed raced and gendered patterns for the following protective behaviors—condom communication, consistent condom use over a twelve month period, delayed sexual debut, and limiting the number of sexual partners.

The final hypothesis, hypothesis 4, is based on the debates between parents and schools as the primary source of sexual education (Irvine 2002; Luker 2006). Since young adults have reported preferring their parents as sources of sexual education (Cook, Buehler and Henson 2009), hypothesis 4 states that parental communication variables will have a stronger association with protective behaviors than formal sex education.

3 METHODOLOGY

3.1 Data

To test these hypotheses, a cross-sectional analysis of the most recent wave of the National Survey of Family Growth (NSFG) from 2011-2013 will be used. The NSFG is conducted by the National Center for Health Statistics (NCHS) (NSFG 2016). NSFG is jointly designed and funded by the National Center for Health Statistics (NCHS) and several other affiliates of the U.S. Department of Health and Human Services (Copen, Chandra, and Febo-Vazquez 2016). The NSFG is a national complex probability sample of approximately 4,185 men and 5,601 women, ages 15-44 living in households in the United States (NSFG 2016). People living on military bases or in institutions were not included in the sample (Daugherty and Copen 2016).
The NSFG collects information about “family life, marriage and divorce, pregnancy, infertility, use of contraception, and men's and women's health” (NSFG 2016). The primary purpose for the NSFG is for the United States Department of Health and Human Services to use information obtained from the survey to aid in the creation of public health services and educational programs. The NSFG uses in-person interviews to gather survey information. For the most recent wave, in-person interviews were conducted between September 2011 and September 2014, and the data was released in December of 2014. The overall response rate for the 2011-2013 wave of the NSFG was approximately 73%. The response rate for women was 73.4%, and the response rate for men was 72.1% (Copen, Chandra, and Febo-Vazquez 2016).

3.2 Sample

The sample for the current study will be limited to young men and women ages 15-24. By limiting the sample to this age range, the study can approximate the sexual experiences of young Americans today. Additionally, the sample for chapters 4, 6, and 8 will include both sexually active and non-sexually active young adults ages 15-24. For chapters 5 and 7 the sample will be limited to sexually active young adults since some of the protective factors examined, such questions about condom use and age at sexual debut, are only asked of sexually active people since only youths who engage in intercourse would have the opportunity to perform these behaviors. The sample is also restricted to those who have engaged in vaginal intercourse. The NSFG, when asking about intercourse, defines “intercourse” as vaginal intercourse. Finally, the sample will be limited to white, African American, and Hispanic youth. 77 cases were excluded because their race was listed as “other race,” and the racial/ethnic group to which they belonged could not be ascertained. After deleting additional cases that are missing on the dependent
variables of interest, the sample for the current study is 3,584 young men and women in the full sample.\textsuperscript{1} The racial, ethnic and gender composition of the sample is shown in Table 3-1.

**Table 3-1 Sample Demographics**

<table>
<thead>
<tr>
<th>Race</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Hispanic White</td>
<td>1,679 (46.8%)</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>1,063 (29.7%)</td>
<td></td>
</tr>
<tr>
<td>Non-Hispanic Black</td>
<td>842 (23.5%)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Men</td>
<td>1,748 (48.8%)</td>
<td></td>
</tr>
<tr>
<td>Women</td>
<td>1,836 (51.2%)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race and Gender</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>White Men</td>
<td>829 (23.1%)</td>
<td></td>
</tr>
<tr>
<td>White Women</td>
<td>850 (23.7%)</td>
<td></td>
</tr>
<tr>
<td>Hispanic Men</td>
<td>521 (14.5%)</td>
<td></td>
</tr>
<tr>
<td>Hispanic Women</td>
<td>542 (15.1%)</td>
<td></td>
</tr>
<tr>
<td>Black Men</td>
<td>398 (11.1%)</td>
<td></td>
</tr>
<tr>
<td>Black Women</td>
<td>444 (12.4%)</td>
<td></td>
</tr>
</tbody>
</table>

### 3.3 Measures

#### 3.3.1 Dependent variables

For the chapter on parental communication and formal sexual education by race and gender), there are 6 measures of parental communication, 7 measures of formal sexual education, and 2 dependent variable scales that are comprised of the parental communication and formal sexual education variables. The first 6 dependent variables on parental communication and the subsequent scale is a measure of parental communication about sexual topics with their children. In the NSFG survey, respondents were asked a set of questions about whether or not their parents communicated information about 6 different sexual health topics: how to say no to sex, methods of birth control, where to get birth control, STIs, HIV prevention, and condoms. Respondents indicated through yes or no responses whether they discussed each of these 6 topics with their parents. This first set of questions regarding parental communication about sex aim to measure

\textsuperscript{1} For control variables, I used mean substitution for missing cases.
the proportion with which parents discuss each topic with their child. These questions also provide information about the types of messages parents provide to their children about sexual health. Questions such as “how to say no to sex” indicate more of a prohibitive viewpoint of sex (Fasula, Miller, and Wiener 2007) while providing information on birth control, STIs, HIV prevention, and condoms indicate a more proactive or permissive approach to sexual education by the respondents’ parents (DiLorio et al. 2007; Fasula, Miller, and Wiener 2007). While these measures can indicate the volume and type of information communicated to young people by their parents, the NSFG survey does not ask which parent was the primary communicator of sexual health information to their children.

The second 7 dependent variables and the subsequent formal sexual education scale is a measure of 7 different sexual health topics discussed in formal sexual education courses. Formal sexual education includes schools, community centers, and places of worship as sources of formal sexual education. In the NSFG survey, respondents are asked a series of questions about whether or not 7 different topics were covered in a formal sexual education course: how to say no to sex, methods of birth control, where to get birth control, STIs, HIV prevention, condoms, abstinence (not asked regarding parent communication). Respondents answered “yes or no” to each of these 7 questions. These 7 questions measure the frequency with each sexual health topic is covered in a formal sexual education course. These measures will allow me to test whether the critical sexual education topics identified by the CDC are covered in the respondents’ sexual education courses (CDC 2016a).

Additionally, the formal sexual education questions will also indicate what type of information is communicated to young people in a formal sexual education course. The formal sexual education measures will allow me to quantitatively test the qualitative work of
intersectional feminist scholars Jessica Fields (2008), Lorena Garcia (2009), and Sinikka Elliott (2010) which argues that different types of information about sex is given to different groups of young people. Topics such as “how to say no to sex,” abstinence, and no formal sexual education indicate a more prohibitive, risky view of sex in formal sexual education courses. Topics such as birth control, STIs, HIV prevention, and condoms indicate a more proactive—possibly stereotypically permissive view of sex according to the intersectional feminist scholars—about sex and sexual health. Table 3-2 shows the distribution of sexual health communication from parents and formal sources of sexual education.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Parents</th>
<th>Formal</th>
</tr>
</thead>
<tbody>
<tr>
<td>How to say no to sex</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussed</td>
<td>1803 (50.3%)</td>
<td>2886 (80.5%)</td>
</tr>
<tr>
<td>Did not discuss</td>
<td>1781 (49.7%)</td>
<td>698 (19.5%)</td>
</tr>
<tr>
<td>Methods of birth control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussed</td>
<td>1618 (45.1%)</td>
<td>2325 (64.9%)</td>
</tr>
<tr>
<td>Did not discuss</td>
<td>1966 (54.9%)</td>
<td>1259 (35.1%)</td>
</tr>
<tr>
<td>Where to get birth control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussed</td>
<td>1219 (34%)</td>
<td>1817 (50.7%)</td>
</tr>
<tr>
<td>Did not discuss</td>
<td>2365 (66%)</td>
<td>1767 (49.3%)</td>
</tr>
<tr>
<td>STIs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussed</td>
<td>1905 (53.2%)</td>
<td>3271 (91.3%)</td>
</tr>
<tr>
<td>Did not discuss</td>
<td>1679 (46.8%)</td>
<td>313 (8.7%)</td>
</tr>
<tr>
<td>HIV</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussed</td>
<td>1557 (43.4%)</td>
<td>3075 (85.58%)</td>
</tr>
<tr>
<td>Did not discuss</td>
<td>2027 (56.6%)</td>
<td>509 (14.2%)</td>
</tr>
<tr>
<td>Condoms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussed</td>
<td>1539 (42.9%)</td>
<td>2167 (60.5%)</td>
</tr>
<tr>
<td>Did not discuss</td>
<td>2045 (57.1%)</td>
<td>1417 (39.5%)</td>
</tr>
<tr>
<td>Abstinence</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discussed</td>
<td></td>
<td>2621 (73.1%)</td>
</tr>
<tr>
<td>Did not discuss</td>
<td></td>
<td>963 (26.9%)</td>
</tr>
<tr>
<td>Scale</td>
<td>α=.82 (Range= 0-6)</td>
<td>α=.75 (Range= 0-7)</td>
</tr>
</tbody>
</table>

For the chapters on protective sexual health behaviors, the dependent variables are the protective behaviors. Table 3-3 shows the distributions for each of the protective behaviors.
Table 3-3 Protective Behaviors Distributions

<table>
<thead>
<tr>
<th>Protective Behaviors</th>
<th>Frequencies</th>
<th>Mean (SD)</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Self-silencing behavior</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-silences</td>
<td>1311 (36.6%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does not self-silence</td>
<td>2273 (63.4%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Consistent condom use</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not at all</td>
<td>481 (22%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some of the time</td>
<td>369 (16.9%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>About half of the time</td>
<td>176 (8.1%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Most of the time</td>
<td>468 (21.4%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Every time</td>
<td>691 (31.6%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age at sexual debut</strong></td>
<td>15.75 (2.2)</td>
<td>8-24</td>
<td></td>
</tr>
<tr>
<td><strong>Number of lifetime sexual partners</strong></td>
<td>3.46 (6.73)</td>
<td>0-50</td>
<td></td>
</tr>
</tbody>
</table>

For the chapter on self-silencing behavior, the dependent variable is a measure of self-silencing behavior. Self-silencing behavior, for the purposes of this analysis, is defined as a person’s reluctance to discuss condom use with his or her partner despite a desire to use condoms during sex. This hesitancy to discuss condom use stems from a person’s low levels of self-efficacy where he or she believes that he will be unsuccessful in convincing his partner to use a condom (Casey et al. 2009). In the NSFG survey, respondents are asked what the likelihood would be that they would be embarrassed to discuss condom use with a new partner. Respondents can choose from the following options: no chance, a little chance, a 50-50 chance, a pretty good chance, and an almost certain chance. I dichotomize the variable where the categories are “no chance of embarrassment” and “a chance of embarrassment.” “A chance of embarrassment” is an indicator of lower levels of self-efficacy and higher levels of self-silencing behavior while “no chance of embarrassment” indicates higher levels of self-efficacy and lower levels of self-silencing behavior. No chance of embarrassment serves as the reference category.

For the consistent condom use chapter, the dependent variable is a measure of consistent condom use by young adults over a 12 month period. In the NSFG, respondents are asked how often they used condoms with their sexual partner(s). Respondents can choose from the
following responses: every time, most of the time, about half of the time, some of the time, and not at all. In the survey, lower values indicate more consistent condom use. I will recode the variable so that higher values indicate more consistent condom use. The variable ranges from 1—“none of the time” to 5—“every time.”

For the chapter on sexual debut, the dependent variable is a measure of the age at which a young person engages in heterosexual, vaginal intercourse for the first time—also known as sexual debut. In the NSFG survey, respondents are asked the age in which they first had voluntary heterosexual vaginal intercourse. The respondents provide their age in years, and the NSFG reports the respondent’s age as a continuous measure. The range is 15-24 years for this sample. This measure will allow me to identify which young people have an early sexual debut, and thus, are more likely to be at risk for unintended pregnancy, STIs, and HIV.

For the number of lifetime sexual partners chapter, the dependent variable is a measure of the number of sexual partners the respondent has had over the course of his or her lifetime. Like consistent condom use and delaying sexual debut, public health organizations such as the CDC and WHO encourage young people to limit the number of sexual partners. A higher number of sexual partners has been linked by the CDC to an increase in risk for unintended pregnancy, STIs, and HIV. The NSFG survey asks respondents the number of opposite sex sexual partners he or she has had in his or her lifetime. Respondents indicate how many heterosexual sexual partners they have had in their lifetime\(^2\). The range for this sample is 0-50 (or more) sexual partners. This question is a measure of the number of lifetime opposite sex sexual partners respondents have had, and thus indicates the increased risk of negative sexual health outcomes that some respondents may have who have higher numbers of lifetime sexual partners.

\(^2\) Respondents can indicate 0-99 sexual partners
3.3.2 Independent variables

For the analysis, there are 3 independent variables. The first independent variable is a measure of the respondent’s social location. While social location can encompass a number of demographic factors of a person, for the purposes of this analysis, social location is defined as the intersection of the respondent’s race/ethnicity and gender as well as interaction terms that include the respondent’s total family income and maternal education. In the NSFG survey, respondents are asked four independent questions—one about his or her race/ethnicity, question about his or her gender, the total amount of family income earned per year, and the highest level of education for the respondent’s mother. For the parental communication and formal sexual education communication comparisons, I have combined race/ethnicity with gender to create six social locations: white men, white women, African American men, African American women, Hispanic men, and Hispanic women. For the chapters on self-silencing, consistent condom use, age at sexual debut, and number of sexual partners\(^3\), I look at the effects of the respondent’s race and gender as well as the interactions between the race and gender variables with the respondent’s total family income and another term that looks at the effects of race and gender when interacted with maternal education. These categories serve to approximate where young adults fall within Collins’ “matrix of domination,” and will allow me to test if the intersections of race, gender, and social class have effects on protective behaviors, as well as the formal sexual education and parental communication young adults receive. I also look at the effects of social location interacted with parental communication and formal sexual education. For the parental and formal sexual education comparisons, social location will be the only independent variables used in the analysis. For the protective behaviors chapters, social location will be the first set of independent variables used in the analysis. White men will serve as the reference category.

\(^3\) These chapters will be referred to as the “protective behaviors” chapters.
The second variable for the protective behaviors chapters are the parental communication measures that were used previously in the parental and formal sexual education comparisons as dependent measures. In the NSFG survey, respondents were asked a set of questions about whether or not their parents communicated information about 6 different sexual health topics: how to say no to sex, methods of birth control, where to get birth control, STIs, HIV prevention, and condoms. Respondents indicated through yes or no responses whether they discussed each of these topics with their parents. In chapters 5-8, these 6 topics are combined into a parental communication scale. The scale is internally consistent, and the Cronbach’s alpha for the parental communication scale is .82. The scale ranges from 0 to 6 topics mentioned.

Previous literature, especially the work of Sinikka Elliott (2010), argues that parents will not discuss all of these topics with their children because communication about sex is gendered and raced, and based on a person’s social location, he or she will receive different messages about sexual health. The type of information received affects protective sexual behaviors. The incorporation of the parental communication measures in these chapters will allow me to quantitatively test Elliott’s (2010) qualitative work on parental sex communication in order to determine if information young people receive from their parents influence the likelihood that they will engage in protective behaviors and to test if parental communication mediates any direct observed associations with social location and protective behaviors.

The third measure is formal sexual education that was also used as dependent variables in the parental and formal sexual education comparisons chapter. Similar to the literature on parental communication, previous literature (Luker 2006; Fields 2008; Garcia 2009) argues that formal sexual education is racist and sexist, and therefore, the information young adults receive from formal sexual education influences their sexual behaviors. In the NSFG survey, respondents
are asked a series of questions about whether or not 7 different topics were covered in a formal sexual education course: how to say no to sex, methods of birth control, where to get birth control, STIs, HIV prevention, condoms, and abstinence (not asked regarding parent communication). Respondents answered “yes or no” to each of these 7 questions. The 7 questions are combined into a formal sexual education scale in chapters 5-8. The formal sexual education scale is internally consistent with a Cronbach’s alpha of .75. The scale ranges from 0 to 7 topics mentioned.

The inclusion of the formal sexual education scale in the analysis will allow me to quantitatively test previous qualitative studies regarding the racist, sexist nature of formal sexual education and its association with protective sexual behaviors. By including formal sexual health topics, I can examine whether or not formal sexual will mediate a person’s social location for the 4 protective sexual health behaviors.

### 3.3.3 Control variables

The protective behaviors chapters include several controls in order to account for any spurious relationships. Table 3-4 shows the distributions of the control variables.

<table>
<thead>
<tr>
<th>Table 3-4 Control Variable Descriptives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Controls</strong></td>
</tr>
<tr>
<td>Income</td>
</tr>
<tr>
<td>Maternal Education</td>
</tr>
<tr>
<td>Fundamentalist</td>
</tr>
<tr>
<td>Religious</td>
</tr>
<tr>
<td>Religious Attendance</td>
</tr>
<tr>
<td>More than once/week</td>
</tr>
<tr>
<td>Once a week</td>
</tr>
<tr>
<td>2-3 times per month</td>
</tr>
<tr>
<td>3-11 times per year</td>
</tr>
<tr>
<td>Once or twice per year</td>
</tr>
<tr>
<td>Never</td>
</tr>
<tr>
<td>Marital Status</td>
</tr>
<tr>
<td>Ever-married</td>
</tr>
<tr>
<td>Never-married</td>
</tr>
<tr>
<td>Age</td>
</tr>
<tr>
<td>Years sexually active</td>
</tr>
</tbody>
</table>
The first control measure, income, serves as one indicator of the respondent’s socioeconomic status. Previous research (Fields 2008) has shown that socioeconomic status may also be tied to the type of sexual education youth receive, and socioeconomic status has also been tied to negative sexual health outcomes such as unintended pregnancy (Luker 1996; Edin and Kefalas 2005). The NSFG survey asks what the respondent’s family income was for the previous calendar year. The variable is recoded into continuous categories that start with $5,000 or less, and continue in $4,999 increments until $40,000. The categories continue in $9,999 increments until $60,000. The next two categories are in $14,999 increments until $100,000. The top category is $100,000 and above. Each category is given a value of 1-15 in the NSFG dataset. I will recode the variable to reflect the midpoint of each category of income so that it will represent actual dollar amounts. Since many young adults are reliant on their family for financial support in part or total, I believe family income is a better indicator of income for the present study and will allow me to control for the influence of socioeconomic status on protective sexual behaviors.

However, since the sample encompasses young adults ages 15-24, many in the sample may be currently enrolled in school. Using the respondent’s education as the only educational measure of social class may be misleading as many respondents in the sample are still enrolled in school and actively working towards high school, college, and post-baccalaureate degrees. Therefore, I am using mother’s highest level of education as an additional indicator of socioeconomic status. Highest level of education of the respondent’s father or father figure was not asked in the 2011-2013 NSFG survey. Mother’s highest level of education is presumably a more stable measure of education as most mothers are finished with their education. Mother’s education can also serve as an indicator of current, as well as childhood, socioeconomic status. In
order to measure mother’s education, I will use one question from the NSFG survey that asks respondents: “what is your mother’s or mother figure’s highest level of education?” Respondents can choose from the following categories: less than a high school degree, high school degree or GED, some college including an associate’s degree, bachelor’s degree, and master’s degree or higher. In order to reflect years of schooling, I will recode this measure so that it reflects actual years of education received.

Religion has also been associated with sexual education and sexual behavior in previous research (Irvine 2002; Rose 2005; Fields 2008; Bleakley, Hennessy, and Fishbein 2010; Chappell, Maggard, and Gibson 2010). Religion has also been tied to a more conservative political agenda; however, the process of religiosity on conservative ideologies varies by race and ethnicity, and race often mediates the effects of religion on conservative ideology (Cohen et al. 2009). Therefore, I control for religion in order to examine the effects of social location, sexual education, and engaging in protective behaviors above and beyond religion. Religion is a complex concept, so I will use three different measures for religion—attendance, religiosity, and denomination—to control for religious influence. The first measure is religious attendance. I chose to use religious attendance at 14 because I believe attendance at this age will be more influential on the education the respondents did or did not receive as adolescents. In the NSFG survey, respondents are asked how frequently they attended religious services at age 14. Respondents can choose from the following categories: more than once a week, once a week, 2-3 times a month, once a month, 3-11 times per year, once or twice a year, or never. Currently, lower values indicate more religious service attendance in the NSFG. I will recode religious attendance so that higher values indicate more religious service attendance at age 14. No church
attendance will be coded as 1 and more than once a week will be coded as 7. Higher levels of religious attendance indicate higher levels of religious influence on young adults.

The second religious measure I will use in the study is level of religiosity. Religiosity is an important indicator of how much influence religion has on a young person and can affect his or her values, norms, and behaviors. In the NSFG survey, respondents are asked how important religion is in their daily life. This measures the respondent’s current level of religiosity. No question was asked about importance of religion during the respondent’s adolescence. The respondent can choose from very important, somewhat important, and not very important. I made a dichotomous variable that indicates if a respondent has a moderate to high level of religiosity or not. If a respondent indicates that religion is very important in his or her daily life, then that serves as an indicator that religion may have more of an influence on that young person’s values, norms, and most importantly, sexual behaviors. Low to no religiosity serves as the reference category.

The final religious measure is religious denomination. The religion in which the young adult was raised (if any at all) can indoctrinate young adults into having a very negative, prohibitive view of sex and sexuality (Barton 2012). I chose to examine the religion in which the respondent was raised as I believe this may have an impact on the education the respondents received from parents and formal sources. In the NSFG survey, respondents are asked in which religion where they raised. Several Christian denominations, other religion, and no religion are given as choices. I will run models with that look at whether a young adult belongs to a Fundamentalist religion. Not belonging to a Fundamentalist religion will serve as the default category.
Marital status is a control that will be used in the protective behaviors chapters. While the majority of respondents in the sample have never been married, marital status of the respondent could potentially affect protective behaviors such as self-silencing behaviors and condom use. In the NSFG survey, respondents are asked their current legal marital status. Respondents can choose from married, widowed, divorced, separated and never married. I will dichotomize the variable into “never married” and “ever-married” to indicate the influence of marriage on protective behaviors. Ever married will serve as the reference category.

The final control variable for the self-silencing, consistent condom communication, and number of sexual partners chapters is the respondent’s age. Controlling for the age of the respondent ensure that any observed results will not be due to effects from maturity or experience. The NSFG asks respondents their age in years.

In addition to these controls, I will use dependent variables from other chapters as controls in specific chapters if there is a previously noted link within the literature. For the chapter on consistent condom use, I will use self-silencing behavior as a control. Previous research indicates that self-silencing behavior is associated with reduced condom use, especially for women. I want to include this variable as a control since it may affect other protective behaviors, and I want to examine the effects of race and gender on consistent condom use above and beyond self-silencing. The variable will be operationalized as it is in the self-silencing chapter as a dichotomous measure that indicates whether or not there is at least some chance the respondent may self-silence with regards to condom use. No self-silencing will serve as the reference category.

In the chapter where I test the associations between social location, parental communication, formal sexual education, and number of sexual partners, I will use the length of
time that the respondent has been sexually active as a control. Research by Wight, Williamson, and Henderson (2006) found a link between early sexual debut and an increase in the number of sexual partners. I believe including the length of time that the respondent has been sexually active as a control in this chapter is important to ensure that any observed relationships with number of sexual partners are due to the associations with parental communication and formal sexual education and not just simply a by-product of how long a person has been sexually active. Therefore, the inclusion of this variable allows me to test the associations between social location and the number of lifetime sexual partners above and beyond the length of time that a young person has been sexually active.

3.4 Plan of Analysis

3.4.1 Chapter 4—Parental Communication, Formal Sexual Education, and Protective Behaviors Descriptives and T-tests

This chapter addresses 3 important research questions. First, the chapter will examine how much information is given to young adults regarding sex. To answer this question, the chapter will begin with descriptive statistics for all of the variables included in all of the chapters. The descriptive statistics will show how much parents and formal sources of education inform students about sex. Secondly, this chapter will address not only the amount of sexual information is provided by parents and formal sources of sexual education, but also what type of information is conveyed to young adults. Previous research has focused on “approving” or “disapproving” attitudes towards sex (Davis and Friel 2001; Pearson, Mueller, and Frisco 2006; Bersamin et al. 2008) or “discussing sex and contraception” (Aspy et al. 2007; Gillmore et al. 2011), but what exactly are parents and formal sexual education courses telling young adults about sex and contraception? To address this question, the descriptive statistics in chapter four
will show the frequency with which different sexual topics are discussed by parents and formal sex education.

Finally, this chapter will address the question of does the sexual information discussed vary by the race and gender of the young adult, or is parent and formal sexual education uniform across all races and genders of youth? To answer this question, chapter 4 will also contain a series of independent samples t-tests that will measure whether or not each of the topics discussed by parents or formal sexual education programs vary significantly by race and gender. For each of the topics discussed, there will be values listed for each of the 6 social location variables that will show the average value for each topic discussed. Super-scripts \( a \) through \( o \) will denote if there is a significant difference between the averages of two social locations. Additionally, this chapter will test if significant differences in protective sexual health behaviors vary by race and gender.

3.4.2 Chapter 5—Logistic Regression of Self-Silencing Behavior on Social Location and Sexual Education

This chapter addresses the research question if parental and formal sexual education mediates the likelihood for young adults to engage in self-silencing behavior. Previous research has shown that if young adults have high levels of condom self-efficacy and discuss condom use with a partner, they are more likely to use condoms (Casey et al. 2009), especially for young Hispanic women (Deardorff et al. 2013). However, research has noted that condom communication is difficult for young women who have low levels of self-efficacy, and these women are more likely to self-silence and not discuss their desire to use condoms during sex (Panchaud et al. 2000; Widman et al. 2006). In particular, Hispanic women--because of a culture
of machismo—are linked with a higher likelihood of self-silencing behavior (Galanti 2003; Hutchison et al. 2003; Sable et al. 2009).

For this chapter, I conduct a series of logistic regressions to examine self-silencing behavior. I believe logistic regression is the best method to use since I am recoding the self-silencing variable into a dichotomous category that indicates whether the person has a tendency to self-silence or not. For the first model, I regressed self-silencing behavior on the social location variables without the control variables to examine the uncontrolled, direct relationships between race/ethnicity, gender, and self-silencing behavior. For the second model, I examine the direct relationship between race/ethnicity, gender, and self-silencing behavior with the control variables to ensure that any racial, ethnic and gendered patterns with self-silencing behavior are due to the social location variables and not extraneous factors.

For the third model, I incorporate the research on parental communication and its relationship with self-efficacy and self-silencing behavior to see if parental communication about sex mediates any observed direct relationships between race/ethnicity, gender, and self-silencing behavior. I regress self-silencing behaviors on the social location and control variables as well as the parental discussion variables. Four the fourth model, I test if formal sexual education mediates any observed direct relationships between race/ethnicity, gender, and self-silencing behavior. I regress self-silencing behavior on the social location, control variables and the formal sexual education variables. Since a direct association with parental communication was found, I conduct additional regressions that look at the interactions between social location and parental communication. For the fifth model, I want to see if both parental communication and formal sexual education mediate any direct observed relationships with race/ethnicity, gender, and self-silencing behavior. Additionally, this model will also test if parental or formal sexual education
is a stronger mediator of self-silencing behavior. In the logistic regression, the fifth model will be
the full model that contains the social location, control variables, parental discussion variables
and the formal sexual education variables.

3.4.3 Chapter 6—OLS Regression of Consistent Condom Use on Social Location and Sexual
Education

This chapter investigates whether or not parental communication and formal sexual
education mediate the gendered and raced relationships observed in previous research with
regards to consistent condom use over a 12 month period. Previous research has noted that
women are less likely to use condoms than men (Martinez, Copen and Abma 2011). For women
who use condoms, African American women are more likely to use condoms than Hispanic and
white women (Welti, Wildsmith, and Manlove 2011). I want to investigate if the differential
rates of condom use between men and women as well as between African American, white, and
Hispanic women is due to racial, ethnic and gender differences, or is it due to the differential
education they receive based on their social location?

Patricia Hill Collins (2000) noted that controlling stereotypes exist for African American
women where they are presented as overly sexual beings. Previous research has documented that
formal sexual education reflects the belief that African American women are more sexual (Luker
1996; Fields 2008), and due to the stereotypes, African American women are more likely to have
a “comprehensive” sexual education course that discusses condom use. Men are also seen as
“sexual” beings, and they are also more likely to receive condom education than women (DiLorio
et al. 2007; Fasula, Miller, and Wiener 2007; Epstein and Ward 2008). I want to investigate
whether sexual education from parents and formal sources mediate these observed rates of
increased condom use among men and African American women. Additionally, I want to test if
reduced rates for white and Hispanic women are due to a lack of sexual education. White and Hispanic women are seen as “pure” and “virginal” (Fields 2008; Valenti 2010) and are therefore more likely to receive abstinence education from formal sources and parents. I want to test if parental communication and formal sexual education can also mediate the observed patterns of reduced consistent condom use among these women.

To test these research questions, I run an OLS regression of consistent condom use on the social location and sexual education variables. I believe that a regression is the best statistical technique because the dependent variable—consistent condom use over a 12 month period—has five categories in which each category denotes an increase in condom use. For the first model, I conduct a regression of condom use on the social location variables. The first model will test if there are any direct racial, ethnic, or gendered associations with consistent condom use without controls. For the second model, I regress condom use on the social location and control variables to ensure that any observed racial, ethnic or gendered patterns in consistent condom use are not due to extraneous factors. This chapter includes all of the control variables from the self-silencing chapter. This chapter also includes the self-silencing variable since previous research has documented that women are more likely to self-silence (Panchaud et al. 2000; Widman et al. 2006) as well as less likely to use condoms (Martinez, Copen and Abma 2011).

For the third model, I test if any observed racial, ethnic or gendered patterns in consistent condom use is mediated by parental communication about sexual topics. I regress condom use on the social location and control variables as well as the 6 parental discussion variables. For the fourth model, I test whether formal sexual education mediates any observed racial, ethnic or gendered patterns in consistent condom use. I regress condom use on the social location, control

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I also ran an ordinal regression for consistent condom use. The test of parallel lines was significant, which indicates that an OLS regression would be a better statistical method for this chapter.
variables and the 7 formal sexual education variables. The fifth model is be the full model that contains the social location, control variables, parental discussion variables and the formal sexual education variables. The fifth model tests if both parental communication and formal sexual education have a mediating effect on the direct relationships between race, ethnicity, gender, and consistent condom use. Also, the fifth model tests whether parental communication or formal sexual education has a stronger effect on consistent condom use over a 12 month period.

3.4.4 Chapter 7—OLS Regression of Sexual Debut on Social Location and Sexual Education

This chapter tests whether the parental and formal sexual education variables mediate any observed relationships between race, ethnicity, gender and age at sexual debut. Previous research has noted that African American men and women, as well as Hispanic men, engage in vaginal intercourse at an earlier age than whites and Hispanic women (Cavazos Rehg et al. 2009). While the direct links between race, ethnicity and age at sexual debut are not mixed in the literature, the effects of formal sexual education and parental communication on age at sexual debut appear to be mixed. Previous research notes an association between parental communication and age at sexual debut. If parents discuss certain sexual topics such as contraceptive use, then their children are more likely to have a later sexual debut (Karkofsky, Zeng and Kosorok 2001; Aspy et al. 2007). However, other studies have found that if parents discuss sexual topics with their children, then their children are more likely to have an earlier sexual debut (Davis and Friel 2001; Deptula, Henry, and Schoeny 2010; Parkes et al. 2011). Pearson, Muller, and Frisco (2006) also found an association for whites, Hispanics and female adolescents who discussed sex more often with their parents were more likely to initiate sex.
Formal sexual education also seems to have mixed results as to whether or not it is associated with young adults delaying their sexual debut. Kirby (2007) found that two-thirds of comprehensive programs had measurable effects on delaying an adolescent’s sexual debut, reducing the number of sexual partners, and increasing contraceptive use. However, a policy analysis of sexual education programs by Sabia (2006) found no association between protective sexual behaviors and formal sexual education.

To test the effects of race, ethnicity, gender, formal sexual education and parental communication on delaying sexual debut, I conduct an OLS regression of age at sexual debut on the social location and sexual education variables. I believe that a regression is the best statistical technique because the dependent variable—age at sexual debut—is a continuous variable. For the first model, I conduct a regression of age at sexual debut on the social location variables without controls in the first model to see if any racial, ethnic, or gendered associations with age at sexual debut exist. For the second model, I regress age at sexual debut on the social location and control variables to make sure any observed associations with race, ethnicity, gender, and sexual debut are not due to spurious factors.

For the third model, I regress age at sexual debut on the social location and control variables as well as the parental discussion variables. This allows me to test whether parental discussion of sexual topics mediates any observed direct relationships between race, ethnicity, gender, and sexual debut. Additionally, incorporating the parental communication variables into the third model allows me to examine whether parental communication encourages or discourages early sexual debut. For the fourth model, I regress age at sexual debut on the social location, control variables and the formal sexual education variables. This allows me to test whether formal sexual education mediates any observed direct relationships between race,
ethnicity, gender, and sexual debut. Additionally, incorporating the formal sexual education variables into the fourth model tests whether formal sexual education encourages or discourages early sexual debut. The fifth model will be the full model that contains the social location, control variables, parental discussion variables and the formal sexual education variables. The fifth model examines whether parental communication and formal sex education mediate any direct observed relationships between race, ethnicity, gender, and sexual debut. The fifth model also tests if formal sexual education or parental communication has a stronger association with sexual debut. The full model also tests whether formal sexual education and parental communication have a positive or negative effect on delaying sexual debut.

3.4.5 Chapter 8—OLS Regression of Number of Lifetime Sexual Partners on Social Location and Sexual Education

This chapter tests whether formal sexual education and parental communication mediate racial, ethnic, and gender associations with the number of lifetime sexual partners. Previous research has noted that African American men and women, as well as Hispanic men, have higher numbers of lifetime sexual partners than whites and Hispanic women (Santelli et al. 1998; Howard and Wang 2004). A separate line of research has noted links with parental communication and number of sexual partners. A previous study has noted that parental involvement and discussion of sexual topics with young men is associated with a reduction in the number of sexual partners (Harris, Sutherland, and Hutchison 2013). For young women, parental involvement—especially father-daughter involvement—is associated with positive sexual health outcomes for young women (Ellis et al. 2003; Katz and Van der Kloet 2010; Wright, Randall and Arroyo 2013). However, analyses of sexual education and its ability to reduce the number of
sexual partners in young adults appear to be mixed as to whether formal sexual education is effective at reducing the number of sexual partners for young adults (Sabia 2006; Kirby 2007).

In this chapter, I combine these two lines of research to test whether formal sexual education and parental communication mediates the previously observed direct racial, ethnic, and gendered patterns in number of sexual partners. For chapter 8, I will run an OLS regression of number of sexual partners on the social location and sexual education variables. I believe that an OLS regression is the best statistical technique because the dependent variable—number of lifetime sexual partners—is a continuous variable. For the first model, I conducted an OLS regression of number of sexual partners on the social location variables. This allowed me to test whether any direct racial, ethnic or gendered relationships with number of sexual partners exist without controls. For the second model, I regress age at number of lifetime sexual partners on the social location and control variables to examine whether any observed relationships between the social location variables and number of sexual partners are due to extraneous factors. I added one additional control variable, time since sexual debut, as a control where I looked at how long the respondent has been sexually active. A previous study by Wight, Williamson, and Henderson (2006) noted an association between age at sexual debut and number of sexual partners. Therefore, I want to include this variable to ensure that any mediating effects are due to the independent variables—formal sexual education and parental communication—and not due to the extraneous factor of the length of time the respondent has been sexually active.

For the third model, I regress the number of sexual partners on the social location and control variables as well as the parental discussion variables. This allows me to test whether parental discussion of sexual topics mediates any observed direct relationships between race, ethnicity, gender, and number of sexual partners. For the fourth model, I regress number of
sexual partners on the social location, control variables and the formal sexual education variables. This tests whether formal sexual education mediates any observed direct relationships between race, ethnicity, gender, and number of sexual partners. The fourth model also tests whether formal sexual education has any measurable impact on reducing the number of sexual partners. The fifth model will be the full model that contains the social location, control variables, parental discussion variables and the formal sexual education variables. The fifth model examines whether parental discussion or formal sexual education mediates any direct relationships between race, ethnicity, gender, and number of sexual partners. The fifth model also examines whether parental communication or formal sexual education has a greater association with number of sexual partners. The full model also tests whether formal sexual education and parental communication have a positive or negative effect on the number of sexual partners.

3.5 Conclusion

The study has a number of goals. First and foremost, the study aims to show that racial and gendered patterns observed with regards protective sexual behaviors such as condom communication, consistent condom use, delaying sexual debut, and reducing the number of sexual partners are not the result of inherent racial and gender differences amongst different groups of young adults. Intersectional feminist scholars such as Jessica Fields, Lorena Garcia, and Sinikka Elliott argue that parental communication and formal sexual education are raced and gendered, and information about sex is given out differentially to young adults based on their social location. In turn, the education a young person either does or does not receive based on his or her social location determines whether he or she is more or less likely to engage in protective sexual behaviors. Therefore, the second goal of the study is to quantitatively test these
intersectional feminist scholars’ assertions in order to see if information about sex varies from parents and formal sexual education sources based on the young person’s social location. Finally, the study aims to test if these messages can mediate the direct observations public health organizations such as the CDC have made that show a link between race, ethnicity, gender and protective sexual behaviors. The study aims to show that these racial and gendered associations with protective sexual behaviors previously observed is due to the type of information young people receive from their parents and formal education.

4 VARIATIONS IN PARENTAL COMMUNICATION AND FORMAL SEXUAL EDUCATION BY SOCIAL LOCATION

4.1 Introduction

This chapter addresses the research question if parental communication regarding sexual health as well as formal sexual education varies by the respondent’s race and gender. Previous research has focused on “approving” or “disapproving” attitudes towards sex (Davis and Friel 2001; Pearson, Mueller, and Frisco 2006; Bersamin et al. 2008) or “discussing sex and contraception” (Aspy et al. 2007; Gillmore et al. 2011). However, these studies are not explicit about the type of information parents and formal sexual education courses communicate to young adults about sex and contraception. Qualitative research that examines parental communication and formal sexual education has noted raced and gendered patterns in communication about sexual health (Fields 2008; Garcia 2009; Elliott 2010). In this chapter, I aim to quantitatively test these findings to see if messages about sex from parents and formal sexual education vary by race and gender. To address this question, I ran a series of t-tests to see if significant differences exist with regards to the type and proportion of parental communication and formal sexual education different groups of young adults receive.
Additionally, this chapter also addresses the debate of whether parents or formal sexual education programs are more likely to cover sexual health topics. Through another series of t-tests, I examine the proportion of young adults in each category to see how many young adults receive information from both parents and formal sources of sexual education, either source of sexual education, or do not receive sexual education on a specific sexual topic. Through the t-tests, I can examine for any significant differences between different groups of youth. These t-tests also allow me to examine whether parents or formal sexual education is more likely to cover various sexual health topics as well as identify certain groups who may not be receiving important sexual health information.

4.2 Analytic Strategy

For this chapter, I wanted to quantitatively test the qualitative findings of feminist scholars such as Jessica Fields, Lorena Garcia, and Sinikka Elliott who found raced and gendered patterns of communication from parents and formal sources of sexual education regarding sexuality and sexual health. In addition to examining these messages, this chapter also aims to identify the proportion of topics covered by parents and formal sources of sexual education. Luker (2006) and Ingraham (2002) have documented the debate between parents and formal sources of education about who is best able to educate young adults about sexual health. Through this analysis, I will examine the proportion of each topic covered by parents and formal sources to identify if there are significant differences between parents and formal sources in the amount of information communicated to different groups of young people. I will also test to see if there are significant differences with regards to race and gender in which sources communicate information to what groups. This analysis will allow me to identify if certain groups are not
receiving information from either source. Additionally, I will examine if there are race and gender differences in protective behavior outcomes.

For this analysis, I am including both sexually active and non-sexually active young adults ages 15 to 24. To investigate the research questions with this sample, I use a series of questions from the NSFG 2011-2013 that asks respondents to indicate whether the following sexual health topics were discussed by their parents or formal sources of sexual education such as schools, community centers, and churches. The following topics were asked of both parents and formal sources: how to say no to sex, methods of birth control, where to get birth control, STIs, HIV/AIDs, and condoms. Young adults were also asked if their formal sexual education programs discussed abstinence. I then create a parental communication scale as well as a formal sexual education scale to examine holistically the communication patterns between the six different groups of young adults. Using these questions and the scales, I conducted two separate series of t-tests that looked at differences between white men, white women, Hispanic men, Hispanic women, African American men, and African American women with regards to the different topics of sexual education. One series of t-tests examines whether significant differences exist with regards to each of the 6 parental communication topics as well as the parental communication scale. The second series of t-tests looks at the differences in sexual health information across the 7 formal sexual education topics and the formal sexual education scale. I also compare differences in communication from parents and peers through another series of t-tests to see the proportion of topics covered by both sources, either source, and neither source in order to identify gaps in communication for various groups. Finally, I look at the 4 protective behavior outcomes: self-silencing, consistent condom use, age at sexual debut, and
number of lifetime sexual partners to examine if significant differences exist among individuals from different racial and gender categories.

In this analysis, I will test the following hypotheses:

1. Women will receive more prohibitive messages about sex and sexual health from parents than men.
2. Men will receive more protective messages about sex and sexual health from both parents and formal sexual education than women.
3. White women will receive more prohibitive messages about sex from formal sources of education than minority women.
4. Minority men and women will receive more education about sex from formal sources of sexual education than white men and women.
5. Formal sources of sexual education will have higher proportions of topics covered than parents.
6. Protective behavior outcomes will vary by race and gender.

The first hypothesis aims to test previous research (DiIorio 1999; Fasula, Miller, and Wiener 2007) that found significant differences in the type of messages parents communicate to their children vary according to the gender of their child using a series of t-tests that look at communication patterns among parents. Previous research claims that parental communication about sex reinforces a sexual double standard in which young women are seen as having the ability to control their sexuality while young men are unable to control their sexual impulses and therefore should be educated about protecting themselves. This double standard can be seen through the type of communication young adults receive from parents. Young women are often given “prohibitive” messages about sex that discourage sexual activity while young men are
given “protective” messages about sex that encourage protective sexual health behaviors. Through the t-tests, I will look at each of the six topics mentioned by parents: how to say no to sex, methods of birth control, where to get birth control, STIs, HIV/AIDS, and condoms to see if any significant raced and gendered patterns emerge. According to the literature, I expect to find that women will be more likely to receive messages such as “how to say no to sex” that communicate a prohibitive viewpoint of sexual activity. Young men will be more likely to receive information on condoms, where to get birth control, STIs and HIV prevention that can contribute to more positive sexual health outcomes.

The second hypothesis is also based on this line of research in which the sexual double standard for men does not appear to vary by race. In addition to parents thinking that “boys will be boys” (Kimmel 2008), formal sources of sexual education will also make the assumption that young men are unable to control their sexual desires and should be educated about sexual health (Tannenbaum 2000; Valenti 2011). Using the parents t-tests as well as another series of t-tests looking at information from formal sources of sexual education, I expect to see significant associations between all races of men and formal sources of education communicating information on condoms, STIs, and HIV/AIDS prevention.

Unlike men, the assumption about women’s sexuality varies by race and gender. The third and fourth hypotheses aim to test the work of Jessica Fields (2008) and Lorena Garcia (2009) that argue that formal sexual education programs vary by race and are based on racist stereotypes about minorities, and in particular, minority women. According to Collins (2000) white women are seen as “pure” and “pious” while African American women are often sexualized in the public consciousness. Garcia (2009) extends this line of thought to Hispanic women and argues that Hispanic women are also stereotyped as hypersexual. Fields (2008)
found evidence for these assumptions when she looked at the implementation of sexual education programs where white women were often taught about abstinence in formal education settings. For the third hypothesis, I expect that white women will be more likely to be taught how to say no to sex and abstinence than men or women of color.

Fields also found that minority schools were more likely to get comprehensive sexual education programs. She argues that the implementation of comprehensive sexual education programs is done because of racist assumptions about minority youth. Similar to the assumptions about men being unable to control their sexuality, African American and Hispanic women are also seen as hypersexualized. Therefore, in an attempt to “save” these “at-risk” youth, schools implement these programs to educate young minority women (and men) about sex. I aim to test this work quantitatively with the fourth hypothesis, and I expect to find that African American men and women as well as Hispanic men and women will get more information about STIs, HIV/AIDS, condoms, and birth control than white men and women.

For the fifth hypothesis, I want to test if formal sources are more likely to communicate information about sex than parents. Despite young adults claiming that they prefer to discuss sexual health with their parents rather than formal sources of sexual education, parents often express feelings of reluctance to discuss sex with their children because they believe it will encourage their children to be sexually active. Parents have also acknowledged that they feel awkward in discussing sex with their children. Since the government has funded comprehensive sexual health programs in schools in recent years, I expect to find that schools will be more likely to discuss sexual health information with young adults than parents. I will examine this relationship looking at another series of independent samples t-tests that test for any significant
differences in sexual health communication from both sources of sexual education, either parents or formal sources, or from neither source of sexual health education.

For the final hypothesis, I want to test if differences in protective behavior outcomes exist between young adults from different racial and gender groups. The CDC (2015) has noted racial and gendered patterns in sexual health behavior. I test to see if these racial and gender patterns exist with young adults in my sample. I will conduct another series of t-tests to examine differences in protective behaviors among various groups of youth.

The purpose of these analyses is to identify raced and gendered patterns in sexual health communication from parents and formal sources of sexual education. I also aim to identify which groups do not receive important information regarding sexual health. The research also allows me to identify which groups of young adults who do not engage in protective behaviors as frequently and may be at risk for STIs and unintended pregnancy. This research could aid in public policy and intervention that targets certain groups of youth who are not currently receiving vital sexual health information. The research could encourage formal sources of education or parents to fill the deficits on certain sexual health topics for certain groups of youth.

4.3 Results

4.3.1 Parents

The first series of t-tests looks for race and gender differences in communication from parents for each of the six topics asked in the NSFG: how to say no to sex, methods of birth control, where to get birth control, STIs, HIV/AIDS, and condoms. The t-tests also look at a holistic parent communication scale that examines how many of the six topics were discussed by parents. The results of the parental communication t-tests are shown in Table 4-1.
The t-tests for how to say no to sex (refusal of sex) indicate that parents are more likely to give this prohibitive message about sex to their daughters than sons. Significant differences exist intra-racially among whites, Hispanics and African Americans where young women in each of these racial categories were more likely to receive instructions on how to say no to sex than men of their same race. Significant differences also existed inter-racially among men and women of different races. These findings support my first hypothesis where I posited that women would be more likely to receive prohibitive messages regarding sexual activity, and women—regardless of race—were more likely to receive information how to say no to sex from their parents.

African American and white women had the highest rates of communication with their parents regarding how to say no to sex. 62% of African American women and 59% of white women were given instructions from their parents on how to say no to sex. Hispanic women also
had higher rates of how to say no to sex than men. 53% of Hispanic women were educated by their parents on how to say no to sex. However, race differences existed between white, African American and Hispanic women. While there was no significant difference between white and African American women, Hispanic women were educated at a lower rate than other groups of women by their parents on how to refuse sex.

Additionally, white men had significantly higher rates than Hispanic men of education by their parents how to say no to sex. The statistically significant differences between Hispanic women and other women as well as the differences between Hispanic men and white men indicate that Hispanic parents discuss how to refuse sex at lower rates than other races of parents. The deficits in communication between Hispanics and other races could be due to the fact that a large proportion of Hispanics are Catholic. Any premarital sexual activity is actively discouraged in the Catholic faith, and therefore, Hispanic parents may be unwilling to discuss any sexual topic with their children so as not to convey a permissive attitude towards sex to their children.

The birth control t-tests—both methods of birth control and where to get birth control—followed the same pattern as how to say no to sex. These results did not support my initial hypothesis that women would get less protective information about sex than men. These results show that women are getting more protective information about methods of birth control and where to obtain birth control than men. However, these higher rates may be indicative of a sexual double standard regarding contraceptive use. The question asks about methods and obtaining “birth control,” which is often associated with the hormonal birth control pill (“the pill”). The pill can only be taken by women, and therefore, the pill is seen as something that is exclusively female. Therefore, the higher rates of communication about birth control with young women are
indicative of a sexual double standard that exists around what type of birth control can be used by a specific gender.

Parents of daughters were more likely to discuss birth control with their daughters than their sons. White and African American women had the highest rates of communication with their parents about birth control. 59% of white women discussed methods of birth control with their parents, and 47% of white women discussed where to get birth control with their parents. Similarly, 56% of African American women discussed methods of birth control with their parents, and 46% of African American women discussed where to get birth control. Hispanic women also had higher rates of communication with their parents regarding birth control than men. 46% of Hispanic women communicated with their parents about methods of birth control, and 33% of Hispanic women discussed where to get birth control with their parents. While these rates are higher than the rates for men, Hispanic women communicate with their parents less frequently about birth control than white or African American women. Again, this could be due to religious factors where Hispanic parents are reluctant to discuss any sexual topic.

Again, white men had significantly higher rates of communication about birth control with their parents than minority men. 39% of white men discussed methods of birth control with their parents whereas only 30% of African American and Hispanic men discussed this topic with their parents. Similarly, 28% of white men discussed where to get birth control with their parents compared to 25% of African American men and 19% of Hispanic men.

In regards to STIs, a different pattern emerges than what was observed with birth control and refusal of sex. Parents of African Americans discuss STIs at higher rates than white or Hispanic parents. Approximately 60% of parents of African American men and women discussed STIs with their children. The higher rates of STI discussion could be due to the fact
that African Americans are an “at risk” group. African Americans contract STIs at higher rates than whites and Hispanics. Due to the higher rates of transmission for African Americans, parents may be taking a preventative approach by discussing STIs with their children.

For HIV prevention, African American youth have higher rates of communication than individuals from other groups. 55% of African American men and 52% of African American women discussed HIV prevention with their parents. Hispanic men also reported higher rates of communication about HIV with their parents. These rates are still significantly less than the rates of communication among African Americans. However, the rate at which Hispanic men discuss HIV with their parents is significantly higher than whites and Hispanic women. 45% of Hispanic men reported discussing HIV prevention with their parents. Again, these higher rates of communication among African Americans and Hispanic men could be due to the fact that these groups have the highest rates of HIV transmission in the United States. Parents may sense that their children are more “at risk” of contracting HIV, and therefore take a preventative approach by discussing HIV prevention with their children.

Parental communication regarding condom use is raced and gendered. The analysis shows that African American men have the highest rates of condom communication with their parents. 59% of African American men report discussing condoms with their parents. African American women have the second highest rate of condom communication with their parents—49% of African American women have discussed condoms with their parents. However, there is a significant difference in the rates of condom communication for African American men and women where parents of African American men are more likely to discuss condom use than they are with African American women.
This pattern of communication where parents are more likely to discuss condom use with sons than daughters is consistent across racial groups. White men have higher rates of condom communication with their parents than white women, and Hispanic men also report higher rates of condom communication with their parents than Hispanic women. This gap in condom communication among men and women is again indicative of a sexual double standard where condoms are seen as a contraceptive that is exclusively male, and therefore, women do not need to be educated about condoms. In fact, white and Hispanic women have the lowest rates of condom communication with their parents. Only 34% of Hispanic or white women discuss condoms with their parents. This leaves white and Hispanic women at a significant disadvantage when it comes to condom knowledge. This condom communication gap supports my hypothesis that men are more likely to get protective information about sex than women.

Despite the condom communication gap among African Americans, African Americans still have the highest rates of condom communication when compared to whites and Hispanics. African American men are more likely to discuss condoms with their parents than Hispanic men and white men. African American women are more likely to discuss condom use with their parents than white or Hispanic women. African Americans report higher rates of condom use, and therefore, parents may feel more comfortable discussing condoms with their children because condom use is more acceptable in these communities.

When I examined parental communication about sex holistically looking at all six topics, I found that African American women were more likely than individuals in other groups to discuss sexual health with their parents. African American women discuss approximately 3 sexual health topics with their parents. This number is significantly higher than any other group in the analysis. White women had the next highest rate with 2.9 topics discussed with parents;
however, this was significantly lower than the rate for African American women. Additionally, when the sexual health topics are parsed out, we can see that African American women are more likely to be educated about condoms, STIs, and HIV than white women as well as Hispanic women. The focus for white and Hispanic women is more on pregnancy prevention and how to say no to sex. This emphasis on refusing sex and preventing pregnancy leaves white and Hispanic at a deficit when compared to African American women and vulnerable to unintended pregnancy as well as contracting STIs and HIV because of their lack of education on STIs, HIV, and condom use.

Another vulnerable group is Hispanic men. When looking at overall parent communication, Hispanic men have the lowest number of topics discussed of any group. The rate of communication between Hispanic men and their parents are lower than all groups of women as well as African American men. While Hispanic men do receive some communication about HIV and condom use, Hispanic men still do not receive information on other aspects of sexual health that are important such as birth control and how to say no to sex. This lack of communication between Hispanic men and their parents may be reflective of a culture of *machismo* in which sex is a part of one’s masculinity, and birth control is solely the responsibility of women (Sabia 2009). However, the lack of communication with Hispanic men could lead them to be less knowledgeable about sexual health and may also reinforce the sexual double standard by only focusing on female sexual behavior.

### 4.3.2 Formal Sexual Education

Overall, when compared to parental communication, fewer differences among groups exist with formal sexual education. However, there are aspects of formal sexual education that
are not taught to all groups, and gender and race-based differences still persist in formal educational settings. The results of the formal sexual education t-tests are shown in Table 4-2.

**Table 4-2 Formal Sexual Education by Race and Gender**

<table>
<thead>
<tr>
<th>Method</th>
<th>White Men</th>
<th>White Women</th>
<th>Hispanic Men</th>
<th>Hispanic Women</th>
<th>African American Men</th>
<th>African American Women</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>Say No</td>
<td>.8275^a</td>
<td>.8059^b</td>
<td>.7716^f</td>
<td>.7989^g</td>
<td>.7588^o</td>
<td>.8514</td>
<td>.8052</td>
</tr>
<tr>
<td>Methods of Birth Control</td>
<td>.6622^bd</td>
<td>.6824^fh</td>
<td>.5816^j</td>
<td>.6753^nm</td>
<td>.5503^o</td>
<td>.6937</td>
<td>.6487</td>
</tr>
<tr>
<td>Where to Get Birth Control</td>
<td>.4463^ace</td>
<td>.5353^fhi</td>
<td>.4607^jli</td>
<td>.5498^mn</td>
<td>.4472^o</td>
<td>.6216</td>
<td>.5070</td>
</tr>
<tr>
<td>STIs</td>
<td>.9192</td>
<td>.9082</td>
<td>.9079</td>
<td>.8893^m</td>
<td>.9347</td>
<td>.9234</td>
<td>.9127</td>
</tr>
<tr>
<td>HIV</td>
<td>.8661</td>
<td>.8424^h</td>
<td>.8656</td>
<td>.8303^m</td>
<td>.8844</td>
<td>.8739</td>
<td>.8580</td>
</tr>
<tr>
<td>Condoms</td>
<td>.6164^a</td>
<td>.5259^ghi</td>
<td>.6449</td>
<td>.5941^m</td>
<td>.6658</td>
<td>.6441</td>
<td>.6046</td>
</tr>
<tr>
<td>Abstinence</td>
<td>.7431^bcde</td>
<td>.7506^ghi</td>
<td>.6468^kli</td>
<td>.6365^mn</td>
<td>.8015</td>
<td>.8243</td>
<td>.7313</td>
</tr>
<tr>
<td>Scale</td>
<td>5.0808^be</td>
<td>5.0506^i</td>
<td>4.8791^l</td>
<td>4.9742^m</td>
<td>5.0427^o</td>
<td>5.4324</td>
<td>5.0675</td>
</tr>
</tbody>
</table>

For formal education on how to refuse sex, African American women are taught to say no to sex more than any other group. 85% of African American women are taught to refuse sex in a formal sexual education program. This rate is significantly higher than it is for all other groups with the exception of white men. 82% of white men are educated on how to refuse sex.

The results that African American women have higher rates of communication about how to refuse sex from formal sexual education programs supports my hypothesis that women are...
more likely to receive prohibitive messages about sex than men from formal sexual education programs. However, since no significant differences exist with white and Hispanic women, the hypothesis is only partially supported. Additionally, no significant difference in communication about how to say no to sex exists between African American women and white men. In fact, white men had the second highest proportion of education from formal sources about how to refuse sex.

These results would suggest that formal sources of education want to limit the sexual activities of African American women and white men. Theorists such as Patricia Hill Collins would argue that the higher rates of teaching African American women to refuse sex would be rooted in the racist and gendered assumptions people have about African American women. African American women are thought to be hypersexual beings. Therefore, formal education programs would want to limit the sexuality of African American women by educating them on how to refuse sex. The sexual double standard believes that women have more of an ability to control their sexual desires, and therefore, a focus on how to limit sex would be geared towards a group who are perceived to be more sexually active. Men are also thought to be sexual and unable to control their sexual desires. However, the higher proportion of communication about how to say no to sex with white men is significantly higher than African American and Hispanic men. This may be indicative of a belief that only white men are capable of controlling their sexual desires and could explain why white men are taught how to refuse sex in formal sexual education curricula. The lack of education for men of color on how to refuse sex may be based in racist stereotypes that men of color are hypersexual and unable to refuse sex. This deficit in education on how to refuse sex between white men and minority men does not support my hypothesis that minority men would receive more education from formal sources.
For birth control, the patterns in formal sexual education show a link between gender and birth control education. Women are educated about methods of birth control at higher rates than minority men. Almost 70% of African American women, white women, or Hispanic women are educated about methods of birth control in formal sexual education programs. While these rates do not differ significantly from white men, they are significantly different than the rates of education for Hispanic and African American men. The focus on birth control may again be a function of the sexual double standard where birth control is commonly assumed to mean “the pill,” and the pill is seen as something that is exclusively used by women. I hypothesized that women would receive less protective information than men from formal sources, and therefore, more education about the pill does not support my original hypothesis. However, the fact that a gendered difference between women and minority men indicates that a sexual double standard may exist.

However, it is interesting to note that significant racial differences exist among white men and minority men in terms of education about methods of birth control. White men report significantly higher rates of education about methods of birth control than African American or Hispanic Men. 82% of white men have received formal education on the topic compared to 77% of Hispanic men and 76% of African American men. Again, the lack of education on methods of birth control for minority men may be a product of racist stereotypes that minority men are hypersexual, unable to control their desires, and therefore, the focus should be on minority women to prevent pregnancy. The lack of education of minority men in formal sexual education programs about birth control does not support my hypothesis that minorities would be educated at higher rates than whites.
Formal education about where to get birth control tends to follow a gendered pattern. Women have higher rates of education about where to get birth control than men. 62% of African American women, 55% of Hispanic women, and 53% of white women report being educated about where to get birth control in a formal sexual education program. Intra-racially, women have higher rates of education on the topic than men of their same race. Across racial lines, women also have higher rates of education on where to get birth control than men of other races. The higher rates of education for women on this topic may be due to the sexual double standard where women are seen as the ones who have the ability (and the responsibility) of using contraception—especially the birth control pill. Again, I originally thought that women would receive more prohibitive messages, and therefore, this finding does not support my original hypothesis. However, it does reinforce underlying gender differences and the sexual double standard.

In addition to the gendered patterns in where to obtain birth control, a significant racial difference exists between African American women and women of other races. African American women are significantly more likely to receive formal instruction on where to get birth control than white or Hispanic women. Again, this increased education of African American women may be due to the assumptions people have about the sexual activity of African American women, and therefore, formal educational programs want to encourage use of the pill to limit African American women’s sexuality and sexual reproduction. The significant differences between African American women and other races of women supports my hypothesis that minorities would receive more education from formal sources because of raced sexual stereotypes about minorities.
Formal education about STIs appears to be fairly even, and the rates of education on this topic largely did not differ by race or gender. African American men had the highest rates of education about STIs at 93%. However, the only significant difference in rates of education on STIs existed between African American men and Hispanic women. 88% of Hispanic women were educated about STIs. The fact that formal sexual education programs educate a large proportion of young adults about STIs and that no significant difference is encouraging because this implies that young adults—regardless of race and gender—are receiving education on this topic. The results indicate that young adults are learning about STIs, which helps young people prevent the transmission of STIs. With regards to my hypothesis, the equal education of all races and genders of youth on STIs does not support my initial hypothesis. I thought that due to racist stereotypes about minorities, minorities would be taught about STIs at higher rates than whites. However, no significant differences existed among whites and other races of youth.

A similar pattern exists for formal sexual education regarding HIV prevention. Largely, no significant differences existed between individuals from different racial and gender categories. Only two differences emerged in this analysis. White and Hispanic women were less likely to be educated about HIV than African American men. 88% of African American men were educated about HIV compared to 84% of white women and 83% of Hispanic women educated about HIV prevention. The lower rates of education for white and Hispanic women could be a function of the fact that white and Hispanic women have lower rates of HIV transmission than individuals from other groups. The deficits in HIV education among these groups partially supports my hypothesis that white women do not receive protective information. I expected Hispanic women to have higher rates of education on HIV prevention; however, this did not occur. The lack of differences between white men and minorities also did not support my
hypothesis that minorities would be educated more on risky sexual behaviors such as HIV prevention.

For condom use, similar rates of education exist for individuals in most groups. However, white women are educated about condoms at a significantly lower rate than individuals in any other group. Only 53% of white women are educated about condoms in a formal sexual education program whereas two-thirds of African American men are educated about condoms. White women have a lower rate of condom education than African Americans, Hispanics, and white men. White women may be educated at lower rates because of belief that white women are “pure” and “pious” as Collins (2000) states. Based on these stereotypes, formal education programs may assume that white women do not engage in risky sex where condom use is necessary. The lack of education of white women does support my initial hypothesis that white women would get prohibitive messages about sex and not be educated about preventive behaviors such as condom use.

Formal abstinence education appears to follow a racial pattern. African Americans are educated about abstinence at a higher rate than whites and Hispanics. 82% of African American women and 80% of African American men are taught about to abstain from sex. While African Americans have higher rates of education about abstinence than whites, significant differences between whites and Hispanics exist with regards to abstinence education. Approximately 75% of white men and women are educated about abstinence while only 64% of Hispanic men and women are educated on the topic.

The higher rate of abstinence education for African Americans is unexpected. Fields (2008) found an increase in abstinence education for white women. I hypothesized that white women would have higher rates of abstinence education, and the fact that they receive abstinence
education more than Hispanics supports my hypothesis. However, there is a significant difference between white women and African American men and women where African Americans are more likely to be educated about abstinence. The higher rates for African Americans does not support my hypothesis about abstinence education. However, the increased rates for African Americans does support my hypothesis that they would receive more formal education on sex because of the sexual stereotypes about African Americans who are seen as hypersexualized. However, I thought that preventative topics would be covered more so than abstinence.

When looking at formal sexual education holistically, African American women are taught about more sexual health topics than individuals from any other group. African Americans are educated on over five sexual health topics in a formal education program, and this rate of education was significantly higher than individuals from other groups. This increased education of African American women again may be due to the fact that sexual stereotypes exist about African American women who are seen as hypersexualized. Formal sexual education programs may be implemented in areas with high concentrations of African American women so that they can be educated about sex in an effort to curb African American women’s sexuality and sexual reproduction. This finding reinforces the work of Fields (2008) who found an increased focus on African American women’s sexuality and a higher number of comprehensive sexual education programs implemented in schools with a higher proportion of African American students. The higher rates of education for African American women in formal sexual education programs supports my hypothesis that minorities are seen as more at risk and therefore more likely to be educated about sex in formal sexual education programs.
In addition to the increased education of African American women, only one other significant difference exists in formal sexual education. Hispanic men have a significantly lower rate of formal sexual education than white men. Hispanic men are educated on 4.9 sexual health topics—the lowest number of any social location. This lack of education may be due to masculinity and gender norms in the Hispanic community where men are seen as overly sexual, and any contraception or protective behavior should be performed only by women. Therefore, Hispanic men do not need to be educated about sexual health topics. This lack of education of Hispanic men in formal sexual education programs does not support my hypothesis that minorities would receive more sexual education than whites. White men are significantly more likely to receive more sexual health information than Hispanic men.

4.3.3 Parental Communication and Formal Sexual Education Comparisons

In addition to examining communication differences by parents and formal sexual education programs, I wanted to compare the proportion of education for both parents and formal sources at the same time in order to identify which groups of young people receive education from both sources, either source, and neither source. These comparisons will allow me to identify gaps in parental communication and formal sexual education. The results of the parental communication and formal education t-tests are shown in Table 4-3.

When examining the rates of parental communication and formal sexual education regarding how to say no to sex (refusal of sex), the patterns follow the ones previously observed when looking at just parental communication or formal sexual education. Women are more likely to be educated about how to refuse sex. This increased education of women on this topic is reflective of the sexual double standard that exists where women are believed to be able to control their sexuality than men. The higher rates of education about how to refuse sex supports
<table>
<thead>
<tr>
<th>Table 4-3 Parental Communication and Formal Sexual Education Comparisons</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=3,584</td>
</tr>
<tr>
<td>How to Say No to Sex</td>
</tr>
<tr>
<td>Both</td>
</tr>
<tr>
<td>Parents</td>
</tr>
<tr>
<td>Formal</td>
</tr>
<tr>
<td>Neither</td>
</tr>
<tr>
<td>Methods of Birth Control</td>
</tr>
<tr>
<td>Both</td>
</tr>
<tr>
<td>Parents</td>
</tr>
<tr>
<td>Formal</td>
</tr>
<tr>
<td>Neither</td>
</tr>
<tr>
<td>Where to Get Birth Control</td>
</tr>
<tr>
<td>Both</td>
</tr>
<tr>
<td>Parents</td>
</tr>
<tr>
<td>Formal</td>
</tr>
<tr>
<td>Neither</td>
</tr>
<tr>
<td>STIs</td>
</tr>
<tr>
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<td>HIV</td>
</tr>
<tr>
<td>Both</td>
</tr>
<tr>
<td>Parents</td>
</tr>
<tr>
<td>Formal</td>
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<tr>
<td>Neither</td>
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<tr>
<td>Condoms</td>
</tr>
<tr>
<td>Both</td>
</tr>
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<td>Parents</td>
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<tr>
<td>Formal</td>
</tr>
<tr>
<td>Neither</td>
</tr>
<tr>
<td>N (%)</td>
</tr>
</tbody>
</table>

| N (%) | 829 (23.1%) | 850 (23.7%) | 521 (14.5%) | 542 (15.1%) | 398 (11.1%) | 444 (12.4%) |

- **Table 4-3 Parental Communication and Formal Sexual Education Comparisons**
- **N=3,584**
- **How to Say No to Sex**
  - Both: .42\textsuperscript{abe} .51\textsuperscript{fh} .27\textsuperscript{ijkl} .46\textsuperscript{mn} .37\textsuperscript{ao} .54 .43
  - Parents: .05\textsuperscript{a} .09\textsuperscript{h} .06 .08 .05 .08 .07
  - Formal: .41\textsuperscript{abce} .30\textsuperscript{fh} .50\textsuperscript{ijkl} .34 .39\textsuperscript{ao} .31 .37
  - Neither: .12\textsuperscript{bde} .11\textsuperscript{ghi} .17\textsuperscript{jli} .12\textsuperscript{mn} .19\textsuperscript{ao} .07 .13
- **Methods of Birth Control**
  - Both: .31\textsuperscript{abde} .43\textsuperscript{fgih} .23\textsuperscript{jl} .35\textsuperscript{m} .23\textsuperscript{o} .41 .34
  - Parents: .08\textsuperscript{ace} .16\textsuperscript{fgih} .08\textsuperscript{l} .11\textsuperscript{n} .09\textsuperscript{o} .16 .12
  - Formal: .36\textsuperscript{ae} .25\textsuperscript{fgih} .35\textsuperscript{l} .32 .32 .29 .31
  - Neither: .25\textsuperscript{abde} .15\textsuperscript{fgih} .34\textsuperscript{jli} .21\textsuperscript{mn} .36\textsuperscript{o} .15 .24
- **Where to Get Birth Control**
  - Both: .18\textsuperscript{abce} .31\textsuperscript{fgih} .13\textsuperscript{ijkl} .25\textsuperscript{mn} .18\textsuperscript{o} .34 .23
  - Parents: .10\textsuperscript{a} .16\textsuperscript{fgih} .07\textsuperscript{l} .09 .07\textsuperscript{o} .12 .11
  - Formal: .26\textsuperscript{b} .23\textsuperscript{fgih} .33\textsuperscript{k} .30 .27 .28 .27
  - Neither: .46\textsuperscript{ace} .30\textsuperscript{fgih} .47\textsuperscript{jli} .36\textsuperscript{mn} .48 .26\textsuperscript{o} .39
- **STIs**
  - Both: .47\textsuperscript{de} .47\textsuperscript{hi} .49\textsuperscript{ijkl} .48\textsuperscript{mn} .57 .59 .50
  - Parents: .03 .03 .03 .04 .03 .03 .03
  - Formal: .45\textsuperscript{de} .43\textsuperscript{hi} .42\textsuperscript{l} .40\textsuperscript{n} .36 .34 .41
  - Neither: .05 .06 .06 .07\textsuperscript{m} .04 .04 .06
- **HIV**
  - Both: .36\textsuperscript{bde} .37\textsuperscript{hi} .41\textsuperscript{ijkl} .34\textsuperscript{mn} .52 .47 .40
  - Parents: .03 .03 .03 .04 .04 .05 .04
  - Formal: .51\textsuperscript{bde} .47\textsuperscript{hi} .45\textsuperscript{k} .49\textsuperscript{mn} .37 .41 .46
  - Neither: .10 .13\textsuperscript{hi} .10 .13\textsuperscript{mn} .08 .07 .11
- **Condoms**
  - Both: .34\textsuperscript{acd} .24\textsuperscript{fhi} .35\textsuperscript{ijkl} .25\textsuperscript{mn} .44 .37 .32
  - Parents: .10\textsuperscript{d} .10\textsuperscript{h} .12 .10\textsuperscript{m} .15 .11 .11
  - Formal: .28\textsuperscript{e} .28\textsuperscript{gh} .30\textsuperscript{l} .34\textsuperscript{mn} .23 .27 .29
  - Neither: .28\textsuperscript{abd} .37\textsuperscript{fghi} .23\textsuperscript{jli} .31\textsuperscript{mn} .19\textsuperscript{o} .24 .28

Note: The table includes comparisons of parental communication and formal sexual education among different demographics, with specific values and symbols indicating statistical significance or comparisons between groups. The table is formatted to clearly display the data and comparisons made.
my hypothesis that women are more likely to receive prohibitive messages about sex. African American women and white women have the highest rates of communication from both sources. 54% of African American women and 51% of white women receive information on how to refuse sex from their parents and formal sexual education programs. 46% of Hispanic women receive information on how to refuse sex from both sources, but this is significantly less than other races of women. The lack of education of Hispanic women may be due to the fact that Hispanic women are more likely to be Catholic, and therefore, any discussion of sex before marriage is not encouraged.

Hispanic men and African American men are the least likely to receive information about how to refuse sex from any source. 19% of African American men and 17% of Hispanic men reported not receiving information about how to refuse sex from either source of sexual education. Again, this lack of education of minority men may be due to stereotypes that minority men are hypersexual and unable to control their sexuality. Therefore, education on how to refuse sex is seen as unnecessary to educators who believe young minority men are incapable of not engaging in sex.

When looking at the comparisons of parental communication and formal sexual education regarding methods of birth control and where to obtain birth control, women are more likely to be educated on these topics. African American and white women reported the highest rates of education on birth control. 43% of white women and 41% of African American women received education on methods of birth control from both sources. 34% of African American women and 31% of white women were educated on where to get birth control. While Hispanic women had higher rates than men, these rates were significantly lower than the rates of education on birth control from both sources for other races of women. However, the gap in education
between Hispanic women and other races of women indicates a cultural difference between Hispanics and other races of women surrounding birth control. Again, this may be reflective of a religious difference in which birth control is not permitted by the Catholic Church.

A significant gender gap exists in lack of education about birth control. 36% of African American men and 34% of Hispanic men are not educated by either source about methods of birth control. The rates for where to get birth control are even poorer. Nearly half of all men in receive no education on where to get birth control. The higher rates of education for women support the sexual double standard where birth control and pregnancy prevention are seen as exclusively a woman’s responsibility. The increased education of women on birth control does not support my hypothesis that women would receive more prohibitive messages; however, it does support my underlying assumptions about the sexual double standard.

While the patterns for birth control were largely based on gender, STI education varies along racial lines. This supports my hypothesis that minorities are more likely to be educated about risky sexual behaviors. African Americans were significantly more likely to receive education on STIs from both sources than individuals in other groups. Approximately 60% of African American men and women received STI education, and slightly less than half of white and Hispanic youth received education on this topic. Again, the increased education from both sources for African Americans may be indicative of racial stereotypes in which people believe that African Americans are hypersexual and more likely to engage in risky sexual behaviors.

Encouragingly, the rates of education from neither source on STIs were low, and only one significant difference existed. Hispanic women had a lower rate of not receiving information on STIs than African American men. However, the rate was only 7% for Hispanic women who
received no education on STIs. This finding is encouraging and shows that most young people are receiving information on STIs from at least one source.

For HIV education, African Americans have the highest rates of education from both sources which supports my hypothesis that minorities would be more likely to be educated about risky sexual behaviors. Approximately half of African Americans receive HIV education from parents and formal sexual education programs. Again, the higher rates of education for African American individuals may be reflective of an increased risk of HIV in the African American community as well as stereotypes that African Americans are more sexual and more likely to engage in risky sexual behaviors.

Hispanic and white women were the least likely to be educated about HIV prevention. While no significant differences existed between white and Hispanic men and women, white and Hispanic women had significantly higher rates of receiving no education on HIV prevention from either source. Again, this lack of education of white and Hispanic women could be due to the fact that white and Hispanic women contract HIV at lower rates. Additionally, the lack of education may be due to the fact that these women are seen as less sexual, and therefore, less likely to engage in risky sexual behaviors.

Condom education follows both raced and gendered patterns. African Americans have the highest rates of condom education from both sources. 44% of African American men and 37% of African American women receive education on condom use from parents and formal sources of education. The higher rates of education for African Americans support my hypothesis that minorities will receive more education than whites. In fact, African American men had significantly higher rates of condom education from both sources than white men.
However, women have higher rates of no education on condoms than men. 37% of white women and 31% of Hispanic women received no education on condoms. These rates are significantly higher when compared to men of their own race as well as men from other races. Also, when looking intra-racially, African American women have significantly higher rates of not receiving education about condoms than African American men. The lack of condom education for women supports my hypothesis that women are less likely to receive protective information about sex than men. This lack of education on condoms for women is indicative of a sexual double standard that exists where women should be able to control their sexuality, and men cannot, so they must be educated on methods that can protect themselves.

In addition to looking at which groups of youth are educated the most and the least regarding various sexual health topics, the parental communication and formal sexual education t-tests also allow me to see whether parents or formal sources of education have higher rates of education of young adults. For every sexual health topic, formal sources of education were more likely to be the only source of sexual health information than parents. Formal sexual education was able to be the only source of information on topics that were less likely to be covered by both sources. Men had significantly higher rates of formal sexual education on how to refuse sex and methods of birth control. Formal sexual education also had higher rates of education for white youth and Hispanic women on STIs and HIV prevention, and condom use for Hispanic women. Therefore, formal sexual education may be able to fill the deficits in sexual education for underserved groups.

Parent communication did not have as many significant relationships for each of the sexual health topics as formal sexual education. Parent communication did not fill deficits in sexual health education, but rather, reinforced some of the race and gender differences noted in
the single parental and formal sexual education t-tests. Young white women had higher rates of communication about to refuse sex than white or African American men, which supports my hypothesis that women would receive more prohibitive messages about sex. Young women reported higher rates of communication about birth control with their parents than young men which further reinforces the sexual double standard. No significant differences existed with parent communication about STIs and HIV, and the proportion of young adults who communicated with parents about STIs and HIV were very low. However, African American men were significantly more likely to report discussing condoms with their parents than whites and Hispanic women. This finding also partially supports my hypothesis that parents are more likely to give protective messages to sons than daughters.

### 4.3.4 Protective Behaviors

**Table 4-4 Protective Behaviors T-tests**

<table>
<thead>
<tr>
<th>Protective Behaviors</th>
<th>White Men</th>
<th>White Women</th>
<th>Hispanic Men</th>
<th>Hispanic Women</th>
<th>African American Men</th>
<th>African American Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self-Silencing</td>
<td>.40de</td>
<td>.36g</td>
<td>.42kl</td>
<td>.39n</td>
<td>.33o</td>
<td>.26</td>
</tr>
<tr>
<td>Consistent Condom Use</td>
<td>3.55ade</td>
<td>2.84fh</td>
<td>3.66ij</td>
<td>2.81mn</td>
<td>3.81o</td>
<td>3.00</td>
</tr>
<tr>
<td>Sexual Debut</td>
<td>15.98bd</td>
<td>16.18mi</td>
<td>15.30kl</td>
<td>15.95mn</td>
<td>14.33o</td>
<td>15.71</td>
</tr>
<tr>
<td>Number of Lifetime Sexual Partners</td>
<td>2.63ade</td>
<td>4.24fg</td>
<td>2.52kl</td>
<td>2.71mn</td>
<td>3.72o</td>
<td>5.26</td>
</tr>
</tbody>
</table>


In addition to examining the differences in communication from parental and formal sources of sexual education, I also examine if significant race and gender differences exist in
protective sexual health behaviors. Using t-tests, I can examine if significant differences exist as well as identify groups of youth that are less likely to engage in protective sexual health behaviors, and therefore, more at risk of negative sexual health outcomes. Table 4-4 illustrates the findings of the protective health behaviors t-tests.

Racial and gendered patterns exist with regards to protective sexual health behaviors. I hypothesized that there would be differing rates for young adults from various racial and gender groups, and I found support for this hypothesis through the protective behaviors t-tests. For self-silencing, African American women have the lowest percentage of respondents who indicated that they would be hesitant to discuss condom use with a new partner. Only 26% of African American women responded that they would be hesitant to discuss condoms with a new partner. This is significantly lower than the rates for white and Hispanic women. 36% of white women and 39% of Hispanic women indicate that they would be hesitant to discuss condom use with a new partner. It is also significantly less than the rates for African American men as well as white and Hispanic men. 33% of African American men, 40% of white men, and 42% of Hispanic men indicated that they would be reluctant to discuss condom use with a new partner. While significant differences exist in self-silencing with regards to African American men and women, African American men are still significantly less likely to be hesitant to discuss condom use with a new partner than other races of men. Therefore, African Americans tend to exhibit less self-silencing behaviors than individuals in other groups.

For consistent condom use over a twelve month period, the pattern tends to be more gendered than racial. When comparing condom use within races, men from each racial category are significantly more likely to report using a condom more consistently than women from their same racial category. When comparing men and women inter-racially from different groups of
youth, men from each racial category have significantly higher rates of condom use than women from other racial groups. The only significant racial pattern of note among the same gender is that African American men report using condoms more consistently than white men.

For age at sexual debut, the pattern in sexual debut seems to be more heavily divided by race than gender. Whites report later sexual debuts than Hispanic men and African Americans. White women have the highest age at sexual debut (16.2 years) followed by white men (15.98 years) and Hispanic women (15.95 years). African American men have the earliest sexual debut (14.3 years) followed by Hispanic men (15.3 years). Significant differences exist between white men and men of color. White men are more likely to delay sexual debut than Hispanic and African American men. Similarly, white women are more likely to delay their initiation to sexual activity than African American women. However, when compared to African American and Hispanic men, African American women are significantly older the first time they engage in vaginal intercourse than men of color.

However, when examining number of lifetime sexual partners, patterns are both raced and gendered. African American women have the highest number of lifetime sexual partners (5.26 partners). White women report the second highest number of lifetime sexual partners (4.24 partners). These rates for white and African American women are significantly higher than the number of sexual partners for white men (2.63 partners), Hispanic men (2.52 partners), and Hispanic women (2.71 partners). African American women also have a significantly higher number of lifetime sexual partners than African American men; however, no significant difference exists between African American men and white women. While no difference exists in the number of lifetime sexual partners for white women and African American men, African
American men have a significantly higher number of lifetime sexual partners than white men and Hispanics.

4.4 Discussion

When examining the findings from the parental communication, formal sexual education, and comparison t-tests, I found support for my hypothesis that women were more likely to receive prohibitive messages about sex from their parents. In each analysis, women were more likely to receive information about how to refuse sex than men. This finding supports the notion that a sexual double standard exists in parental communication and formal sexual education. The sexual double standard reinforces the myth that women are believed to be able to control their sexuality and sexual behavior, and men cannot (Tannenbaum 2000; Valenti 2011). Therefore, women are the ones who should be educated on how to refuse sex because they are believed to be the only ones who can refuse sex.

I believed this sexual double standard would carry over to information about birth control. When I initially hypothesized that men would receive protective messages about sex, I thought this would include methods and sources of birth control. However, I found that women were more likely to be educated about birth control by parents and formal sources of sexual education. The increased rates of education of women on birth control did not support my prohibitive messages hypothesis.

I realized that I should have considered the sexual double standard that exists around contraception and fertility work. The use of the word “birth control” in the wording of the NSFG questions was probably construed by the participants to mean the hormonal birth control pill. Therefore, the respondents may have taken these questions to mean that they were only being asked about the pill. The responses in the survey indicate parental communication and formal
sexual education surrounding the birth control pill. The increased education of women about birth control is indicative of a sexual double standard about contraception. The pill, patches, diaphragms, implants and other hormonal sources of birth control are used solely by women, and therefore, education on these topics would be geared towards women. The increased rates of education about birth control for women did not support my hypothesis that women would receive prohibitive messages about sex. Educating women about methods of birth control as well as where to obtain them is a protective message that would allow women to prevent pregnancy.

Men did receive more protective information about condoms than women from parents and formal sources of education. The association between men and condom use supports my hypothesis that men would receive more protective information from parents and formal sources of education. This finding also provides support for the sexual double standard. Men are stereotyped as hypersexual and unable to control their sexual urges. Therefore, parents and formal sources of education believe that men are going to engage in sexual activity anyway, so they should be educated about preventative measures such as condoms.

However, I also found that African American men and women were more likely to receive protective health information about STIs, HIV, and condoms. The fact that African American women were more likely to receive protective information on the transmission of STIs, HIV, and how to prevent it with condoms does not support my hypothesis that women would receive prohibitive messages about sex. African American women did receive information about how to say no, but they also were educated on other sexual health topics at higher rates. Therefore, the intersection of being African American and a woman elicits more communication about sex than other races of women. The increase in communication about sex could be due to the fact that African American women are more at risk of unintended pregnancy, STIs and HIV.
The increased risk for negative sexual health outcomes combined with an increased assumption that African American women are more sexual and more likely to engage in risky behaviors may also account for some of the increased focus on African American women’s sexuality.

African Americans were also more likely to be educated about abstinence than white women. This finding was surprising to me and did not support my initial hypothesis. I had hypothesized that white women would have the highest rates of abstinence education from formal sources of education. Fields (2008) found that abstinence only programs were more likely to be implemented at white schools and geared towards white women because of the stereotype that white women are “pious” and should control their sexuality. However, African American men and women had the highest rates of abstinence education, which gives evidence to the notion that African American sexuality is risky and needs to be reduced.

The increased rates of abstinence education for African Americans followed a pattern regarding formal sexual education where African American women were more likely to receive more formal sexual education than individuals in other groups. The rate of formal sexual education that African American women receive is significantly higher than any other group in the analysis. Additionally, African American men had higher rates of STI, HIV, and condom education than other groups of youth. This increased rate of education for African American men and women supports my hypothesis that minority men and women would be more likely to receive sexual education from formal sources than white youth. Fields (2008) found that comprehensive sexual education programs were more likely to be implemented at minority schools, and the increased rates of sexual education by formal sources supports her findings. Again, the increased rate of education for African Americans from formal sources of education
supports the notion that African Americans are seen as more sexual, and therefore, need to be educated about sex more than other groups.

I also thought that Hispanics would receive more sexual education than whites. However, I did not find significantly higher rates of sexual education for Hispanics. In fact, Hispanic men and women had the lowest rates of formal sexual education. African Americans and whites had approximately 5 topics mentioned, but Hispanic youth reported learning about less than 5 sexual health topics in a formal sexual education program. I thought that similar racial stereotypes existed for Hispanics and that Hispanics would also be seen as hypersexualized. However, the findings did not support this assumption. Different stereotypes about Hispanics exist where Hispanics are seen as less in need of formal sexual education than African Americans. The lack of formal sexual education for Hispanics could result from the fact that Hispanics are more likely to be Catholic. Predominantly Hispanic, Catholic communities would be less receptive to having sexual education taught to their youth since any premarital sexual activity is not encouraged.

Finally, I hypothesized that formal sexual education would educate more youth than parents. When examining the t-tests that looked at which groups of youth received education from both sources, either parents or formal sexual education, or neither source of education, formal sexual education was more likely to educate young adults at a higher proportion than parents. This finding supports my hypothesis. Formal sexual education was also more likely to educate groups of youth who did not typically receive education on a topic. For example, women reported higher rates of education about birth control, but formal sexual education was more likely to be the only source of information about birth control for men. This finding is encouraging that formal sexual education has the potential to meet the needs of youth who do not receive sexual education from other sources such as parents.
These raced and gendered patterns in sexual education are similar to the racial and gendered patterns observed with regards to protective sexual health behaviors. The data indicates that African American women receive more sexual education than individuals in other groups. One may assume that more education would result in appreciable increases in protective sexual health behaviors. While self-silencing behavior is lower in African American women, African American women are less likely to use condoms, have earlier sexual debuts than other groups of women, and have a higher number of lifetime sexual partners. When looking at the data as a whole, the results would suggest that increased sexual education does not translate into more protective sexual health behaviors.

However, when we look at parental and formal sexual education for groups such as African American men who receive more information about condoms and STIs, condom use is higher for African American men. However, initiation to sexual activity is at an earlier age for African Americans than individuals from other groups, and African American men report a higher number of lifetime sexual partners than white men. Therefore, the effects of parental communication and formal sexual education must be investigated further to see if sexual education from these sources can impact the direct associations between social location and protective behaviors.

4.5 Conclusion

The results of this chapter indicate that gendered and racist stereotypes still exist with regards to parental communication and formal sexual education. Women were more likely to receive prohibitive information about sex as well as messages that reinforced the sexual double standard such as the belief that women should be able to refuse sex and that women should be the only ones concerned with preventing pregnancy through the use of the hormonal birth control
pill. Men were more likely to receive protective messages about sex from both sources about condom use. The lack of education for white and Hispanic women about condom use as well as the lack of education for men about birth control and how to refuse sex leaves young people at a deficit. Young people should be educated about all aspects of sexuality, not just gendered ones. Parents and formal sexual education programs should work to make sure that the information they present to young adults is gendered. Parents and formal sexual education programs should ensure that young white and Hispanic women are taught about condom use as it is the only contraceptive that prevents or reduces HIV and STI transmission. Additionally, parents and formal sexual education programs should be cognizant of the “boys will be boys” mentality and work to educate young men on how to refuse sex as well as methods of birth control.

Furthermore, it is disturbing that racial and gendered patterns exist with regards to formal sexual education. Ideally, all youth should be educated about all aspects of sexuality equally. However, the increased gaze of formal sexual education programs on African American sexuality is concerning. The higher rates of education of African Americans on sexuality could be due to the fact that African Americans have higher rates of unintended pregnancy, STIs, and HIV. Additionally, African Americans tend to not engage in protective behaviors at a rate that would be expected from groups that receive more sexual education. Since these rates remain higher for African Americans makes me question the effectiveness of the programs as well as the motivations behind the education curricula. Formal sexual education programs should reassess their curricula to ensure that racist stereotypes do not exist and to make sure that all youth are educated equally about sex.
5 PARENTAL AND FORMAL COMMUNICATION FACTORS ON CONDOM SELF-SILENCING BEHAVIOR

5.1 Introduction

This chapter addresses the research question if parental and formal sexual education affect the likelihood for young adults to engage in self-silencing behavior regarding condom use. Self-silencing is defined as a situation in which a person does not communicate his or her needs or wishes to his or her partner because of a fear that it will disrupt their relationship (Teitelman et al. 2011). Therefore, individuals who perceive that their partners are unwilling to use condoms will refuse to discuss condom use with their partners. Bandura (1994) defines this belief that individuals will be able to exercise control over life events such as condom use as “self-efficacy.” Essentially, individuals who have low levels of self-efficacy are more likely to self-silence because they believe that despite a desire to use condoms, the likelihood that condom use with their partner will occur is quite low.

Previous research has shown that if young adults have high levels of condom self-efficacy, they will exhibit low levels of self-silencing behavior regarding condom use with a partner (Panchaud et al. 2000; Widman et al. 2006; Casey et al. 2009; Deardorff et al. 2013). Condom self-efficacy is tied to increased condom use in young adults. (Casey et al. 2009), especially for young Hispanic women (Deardorff et al. 2013). However, research has noted that condom communication is difficult for young women who have low levels of self-efficacy (the belief that they will be able to get their partners to use condoms), and these women are more likely to self-silence and not discuss their desire to use condoms during sex (Panchaud et al. 2000; Widman et al. 2006). In particular, Hispanic women--because of a culture of machismo--
are linked with a higher likelihood of self-silencing behavior (Galanti 2003; Hutchison et al. 2003; Sable et al. 2009).

A separate body of research on parent communication, formal sexual education, and young women note that if young women are educated about sex, then they have higher levels of self-efficacy and are less likely to self-silence (Ellis et al. 2003; Katz and Van der Kloet 2010; Wright, Randall, and Arroyo 2013). Research also notes that sexual communication from parents is especially salient for young Hispanic women (Rojas-Guyler and King 2007). Therefore, this chapter combines these two bodies of research to examine if there is a link between race/ethnicity, gender, social class, parent communication, formal sexual education, and self-silencing behavior. Additionally, this chapter also examines whether or not parent communication and formal sexual education affects the previously observed links between race/ethnicity, gender and self-silencing behavior.

5.2 Analytic Strategy

For this chapter, I wanted to look at what social and demographic factors contribute to self-silencing behaviors in young adults. For this analysis, I am including both sexually active and non-sexually active young adults ages 15 to 24 in order to examine how parental and formal sexual education contributes to a young person’s likelihood of self-silencing regarding condom use. To investigate the research question with this sample, I use one question from the NSFG 2011-2013 that asks respondents if there was any degree of likelihood that they would be embarrassed to discuss condom use with a new partner.

Using this sample, I tested the following hypotheses in this chapter:

1. A direct association between race/gender and self-silencing behavior will be observed. In general, I hypothesize that women will self-silence more than men, and in particular, I
hypothesize that Hispanic women will be more likely to self-silence than individuals in other social locations.

1b. When socioeconomic status is interacted with race and gender, the effects of self-silencing behavior among women will be even stronger for lower SES women, and in particular, lower SES Hispanic women will be more likely to self-silence than individuals in other social locations.

2. The inclusion of the parental communication and formal education will mediate the associations between race, gender, social class, and self-silencing behavior.

3. Parental communication will have a stronger association with self-silencing behavior than formal sexual education.

I used white men as the comparison group for the analysis as previous research has noted communication and sexual health differences between white men and other groups of young adults (Di Iorio et al. 1999; Fasula, Miller, and Weiner 2007; CDC 2015). I also ran a separate analysis (not reported in the table) in which I used white women and Hispanic women as the comparison groups as the literature has also noted links between women, Hispanic women, and self-silencing behavior (Ellis et al. 2003; Widman et al. 2006; Katz and Van der Kloet 2010; Wright, Randall, and Arroyo 2013).

To examine the relationship between social location and self-silencing, I tested the first of my hypotheses to see if race and gender have a direct relationship with self-silencing behavior. I included social class variables of mother’s education and family income initially as controls to parse out any direct relationship between race/gender and self-silencing behavior. To test the second part of my first hypothesis, I then included the social class variables of mother’s education and income as independent variables by creating a series of interaction terms with
race/gender and education as well as race/gender and family income to test if the effects of socioeconomic status combined with race and gender also had conditional relationships with self-silencing behavior. The inclusion of the interaction terms allows me to test the work of Fields (2008) who observed differing sex education courses being offered based on a school’s predominant race, gender, and social class. The interaction terms with social class also allow me to examine whether the process of self-silencing behavior varies by social location. The interaction terms allow me to see if social class has more of an effect for individuals in certain social locations.

After testing for direct associations between social location and self-silencing behavior, I tested the second and third hypotheses by including parental communication and formal education scales in the model to see if sexual education could mediate any observed associations with race, gender, class, and self-silencing behavior. The purpose of these analyses to see if any direct relationships between social location and self-silencing behavior can be lessened by sexual education from parents as well as formal education. In addition to testing the effects of social location, parental communication and formal sexual education, this chapter also aims to aid in public policy and intervention through the identification groups of young adults who may be more at risk of self-silencing behavior as well as recognize protective factors such as parental communication or formal sexual education that may lessen self-silencing behavior.

5.3 Results

To test the associations, I first run a logistic regression with the social location variables—race and gender. My goal is to test for any associations between social location and self-silencing behavior. I then include dimensions of social class, religion, age, and marital status to control for any effects these variables may have on self-silencing behavior in the second
model. After examining the social location, social class, religion and other control variables, my third model includes a parental communication scale. This scale includes the six topics discussed in the previous chapter—how to say no, methods of birth control, where to get birth control, STIs, HIV/AIDs, and condom use. By including the parental communication scale in this model, I am able to examine the effects that parental communication may have on self-silencing behavior. In the final model, I include both the parental communication scale as well as the formal sexual education scale that includes the six parental communication topics plus abstinence. The inclusion of both scales in this model allows me to investigate the effects of parental communication and formal sexual education on self-silencing behavior as well as test for any mediation effects on the social location variables.

Table 5-1 reports the results of the logistic regressions of self-silencing behavior on social location, parental communication and formal sexual education. The statistics are reported in odds ratios. In model 1, I found an association with race and self-silencing behavior\(^5\). However, this finding was counter to my initial hypothesis. According to the literature, women, and Hispanic women in particular, are more likely to self-silence than other young adults. While I found an association with race and gender, it was not in the direction I had initially hypothesized. Perhaps the difference in this finding stems from the fact that other studies compare self-silencing rates among different races and ethnicities of women only. I found that African American race and the combination of being African American and a woman served as a protective factor of self-silencing behavior. Both African American men and women are less likely to engage in self-silencing behavior. African American men are 23.3\% less likely than white men to be hesitant to discuss condom use with a new partner. Similarly, African American women are 47.2\% less likely than white men to self-silence regarding condom use with a new partner. All models were significant at the .001 level.

\(^{5}\) All models were significant at the .001 level.
partner. The initial model indicates that African Americans have lower levels of self-silencing, and therefore, higher levels of self-efficacy than other races of youth. Therefore, my initial hypothesis that Hispanic women would have higher levels of self-silencing was not supported\(^6\).

For all models, I used white men as the comparison group. However, I also ran each of the models using Hispanic women and white women as the comparison group. The association between African American women and self-silencing behavior continued to be significant in each of the models—regardless of the comparison group. African American women are 41.4% less likely to self-silence than white women. This number is slightly less than the comparison with white men. Similarly, when compared with Hispanic women, African American women are 39.3% less likely to self-silence than Hispanic women. This association is lessened when African American women are compared with other women than with white men.

While African American women remain a significant predictor of decreased self-silencing behavior, when compared to other races of women, we can see that there is less difference with regards to self-silencing when African American women are compared to other women. In a previous chapter, I found that African American women are more likely to receive information about condoms than white and Hispanic women. These results indicate that African American women are more confident than other women in their condom communication abilities.

\(^6\) I conducted an analysis where Hispanic women were the reference category. The only statistically significant difference was between Hispanic women and African American women. When compared to all other races and genders, there was no difference between Hispanic women and other groups of youth.
In model 2, African American race becomes an even stronger predictor of self-silencing behavior when other factors such as religion, social class, age and marital status are controlled for. I found that African American men and women are both less likely to report self-silencing regarding condom use than white men. African American men are 30.8% less likely to report self-silencing behavior than white men, and African American women are 52.3% less likely to report self-silencing behavior than white men. The increased relationship between African American and lower levels of self-silencing behavior in this model could be due to the fact that various dimensions of religion are controlled. African Americans tend to have high levels of

Table 5-1  Odds Ratios of Social Location, Parental Communication, Formal Sexual Education and Self-silencing

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Women</td>
<td>.85 (.10)</td>
<td>.83 (.10)</td>
<td>.86 (.10)</td>
<td>.86 (.10)</td>
</tr>
<tr>
<td>Hispanic Men</td>
<td>1.13 (.11)</td>
<td>.95 (.12)</td>
<td>.94 (.12)</td>
<td>.94 (.12)</td>
</tr>
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<td>.83 (.12)</td>
<td>.83 (.12)</td>
</tr>
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<td>African American Men</td>
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<td>.69 (.14)**</td>
<td>.70 (.14)**</td>
<td>.70 (.14)**</td>
</tr>
<tr>
<td>African American Women</td>
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<td>.48 (.14)***</td>
<td>.50 (.14)***</td>
<td>.50 (.14)***</td>
</tr>
<tr>
<td>Parent Communication Scale</td>
<td></td>
<td>.94 (.02)***</td>
<td>.94 (.02)***</td>
<td></td>
</tr>
<tr>
<td>Formal Education</td>
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<td>99 (.01)</td>
<td>99 (.01)</td>
<td></td>
</tr>
<tr>
<td>Income</td>
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<td>.95 (.04)</td>
<td>.95 (.04)</td>
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<td>1.05 (.02)**</td>
<td>1.05 (.02)**</td>
<td></td>
</tr>
<tr>
<td>Religious Attendance at 14</td>
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<td></td>
<td></td>
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<td>1.29 (.15)</td>
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<tr>
<td>Never Married</td>
<td>.67 (.15)**</td>
<td>.69 (.15)*</td>
<td>.69 (.15)*</td>
<td></td>
</tr>
<tr>
<td>Age</td>
<td>.88 (.01)***</td>
<td>.88 (.02)***</td>
<td>.88 (.01)***</td>
<td></td>
</tr>
</tbody>
</table>

R²=.01  R²=.05  R²=.06  R²=.06

N= 3,584. Odds ratios shown (Std Error).

* p≤.05; **p≤.01; ***p≤.001
religiosity; however, when these effects are controlled for, African Americans are more likely to express more liberal attitudes towards sexual health.

In addition to African American race, I also found significant associations with three of the control variables—religious attendance at age fourteen, marital status, and respondent’s age. Respondents who attended church more frequently at age fourteen were more likely to report higher levels of self-silencing behavior than those respondents who attended church less frequently. With each increase in church attendance, respondents were 4.6% more likely to report self-silencing behavior. Other aspects of religion, such as importance of religion in a person’s daily life and religious denomination⁷, had no association with self-silencing behavior when attendance is included in the model. The association with attendance as opposed to denomination or level of religiosity indicates that self-silencing is more closely associated with being part of a social network or community than a personal belief system.

However, I ran a separate analysis in which I omitted religious attendance at age fourteen. When attendance was omitted, the importance of religion in a person’s daily life became a significant predictor of self-silencing behavior.⁸ Respondents who indicated that religion was important in their daily lives were 42.7% more likely to indicate that they would self-silence regarding condom use with a new partner than individuals who said religion was not important in their daily lives. The tendency to self-silence from religious individuals could be indicative of a more conservative value system. A study by Beckwith and Morrow (2005) found that college age students who had high levels of religiosity were more likely to exhibit more conservative attitudes regarding sex. This could be indicative of more conservative attitudes

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⁷ I ran separate models using Fundamentalist and Catholic as religious denominations. Neither denomination was statistically significant.
⁸ All other previously observed statistically significant relationships remained significant in the model where religious attendance was omitted.
towards contraception such as condoms. However, with the inclusion of the religious attendance in the model, the importance of religion in a person’s daily life adds no additional explanatory power. This suggests that religious attendance and the importance of religion in a person’s daily life are indicative more of a connection with a conservative social network that holds disapproving attitudes towards premarital sex.

While church attendance during adolescence is positively associated with self-silencing, age and never being married is negatively associated with self-silencing behavior. With regards to age, each additional year of age, I found that young adults are 11.8% less likely to report self-silencing behavior. Therefore, younger respondents are more likely to self-silence than older respondents. The result suggests that as a young person matures, they gain more self-confidence and self-efficacy which makes them less likely to avoid conversations about condom use.

Similar to age, marital status also has a significant, negative relationship with self-silencing behavior. Respondents who have never been married reported less self-silencing behavior than currently married, divorced, widowed or separated respondents. However, I do not believe that avoiding marriage serves as a protective effect against self-silencing behavior. The significant association between never being married and self-silencing may be due to the wording of the question in the National Survey of Family Growth. Respondents are asked how likely the chance would be that they would be embarrassed to discuss condom use with a new partner. Individuals who are currently married, divorced, or separated from a partner, may have been with one partner for an extended period of time and may not be comfortable with the idea of a new partner. Single, never married people are more likely to date and be entertained with the prospect of a new partner more often than ever-married people. Therefore, I believe the association never married and self-silencing behavior regarding condom use is more of a
function of the wording of the question in the NSFG than it is reflective of actual self-silencing behavior regarding condom use\textsuperscript{9}.

In model 3, I included the parent communication scale in addition to the social location and control variables. Similar to the first two models, African American race continues to be a significant predictor of a reduction in self-silencing behavior independent of parental communication, social class, religion, age and marital status. African American men are 29.7\% less likely to report self-silencing behavior than white men while African American women are 49.8\% less likely to report self-silencing behavior than white men. The decreased likelihood of self-silencing by African American respondents appears to be slightly lessened by the inclusion of the parental communication scale.

In model 3, I also found a significant association with parental communication and self-silencing behavior. I hypothesized that parent communication would be an important predictor of protective sexual behaviors, and model 3 supports this hypothesis. Parents who discuss sexual topics with their children were more likely to have children who reported less self-silencing behavior. Young adults who discuss sex with their parents are 6.5\% less likely to report self-silencing behavior.

Model 4 is the full model which includes the social location variables, the parental communication and formal sexual education\textsuperscript{10} scales, and the control variables. I found that the inclusion of the formal sexual education scale did not have any direct association with self-silencing behavior. Additionally, the formal sexual education scale did not affect the strength of any of the previously observed associations from model 3.

\textsuperscript{9} I ran a separate analysis where I omitted the never married control. The substantive patterns of the analysis did not change.

\textsuperscript{10} A separate analysis was conducted with just the formal sexual education scale. The formal sexual education scale was not a significant predictor of self-silencing behavior.
In addition to these models, I also ran a series of models (results not shown in Table 1) that used 2 way interactions between race/gender and social class. One set of interactions looked at the effects of race, gender, and parental education. The other set of interactions looked at the effects of race, gender, and family income. None of these interactions between social location and self-silencing were significant. I also ran another series of interaction terms that looked at race/gender and formal or parental education. None of these interaction terms were significant. The lack of significance of the social class interaction terms and the social location/education interaction terms indicate that the process for self-silencing is consistent across social classes and operates independently of parental or formal sexual education.

5.4 Discussion

In this chapter, I examine the effects of social location, parental communication about sex, and formal sexual education on the likelihood that a young adult will exhibit self-silencing behavior regarding condom use with a new partner. Before I ran the analyses, I hypothesized that race, gender, and social class would have an association with protective sexual health behaviors, including self-silencing behavior. I also hypothesized that parental and formal sexual education would mediate the associations between social location and self-silencing behavior. Based on the literature, I hypothesized that because young adults reported higher levels of comfort in wanting to discuss sexual health topics with their parents, parental communication about sex would be a stronger predictor of self-silencing behavior than formal sexual education.

Through a series of logistic regressions, I found support for my hypothesis that social location and self-silencing behavior are associated. However, it was not in the direction that I had expected. The literature notes that women report higher levels of self-silencing than men (Panchaud et al. 2000; Widman et al. 2006; Casey et al. 2009). In particular, the literature noted a
link between Hispanic women and self-silencing behavior (Galanti 2003; Hutchison et al. 2003; Sable et al. 2009; Deardorff et al. 2013). However, I found no significant relationships between Hispanic women and self-silencing behavior in any of the models. Hispanic women are no more likely to self-silence than white men\textsuperscript{11}. I posit that these findings are different as many of the studies look at differences among ethnicities of women only or look at the differences in self-silencing among Hispanic men and women. These studies do not compare across race and gender categories.

The logistic regressions did show that African Americans are less likely to self-silence than white men. Therefore, there is an association between social location and self-silencing. However, it is not a negative association as the literature suggests, and I previously hypothesized. Rather, the analyses show that being African American reduces the likelihood that a young adult will not discuss condom use with a new partner. In particular, African American women were the least likely of any group to exhibit any self-silencing behavior. These associations became even stronger when control variables such as religion, social class, age and marital status were included in the analysis. African Americans are more likely to be religious where condom use may be stigmatized, and therefore, when these factors are controlled for, the association between African American race and self-silencing becomes an even stronger predictor.

In the previous chapter, African Americans, and especially African American women, discussed more sexual health topics with their parents and in formal sexual education programs. Perhaps this increased education that African American women receive encourages higher levels of self-efficacy and gives these young women confidence to discuss condoms with a new partner.

\textsuperscript{11} Hispanic women also served as the reference category, and the only significant relationship that existed was between Hispanic women and African American women.
partner. In addition, the fact that African Americans report higher levels of condom use than whites may also indicate—as does parental and formal communication about condom use—a higher acceptance of condom use than white and Hispanic communities. If condom use is condoned in African American communities, then young African Americans would be less hesitant to discuss condom use because condom use is more easily accepted.

When parental communication was included in the analysis, the strength between African Americans and self-silencing was reduced slightly. However, the parental communication scale did not mediate the associations between African American men, African American women and self-silencing behavior. I hypothesized that these direct relationships between social location and self-silencing would be mediated by parental communication and formal sexual education. However, the effect of African American race remains significant and largely unchanged with the inclusion of the parental communication and formal sexual education. Therefore, my hypothesis that parental communication and formal sexual education would reduce the direct relationships between social location and self-silencing is not supported. Independent associations between African American men, African American women, and parental communication exist and do not appear to be affected by one another. This was further confirmed by the series of 2 way interaction models. Using these models, I tested whether the process is different for these different social locations. Since the interactions are not significant, I found that the process is not different for people of various social locations and the protective effects of parental communication and African American race operate independently of one another. Parental communication, which could indicate more perceived parental support, gives young adults—regardless of social location—more self-efficacy and confidence to discuss
condoms with a new partner. Again, if parents have more approving attitudes towards sexual health, then there is less embarrassment surrounding condom use.

My final hypothesis that parental communication would be a stronger predictor of self-silencing behavior than formal sexual education was supported by the logistic regressions. I observed a 6% decrease in self-silencing behavior with each sexual health topic discussed by parents. In contrast, formal sexual education had no association with self-silencing behavior. The results reinforce the debates regarding parents or formal sources of sexual education as the best sources of information for children regarding sex. The results of the analysis suggest that parental communication about sexual health gives their children confidence to discuss condoms with a new sexual partner. These results also affirm the previous findings in the literature where Fasula, Miller, and Weiner (2007) and Barman-adhikari et al. (2014) found positive associations with parental communication and a reduction in risky sexual health behaviors. Barman-adhikari et al. (2014) found that Hispanic and African American mothers are associated with a reduction in risky sexual behaviors for daughters if they discuss sexual topics with them. While this study cannot determine which parent discussed the sexual topics with their children, the findings suggest that the discussion of sexual topics partially reaffirms Barman-adhikari et al.’s (2014) findings that parental communication regarding sex has positive benefits for African American daughters. Therefore, based on the findings of previous studies, as well as the current study, parents should communicate with their children as much as possible regarding sexual health as it gives their children higher levels of sexual self-efficacy. Children of parents who discuss sexual health topics are less likely to self-silence and report lower levels of embarrassment when discussing condoms with a new partner.
The findings of this chapter also suggest possible improvements for formal sexual education programs. If formal sexual education seems to be ineffective at reducing self-silencing behavior and is more influenced by parental communication, then formal education programs should encourage young adults to discuss condom communication strategies with their parents. Furthermore, formal sources of education such as schools, community centers and churches could also educate parents on the significance of their role in educating their children about condoms and also encourage parents to initiate conversations with their children about how to communicate with your partner about condom use.

In addition to the significant findings involving race, gender, and parental communication, the current chapter has also identified other factors that remained significant that are not affected by the inclusion of parental communication or formal sexual education. Religious attendance at age 14 consistently remained significant across all models. As religious attendance increases, the likelihood that a young person will exhibit self-silencing behavior also increases. While other dimensions of religion such as denomination and importance of religion in a person’s daily life were included, they were not significant predictors when religious attendance was included. The results suggest that personal religious beliefs or a particular denomination are not important, but the association with a religious social network is significant. Religious communities tend to be more conservative and are more likely to espouse negative views of sexual activity before marriage. Therefore, young adults who belong to these social networks may feel embarrassed to discuss condom use with a partner because these negative messages regarding pre-marital sex from these religious networks may make them feel like engaging in any kind of sexual activity—protected or not—would be embarrassing because it is violating the social mores of their religious social network.
In addition to religious attendance, age also remained a strong predictor of a decreased likelihood in self-silencing behavior. These results indicate that self-efficacy and confidence in discussing difficult topics such as condom use increases as one gets older. Essentially, the maturation process serves as a protective factor. If this knowledge can be used in conjunction with encouraging young people to delay sexual activity, then this would improve the likelihood that a young person would be less likely to self-silence regarding condom use, and therefore, more likely to use condoms in their sexual encounters.

5.5 Conclusion

Through the examination of social location, parental communication, formal education, and self-silencing behavior, I found that African American race and parental communication are important factors in reducing the likelihood that a young adult will be afraid to discuss condom use with a new partner. Parental communication and acceptance of condom use in the African American community serve as protective factors that destigmatize condom use. Previous studies linked gender with self-silencing, but when the intersection of race and gender on self-silencing behavior is examined, it appears that self-silencing is only associated with African American men and women. These were negative relationships with self-silencing that remained significant despite the inclusion of control variables and sexual education scales. Therefore, I found that African American youth exhibit more confidence when discussing condom use than other races of youth.

While I did not find any support for parental communication and formal sexual education mediating the direct relationships between social location and self-silencing, I did find support that parental communication is a protective factor for self-silencing behavior. This finding is encouraging, as it shows that parents who communicate with their children about sexual health
are more likely to have children who engage in an important protective sexual health behavior—
discussing condoms with a new partner. Previous research has shown that if young adults discuss
condoms with their partners, they are more likely to use a condom the first time they have sex
and be more likely to continue using condoms (De Visser and Smith 2001; Shafii et al. 2004;
Shafii, Stovel and Holmes 2007). Therefore, sexual education programs, clinicians, community
health centers, and public health officials should encourage parents to discuss condom use with
their children.

However, the lack of an association between formal sexual education and self-silencing
behavior is concerning. In chapter 4, it was noted that many young adults only receive
information regarding sexual health from formal sources of sexual education such as schools,
churches, and community centers. Therefore, young adults who only receive formal sexual
education may be at a disadvantage when it comes to condom communication, thus putting them
at increased risk of not using condoms.

The CDC (2015) noted that many formal sexual education programs do not cover all of
the topics they deemed essential for a sexual education program. Public health scholars have also
criticized formal sexual education programs for superficially covering topics. Since formal
sexual education has no association with self-silencing, formal sexual education programs should
re-evaluate their curricula to encourage condom communication, provide strategies for
discussing condom use, and most importantly, encourage parents and young adults to
communicate about condom use as parental and cultural approval of condom use appears to give
young adults more self-confidence while decreasing the likelihood that a young adult will self-
silence about condom use.
6 SOCIAL LOCATION, PARENTAL COMMUNICATION, FORMAL SEXUAL EDUCATION AND CONSISTENT CONDOM USE OVER THE LAST TWELVE MONTHS

6.1 Introduction

This chapter investigates whether or not parental communication and formal sexual education mediate the gendered and raced relationships observed in previous research with regards to consistent condom use over a 12 month period. Previous research has noted that women are less likely to use condoms than men (Martinez, Copen and Abma 2011). For women who use condoms, African American women are more likely to use condoms than Hispanic and white women (Welti, Wildsmith, and Manlove 2011). I want to investigate if the differential rates of condom use between men and women as well as between African American, white, and Hispanic women is due to racial, ethnic and gender differences, or can it be mediated by the education they receive from parents and formal sources.

Patricia Hill Collins (2000) noted that controlling stereotypes exist for African American women where they are presented as overly sexual beings. Previous research has documented that formal sexual education reflects the belief that African American women are more sexual (Luker 1996; Fields 2008), and due to the stereotypes, African American women are more likely to have a “comprehensive” sexual education course that discusses condom use. Men are also seen as “sexual” beings, and they are also more likely to receive condom education than women (DiIorio et al. 2007; Fasula, Miller, and Wiener 2007; Epstein and Ward 2008). In this chapter, I investigate whether sexual education from parents and formal sources mediate these observed rates of increased condom use among men and African American women. Additionally, I want to test if reduced rates for white and Hispanic women are due to a lack of sexual education. White
and Hispanic women are seen as “pure” and “virginal” (Fields 2008; Valenti 2010) and are therefore more likely to receive abstinence education from formal sources and parents. I want to test if parental communication and formal sexual education can also mediate the observed patterns of reduced consistent condom use among these women.

6.2 Analytic Strategy

For this chapter, I wanted to look at what social and demographic factors contribute to consistent condom use in young adults. For this analysis, I am including sexually active young adults ages 15 to 24 who have had heterosexual vaginal intercourse in the past twelve months in order to examine how parental and formal sexual education contributes to a young person’s rate of condom use. To investigate the research question with this sample, I use one question from the NSFG 2011-2013 that asks respondents how often they used condoms in the past year. Young adults who are not sexually active are not included in this chapter as they have not yet experienced vaginal intercourse. Additionally, young adults who have not engaged in heterosexual vaginal sex in the past year are not included in this chapter as they have not had the opportunity to use a condom.

Using this sample, I tested the following hypotheses in this chapter:

1. A direct association between race/gender and condom use will be observed. In general, I hypothesize that women will use condoms less consistently than men. In particular, I believe that white and Hispanic women will have the lowest rates of consistent condom use than individuals in other groups.

1b. African Americans will have higher rates of condom use than whites.

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12 I also conducted an analysis where non-sexually active youth were included in the analysis. The results of the analysis did not change when compared to the sexually active sample.
1c. When socioeconomic status is interacted with race and gender, the effects of income on consistent condom use will be greater for white and Hispanic women when compared with white men.

2. The inclusion of the parental communication and formal education will mediate the associations between race, gender, social class, and consistent condom use.

3. Parental communication will have a stronger association with consistent condom use than formal sexual education.

I used white men as the comparison group for the analysis as previous research has noted communication and sexual health differences between white men and other groups of young adults (Di Iorio et al. 1999; Fasula, Miller, and Weiner 2007; CDC 2015). To examine the relationship between social location and consistent condom use, I tested the first of my hypotheses to see if race and gender have a direct relationship with consistent condom use. I included social class variables of mother’s education and family income initially as controls to parse out any direct relationship between race/gender and consistent condom use. To test the second part of my first hypothesis, I then included the social class variables of mother’s education and income as to examine the effects of socioeconomic status for youths of different racial and gender categories. I create a series of interaction terms with race/gender and education as well as race/gender and family income to test if the effects of socioeconomic status combined with race and gender also had direct relationships with consistent condom use. The inclusion of the interaction terms allows me to test the work of Fields (2008) who observed differing sex education courses being offered based on a school’s predominant race, gender, and social class. The interaction terms with social class also allow me to examine whether the process of condom use varies by social location.
After testing for direct associations between social location and consistent condom use, I tested the second and third hypotheses by including parental communication and formal education scales in the model to see if sexual education could mediate any observed associations with race, gender, class, and consistent condom use. The purpose of these analyses to see if any direct relationships between social location and consistent condom use can be lessened by sexual education from parents as well as formal education. I also tested another series of interaction terms that looked at the relationships between social location and parental communication as well as social location and formal sexual education to see if the process of condom use varies by the amount of sexual education young adults in various social locations receive from parents and formal sources. In addition to testing the effects of social location, parental communication and formal sexual education, this chapter also aims to aid in public policy and intervention through the identification groups of young adults who may be more at risk of decreased condom use as well as recognize protective factors such as parental communication or formal sexual education that may encourage condom use in young adults.

6.3 Results

Table 6-1 reports the results of the OLS regressions of consistent condom use on social location, parental communication and formal sexual education. In model 1, I found an association with race, gender and consistent condom use. White, Hispanic, and African American women all have lower rates of condom use than white men. I originally hypothesized that women would have lower rates of condom use than white men. Since all 3 racial categories of women report lower rates of consistent condom use than white men, my initial hypothesis was supported. I also hypothesized that white and Hispanic women would have the lowest rates of condom use. White and Hispanic women reported using condoms at a rate that is approximately
.7 less than white men. African American women also report lower rates of consistent condom use. African American women use condoms at a rate that is .5 lower than white men. I also ran another model (results not reported in the table) that used African American women as the reference category. No significant differences existed between African American women and women from other groups. Therefore, I found partial support for my hypothesis that Hispanic and white women would have the lowest rates of condom use. Since both white and Hispanic women report lower rates of consistent condom use, I found support my hypothesis. However, since African American women do not significantly differ from white and Hispanic women in their frequency of condom use, my hypothesis was not fully supported.

In addition to the associations among various groups of women and consistent condom use, I also found an association with African Americans and consistent condom use. As noted previously, African American women are less likely to use condoms than white men. However, African American men have higher rates of consistent condom use than white men. African American men report using condoms at a rate that is .27 higher than white men. I originally hypothesized that African Americans would use condoms at a rate that is higher than whites. Since African American men use condoms more frequently than white men, I found partial support for my hypothesis. However, as mentioned previously, since no significant differences existed among African American women and other groups of women, my hypothesis was not supported by this finding.
Table 6-1 Social Location, Parental Communication, Formal Sexual Education and Condom Use

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
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<tbody>
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<td>-.63(09)***</td>
<td>-.61(09)***</td>
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<td>.06(.11)</td>
<td>.05(.11)</td>
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<td>.02(.01)</td>
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<td>.04(.08)</td>
<td>.04(.08)</td>
<td>.03(.08)</td>
<td></td>
</tr>
<tr>
<td>Never Married</td>
<td>1.08(.10)***</td>
<td>1.06(.10)***</td>
<td>1.07(.10)***</td>
<td>1.06(.10)***</td>
<td></td>
</tr>
<tr>
<td>Age</td>
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<td>-.14(.01)***</td>
<td>-.14(.01)***</td>
<td></td>
</tr>
<tr>
<td>Self-Silencing</td>
<td>-.21(.07)**</td>
<td>-.21(.07)**</td>
<td>-.21(.07)**</td>
<td>-.21(.07)**</td>
<td></td>
</tr>
</tbody>
</table>

R²=.07  R²=.19  R²=.19  R²=.19  R²=.19

N=2,185 Unstandardized regression coefficients shown (Std Error).

* p≤.05; **p≤.01; ***p≤.001

In model 2, the associations between all races of women and consistent condom use continue to be significant despite the inclusion of social class, religion, marital status, age, and self-silencing behavior. Since the relationships remain significant for white, Hispanic and African American women and reduced rates of condom use, my initial hypothesis that women would report lower rates of condom use than men is supported. For white and Hispanic women, the direct associations were slightly mediated by the inclusion of the control variables. White
women reported using condoms at a rate .62 less than white men. Similarly, Hispanic women use condoms at a rate .65 less frequently than white men. As noted in a previous chapter, income can be a salient predictor of reduced risky sexual behaviors for white women. Since income is included, this may reduce the association between white women and consistent condom use. Additionally, Hispanic women tend to report high levels of religiosity, and the inclusion of religiosity may help explain some of the association between Hispanic women and reduced condom use.

For African American women, the inclusion of income, religion, marital status, age, and self-silencing behavior increased the direct association between African American women and consistent condom use. African American women report a rate of condom use that is .64 lower than white men. A previous chapter noted that African American women are less likely to self-silence regarding condom use than individuals from other groups. Therefore, when self-silencing is controlled for, the direct relationship between African American women and consistent condom use becomes stronger.

The observed relationship between African American men and consistent condom use in model 1 is completely mediated by the inclusion of income, religiosity, age, marital status, and self-silencing. While I expected the relationships between social location and consistent condom use to be mediated, I thought that parental communication and formal sexual education would mediate it. Since it was mediated by factors other than the main variables of interest, this finding does not support my hypothesis. It appears that income, religiosity, age, marital status, and self-silencing behavior are stronger predictors of consistent condom use for African American men. Additionally, I hypothesized that African Americans would have higher rates of condom use than white men. Since the association between African American men and consistent condom use was
completely mediated by other factors, my hypothesis that African Americans would report higher rates of consistent condom use than white men is not supported.

I also ran a series of interaction terms that examined the relationships between race, gender, and social class. I examined the effects of race, gender, and family income as well as race, gender, and maternal education. None of the interaction terms were associated with consistent condom use. I hypothesized that the effects of consistent condom use would be worse for lower SES white and Hispanic women. Since the social class interaction terms were not significant, I did not find any support for my original hypothesis. The process of using condoms consistently does not vary by social class for young adults.

Additionally, I also ran a series of interaction terms that examined the relationships between race, gender, and parental communication as well as race, gender, and formal sexual education. Similar to social class, none of the interaction terms for parental communication and formal sexual education were significant predictors of consistent condom use. Therefore, the process of using condoms consistently does not vary by parental communication or formal sexual education.

In addition to the observed relationships between social location and consistent condom use, I also found a number of associations with the control variables. Income and consistent condom use are positively associated. For each increase in income, consistent condom use increases by .02. Therefore, young adults from higher socioeconomic statuses are more likely to use condoms consistently than individuals from lower socioeconomic backgrounds.

Religion is also associated with consistent condom use. Young adults who believe that religion is important in their daily lives are more likely to use condoms than individuals who are not religious. Religious youth report using condoms at a rate .27 higher than non-religious youth.
Since religious youth typically belong to a religion that has a negative view of premarital sex, religious youth may be more likely to use condoms in order to prevent unintended pregnancy or other sexual health issues.

Young adults who have never been married also report higher rates of consistent condom use than ever-married adults. Never married adults use condoms at a rate that is 1.08 higher than ever-married adults. The increased rate of condom use among never married adults is probably due to the fact that never married adults are more likely to have more sexual partners than ever-married adults who are largely monogamous. Therefore, since an increased number of sexual partners is correlated with an increased risk of negative sexual health outcomes, never married people would be more likely to use condoms.

Age is also associated with consistent condom use. Younger respondents in the sample report using condoms more consistently than older respondents. With each additional year of age, the rate of consistent condom use decreases by .14. The reduced rate of condom use for the older individuals in the sample could again be a function of relationship characteristics. Older youth may be more likely to be in serious, monogamous relationships. If older youth only have one sexual partner whom they have had for a significant length of time, they may be less likely to use condoms since they do not perceive their sexual behavior as particularly risky.

Self-silencing is the final control variable that has a significant relationship with condom use. Individuals who self-silence use condoms at a lower rate than individuals who do not self-silence. Individuals who are more likely to self-silence report using condoms at a rate that is .21 lower than individuals who do not self-silence. Since individuals who are likely to self-silence are afraid to discuss condom use with a partner, then they are less likely to use condoms because they did not initiate a discussion about condoms prior to intercourse.
In a separate model (results not shown), I omitted self-silencing as a control variable. When self-silencing is omitted from the model, the associations between social location, formal sexual education, and consistent condom use do not change. White women, Hispanic women, and African American women use condoms less consistently than white men when self-silencing is omitted from the analysis. Additionally, formal sexual education encourages more consistent condom use when self-silencing is omitted from the model. Therefore, the inclusion of self-silencing behavior has no effect on the statistically significant relationships observed with regards to social location, formal sexual education, and consistent condom use.

Model 3 includes parental communication. Parental communication is positively associated with increased condom use. For each sexual health topic young adults discuss with their parents, there is a .03 increase in condom use. Therefore, young adults who discuss sex with their parents are more likely to use condoms consistently.

However, the inclusion of parental communication in model 3 did not mediate any of the previously observed relationships between social location and consistent condom use. I hypothesized that parental communication would mediate these relationships. The associations between social location and consistent condom use remained largely unchanged in this model. Therefore, my original hypothesis was not supported.

Model 4 includes formal sexual education. Similar to parental communication, formal sexual education is also positively associated with consistent condom use. For each topic discussed in a formal sexual education program, there is a .06 increase in condom use. Therefore, young adults who are educated about various aspects of sexual health in formal sexual education programs use condoms more consistently than young adults who do not receive this education.

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13 When self-silencing is not included in the full model, the unstandardized coefficients are as follows: -.61 for white women, -.64 for Hispanic women, -.63 for African American women, and .05 for formal sexual education.
Similar to parental communication, the inclusion of formal sexual education in model 4 did not mediate any of the associations between social location and consistent condom use. I hypothesized that formal sexual education would mediate these relationships. However, since the relationships between social location and consistent condom use remained largely unchanged, I found no support for my hypothesis.

Model 5 includes both parental communication and formal sexual education. When both parental communication and formal sexual education are included in the model, parental communication is no longer a significant predictor of consistent condom use. However, formal sexual education is positively associated with increased condom use. With each topic discussed in a formal sexual education programs, there is a .05 increase in condom use for young adults. Since formal sexual education is positively associated with an increase in consistent condom use and parental communication is no longer significant, formal sexual education appears to have more of an effect on young adults’ condom behavior than parents. I hypothesized that parental communication would be a stronger predictor of condom use. Since the association between parental communication and consistent condom use is mediated by formal sexual education, my original hypothesis is not supported.

Additionally, I hypothesized that the inclusion of parental communication and formal sexual education would mediate the direct associations between social location and consistent condom use. Again, the previously observed associations for white, Hispanic, and African American women and decreased condom use remained unchanged despite the inclusion of formal sexual education and parental communication. While formal sexual education has a positive association with an increase in consistent condom use, it operates independently of race and gender. Therefore, my original hypothesis that formal sexual education as well as parental
communication would mediate any direct relationships with social location and consistent condom use is not supported.

6.4 Discussion

Consistent condom use is gendered. Women, regardless of race or ethnicity, report lower rates of consistent condom use than white men. An earlier chapter noted that white and Hispanic women had the highest percentages of not receiving information about condom use from either parents or formal sexual education programs. Since young white and Hispanic women are less likely to receive protective information about condom use from their parents and schools, they are less likely to use condoms consistently because they have not been educated on the topic.

Parents and schools reinforce the gender stereotypes that exist about contraceptive use. Contraceptives such as the pill and other hormonal methods are seen as exclusively female, and condoms—which rely on more contraceptive work from men—are seen as exclusively male. Unfortunately, condoms are the only contraceptive method that prevents unintended pregnancy and sexually transmitted infections. Therefore, by not discussing condom use with young women, they are less likely to use condoms during vaginal intercourse. This leaves young women vulnerable to multiple negative sexual health outcomes including unintended pregnancy, sexually transmitted infections, and an increased risk of contracting HIV.

In a previous chapter, I found that African American women were less likely to receive information from neither source when compared to white and Hispanic women; however, African American women were significantly more likely to receive less information about condoms from neither source than African American men. The fact that African American women are educated less frequently about condoms than African American men may contribute
to decreased condom use among African American women. However, the previous chapter found no significant differences between African American women and white men with regards to condom communication from parents or formal sexual education programs. Another chapter also noted that African American women reported lower levels of self-silencing behavior regarding condom use. This would indicate that African American women would be more likely to use condoms, and yet, young African American women reported using condoms less consistently than white men.

African American women may use condoms less consistently for a number of reasons that have to do with partner characteristics. A study by Otto-Salaj and colleagues (2010) found that the strategies in which young African American women used to get their partners to use condoms were not as significant of a predictor of condom use as was partner characteristics. African American women, despite feeling confident about discussing condoms, may not actually use condoms as consistently during heterosexual vaginal intercourse because their partners may express that they do not want to use condoms. Young African American women may have partners who employ condom resistance strategies, and despite expressing a desire to use condoms, African American women may concede to their partners’ wishes.

For African American men, I found an initial positive association with consistent condom use. However, this relationship was completely mediated by income, marital status, religiosity, and self-silencing behavior. Since income is a significant predictor of consistent condom use, it appears that higher SES individuals are more likely to use condoms regardless of race. Additionally, African Americans tend to be religious, and personal religious beliefs may play a role in condom use. More religious African American men who are sexually active may use condoms so that they can prevent unintended pregnancy, which is a clear indicator that they are
sexually active. Sexual activity among young, unmarried persons is generally not supported by
religion, and therefore, religious individuals would try to limit any indicator of sexual activity. In
addition to religion, single African American men may use condoms more frequently because
they are more likely to have different sexual partners than married individuals. In addition to
religion and marital status, African American men—as noted in a previous chapter—are less
likely to self-silence about using condoms than white men, and if they are more likely to discuss
condom use before sexual activity, then they will be more likely to use condoms more reliably.
Therefore, religiosity, condom self-efficacy, being unmarried, and income appear to be more
salient predictors of condom use for African American men.

Parental communication, initially, was positively associated with consistent condom use.
This was an encouraging finding that parental discussion of sexual health topics could give their
children the confidence and ability to use condoms more consistently. However, when formal
sexual education is also taken into account, the protective factor of parental communication
encouraging consistent condom use disappears. This finding indicates that formal education is
more salient of a factor for young adults when it comes to using condoms more consistently.

Since a previous chapter acknowledged that many young adults only receive education
from formal sources of sexual education, it is encouraging that formal sexual education
continued to have a positive association with consistent condom use. Formal sexual education is
able to educate young adults about the risks associated with sexual activity such as unintended
pregnancy, STIs, and HIV. Formal sexual education also educates young adults about condom
use, other methods of birth control, and where to obtain condoms and other forms of birth
control. This education appears to have an impact on young adults, as it does encourage more
reliable condom use.
Higher SES individuals are more likely to use condoms more consistently than lower SES individuals. Higher SES individuals have more educational and career opportunities than lower SES individuals. Furstenburg (2003) calls these future career and educational aspirations a “contraception of hope.” Since higher SES youth do not want to jeopardize their future career and educational plans, they are more likely to use contraception to prevent unintended pregnancy, STIs, and HIV which could prevent them from realizing these goals.

Young adults who have higher levels of religiosity use condoms more consistently. Religions often have conservative viewpoints regarding premarital sexual activity in young adults. If religion is an important factor in a young person’s daily life, then young people are not going to conceal any behavior that may go against their religious beliefs. For example, unintended pregnancy is a clear indicator that a young adult has been engaging in sexual activity—as would a HIV or STI diagnosis. Therefore, young adults who have high levels of religiosity would be more likely to use condoms so that their sexual activity will not be discovered by their religious community.

Never married people also use condoms more consistently than ever-married people. Since never married people are less likely to be in long term, monogamous relationships than ever married people, they may perceive their sex lives as more risky. Since they are less likely to be in committed relationships, they may have more sexual partners as well as more casual sexual partners than ever married people. Therefore, never married people may want to protect themselves from STIs, HIV transmission, and unintended pregnancy by using condoms.

Respondent’s age was also a significant predictor of condom use. Older young adults in the sample used condoms less consistently than younger respondents. This finding seems counterintuitive as I thought the older young adults in the sample would be more mature, and
therefore, more likely to use condoms. However, older young adults may be more likely to be in monogamous or more serious romantic relationships. Since older young adults may be more committed to their partners, they may view their sex lives as less risky, and therefore, are less motivated to use condoms.

As expected, self-silencing is negatively associated with consistent condom use. As stated in the previous chapter, individuals who have low levels of condom self-efficacy are more likely to not discuss condom use with their partners before sex. Therefore, if condom use is not discussed, then young adults are less likely to use condoms at the first time they engage in sexual activity with a new partner as well as continue to use condoms. Therefore, individuals who are more likely to self-silence use condoms less consistently.

6.5 Conclusion

Formal sexual education is found to be a protective factor for young adults. The more sexual education young adults receive from formal sources, the more they use condoms consistently. However, as a previous chapter noted, formal sexual education fails to educate young women—especially young white and Hispanic women—about condom use. This is unfortunate as condoms are the only contraceptive that prevents unintended pregnancy as well as STIs and HIV. Since formal education fails to educate everyone equally and only gives protective sexual health information about condoms to young men at higher rates, young women are less likely to use condoms consistently. Since women are not using condoms consistently, they are leaving themselves vulnerable to a host of negative sexual health outcomes. The findings of this chapter indicate that formal sexual education has the power to encourage consistent condom use. However, they must educate all children equally—regardless of
gender—about the benefits of condom use. If formal education can emphasize condom use for women, it may contribute to more consistent condom use among young women.

Additionally, formal sexual education should also encourage parental communication about condom use. There are some indications that parental communication about condom use can encourage more consistent condom use; however, formal sexual education appears to be a more salient factor for consistent condom use for young adults. If formal sexual education programs could encourage more open dialogue between parents and young adults about the benefits of condom use—especially for daughters—then young adults may be more likely to use condoms more consistently.

7 SOCIAL LOCATION, PARENTAL COMMUNICATION, AND FORMAL SEXUAL EDUCATION AS PREDICTORS OF AGE AT SEXUAL DEBUT

7.1 Introduction

This chapter tests whether the parental and formal sexual education variables mediate any observed relationships between social location and age at sexual debut. Sexual debut, for the purposes of this study, is defined as the first time a person voluntarily engages in heterosexual vaginal intercourse. Previous research has noted that African American men and women, as well as Hispanic men, debut at an earlier age than whites and Hispanic women (Cavazos Rehg et al. 2009). While the direct links between social location and age at sexual debut are consistent in the literature, the effects of formal sexual education and parental communication on age at sexual debut appear to be mixed. Previous research notes an association between parental communication and age at sexual debut. If parents discuss certain sexual topics such as contraceptive use, then their children are more likely to have a later sexual debut (Karkofsky, Zeng and Kosorok 2001; Aspy et al. 2007). However, other studies have found that if parents
discuss sexual topics with their children, then their children are more likely to have an earlier sexual debut (Davis and Friel 2001; Deptula, Henry, and Schoeny 2010; Parkes et al. 2011). Pearson, Muller, and Frisco (2006) also found an association for whites, Hispanics and female adolescents who discussed sex more often with their parents were more likely to initiate sex.

Formal sexual education also seems to have mixed results as to whether or not it is associated with young adults delaying their sexual debut. Kirby (2007) found that two-thirds of comprehensive programs had measurable effects on delaying an adolescent’s sexual debut, reducing the number of sexual partners, and increasing contraceptive use. However, a policy analysis of sexual education programs by Sabia (2006) found no association between protective sexual behaviors and formal sexual education.

7.2 Analytic Strategy

For this chapter, I wanted to look at what social and demographic factors contribute to age of sexual debut in young adults. For this analysis, I am including sexually active young adults ages 15 to 24 in order to examine how parental and formal sexual education contributes to a young person’s age at sexual debut. To investigate the research question with this sample, I use one question from the NSFG 2011-2013 that asks respondents how old he or she was the first time he or she engaged in heterosexual vaginal intercourse. Young adults who are not sexually active are not included in this chapter as they have not yet experienced vaginal intercourse.

Using this sample, I tested the following hypotheses in this chapter:

1. A direct association between race/gender and age at sexual debut will be observed.

I hypothesize that African American men, African American women, and Hispanic men will have earlier sexual debuts than individuals in other groups.

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14 I also conducted a separate analysis that included non-sexually active youth in the analysis. The results did not vary based on the inclusion of the non-sexually active youth.
1b. When socioeconomic status is included, the effects of socioeconomic status will have more of an effect for African American men and Hispanic men when compared with white men.

2. The inclusion of the parental communication and formal education will mediate the associations between race, gender, social class, and age at sexual debut.

3. Parental communication will have a stronger association with age at sexual debut than formal sexual education.

I used white men as the comparison group for the analysis as previous research has noted communication and sexual health differences between white men and other groups of young adults (Di Iorio et al. 1999; Fasula, Miller, and Weiner 2007; CDC 2015). To examine the relationship between social location and age at sexual debut, I tested the first of my hypotheses to see if race and gender have a direct relationship with age at sexual debut. I included social class variables of mother’s education and family income initially as controls to parse out any direct relationship between race/gender and age at sexual debut. To test the second part of my first hypothesis, I then included the social class variables of mother’s education and income as independent variables by creating a series of interaction terms with race/gender and education as well as race/gender and family income to test if the effects of socioeconomic status combined with race and gender also had direct relationships with age at sexual debut. The inclusion of the interaction terms allows me to test the work of Fields (2008) who observed differing sex education courses being offered based on a school’s predominant race, gender, and social class. The interaction terms with social class also allow me to examine whether the process of age at sexual debut varies by social location.

After testing for direct associations between social location and age at sexual debut, I tested the second and third hypotheses by including parental communication and formal
education scales in the model to see if sexual education could mediate any observed associations with race, gender, class, and age at sexual debut. The purpose of these analyses to see if any direct relationships between social location and age at sexual debut can be lessened by sexual education from parents as well as formal education. In addition to testing the effects of social location, parental communication and formal sexual education, this chapter also aims to aid in public policy and intervention through the identification groups of young adults who may be more at risk of an earlier sexual debut as well as recognize protective factors such as parental communication or formal sexual education that may delay sexual debut.

7.3 Results

Table 7-1 reports the results of the OLS regressions of age at sexual debut on social location, parental communication and formal sexual education. In model 1, I found an association with race and age at sexual debut\textsuperscript{15}. African American men and women as well as Hispanic men had earlier sexual debuts than white men. This finding confirmed my original hypothesis that African Americans and Hispanic men would have earlier ages at sexual debut. Hispanic men were .75 years younger than white men the first time they engaged in vaginal intercourse. African American men were approximately 1.8 years younger than white men the first time they engaged in sex. African American women also had earlier sexual debuts than white men. African American women were approximately half a year younger than white men when they engaged in sex for the first time.

In model 2, the associations between African Americans and Hispanic men continue to be significant despite the inclusion of social class, religion, and marital status. The inclusion of these controls did not significantly affect the associations among African American and Hispanic

\textsuperscript{15} All models were significant at the .001 level.
men. Hispanic men are .70 years younger than white men the first time they engage in sex.

African American men have a sexual debut 1.7 years earlier than white men. Since social class and religion did little to mediate the relationships for minority men.

Table 7-1  OLS Regression of Age at Sexual Debut on Social Location, Parental Communication, and Formal Sexual Education

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
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<td>-.17(.15)</td>
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<td>-1.70(.15)***</td>
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<td>-1.71(.16)***</td>
<td>-1.71(.16)***</td>
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<td>-.38(.15)*</td>
<td>-.36(.16)*</td>
<td>-.40(.16)*</td>
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<td>.06(.02)**</td>
<td>.08(.02)**</td>
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<td>.04(.01)***</td>
<td>.04(.01)***</td>
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<td>.10(.04)*</td>
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<td>-.10(.15)</td>
<td>-.13(.14)</td>
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</tbody>
</table>

R² = .07  R² = .09  R² = .10  R² = .10  R² = .10

N= 2,441. unstandardized regression coefficients shown (Std Error).

* p≤.05; **p≤.01; ***p≤.001

For African American women, the relationship was mediated slightly by social class and religion. African American women are .38 years younger than white men when they engage in sex for the first time. This finding could be due to the fact that various dimensions of religion are controlled and may be more salient for African American women. African Americans tend to have high levels of religiosity; however, when these effects are controlled for, African American women are slightly more likely to delay sexual debut. Additionally, this finding may be mediated slightly by the inclusion of social class in the model which may also be more significant for
African American women than African American men. Lower socioeconomic status is also associated with an earlier sexual debut. Since African Americans are more likely to be of a lower socioeconomic status, when the effects of socioeconomic status are controlled for, then African American women are slightly more likely to delay sexual debut.

In addition to social location, dimensions of social class had significant associations with age at sexual debut. Income is positively associated with a later sexual debut. With each increase in family income, young adults delay sexual activity by .04 years. Similarly, mother’s highest level of education is also positively associated with delayed sexual debut. With each additional year of education that the respondent’s mother has, young adults delay sexual activity by .1 years. The positive associations with income, mother’s education, and delayed sexual debut indicate that young adults of higher socioeconomic status are more likely to delay sexual activity than young adults from poorer classes.

Two aspects of religion also had associations with age at sexual debut. However, the associations were mixed. For religious attendance, young adults who attend church more frequently reported later ages at sexual debut. For each increase in religious attendance, young adults delayed sexual debut by .12 years. Being connected to a religious community seems to have a protective effect for young adults and early sexual debut. However, young adults who belong to a Fundamentalist religion are more likely to have an earlier sexual debut than young adults who do not belong to a Fundamentalist religion. Young adults from Fundamentalist denominations are a quarter of a year younger at sexual debut than young adults who do not belong to Fundamentalist religions. Fundamentalist religions focus on abstinence but not other aspects of sexual education. The lack of discussion of other sexual health topics may put young Fundamentalists at increased risk of early sexual debut.
Model 3 includes parental communication. Parental communication was not a significant predictor of age at sexual debut in this model. The addition of parental communication in model 3 did not provide any additional explanatory power. I hypothesized that parental communication would mediate the direct relationships with social location and age at sexual debut. However, since parental communication was not a significant predictor of age at sexual debut and did not mediate the relationships with social location and age at sexual debut, I did not find support for my original hypothesis.

Model 4 includes formal sexual education. Formal sexual education is positively associated with age at sexual debut. With each additional sexual health topic covered in a formal sexual education course, young adults delay sexual debut by .06 years. Therefore, formal sexual education has a protective effect for young adults with regards to sexual debut. If young adults are educated about multiple aspects of sexual health and risks, then young adults are more likely to delay sexual debut.

While formal sexual education is a significant predictor of age at sexual debut. Formal sexual education did not mediate any of the observed associations with social location and age at sexual debut. I hypothesized that formal sexual education would mediate the direct associations with age at sexual debut. Since formal sexual education did not lessen the direct associations with social location and sexual debut, my original hypothesis was not supported.

Model 5 includes both parental communication and formal sexual education. In this model, both aspects of sexual education were significant. When formal sexual education is controlled for, parental communication becomes a significant predictor of age at sexual debut. Parental communication is negatively associated with age at sexual debut. With each additional topic discussed with parents about sexual health, young adults are .04 years younger at sexual
debut. It appears that parental communication encourages young adults to initiate sex at an earlier age; however, I cannot determine whether parental communication about sex occurred before or after sexual debut. Therefore, parents may be more likely to communicate with their children about sex if they know or suspect that their child may be sexually active.

Formal sexual education is positively associated with age at sexual debut. With each additional topic covered in a formal sexual education course, young adults delay sexual intercourse by .08 years. Therefore, formal sexual education serves as a protective factor for young adults and early sexual debut. Young adults who are educated about multiple aspects of sexual health are more likely to delay sex.

Despite the fact that parental communication and formal sexual education are associated with age at sexual debut, the inclusion of multiple sources of sexual education did not mediate the direct associations between social location and age at sexual debut. I hypothesized that parental communication and formal sexual education would mediate the direct associations between social location and age at sexual debut. Since the relationships between social location and age at sexual debut remained largely unchanged, I did not find support for my original hypothesis.

Additionally, I hypothesized that parental communication would have a stronger association with age sexual debut than formal sexual education. While both aspects of sexual education were significant in the model, parental communication was negatively associated with age at sexual debut. Formal sexual education delayed sexual debut. Therefore, I did not find support for my original hypothesis.

Table 7.2 shows the results of the inclusion of the interaction terms. The parental communication and formal sexual education interaction terms were not significant predictors of
age at sexual debut. The lack of significance with these interaction terms indicates that the process of initiation into sexual activity does not vary by parental education, parental communication and formal sexual education for young adults from various social locations. However, the process is different for young adults with regards to family income. The interaction of income and social location is significant for whites. The effects of income on sexual debut is stronger for white women than white men. White women benefit from income in delaying their sexual debut than white men. Therefore, the observed direct association between white women and age at sexual debut is driven by white women of a lower socioeconomic status since higher SES white women are more likely to delay sexual debut.

<table>
<thead>
<tr>
<th>Table 7-2 Regression of Income Interaction Terms on Sexual Debut</th>
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</thead>
<tbody>
<tr>
<td><strong>Model 1</strong></td>
</tr>
<tr>
<td>White Women</td>
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<tr>
<td>Hispanic Men</td>
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<tr>
<td>Hispanic Women</td>
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<tr>
<td>African American Men</td>
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<tr>
<td>African American Women</td>
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<tr>
<td>White Women*Income</td>
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<td>Hispanic Men*Income</td>
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<tr>
<td>Hispanic Women*Income</td>
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<tr>
<td>African American Men*Income</td>
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<tr>
<td>African American Women*Income</td>
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<tr>
<td>Parent Comm. Scale</td>
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<tr>
<td>Formal Educ. Scale</td>
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<td>Income</td>
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<tr>
<td>Mother’s Education</td>
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<tr>
<td>Religious Attendance</td>
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<tr>
<td>Religious Fundamentalist</td>
</tr>
<tr>
<td>Never Married</td>
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</tbody>
</table>

N= 2,441. unstandardized regression coefficients shown (Std Error). * p≤.05; **p≤.01; ***p≤.001
I hypothesized that the inclusion of socioeconomic status would have more of an effect on African Americans and Hispanic men. While I did find an association with social location, income and age at sexual debut, it was not with the group of individuals I originally hypothesized. Since the interactions between social location, income and age at sexual debut were only significant for white women, my original hypothesis is not supported.

7.4 Discussion

I observed direct associations with a number of social locations and age at sexual debut. Previous research by Cavazos Regh et al. (2009) found that African Americans and Hispanic men had earlier sexual debuts than whites and Hispanic women. In the current study, I also found that African Americans and Hispanic men had earlier sexual debuts than white men thus confirming the findings of the previous study. For African American and Hispanic men, earlier sexual debuts may be indicative of masculinity norms for these groups of men. Connell (2005) argues that men demonstrate their masculinity by proving their heterosexuality, and this is especially pronounced for men who embody marginalized masculinities. Marginalized masculinities because they are not dominant by race must emphasize their masculinity and sexuality even more so than white men who are not marginalized. Elijah Anderson (1989) reinforces Connell’s point where young black men prove their masculinity through heterosexual sex. Sexual activity and any resulting children are the most obvious indicators of a young African American’s heterosexual conquests and therefore reinforces the masculinity of the young man. For Hispanic men, Sabia et al (2009) also found in their qualitative interviews with Hispanic women that their partners embodied a quality of “machismo” where heterosexuality is an integral part of masculinity for Hispanic men. Similar to African American men, Hispanic men feel that they must engage in heterosexual sex to prove their masculinity. Therefore, African
American and Hispanic men initiate heterosexual sex at an earlier age so that they can effectively prove their masculinity. The fact that these relationships remained salient despite the inclusion of socioeconomic status, religion, and various interaction terms shows that the process of proving masculinity through sexual activity for African American and Hispanic men is salient for all young men in these social locations.

Anderson (1989) also found in his research that young African American women are more likely to engage in sexual activity. However, African American women do not engage in sex in order to prove a gender norm. Anderson posits that African American women engage in sex with young men in order to start or maintain a romantic relationship. African American women feel that if they engage in sex with young men, then the young men will be more likely to commit to a relationship with them. Therefore, African American women will be more likely to engage in sex at an earlier age because they want a romantic relationship, and their partners, who are more likely to be African American men, are encouraging sexual activity in order to prove their manhood. Therefore, these two competing desires reinforce earlier ages at sexual debut for African American men and women.

While white women did not have significantly different ages at sexual debut than white men for most of the models, white women became associated with sexual debut with the inclusion of the income interaction terms. White women were almost three-quarters of a year younger than white men the first time they engaged in sex when the income interaction terms were included. However, I also found that higher SES white women were more likely to delay sexual debut. Therefore, the direct association between white women and age at sexual debut is indicative that poorer white women are having sex at an earlier age than poor white men.
Income has more of a significant effect for white women than individuals for other groups. Higher SES white women are more likely to delay their sexual debut because of what Furstenburg (2003) calls a “contraception of hope.” A contraception of hope means that young adults who have more educational and employment prospects are more likely to delay sexual activity because they do not want an unintended pregnancy to disrupt these opportunities. Higher SES white women will have more educational and career prospects. Therefore, higher SES white women are more likely to delay sexual activity because they do not want to jeopardize their future career goals with an unintended pregnancy that may result from engaging in heterosexual sex.

In addition to the social location variables, parental communication and formal sexual education also have significant associations with age at sexual debut. While these various forms of sexual education did little to mediate the direct associations between social location and age at sexual debut, they still are significant predictors of age at sexual debut. Formal sexual education was positively associated with age at sexual debut. Previous research by Kirby et al. (2007) found that formal sexual education program could delay young adults’ transitions into sexual activity. The current study confirms Kirby et al.’s findings. The positive associations between formal sexual education and a delayed sexual debut indicate that young adults who receive more sexual education from formal sources are more likely to delay sex. Young adults in these programs learn about the risks associated with sex, and therefore, will be more likely to delay sexual activity in order to reduce their risk of unintended pregnancy, STIs and HIV. Young adults may also learn about how these negative sexual health outcomes could interfere with future career plans in formal sexual education courses, and therefore, formal sexual education may also serve as a contraception of hope for young adults in these programs.
Parental communication is negatively associated with age at sexual debut. The findings of the current study indicate that the more parents discuss sexual topics with their children, the more likely their children will be to initiate sex at a younger age. Previous studies have found that parental communication encourages young adults to delay sexual debut (Karkofsky, Zeng and Kosorok 2001; Aspy et al. 2007). However, the findings of the current study refute these findings. The current findings support previous research that found a negative association with parental communication and delayed sexual debut (Davis and Friel 2001; Deptula, Henry, and Schoeny 2010; Parkes et al. 2011).

However, I am hesitant to say that parental communication and earlier sexual debut is a causal relationship. The current study did not determine when young adults and parents discussed sex. Parents, sensing that their children are sexually active, may initiate conversations about sex because they know or believe that their children are engaging in sex. Additionally, the current study does not determine who initiated the discussion about sex—the parent or the child. Young adults who are sexually active may be more likely to initiate conversations about sex with their parents because they are sexually active.

In addition to the main variables of interest, I also found associations with socioeconomic status and religion. I included two measures of socioeconomic status in the current study—family income and maternal education. Both of these aspects of SES were positively associated with a delayed sexual debut. Higher SES youth are more likely to delay sexual activity. Again, the association with higher SES and delayed sexual debut may be a function of Furstenburg’s “contraception of hope.” Higher SES youth have more potential education and career opportunities, and therefore, delay sexual activity because they would not want an unintended pregnancy or sexual health issue to interfere with these future prospects.
Two aspects of religion were also significantly associated with age at sexual debut. However, one aspect—increased church attendance—served as a protective factor, while being associated with a Fundamentalist religion is negatively associated with a delayed sexual debut. Young adults who attend church more frequently are more likely to delay sex. This could be a function of the fact that increased church attendance means increased contact with a social network that holds conservative or disapproving views of sexual activity for young and unmarried people. Therefore, young adults who belong to these social networks are more likely to delay sexual debut because they would not want to experience negative sexual health outcomes such as an unintended pregnancy which would signify that these young adults were engaging in activities that are not condoned by this social network.

However, Fundamentalist religion is negatively associated with a delayed sexual debut. Youths who were raised in a Fundamentalist religion have earlier sexual debuts than young adults who were not raised in a Fundamentalist denomination. The association with Fundamentalist religions and earlier sexual debuts could be due to the fact that Fundamentalists are more likely to hold disapproving views of sex. While Fundamentalists emphasize abstinence, they may not communicate to young adults why delaying sexual activity may be beneficial for their sexual health. Schalet (2011) found in her interviews with American parents and their children about sex that parents who hold disapproving views of sex are more likely to tell their kids not to engage in sexual activity simply because they said to abstain from sex. According to Schalet’s research, young adults who have authoritative parents are more likely to rebel against their parents’ wishes. Therefore, young adults who come from these types of families may be more likely to engage in sex as a way to show their sexual agency and defy their parents’ wishes.
7.5 Conclusion

The current chapter’s finding underscores the importance of formal sexual education as a protective factor against early sexual debut. As noted in a previous chapter, young adults are more likely to receive education from formal sources than parents, and therefore, formal sexual education has the potential to educate more young people. While the overall effect of formal sexual education is positively associated with delaying sexual debut, to further improve the effectiveness of formal sexual education, programs should focus on delaying sexual debut for African Americans, Hispanic men, and lower SES youth.

The literature has noted that formal sexual education programs—especially for these at-risk groups—largely gives young adults from these social locations raced and gendered information that reinforces stereotypes and presents sex as a risk (Fields 2008; Garcia 2009). While young adults should be educated about the risks of engaging in sex, African American, Hispanic men, and lower SES youth should also be educated about the benefits of delaying sex. Essentially, programs for African Americans, Hispanic men and lower SES youth should provide these young people with information that could lead to a contraception of hope. Formal sexual education should focus on future oriented goals for these groups of individuals so that they will be more likely to delay sex like higher SES youth. Formal sexual education should also work to address cultural norms so as to lessen the appeal of engaging in sexual activity to prove your masculinity. Additionally, education that provides a contraception of hope could encourage young African American women to focus on individual future plans and to make those goals a priority over romantic relationships.

Youth who come from Fundamentalist religions could also be served by formal sexual education programs. If they only hear negative, authoritarian messages about sex from parents or
their religious community, then they may be more likely to rebel against these messages by engaging in sex at an earlier age. If Fundamentalist youth could receive more positive messages about sex and the health (not religious) benefits of delaying sexual activity from formal education, then it may contribute to Fundamentalist youth delaying sexual activity.

Additionally, the fact that parental communication has a significant, negative association with delayed sexual debut when formal sexual education is controlled for is troubling. While previous studies have said that parental communication about sex encourages young adults to engage in sex at an earlier age, I am hesitant to say that parental communication and earlier sexual debut is a causal relationship. I could not assess whether parental communication about sex occurred before or after the young adult was sexually active. Future studies should address if parental communication before sexual debut contributes to an earlier sexual debut.

8 SOCIAL LOCATION, PARENTAL COMMUNICATION, AND FORMAL SEXUAL EDUCATION AS PREDICTORS OF NUMBER OF LIFETIME SEXUAL PARTNERS

8.1 Introduction

This chapter addressed the research question if formal sexual education and parental communication mediate the association of social location with the number of lifetime sexual partners. Previous research has noted that African American men and women, as well as Hispanic men, have higher numbers of lifetime sexual partners than whites and Hispanic women (Santelli et al. 1998; Howard and Wang 2004).

Parental involvement and discussion of sexual topics with young men is associated with a reduction in the number of sexual partners (Harris, Sutherland, and Hutchison 2013). For young women, parental involvement—especially father-daughter involvement—is associated with
positive sexual health outcomes for young women (Ellis et al. 2003; Katz and Van der Kloet 2010; Wright, Randall and Arroyo 2013). However, analyses of sexual education and its ability to reduce the number of sexual partners in young adults appear to be mixed as to whether formal sexual education is effective at reducing the number of sexual partners for young adults (Sabia 2006; Kirby 2007). This chapter aims to test if parental communication can mediate some of the previously observed associations with social location and number of lifetime sexual partners. Additionally, this chapter will examine whether formal sexual education has any effect on reducing the number of sexual partners or the ability to mediate any previously observed associations with social location.

8.2 Analytic Strategy

For this chapter, I want to look at what social and demographic factors contribute to an increased number of lifetime sexual partners for young adults. For this analysis, I am including both sexually active and non-sexually active young adults ages 15 to 24 in order to examine how parental and formal sexual education contributes to an increased number of lifetime sexual partners. To investigate the research question with this sample, I use one question from the NSFG 2011-2013 that asks respondents the number of lifetime sexual partners they have had that are of the opposite sex.

Using this sample, I tested the following hypotheses in this chapter:

1. A direct association between race/gender and number of sexual partners will be observed. I hypothesize that African Americans and Hispanic men will have higher numbers of lifetime sexual partners than individuals in other social locations.
1b. When socioeconomic status is interacted with race and gender, the effects of socioeconomic status will be greater for African Americans and Hispanic men than white men.

2. The inclusion of the parental communication and formal education will mediate the associations between race, gender, social class, and number of lifetime sexual partners.

3. Parental communication will have a stronger association with number of sexual partners than formal sexual education.

I used white men as the comparison group for the analysis since previous literature has noted differences in rates of lifetime sexual partners between African Americans, Hispanic men and whites (Santelli et al. 1998; Howard and Wang 2004).

To examine the relationship between social location and lifetime number of sexual partners, I tested the first of my hypotheses to see if race and gender have a direct relationship with number of sexual partners. I included social class variables of mother’s education and family income initially as controls to parse out any direct relationship between race/gender and number of sexual partners. To test the second part of my first hypothesis, I then included the social class variables of mother’s education and income as independent variables by creating a series of interaction terms with race/gender and education as well as race/gender and family income to test if the effects of socioeconomic status combined with race and gender also had direct relationships with number of sexual partners. The interaction terms with social class also allow me to examine whether the process of engaging with a number of lifetime sexual partners varies by social location.

After testing for direct associations between social location and number of sexual partners, I tested the second and third hypotheses by including parental communication and
formal education scales in the model to see if sexual education could mediate any observed associations with race, gender, class, and the number of lifetime sexual partners. The purpose of these analyses to see if any direct relationships between social location and a higher number of lifetime sexual partners can be lessened by sexual education from parents as well as formal education. In addition to testing the effects of social location, parental communication and formal sexual education, this chapter also aims to aid in public policy and intervention through the identification groups of young adults who may be more at risk of an increased number of lifetime sexual partners as well as recognize protective factors such as parental communication or formal sexual education that may reduce the number of lifetime sexual partners a young person may have.

8.3 Results

Table 8-1 reports the results of the OLS regressions of the number of lifetime sexual partners on social location, parental communication and formal sexual education. In model 1, I found an association with social location and the number of lifetime sexual partners. The results of the first model partially support my hypothesis. African American men and women both had a higher number of lifetime sexual partners, and this finding supports my initial hypothesis.

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16 All models were significant at the .001 level.
**Table 8-1 OLS Regression of Number of Lifetime Sexual Partners on Social Location, Parental Communication, and Formal Sexual Education**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>White Women</strong></td>
<td>1.61(.33)***</td>
<td>1.44(.30)***</td>
<td>1.40(.30)***</td>
<td>1.39(.30)***</td>
</tr>
<tr>
<td><strong>Hispanic Men</strong></td>
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<td>-.31(.35)</td>
<td>-.30(.35)</td>
<td>-.30(.35)</td>
</tr>
<tr>
<td><strong>Hispanic Women</strong></td>
<td>.08(.37)</td>
<td>.11(.35)</td>
<td>-.13(.35)</td>
<td>-.13(.35)</td>
</tr>
<tr>
<td><strong>African American Men</strong></td>
<td>1.09(.41)***</td>
<td>-.27(.39)</td>
<td>-.24(.39)</td>
<td>-.24(.39)</td>
</tr>
<tr>
<td><strong>African American Women</strong></td>
<td>2.63(.39)***</td>
<td>2.06(.37)***</td>
<td>1.95(.38)***</td>
<td>1.96(.38)***</td>
</tr>
<tr>
<td><strong>Parent Comm. Scale</strong></td>
<td>.09(.05)*</td>
<td>.10(.05)*</td>
<td></td>
<td></td>
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<tr>
<td><strong>Formal Educ. Scale</strong></td>
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<td>-.03(.06)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Income</strong></td>
<td>-.04(.02)</td>
<td>-.04(.02)</td>
<td>-.04(.02)</td>
<td></td>
</tr>
<tr>
<td><strong>Mother’s Education</strong></td>
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<td>-.06(.11)</td>
<td>-.02(.11)</td>
<td></td>
</tr>
<tr>
<td><strong>Religious Attendance</strong></td>
<td>-.06(.05)</td>
<td>-.06(.05)</td>
<td>-.07(.05)</td>
<td></td>
</tr>
<tr>
<td><strong>Religious</strong></td>
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<td>-.34(.41)</td>
<td>-.35(.41)</td>
<td></td>
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<tr>
<td><strong>Fundamentalist</strong></td>
<td>-.26(.25)</td>
<td>-.27(.25)</td>
<td>-.27(.25)</td>
<td></td>
</tr>
<tr>
<td><strong>Never Married</strong></td>
<td>1.52(.43)***</td>
<td>1.47(.43)**</td>
<td>1.47(.43)**</td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td>-.11(.05)*</td>
<td>-.10(.05)</td>
<td>-.10(.05)</td>
<td></td>
</tr>
<tr>
<td><strong>Time Sexually Active</strong></td>
<td>.97(.05)***</td>
<td>.98(.05)***</td>
<td>.98(.05)***</td>
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</tbody>
</table>

\[ R^2 = .02 \quad R^2 = .20 \quad R^2 = .21 \quad R^2 = .21 \]

N= 3,584.

Unstandardized

regression coefficients shown (Std Error).

* p≤.05; **p≤.01; ***p≤.001

African American men reported approximately one more sexual partner than white men while African American women had over 2.5 more lifetime sexual partners than white men. The association with African Americans and an increased number of sexual partners was expected, as previous studies have also found similar associations (Santelli et al. 1998; Howard and Wang 2004). However, I also found an association with white women and a higher number of sexual
partners than white men. White women reported having 1.5 more lifetime sexual partners than white men. This finding does not support my initial hypothesis. I expected that white women would not have a significant difference in the number of sexual partners than white men.

Previous studies and the CDC (2016) often look at having 6 or more sexual partners for teenagers. This is where the gender difference is significant; however, when examining the CDC data for 15-19 year old youth, young women have a higher proportion of sexual partners for numbers under 6 lifetime sexual partners.

In model 2, associations between social location and number of lifetime sexual partners exist when the effects of social class, religion, marital status, age, and the length of time one is sexually active are included in the model. However, these associations are only significant for African American and white women. These findings partially support my hypothesis. I expected to find an association with African American women, but I did not expect to find an association with white women. The number of lifetime sexual partners for white women was only slightly mediated by the inclusion of the control variables. White women continue to report almost 1.5 more sexual partners than white men. This finding could be due to the fact that this sample is quite young, and while I have controlled for the length of time that one is sexually active, I did not control for the age of the respondent’s sexual partner in the model. Perhaps young white women are more likely to have a higher number of sexual partners at this age because of partner characteristics. Many young women in this age range have partners who are older than they.

Women who have older partners are more likely to be subjected to controlling behaviors by the partner (Catallozzi et al. 2011). A study by Volpe and colleagues (2013) found that in a sample of “urban” women, women who have older sexual partners are more likely to engage in risky sexual behaviors.
In addition to an association with white women, I also found an association with African American women and an increased number of sexual partners than white men. The inclusion of the control variables reduced the number of lifetime sexual partners for African American women; therefore, marital status and length of time one is sexually active explains part of the association between African American women and number of lifetime sexual partners. However, even when the effects of social class, religion, marital status, age, and length of time that one is sexually active, African American women still report approximately 2 more lifetime sexual partners than white men. Similar to white women, the increased number of lifetime sexual partners for young African American women may be due to their partner’s age.

In model 1, I found an association between African American men and an increased number of lifetime sexual partners. However, with the inclusion of the control variables, the relationship between African American men and the number of lifetime sexual partners was completely mediated. While I expected the relationships between social location and number of lifetime sexual partners to be mediated, I thought that parental communication and formal sexual education would mediate it. Since it was mediated by control variables, this finding does not support my hypothesis. It appears that age, marital status, and length of sexual activity are stronger predictors of the number of sexual partners for African American men.

In addition to social location, three control variables also had significant associations with number of lifetime sexual partners—marital status, age, and time sexually active. Young adults who have never been married report having 1.5 more sexual partners than people who have ever been married. This finding is not surprising as married people are more likely to be monogamous, and therefore, would have less sexual partners than someone who is unmarried. Additionally, young adults who have been sexually active for a longer period of time also report
having more sexual partners than young adult who have either become recently sexually active or are not sexually active at all. Respondents who have been sexually active for a longer period of time report one additional sexual partner than those who have not been sexually active for a significant length of time. Young adults who have been sexually active for longer are more likely to have more sexual partners than those who have recently become sexually active because they have more time to acquire more sexual partners.

Age also has a significant association with number of lifetime sexual partners. However, it is a negative relationship where older respondents report slightly fewer sexual partners than younger respondents. Unlike time sexually active where people who have been sexually active for longer have an increased number of sexual partners, age is more of a protective factor. This could be due to the fact that as young adults mature, they are more likely to be in more long-term or monogamous relationships, thus reducing the number of lifetime sexual partners.

In model 3, I included the parent communication scale in addition to the social location and control variables. Similar to the first two models, African American and white women continue to have an increased number of sexual partners when compared to white men. African American women reported almost two more sexual partners than white men, and white women reported almost 1.5 more sexual partners than white men. Again, these results may be due to the fact that young women typically date older, more sexually experienced partners.

I also found an association with parental communication and the number of sexual partners. Young people are more likely to have a higher number of sexual partners if their parents discussed sex with them. With each additional topic mentioned, young people had .09 more sexual partners. Additionally, the inclusion of the parental communication scale in the model did little to mediate the associations between African American women, white women,
and number of lifetime sexual partners. I hypothesized that the parental communication scale would mediate the associations between social location and number of sexual partners. Since the numbers of sexual partners for these two groups of women is very slightly reduced, there is not much support for my initial hypothesis.

Marital status and length of time sexually active continued to be significant predictors of the number of lifetime sexual partners. Young adults who have never been married report having 1.5 more sexual partners than married young adults. Similarly, young adults who have been sexually active for a longer period of time also report approximately one additional sexual partner than young adults who have recently become sexually active or are not sexually active at all.

Model 4 is the model that includes the social location variables, the parental communication and formal sexual education scales, and the control variables. I found that the inclusion of the formal sexual education scale did not have any direct association with the number of lifetime sexual partners. Additionally, the formal sexual education scale did not affect the strength of any of the previously observed associations from model 3. Models 3 and 4 support my final hypothesis that parental communication would have a stronger association with the number of lifetime sexual partners than formal sexual education. Since there was a significant association with parental communication and formal sexual education did not offer any additional explanatory power, my hypothesis is supported.

I also omitted the length of time sexually active from the model (results of the analysis not shown). The omission of time since sexual initiation did not affect the relationships for white and African American women. White and African American women have a significantly higher

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17 A separate analysis was conducted with just the formal sexual education scale. The formal sexual education scale was not a significant predictor of the number of lifetime sexual partners.
number of lifetime sexual partners than white men when time since sexual debut is not taken into account. For white women, the results did not change. For African American women, the omission of the length of time they are sexually active increases the number of lifetime sexual partners from 1.96 (when time sexually active is included) to 2.53 (when time sexually active is omitted). When time since sexual debut is omitted from the model, a statistically significant relationship between African American men and an increased number of lifetime sexual partners is observed. African American men report 1.53 more lifetime sexual partners than white men. Therefore, time since sexual debut appears to affect the number of sexual partners for African Americans—especially for African American men.

In addition to these models, I also ran a series of models that used 2 way interactions between race/gender and social class. One set of interactions looked at the effects of race, gender, and parental education. The other set of interactions looked at the effects of race, gender, and family income. None of these interactions between social location and the number of sexual partners were significant. I also ran another series of interaction terms that looked at race/gender and formal or parental education. None of the formal sexual education interaction terms were significant. The lack of significance of the social class interaction terms and the formal education interaction terms indicate that the process for the number of sexual partners is consistent across social classes and operates independently of formal sexual education.

Table 8-2 shows the results of the social location and parental communication interaction terms. One social location variable remained significant in this model. White women are more likely to have approximately 1.5 more lifetime sexual partners than white men. This association is consistent for all white women and the process does not vary by parental communication.
One interaction term was significant in this model. The effect of parent communication was greater for African American women than white men. This indicates that the process of the number of lifetime sexual partners varies for African American women based on how much their parent communicates with them about sex.

**Table 8-2 Regression of Parental Communication Interaction Terms**

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>White Women</td>
<td>1.48(.45)***</td>
</tr>
<tr>
<td>Hispanic Men</td>
<td>-.27(.51)</td>
</tr>
<tr>
<td>Hispanic Women</td>
<td>.04(.51)</td>
</tr>
<tr>
<td>African American Men</td>
<td>-.14(.60)</td>
</tr>
<tr>
<td>African American Women</td>
<td>.54(.59)</td>
</tr>
<tr>
<td>Parent Comm. Scale</td>
<td>.05(.09)</td>
</tr>
<tr>
<td>Formal Educ. Scale</td>
<td>-.03(.06)</td>
</tr>
<tr>
<td>White Women*Parent Communication</td>
<td>-.02(.13)</td>
</tr>
<tr>
<td>Hispanic Men * Parent Communication</td>
<td>-.01(.16)</td>
</tr>
<tr>
<td>Hispanic Women * Parent Communication</td>
<td>-.06(.15)</td>
</tr>
<tr>
<td>Black Men * Parent Communication</td>
<td>-.03(.17)</td>
</tr>
<tr>
<td>Black Women * Parent Communication</td>
<td>.44(.15)**</td>
</tr>
<tr>
<td>Income</td>
<td>-.04(.02)</td>
</tr>
<tr>
<td>Mother's Education</td>
<td>.03(.11)</td>
</tr>
<tr>
<td>Religious Attendance</td>
<td>-.07(.05)</td>
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<td>Religious</td>
<td>-.35(.41)</td>
</tr>
<tr>
<td>Fundamentalist</td>
<td>-.26(.25)</td>
</tr>
<tr>
<td>Never Married</td>
<td>1.52(.43)***</td>
</tr>
<tr>
<td>Age</td>
<td>-.10(.05)</td>
</tr>
<tr>
<td>Time Sexually Active</td>
<td>.98(.05)***</td>
</tr>
</tbody>
</table>

R²=.21

N=3,584. Unstandardized regression coefficients shown (Std Error). * p≤.05; **p≤.01; ***p≤.001
8.4 Discussion

In this chapter, I examine the effects of social location, parental communication about sex, and formal sexual education on the number of lifetime sexual partners. Before I ran the analyses, I hypothesized that race, gender, and social class would have an association with protective sexual health behaviors, including reducing the number of lifetime sexual partners. I also hypothesized that parental and formal sexual education would have effects on the associations between social location and the number of sexual partners. Based on the literature, I hypothesized that because young adults reported higher levels of comfort in wanting to discuss sexual health topics with their parents, parental communication about sex would be a stronger predictor of the number of sexual partners than formal sexual education.

Through a series of OLS regressions, I found partial support for my hypothesis that social location and number of lifetime sexual partners are associated. Based on the literature, African Americans and Hispanic males report a higher number of sexual partners than whites and Hispanic women (Santelli et al. 1998; Howard and Wang 2004). In my initial model, I found that African American men and women both had higher numbers of lifetime sexual partners than white men which confirms previous research and supports my initial hypothesis.

However, I also found an association with white women and a higher number of sexual partners than white men. This finding does not confirm previous research and does not support my initial hypothesis that there would be no significant difference in the number of sexual partners of white men and women. This difference between white men and women may be due to the fact that women typically choose partners who are older than they are. A study by Kaestle, Morisky, and Wiley (2002) found that women with older partners were more likely to initiate sexual intercourse than women who had partners their own age.
In model 2, the association between African American men and number of lifetime sexual partners is mediated by the inclusion of time since sexual activity. I hypothesized that direct associations between social location and number of lifetime sexual partners would be mediated; however, I believed that parental communication and formal sexual education would be the mediating factors. Therefore, my initial hypothesis was not supported. The association between African American men and number of lifetime sexual partners appears to be mediated by marital status and length of sexual activity. African Americans are less likely to marry than other races or ethnicities (BLS 2013), and unmarried people are more likely to have additional sexual partners than married people who are typically more likely to be monogamous. Therefore, if more African Americans remain single, then the association with the number of sexual partners is more a function of marital status than it is of race and gender. Additionally, African Americans, on average, have earlier sexual debuts than white men (Cavazos Rehg et al. 2009). Therefore, once sex is initiated, the number of lifetime sexual partners for African American men is not significantly different than white men.

For African American women, the number of sexual partners is also partially mediated by the inclusion of time since sexual activity and marital status. Similar to African American men, African American women also have earlier ages at sexual debut (Cavazos Rehg et al. 2009). African American women are also less likely to marry than Hispanics or whites (BLS 2013). Therefore, when marital status and time that African American women are sexually active are controlled for, the direct association between African American women and number of sexual partners is lessened. However, the relationship between African American women and the number of lifetime sexual partners remains significantly different than white men. The continued association for African American women could be due to the fact that they, like white women,
typically have partners who are older, and therefore, women may feel more pressure to initiate sex.

In addition to the social location variables, significant associations between marital status and time sexually active were significant predictors of the number of sexual partners. Young adults who have never been married had approximately 1.5 more sexual partners than young adults who have ever been married. The association with being unmarried and the increased number of sexual partners is due to the fact that unmarried individuals are less likely to be in long term, monogamous relationships than married people. Therefore, unmarried people are more likely to acquire more sexual partners because they are not in long-term unions.

Previous research has noted links between age at sexual debut and number of lifetime sexual partners (Wight, Williamson, and Henderson 2006). Young adults who initiate sex at earlier ages are more likely to have a higher number of lifetime sexual partners. The current study also found a similar association between young adults who have been sexually active for a longer period of time and a higher number of sexual partners. The association between length of time that one is sexually active and the number of sexual partners is a function of opportunity. If one is sexually active for longer, they have more of an opportunity to have sex with additional partners as compared to a person who has just recently initiated sex or has not engaged in sexual intercourse.

When parental communication was included in the analysis, a significant association between parental communication and the number of lifetime sexual partners was significant. I hypothesized that parental communication would mediate the direct associations between social location and number of lifetime sexual partners. However, the significant associations between
social location and number of lifetime sexual partners remained largely unchanged. Therefore, my initial hypothesis was not supported.

Furthermore, parental communication is associated with an increased number of lifetime sexual partners. Parental communication appears to put young adults at risk of an increased number of sexual partners than young adults who do not discuss sex with their parents. However, I did not assess whether parental communication about sex takes place before or after a young person’s sexual debut. Perhaps parental communication about sex is initiated after the parent(s) believe their child is sexually active. Previous studies who have found similar associations with parental communication about sex and negative sexual health outcomes posit that parents may sense their adolescents are close to sexual debut or sexually active and are more likely to discuss sex with their teens (Davis and Friel 2001; Pearson, Muller, and Frisco 2006). Additionally, these studies also suggest that young adults who are considering sexual activity or who have already initiated sexual activity may also initiate conversations with their parents about sex because they are already sexually active (Davis and Friel 2001; Pearson, Mueller, and Frisco 2006).

When parental communication was included in the analysis, the associations between African American women, white women, and lifetime number of sexual partners remained largely unchanged. I hypothesized that these direct relationships between social location and number of lifetime sexual partners would be mediated by parental communication and formal sexual education. Therefore, my hypothesis that parental communication would reduce the direct relationships between social location and number of sexual partners is not supported. Independent associations between African American women, white women, and parental communication exist and do not appear to be affected by one another.
When I included interaction terms that examined the effects of race/gender and parental communication, I found that the association between African American women and number of sexual partners as well as the association between parental communication and number of sexual partners was no longer significant. The previously observed associations with African American women and parental communication were only significant because of the relationship with African American women and parental communication. African American women who discuss more sexual topics with their parents are more likely to have a higher number of sexual partners. Therefore, the process of having an increased number of sexual partners varies by the amount of communication African American women receive from their parents. Although, I am hesitant to say that this is a causal relationship between increased parental communication and the number of sexual partners for African American women. Again, the association may be the result that African American women who are sexually active are more likely to initiate conversations with their parents about sexual health topics. The association could also be due to the fact that parents sense their daughters are sexually active or nearing sexual debut and therefore initiate conversations about sex.

In the model that includes the race/gender and parental communication interaction terms, only one direct association with social location remains significant. White women are more likely to have more sexual partners than white men. Since the interactions for white women with class, parental communication, and formal sexual education are not significant, the process of increased number of sexual partners does not vary for white women based on class, parental communication, or formal sexual education.

I also hypothesized that formal sexual education would mediate the associations between social location and number of lifetime sexual partners. However, formal sexual education was
not associated with the number of lifetime sexual partners. Therefore, my initial hypothesis was not supported. Since previous chapters have identified formal sexual education programs as the sole source of sexual health information for young adults, formal sexual programs should reassess their curricula in order to find effective solutions that encourage young adults to reduce the number of lifetime sexual partners.

My final hypothesis is that parental communication would have a stronger association with number of lifetime sexual partners than formal sexual education. Since parental communication is significantly associated with the number of lifetime sexual partners and formal sexual education has no association, I found support for my hypothesis. However, it is not in the direction that I had originally hypothesized. The relationship between parental communication and increased number of sexual partners is positively associated whereas I thought parental communication would reduce the number of lifetime sexual partners. Since I cannot determine whether parental communication took place before sexual activity, future studies should examine the temporal relationships between parental communication and number of sexual partners to determine if parental communication before sexual activity reduces the number of sexual partners.

8.5 Conclusion

Through the examination of social location, parental communication, formal education, and number of lifetime sexual partners, I found that African American women and white women report higher numbers of lifetime sexual partners than white men. The association between white women and number of lifetime sexual partners remains constant despite the inclusion of marital status, time sexually active, parental communication and formal sexual education. However, for African Americans, other factors contribute to the number of lifetime sexual partners. For
African American men, marital status and time sexually active completely mediated the direct association. The number of lifetime sexual partners was also lessened for African American women when these factors were taken into account.

However, parental communication appeared to be associated with an increase in the number of lifetime sexual partners. This association was solely driven by African American women and increased parental communication. The direct association between parental communication and African American women was no longer significant. Therefore, attention should be paid to African American women’s communication patterns with their parents about sex. Since the current chapter could not assess whether communication about sexual health took place before or after sexual activity was initiated, future research should examine whether there is an association with parental communication before sexual activity and an increase in the number of lifetime sexual partners for African American women.

The lack of significance for formal sexual education programs is troubling. Since a previous chapter identified that formal sexual education is the sole source of sexual education for many young adults, many young adults may miss information that may prove valuable in reducing the number of sexual partners. The CDC (2015) noted that many formal sexual education programs do not cover all of the topics they deemed essential for a sexual education program. Public health scholars have also criticized formal sexual education programs for superficially covering topics. Since formal sexual education has no association with reducing the number of sexual partners, formal sexual education programs should re-evaluate their curricula to find ways to provide young adults with strategies to reduce the number of sexual partners—especially for young African American and white women. These programs could focus on addressing how to communicate with older, more sexually experienced sexual partners who are
more likely to want to initiate sex as well as strategies on how to delay sexual debut so that young African American women and white women will be at less risk of STIs and unintended pregnancy that are associated with an increase in the number of lifetime sexual partners.

9 CONCLUSION AND NEW DIRECTIONS

9.1 Introduction

The primary goal of this dissertation is twofold. First, I want to investigate whether or not parental communication about sex and formal sexual education differs based on the race and gender of the individual. Previous qualitative research (Fields 2008; Garcia 2009; Elliott 2010) demonstrates that based on a young person’s social location, they receive differing information about sex and sexual health, and these messages often reinforce raced and gendered stereotypes about women, men, and people of color. Fasula, Miller, and Weiner (2007) categorize information about sex that young adults receive into two categories: prohibitive—encouraging young adults to delay sex—or protective—messages that provide young adults with information on sexual health. I want to test quantitatively whether different groups of young adults are more likely to receive protective or prohibitive messages about sex based on their social location.

Secondly, research by public health organizations and public health scholars (CDC 2015; 2016) have found raced, classed, and gendered patterns in negative sexual health outcomes such as STIs, HIV, and unintended pregnancy. Similar patterns are acknowledged with regards to protective sexual health behaviors such as condom communication, consistent condom use, delaying the onset of sexual activity, and reducing the number of sexual partners (CDC 2015; CDC 2016). This dissertation tests whether the observed patterns with regards to social location and reduced protective sexual health behaviors are a function of a young person’s social location or a function of the education he or she receives from parents and formal sources of sexual
education. For each of the four protective behaviors, I want to see if education from parents and formal sources could mediate the direct associations between social location and each of the four protective behaviors.

9.2 Discussion of Key Findings

Messages young adults receive from parents and formal sources of sexual education are raced and gendered. Previous qualitative work by feminist and intersectional feminist scholars Luker (2006), Fields (2008), Garcia (2009), Elliott (2010; 2014) and Schalet (2011) have found raced and gendered patterns of communication regarding sex from either parents or formal sexual education programs. My findings support the work of these feminist and intersectional scholars. I also demonstrate that the type of communication that young adults receive varies by their race and gender.

Young women receive more prohibitive messages about sex. Young women also receive more information about gendered contraceptive use such as the birth control pill. Young men are more likely to get more protective information about condoms than young women from their same racial group. By focusing on how to say no and female birth control methods for young women, it leaves young women—especially young white and Hispanic women who are the least likely to receive protective information about condoms—vulnerable to STI and HIV transmission as well as unintended pregnancy. Furthermore, this lack of information about condoms translates to appreciable results in a subsequent chapter where I find that young women—regardless of race—are less likely to use condoms than white men.

However, the most significant and troubling finding of this dissertation is that I was able to reaffirm the findings that sexual education is raced and gendered, especially with regards to African Americans. As Collins (2000) suggests, African Americans are seen as overly sexual,
and as Dorothy Roberts (1997) notes, African American sexuality is limited because of African Americans’ perceived hypersexuality. I find that African Americans’ sexuality is actively discouraged by formal sexual education programs. Counter to the findings of Fields (2008) where working class white women were more likely to be educated about abstinence by formal sexual education programs, I find that African Americans are more likely to be educated about abstinence than whites or Hispanics in formal sexual education settings.

For young African Americans, a “gaze” exists on their sexuality. Ideally, all young adults—regardless of race or gender—should be educated about all aspects of sexuality and sexual health equally by their parents, and especially, formal sexual education programs. However, there is a significant focus on African American sexuality, and African American women’s sexuality in particular. African American women received sexual education from parents and formal sources at much higher rates than individuals in other social locations. The focus on African American women’s sexuality is indicative that Collins’ (2000) controlling stereotypes still exist about African American women as overly sexual beings. Therefore, parents and formal sexual education programs focus their efforts on curbing African American women’s sexuality. Fields (2008) posits that upper class and white women think this increased education of African American women would “save” them from negative sexual health outcomes. However, this dissertation shows that significant associations exist for African American women and a decrease in 3 out of the 4 protective sexual health behaviors (decreased consistent condom use, earlier sexual debut, and increased number of lifetime sexual partners).

Previous research by the CDC (2015; 2016) shows that direct links between social location and protective sexual health behaviors exist and that minorities and women are less likely to engage in these behaviors. I hypothesize that this is a function of poor or low quality
education; however, this study shows that formal and parental sexual education did little—if anything—to mediate the direct associations between social location and protective sexual health behaviors. The relationships for minorities and women persist despite the inclusion of sexual education from parents and formal sources. In fact, the inclusion of religion, marital status, and income mediate the associations for African American men with regards to consistent condom use. The length of time since sexual debut mediates the statistically significant differences between African American and white men with regards to the number of lifetime sexual partners. However, sexual education did not.

While socioeconomic status, marital status, and religion completely mediated the associations for African American men in two instances, socioeconomic status seems to have little impact on protective sexual behaviors for individuals in other social locations. Socioeconomic status was independently associated with two protective behaviors (consistent condom use and delayed sexual debut). However, when it was included as an indicator of social location, it seems to have little to no effect on protective sexual health behaviors. (The only exception is in delaying upper class white women’s initiation to sexual activity).

While I find evidence that sexual education is raced and gendered, and social patterns exist with regards to protective sexual health behaviors, I am unable to show that education from parents and formal sources could mediate some of the direct effects of social location and a lack of engaging in protective sexual health behaviors. Instead, I find that social location, parental communication, and formal sexual education operate independently of one another. Parental communication and formal sexual education are significant for some protective sexual health behaviors, but it cannot mediate the direct associations between social location and protective sexual health behaviors.
The inability to mediate direct links between social location and protective behaviors may be due to the fact that parental communication and formal sexual education programs are often brief and incomplete. The CDC (2016a) has documented that formal sexual education does not cover all of the necessary topics (CDC 2016a), and public health scholars have acknowledged that formal sexual education in the United States is often covered briefly and superficially which does not allow students to fully grasp the material because it is not covered consistently and in-depth (Sabia 2006). Furthermore, parental communication may also be short and lack any substantial information about sex. As Schalet (2011) notes, often times, parental communication is disapproving, prohibitive, and may be as simple as “I said no.” Therefore, unlike their European peers, young adults in America are not getting sexual education as early, positively, or consistently as European youth. Therefore, if all a young adult receives is a raced and gendered, short term course on sexual education from a school or a brief, negative message from parents about sex, then formal sexual education and parental communication are not going to be effective at reducing the negative sexual health outcomes for women and minorities.

While sexual health lessons from formal sources or parents may be brief and intermittent, the lived experience of women and minorities is consistent. Race and gender are everyday experiences that provide young adults with long term consistent messages about how they should behave according to their social location. The controlling stereotypes that intersectional scholars such as Collins (2000) outline are going to be more constant, and therefore, much more powerful messages for youth than education. Furthermore, if education from parents and formal sources reiterates these racist and gendered assumptions, then how can we expect it to be that effective at reducing inequalities in the first place?
In fact, formal sexual education has no association with self-silencing behavior or reducing the number of lifetime sexual partners. The fact that formal sexual education is not associated with these protective sexual health behaviors is further evidence of its lack of effectiveness—especially for women and minority youth. Public health scholars have debated the effectiveness of sexual health education (Sabia 2006; Kirby 2007; Kohler et al. 2008). Some have found measureable benefits of formal sexual education, while others have found that formal sexual education has no effect on youth sexual behavior. This dissertation also finds mixed results when it comes to formal sexual education. Formal sexual education seems to encourage condom use and delaying sexual activity, but the fact that formal sexual education has no association with encouraging young adults to discuss condoms or to reduce the number of sexual partners is evidence that formal sexual education programs have a long way to go when it comes to improving the sexual health of young people today.

Formal sexual health curricula need to be re-evaluated on several fronts. First, formal sexual education programs should educate all youth equally. Formal sexual education programs should be scrutinized to insure that they do not reinforce pre-existing racial and gender stereotypes. All students should be educated about all aspects of sexuality in a positive, unbiased manner. Essentially, all American youth should be offered the positive, “liberationist” model that Fields (2008) found were implemented at elite, white schools. If all young adults are educated holistically about sex, then formal sexual education could serve as a protective factor for young adults.

Secondly, formal sexual education—if free from gendered and racist stereotypes—should be done more consistently than what is being offered today. As the CDC (2016a) notes, the topics that formal sexual education programs cover vary wildly from one community to the next.
Furthermore, these programs are often short lived. As Schalet (2011) and Luker (2006) note, formal sexual education programs in Europe cover more topics, present them in a more positive manner, and are introduced to young adults at a much earlier age than middle or high school. Since European youth are educated more consistently and for a longer period of time, European youth are much less likely to experience negative sexual health outcomes when compared to American peers. Therefore, it would behoove American sexual health programs to follow a European model of sexual education as the American model is seriously flawed.

While formal sexual education programs have inconsistent relationships with protective sexual behaviors, when associations were found, at least formal sexual education programs had positive effects on improving protective sexual behaviors for young adults. Parental communication is not always effective in promoting protective behaviors, and in some instances, appears to encourage young adults to not engage in protective sexual health behaviors. These negative associations may be indicative of parental communication that took place after a young adult engaged in sexual activity. However, it is concerning that a parent would wait until after a young adult engaged in sexual activity to discuss sexual health with their children. Again, as Schalet (2011) notes, in Europe, parents begin to discuss sex with their children at a much earlier age. Parents in Europe also view sex as a normal step towards maturity. In contrast, Schalet (2011) notes that American parents are much more likely to disapprove of sex for young adults—especially for young girls. Therefore, the picture for American youth looks rather bleak. Young American adults are getting more prohibitive information about sex after they may have already engaged in sex. This pattern does not encourage additional or positive communication about sex between parents and their children or an increase in protective sexual health behaviors.
Since parental communication in some instances is negatively associated with protective sexual health behaviors and the timing of the communication is unknown, parents should be encouraged to discuss sex with their children at a younger age similar to European parents. Additionally, these messages should not be prohibitive in nature, as we can see this approach is clearly not working. Rather, parents should be encouraged to model their communication after the European model that normalizes sex as just an aspect of growing up. Physicians and formal sexual education programs could encourage parents and children to begin discussing sex more in-depth, without judgement, and at an earlier age.

9.3 Limitations

9.3.1 Introduction

This dissertation, using the NSFG—a nationally representative survey, is able to make comparisons in sexual health communication and outcomes for individuals in different groups. I am able to demonstrate on a large scale that raced and gendered patterns in sexual health education from parents and formal education exist. I am also able to show statistically significant associations between social location, sexual education, and protective behaviors for young Americans today. However, there are particular challenges that face research on sexual education that utilizes a nationally representative survey.

First, survey questions lack the detail that other methods, such as interviews, can provide. Therefore, I can determine that a topic was mentioned, but I cannot get detail about the tone of the message. I am also unable to determine which source—which parent or which formal education setting—provided the information. Secondly, I am also unable to determine the temporal order of the communication and behavior pattern. I do not know if the young adult received the information before or after sexual activity took place. Thirdly, the NSFG survey
focuses narrowly on vaginal intercourse. Therefore, I am unable to investigate risk involving other types of sex. Finally, I cannot test the influence of other agents of socialization using the NSFG survey. Future research would benefit from qualitative methods, such as interviews, that could get more detail about the nature and timing of sexual health information and its effect on a wide range of sexual behaviors.

9.3.2 Limitations

One possible limitation of the study is the inclusion of religion in the model. One critique of this study is that religion could potentially be mediators instead of control variables. Therefore, I removed religious attendance, religiosity, and religious denomination to see if the process of social location, sexual education, and protective sexual health behaviors are independent of religion. Religion appears to have no significant effect on the outcomes of the models for all protective behaviors. The results for each chapter did not change despite the omission of the religious control variables. Religion has no effect on the relationships between race, gender, and protective health behaviors.

The nature of the communication between parents, formal sexual education, and young adults is unknown. The questions in the National Survey of Family Growth only ask if a certain topic was mentioned by parents or formal sexual education programs. However, I have no way to know what was discussed further and what information was given to the young adults. For example, with condom use, is the nature of the communication positive or negative? Are young adults encouraged to use condoms? Or are they told not to carry condoms because it would encourage them to be promiscuous? If I am able to know the context of the message, I could have investigated further if the messages are approving or disapproving of certain topics and how
approving or disapproving messages can affect a young adult engaging in certain protective behaviors.

In addition to not being able to understand the context of the message, I cannot ascertain the frequency with which young adults were educated about sex by formal programs or parents. The question only asks if the topic is ever mentioned, but no question exists in the NSFG that asks how many times a certain topic is mentioned. If consistent communication is key in encouraging protective sexual health behaviors, then this study could have been improved by incorporating not only the type of message young adults received but how frequently or consistently they receive it to examine if consistent communication is more impactful on protective sexual health behaviors.

Additionally, the NSFG only asks if a young adult discussed a topic with a parent or received education in a formal sexual education program. For parents, I cannot tell whether the mother, father, or both parents of the young adult discussed sex with their child. Previous studies have found links between the gender of the parent, the child, and engaging in protective sexual health behaviors (Levin and Robertson 2002; Ellis et al. 2003; Aronowitz et al. 2007; Katz and Van der Kloet 2010; Wright, Randall, and Arroyo 2013). The study could have been improved if I could ascertain whether the mother, father, or both parents discussed sex with his or her child.

Additionally, I cannot determine where young adults received formal sexual education. The question in the NSFG asks if the respondent received formal sexual education that could include schools, community centers, and churches. The sexual education one may receive from a public school may be quite different than the education they would receive from a church-based sexual education program. If I am able to understand where young adults received their formal
sexual education, I can determine the effectiveness of various formal sexual education programs or focus solely on formal sexual education taught in schools.

The current study cannot determine whether communication about sexual health from parents and formal sexual education programs took place before or after the young adult became sexually active or was nearing sexual activity. Since I cannot determine the timeline of sexual health communication, it may lead to assumptions that sex education—and parental communication in particular—contribute to a decrease in protective sexual health behaviors. Therefore, the study could have been greatly improved if the respondents were asked in the NSFG if they had received sexual education from parents and formal sources before they were sexually active. If I can determine temporally when communication and sexual activity took place, then I would be better able to determine if sexual education before sexual debut contributes to an increase or decrease in protective sexual health behaviors.

Finally, the study is heteronormative and does not examine other sexual acts besides vaginal intercourse. I examined how social location, parental communication, and formal sexual health education contributed to protective sexual health behaviors during vaginal intercourse that took place between two people of the opposite sex. By only examining heterosexual vaginal intercourse, LGBTQ+ youth are excluded from the study. Furthermore, by limiting the analysis to heterosexual vaginal intercourse, I am not examining other sexual behaviors such as oral sex and anal sex which may also transmit HIV and other STIs. Therefore, I am not able to look at other sexual behaviors that may leave young adults at risk for HIV and STIs in the present study.

9.4 Directions for Future Research

Since the current study focuses on heterosexual vaginal intercourse, future studies should work to include other sexual behaviors such as oral sex and anal sex that can also leave young
adults at risk for contracting HIV and STIs. By including oral and anal sex in a study along with vaginal sex, researchers would be able to look at how social location, parental communication, and formal sexual education affect protective sexual behaviors for a wide range of sexual behaviors. Additionally, by looking at more sexual behaviors, LGBTQ+ youth would not be excluded from analysis. Future studies would benefit from examining how sexual communication from parents and formal sources impact the sexual health practices of LGBTQ+ youth.

The current study only looks at sexual education from parents and formal sexual education programs. However, young adults also receive sexual health information from additional sources. Young adults also receive information about sex from their peers, the media, and health professionals. Future studies should include these agents of socialization to determine how information from these sources of sexual health information contribute to young adults engaging in protective sexual health behaviors.

Since the current study could not determine whether sexual education took place before or after sexual activity, future studies should look at how sexual education from parents and formal sources before sexual activity contributes to a young adult engaging in protective sexual health behaviors. If a clear timeline between sexual education and engaging in sex could be established, then researchers would be better able to ascertain whether sexual education before initiation into sex is a causal relationship that contributes to an increase or decrease in protective sexual health behaviors.

The current study could not determine how often young adults received information about sex from their parents or formal sexual education programs. Future studies would benefit from looking at the effects of consistent versus brief sexual education on young adults’ sexual
behaviors. Future studies could investigate if consistent communication about sexual health contributes to an increase in protective sexual health behaviors in young adults.

Methods such as qualitative interviews would be beneficial to understanding how parental communication and formal sexual education contribute to young adults’ willingness to engage in protective sexual health behaviors. Qualitative interviews could determine what messages young adults were given about sex, whether they were informative or disapproving about sex, and how often they were communicated. Interviews could also understand how these messages are interpreted by young adults as well as if they have any effect on the young adults’ decision to discuss and use condoms, delay sexual activity, or limit the number of sexual partners.

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