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**SEXUAL ACTIVITY AND ACADEMIC ATTAINMENT: THE SEXUAL DOUBLE
STANDARD AND ITS IMPLICATIONS FOR SEXUALLY ACTIVE ADOLESCENTS**

A Thesis in

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by

Devon Schalcher Torchiana

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The thesis of Devon Schalcher Torchiana was reviewed and approved* by the following:

Derek Kreager
Associate Professor of Sociology and Criminology
Thesis Co-Advisor

Jeremy Staff
Associate Professor of Sociology and Criminology
Thesis Co-Advisor

Michelle Frisco
Associate Professor of Sociology and Demography

John Iceland
Professor of Sociology and Demography
Department Head

*Signatures are on file in the Graduate School

ABSTRACT

Using data from the National Longitudinal Study of Adolescent Health (Add Health), this study assesses the impact of sexual activity on peer acceptance and, subsequently, on educational attainment. This study, in accordance with the sexual double standard, hypothesizes that sexually active adolescent males will be less likely than sexually active adolescent females to experience negative reactions from peers as a result of being sexually active. As peer acceptance has been positively associated with educational attainment, this study predicts that when peer acceptance declines for females engaged in sexual activities, their educational attainment will also decline, and that males will experience positive effects of sexual activity on peer acceptance and educational attainment. The findings from this study reveal a negative effect of sexual activity on female educational attainment, mediated by peer acceptance, and a similarly negative effect of sexual activity on educational attainment for males. Supplemental analyses examine the effects of higher numbers of sexual partners and age at first sexual encounter.

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Praise and glory and wisdom and thanks and honor and power and strength be to our God for ever and ever. (Rev. 7:12)

INTRODUCTION

Teenage sexuality, and its associated risks, is a central concern of scholars, parents, and policymakers alike. A great deal of research on adolescent sexual behavior has examined the negative effects of sexual behavior on the physical, mental, and social well being of adolescents, as well as the link between teenage sexuality and negative academic outcomes (Billy, Landale, Grady, & Simmerle 1988; Frisco 2008; McLeod & Kaiser 2004; Sabia 2007). Research in this area has also examined the effects of sexual behavior on peer status and peer acceptance, finding support for the arguments that sexually active teens have lower social status than non-sexually active teens (Prinstein, Meade, and Cohen 2003) and that sexually active females have lower status than sexually active males (Kreager & Staff 2009). As peer status has been found to affect adjustment (Buhs & Ladd 2001; Buhs 2005) and adjustment has been found to effect attainment (Aunola, Stattin, & Nurmi 2000; Maggs, et al 1997), the effects of teenage sexual behavior on attainment may be mediated through peer status and subsequent adjustment. The stigmas associated with sexual activity may affect how adolescents interact with their peers. Teenage sexuality may, due to the stigmas of sexual activity, negatively affect peer status and adjustment, which then may negatively affect academic attainment.

In past research, the effects of sexual behavior on academic attainment have largely been examined through the effects of pregnancy and the contraction of STDs (Billy et al. 1988; McLeod & Kaiser 2004), though some studies have also included age at first sexual encounter (Frisco 2008; Sabia 2007). While sex is particularly harmful when it results in pregnancy or STDs (Billy et al. 1988; McLeod & Kaiser 2004) and when respondents are especially young when they become sexually active (Frisco 2008; Haase, et al 2011; Maggs, et al 1997; Sabia 2007), some studies have shown that simply being sexually active, apart from early sexual onset or the possible physical consequences of sex, can be detrimental to social capital (Kreager & Staff 2009) and to academic attainment (Prinstein, et al 2003). This study proposes that engaging in sexual behavior may be associated with negative stigma, and may then have negative social and

academic consequences. Stigma consists of negative social reactions to behavior, potentially causing individuals to avoid those who may view them and their behavior with hostility (Goffman 1963). Sexually active teens may be placing themselves at higher risk of experiencing stigma by engaging in sexual activity. This stigma is expected to exist regardless of whether a respondent became pregnant or contracted an STD, and apart from the age at which they first became sexually active. While many teens are engaging in sexual activities, social reactions are likely defined by the sexual double standard, where male sexual behavior is more readily accepted than female sexual behavior. Incorporating the sexual double standard, this study builds on previous research by offering an explanation for why that stigma might be present, and why sexually active females may experience more negative stigma associated with sexual behavior than sexually active males. For females, being sexually active is expected to have a negative effect on peer status and adjustment, which in turn negatively affect respondents' academic attainment.

Peer rejection in school is a significant predictor of poor adjustment (Buhs & Ladd 2001) and lower levels of academic attainment (Buhs 2005). This study, using the theory behind the concept of peer rejection, seeks to evaluate the effects of peer acceptance. If peer reactions to sexual behavior are negative and characterized by stigma, than sexually active adolescents may be accepted by fewer of their peers than those who are not sexually active. Sexually active students may, as a result of lower levels of peer acceptance, experience poor adjustment, resulting in negative academic outcomes. In other words, it is possible that simply being sexually active could result in negative responses from peers, decreasing an adolescent's peer acceptance and negatively impacting their academic attainment. Kreager and Staff (2009) evaluated the effect of having multiple sexual partners on peer acceptance. They found significant gender differences in the effects of sexual behavior on peer acceptance. Increased numbers of sexual partners had positive effects on male peer acceptance, while increased numbers of sexual partners had negative effects on female peer acceptance (Kreager & Staff 2009). One small study of 212 adolescents in a suburban New England high school revealed that tenth graders who engaged in oral sex and

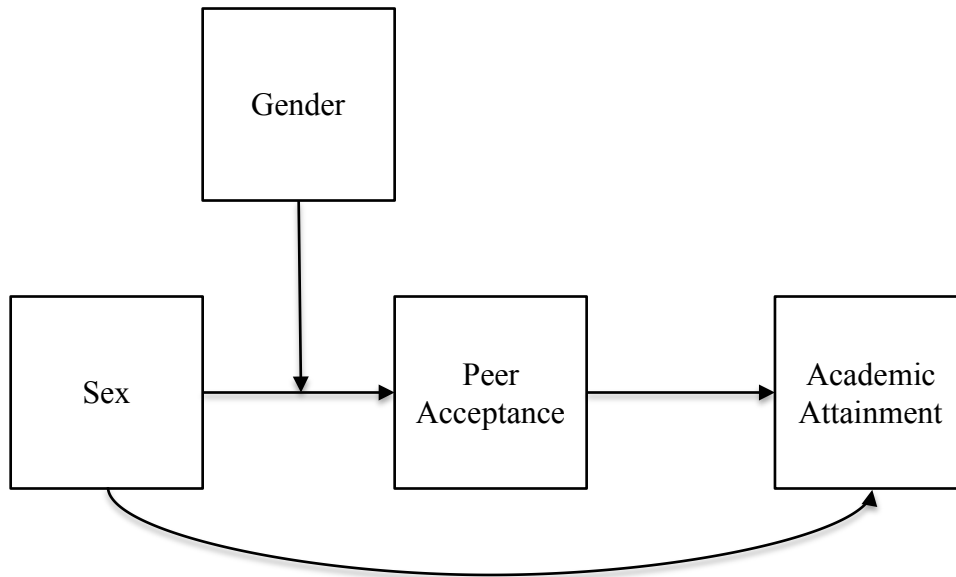
sexual intercourse, particularly with multiple partners, experienced lower levels of peer acceptance and likeability than tenth graders who did not (Prinstein, et al 2003). Prinstein, et al (2003) focused on the impact of being sexually active on reputation, likeability, and peer acceptance among their peers. The current study builds on the work of Prinstein, et al (2003) by explaining how lower levels of peer acceptance due to sexual activity negatively affects adjustment and academic attainment, adding additional explanation, supported by Kreager & Staff's (2009) findings, for why that effect may be more present for females than for males.

Buhs and Ladd (2001) and Buhs (2005) both examined the effects of peer rejection and negative peer treatment on school adjustment. Each study found that rejection from peers was predictive of lower levels of school adjustment. Additionally, Buhs (2005) found that lower levels of adjustment predicted lower levels of academic attainment. This study measures peer acceptance, the number of times a respondent was named as a friend by another respondent, as an estimate of peer rejection and social exclusion.

Measuring peer reactions to teen sexuality is expected to reveal differences in how male and female teens are treated due to their sexual activity and further explain why male sexually permissive teens appear to experience less negative outcomes than female sexually permissive teens. The double standard regarding which sexual behaviors are acceptable for men versus women may enhance the effect of sexual activity on academic attainment through peer reactions to sexual behavior and feelings of social isolation. As an association between sexual behaviors and academic attainment may be spurious, I measures commonly associated with these concepts, including self-esteem, relationships with parents, and involvement in deviant behaviors. In studies of the effects of adjustment on academic attainment, these measures have been shown to have significant effects. Liu, Kaplan, and Risser (1992) found that higher levels of general self-esteem positively influences academic attainment. Other control variables include individual and parental educational aspirations and grades.

Using the National Longitudinal Study of Adolescent Health (hereafter referred to as Add Health), this study measures the relationship between being sexually active and academic attainment, as mediated by peer acceptance and controlling for various other types of adjustment and protective factors (i.e. self-esteem, delinquent behavior, risk behaviors, and attachment to parents). The extensive nature of the Add Health questionnaire allows for the inclusion of a variety of variables measuring social relationships, aspirations, behaviors, and attitudes. The inclusion of these variables in this study's analyses provides a more complete model of factors that may influence the effect of sexual activity on academic attainment.

Figure I: Hypothesized Conceptual Model



REVIEW OF THE LITERATURE

Sexual Behavior and Education

Many studies of sexual activity have found that there is a negative relationship between sexual behavior and educational success (Frisco 2008; Giordano, et al. 2007; McCarthy & Grodsky 2011; Miller & Simon 1974; Sabia 2007; Schvaneveldt, et al 2001; Steward, Farkas, and Bingenheimer 2009). These studies have examined several different mechanisms by which sexual

activity effects lower academic attainment. These mechanisms include the impact of STDs and pregnancy, academic aspirations, school attachment, attitudes favorable towards delinquency, the context surrounding intercourse, and the psychological outcomes associated with sexual behavior.

The negative effects of contracting an STD or becoming pregnant are particularly important when measuring the negative effects of teen sexuality on academic attainment. Pregnancies and STDs both affect a student's ability to attend school, causing missed days or frequent partial absence for health reasons. Non-marital parenthood puts additional stresses on a parent's time, creates new priorities that may be placed before school, and may make it difficult for a teenage parent to remain attached and committed to their schooling while raising a child (Frisco 2008). Pregnancy during high school has been shown to be a consistent predictor of high-school dropout, even controlling for other social and family factors (Newcomb et al. 2002). In Sabia's (2007) examination of virginity's effect on school attachment, he theorizes that sexual activities may have adverse psychological or physiological effects on teens which limit their abilities to foster school attachment. Sabia (2007) found that sexual activity was negatively related to school attachment, though this relationship weakened when controlling for unmeasured heterogeneity through individual fixed effects and instrumental variables.

Miller and Simon (1974) also found that sexual behavior is negatively related to school attachment through academic aspirations. They found that respondents who reported that they did not aspire to education beyond high school also reported a "high incidence of coitus" (Miller & Simon 1974: 71). Similar to these findings, Hofferth & Hayes (1987) found that teenagers who have a history of poor school performance and lower academic aspirations are more likely to engage in sexual activity than adolescents who perform better in school. These findings suggest that sexual activity's effect on school outcomes may be mediated through a respondent's academic goals and past achievements.

In addition to school attachment, the context within which sexual activity occurs might have an effect on whether being sexually active has a negative impact on academic outcomes.

Manning, Longmore, and Giordano (2005) found that the variables predicting sexual activity within a romantic context were different from those that predicted sexual activity in a non-romantic context. Subsequent studies have shown that different types of sexual activity (romantic or non-romantic) may differentially affect academic outcomes. McCarthy & Grodsky (2011) found that the context in which sexual activity occurs, namely whether intercourse occurs within a romantic relationship or not, mattered more for predicting educational attainment than simply whether a respondent was sexually active. They found that sex that occurred within romantic relationships was significantly less detrimental to educational outcomes than when sex occurred outside of romantic relationships (McCarthy & Grodsky 2011).

The relationship between sexual behavior and education may also be attenuated by delinquent behavior and risk taking. Miller and Simon (1974) identified ways in which sexual activity is correlated with other delinquent behaviors, placing sexual activity in the same context as other types of juvenile misbehaving and risk-taking. This 'sex as delinquent behavior' pattern was also supported in Brooks-Gunn & Furstenberg's (1989) article discussing adolescent sexual behavior and its correlates. Sexual behavior has been significantly associated with depression, drinking, and drug use (Halpern et al. 2000), further supporting the idea that sexual activity could effect educational attainment because it is similar to other delinquent behavior.

Sexual Activity and Peer Acceptance

In addition to the possible physical and psychological outcomes, teens must also deal with the social consequences of sexual activity (Tolman 2005). Teens may find it difficult to protect and maintain their privacy in the context of school and peer relationships. Lack of privacy increases teens' exposure to social reactions to their sexual activity, adding negative social effects to the more private potential outcomes of teen sexual behavior. Examinations of the effect of sexual behavior on peer relationships have focused on peer opinions regarding sexual activity and the effects of peers' sexual behavior on respondents' behavior.

Miller and Simon (1974) note that peer opinions regarding sexual activity have a predictive effect on sexual activity. Members of peer groups were significantly likely to share similar views on sexual activity. Sexual activity based differences in peer networks were also detected in Billy & Udry's (1985) study of adolescent friendships and sexual behavior. In their study, white adolescents who had engaged in intercourse were more likely to identify friends who had also engaged in intercourse (intercourse had no significant effect on the friendship networks of black respondents). Billy & Udry (1985) propose that white males and females may be more sensitive to and critical of the sexual behaviors of their potential friends, though existing friendships were unlikely to be dissolved as a result of intercourse. Females' sexual behavior was more likely to be influenced by their friends' behavior, though no specific reason for this difference between males and females was tested.

In examining the effects of engaging in sexual behavior on peer relationships, Miller and Simon's (1974) study of the contexts and trends in adolescent sexual behavior revealed differences in the role of the peer group for males and females. Males received support from their peers either because of their sexual experience or despite their experience. Females, on the other hand, experienced a lowered level of support after becoming sexually active and may also have become less attached to their peer group, transferring their relational attachment to their sexual partner (Miller & Simon 1974: 70). These findings took peer sexual activity into account, revealing that, even when females had sexually active peers, they experienced less support after sexual debut than males, even controlling for age at sexual debut. In their study of the peer acceptance of sexually active adolescents, Prinstein, et al (2003) found that sex with higher numbers of partners was significantly related to lower levels of peer acceptance. Adolescents who reported engaging in sexual activity were also less likely to be nominated by their peers as being well liked (Prinstein, et al. 2003).

The Sexual Double Standard as a Mechanism of Social Sanction

Peer reactions towards sexually permissive teens and the effect of those reactions on teen behavior remain somewhat unexplored in the literature regarding adolescent sexuality. The theory that stigma surrounding sexual behavior has a negative impact on academic attainment is one that, in the existing literature, has focused mainly on the effects of sexual stigma as a result of homosexuality, proposing that this stigma leads to a decrease in academic success (Pearson, Muller, and Wilkinson 2007; Rostosky et al. 2003; Russell, Seif, and Truong 2001). This study expands upon this use of the theory, applying gender and the concept of stigma to other sexual behaviors, such as being sexually active or a teen's number of sexual partners, to explain why adolescents might develop behavioral patterns that negatively effect academic development. Of particular interest in this study is the implication from previous studies that the effects of sexual behavior are different for adolescent females than for adolescent males. While the male adolescent has been supported, if not pressured, to express his sexuality through sexual conquest, the female adolescent has not been supported by her peers in the sexual behaviors and explorations which are available to her male counterparts (Miller and Simon 1974). It is this sexual double standard that this study theorizes has come to define the relationship between sexual behavior, stigma, and academic attainment.

Sexuality and sexual behavior are seen through a gendered lens. The sexual double standard is a gendered definition of sexual behavior that is socially constructed to allow men to engage in behaviors for which women are ridiculed or rejected (Reiss 1964). The definition of the sexual double standard also provides a guide by which masculinity can be evaluated, treating masculinity as the product of sexual prowess and conquest (Tolman, Striepe, and Harmon 2003).

Traditionally, these rules exalt the sexual prowess of men who 'sow wild oats' but stigmatize women who engage in any sexual behavior outside of a committed romantic relationship. In other words, men have a greater right to premarital intercourse and premarital promiscuity than women (Reiss 1964).

Research on the existence of a sexual double standard illustrates an on-going debate regarding whether the sexual double standard is real or imagined (see Crawford and Popp 2003 for a meta-analysis of past research). Though public opinion generally supports the existence of sexual double standards, the research results are not nearly so clear-cut. Sprecher, McKinney, and Orbuch (1987) found that college students rated women who engaged in sexual activity as more sexual than men who engaged in the same sexual behaviors, as well as less mature and intelligent, and as having more negative personality characteristics. Taking a different approach, Kreager and Staff (2009) proposed that surveys measuring the existence of a sexual double standard may be more effective if they measured outcomes of sexual behavior in specific social situations. In other words, a teen's social status after engaging in sexual activity may be a more effective measure of the existence of a sexual double standard.

In *Dilemmas of Desire: Teenage Girls Talk about Sexuality* Tolman (2005) used a qualitative approach to examine teen attitudes towards sexual behavior and the possibility of a sexual double standard among adolescent peer groups. Female study participants discussed their fears and feelings about sexuality and sexual behavior as well as their peers' reactions to sexual behavior. The experiences of the girls in this study were characterized by the pressure to conform to social rules and roles that their peers promoted, in which gender was the most important factor in evaluating whether a teen's behavior was acceptable or not. Girls who defied the sexual double standard inherent in the rules did so at the risk of social isolation and being labeled a slut (p. 7). The female respondents expressed a constant fear of ruining their reputation by engaging in sexual behavior, often regardless of whether or not they were in a committed relationship. Rochelle describes her fear of criticism, though she was in a committed relationship, for engaging in sexual intercourse. She remarks that the ability of her boyfriend to accept or reject her sexuality erases any protection that being in a committed relationship might provide her reputation (p. 91).

Other school-based studies have focused on the consequences of applying negative labels to individuals who have engaged in sexual norm-violating behavior (Goffman 1963; Tannenbaum 2000). These studies all examine how labeling and social interaction leads to a social construction of sexual regulation through stigma. This study builds on previous reports by examining how female respondents in a school-based study who engaged in risky sexual behavior, are significantly less likely to graduate from high school or enroll in post-secondary education than similarly promiscuous males.

A large portion of research has focused on adolescent peer acceptance and its underlying criteria, but little has focused on the effects of sexual norms on teen peer acceptance. Even while norms regarding appropriate female characteristics focus on romantic conquests, physical attractiveness and friendships (Adler, Kless, and Adler 1992) the sexual double standard stigmatizes females who engage in sexual conquests, rather than romantic relationships. Peer acceptance for females is constructed through competition for friendships and romantic relationships as well as the pursuit of academic success, whereas peer acceptance for men is constructed through the use of masculine characteristics such as strength, sexual prowess, and other acts of daring. Girls who achieve these goals through socially proscribed means have higher status than girls who do not achieve these goals and than girls who attempt to achieve the goals through norm-violating behavior (Adler et al. 1992). Girls who engage in this sexual relationship competition and have a high number of sexual partners, regardless of whether the sex occurred within or outside a romantic relationship, are much more likely to suffer consequences as a result of the sexual double standard (Kreager & Staff 2009), whereas men are expected to acquire a variety of female conquests in order to prove their own masculinity (Adler et al. 1992). Research suggests that this construction of masculinity encourages male adolescents to engage in sexual risks (Tolman et al. 2003), even as females are discouraged from engaging in sexual behavior through labeling and stigma (Kreager and Staff 2009).

Tolman's (2005) discussion of the term 'slut' supports this hypothesis, exploring the stories of girls who personally experienced sexual behavior as one area where their peers evaluated females differently than males. Also supporting this hypothesis, Kreager and Staff (2009: 154) found that sexually permissive females were less likely to be accepted by their peers, suggesting a high level of social marginalization for girls with a high number (more than 8) of sexual partners. Kreager and Staff (2009) also found support for the idea that male adolescents benefit socially from engaging in sexually permissive behavior. Sexually experienced males had a higher level of peer acceptance than sexually inexperienced males and that level of peer acceptance continues to increase as a male's number of sexual partners also increases (Kreager and Staff 2009: 155).

The nature of rejection is such that, when a group rejects or ridicules an adolescent, the rejected or ridiculed are aware that the others look upon them with derision and contempt. This relays the message that the rejected individual does not belong in the group in question (Warr 2002). Self-esteem levels fluctuate based on the frequency of interactions that result in positive or negative feedback from their peers (Kaplan 1976). As a result of the sexual double standard, sexually active teens may be pushed to the fringes of their social world. Rejected female adolescents who engage in sexually permissive behavior risk becoming increasingly isolated, decreasing their self-esteem. Individuals with low self-esteem tend to focus on their own shortcomings and think of themselves as inadequate, as opposed to their peers with higher self-esteem who experience higher levels of attainment in conventional pursuits and have a higher level of emotional well-being (Owens 1994).

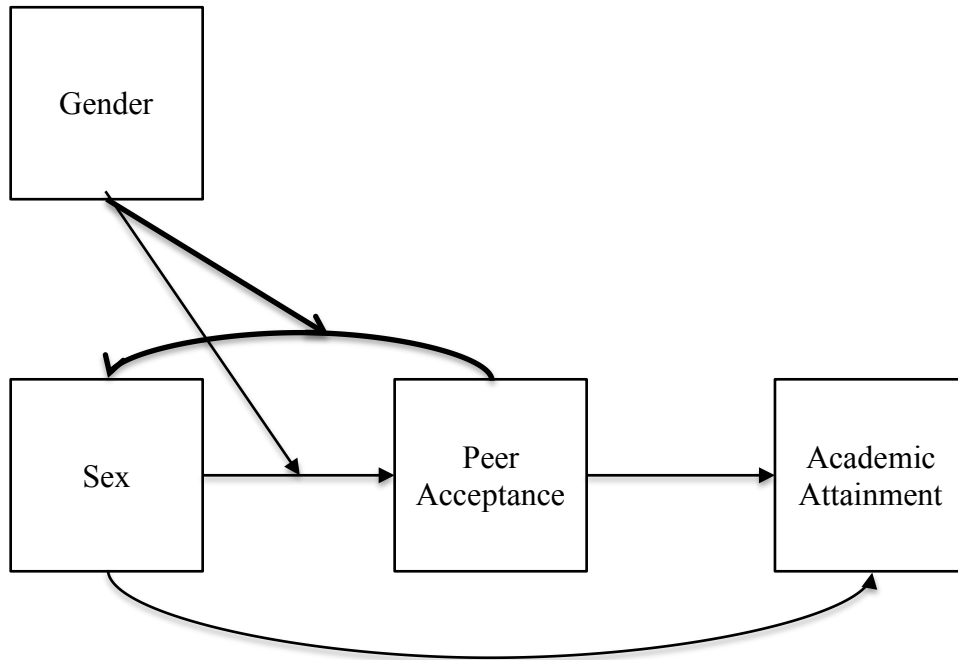
It is expected that socially marginalized individuals will be less likely to expect to achieve success, given their low opinions of themselves and their ideas that they are inadequate. Given that so many peer interactions, interactions which have a large effect on self-esteem, occur within school contexts, it is not surprising that many sexually active adolescents lose interest in education, decreasing their academic attainment and lowering their educational expectations

(Sabia 2007). However, it is likely that the negative effects of sexually permissive behaviors are stronger for females, a hypothesis that Sabia (2007) did not examine. Females who engage in sexually permissive behaviors are more marginalized than men who engage in sexually permissive behaviors (Kreager and Staff 2009), thus the effects of marginalization on educational attainment and aspirations are expected evince themselves more for females than for males.

The sexual double standard (Crawford and Popp 2003) states that, due to social stereotypes and standards, it is acceptable for unmarried men to be sexually active and even promiscuous while unmarried females are to remain chaste or, if they do engage in sexual activity outside of marriage they must do so within one committed relationship (Reiss 1964). When women violate this standard, they face social isolation, ridicule, and negative social perceptions and consequences (Adler et al. 1992; Eder et al. 1995; Goffman 1963; Kreager and Staff 2009; Tanenbaum 2000). The message of disapproval and rejection that society and, as research has shown, even their peers communicate to these sexually active, apparently promiscuous girls tells these individuals that they no longer belong in their peer group (Warr 2000), which has negative consequences on their self-esteem (Owens 1994). This lowered self-esteem convinces these girls that they are inadequate, turning their focus toward their own short-comings and preventing them from believing that they can succeed in school and attain academic attainment (Sabia 2007).

The relationship between sexual activity and peer acceptance described here may not be an accurate reflection of the actual relationship. This study supposes that sexual activity supersedes peer acceptance. In other words, it is assumed that peer acceptance is a result of sexual activity. However, it is possible that peer acceptance also predicts a respondent's propensity for sexual activity. It is important to recognize the potential for reverse causality in any research conclusions (see Figure II).

Figure II: Reverse Causality Conceptual Model



Peer Acceptance and Education

The sexual double standard, particularly its ability to explain why females might suffer more social consequences for being sexually active than males, is especially important due to the effect of peer acceptance on academic attainment. While most studies of peer acceptance on academic attainment have focused on middle school students, the possible implications for older adolescents are clear. Studies of middle school students' academic success and its relation to peer acceptance or peer acceptance have consistently shown that peer acceptance is an important predictor of academic attainment (Bellmore 2001; Berghout Austin & Draper 1984; Flook, Repetti, & Ullman 2005; DeRosier, Kupersmidt & Patterson 1994; Muma 1965, Wentzel 1991).

In a sample of middle school students, those with high levels of peer acceptance are more likely to have higher levels of academic attainment than their less popular peers (Berghout Austin and Draper 1984). Bellmore (2011) confirmed these findings in her study of transitioning from elementary to middle school, concluding that higher levels of peer rejection preceded lower GPA and that rejection and unpeer acceptance during elementary school preceded lower GPA in

middle school, regardless of whether the respondent remained unpopular during middle school. Longitudinally, there is a positive effect of peer acceptance on academic performance when academic performance is measured one year after peer acceptance is established (Wentzel & Caldwell 1997). This indicates that being popular at one time has a significant effect on later academic success as well as success at the time that peer acceptance is reported.

Controlling for Possible Spuriousness

The relationship between sexually permissive behavior and low academic attainment is complex and nuanced. In any such relationship, the potential for finding an effect when one does not truly exist is high. For instance, the consequences of sexual behavior, such as pregnancy, may have a greater role in determining academic attainment for female respondents than any social isolation and ridicule stemming from the sexual double standard. In *Promises I Can Keep* (Edin and Kefalas 2005), the authors explore cultural norms and behavioral patterns in urban African American and Latino populations that are supportive of extramarital and even teen pregnancy. The practice of having children outside of marriage and at a young age is prevalent due to a pervasive belief that romantic relationships are fleeting but the bond between two individuals who share a child together is forever. Adherence to this idea meant that the participants in this qualitative study bore children during high school, which could certainly have effected their academic attainments in later years despite the expected absence of negative social stigma regarding teen pregnancy in their communities. The young women in the Edin and Kefalas (2005) piece spoke of their pregnancies with an air of expectation, treating the bearing of children as something that they had always expected to engage in during high school and before marriage and as something that was acceptable in their community and within their social context. In this study, women who expect to have children during high school and before marriage may not have intended to continue on to higher education or even to graduate from high school. Measuring only whether these women got pregnant or had a child would not completely account for why they may have failed to achieve certain academic milestones.

Studies of other adolescent risk behaviors and patterns of risky behavior support this study's hypothesis that engaging in sexually permissive behavior will have a negative effect on their ability to learn and on their future aspirations (Donohew, et al. 2000; Miller and Sneesby; Williams, Cox, Hedberg, and Deci 2000). Differing expectations regarding sexual behavior, based on gender, results in labeling and decreases in self-esteem, which then has negative consequences for adolescents' educational attainment and aspirations. These effects are expected to be larger for females than for males, based on the sexual double standard, which stigmatizes females who engage in sexually permissive behavior. This places them at a larger disadvantage socially and economically, making research into this area necessary and important.

Studies regarding peer acceptance and academic attainment have raised questions about causality. In the relationship between peer acceptance and academic attainment, it has occasionally been difficult to ascertain which variable occurs first: peer acceptance or academic attainment. However, the few longitudinal studies of the effect of peer acceptance and peer acceptance on academic attainment support this study's premise that social isolation may have long term and negative effects on academic attainment.

Hypotheses

My main hypothesis is that being sexually active will have an adverse effect on female academic attainment, while having either a positive effect, or no significant effect on male academic attainment. Also, I hypothesize that this relationship is mediated through an individual's peer acceptance. In other words, being sexually active will have a negative effect on peer acceptance for females, leading to a negative effect on academic attainment. For males, being sexually active will either increase or have no effect on their peer acceptance, resulting in either a positive or null effect on their academic attainment.

METHODOLOGY

Sample

This study utilizes data from the first and fourth waves of the National Longitudinal Study of Adolescent Health, hereafter referred to as Add Health, and includes responses from a total of 10,926. The sampling design of the Add Health survey varies across the four waves, but uses an overall stratified sampling strategy.

All respondents at Wave I were eligible for re-interview again at Wave 4. Wave IV's in-home interview served as a follow-up with many of the original topics in the survey and included added physical measurement and biospecimen components. The participants in Wave IV ranged from 24 to 34 years of age, with the exception of 55 respondents who were aged 33-34. This age range is ideal for measuring how the respondents were assuming adult responsibilities and making lifestyle decisions that would impact their future health and well being. (Harris et al, 2009).

In addition to the In-Home interviews, this study uses the In-School Questionnaire administered as part of the first wave of the survey. The In-School Questionnaire data include social network data for most of the students in 140 schools. The survey respondents were asked to nominate their top five female friends and their top five male friends. Tracking these nominations across survey respondents, the survey administrators were able to construct measures of peer acceptance for each In-School Questionnaire respondent (Harris et al, 2009).

Many survey respondents were missing data from either the In-Home Questionnaire at Wave 1, the In-School Questionnaire, or the follow-up questionnaire at Wave 4. As these analyses require that all respondents have completed each of the three questionnaires, those that did not were eliminated from the sample. After those eliminations, 10, 797 respondents remained.

The total number of respondents in the sample was decreased again to separate the respondents to the Add Health survey who were married at Wave I. The sexual double standard

stipulates that only unmarried women must abide by the social strictures constructed to constrain female sexual behavior. Once a woman is married, so long as she does not stray from the marriage, a female can presumably behave as sexually as she prefers. It is for this reason that married people, especially married women, will be excluded from the sample, as they are not part of the targeted sampling frame. While this subgroup makes up only a small part of the overall sample ($n = 79$), it is an important omission due to the theory behind the study.

Variables

The dependent variable used in this study is education level achieved, measured at Wave IV of the Add Health Study. The fourth wave of the Add Health data measures educational attainment at 13 levels, from 8th grade or less through completed post-baccalaureate professional education. This study recoded this variable to reflect years of education received. Educational attainment is measured using a total of five different levels: Less than 12 years of schooling, 12 years of schooling, 13-16 years of schooling, 17 years of schooling, and 18 or more years of schooling. Less than 12 years is equivalent to less than a high school diploma, while 12 years is equivalent to a high school diploma. Thirteen to sixteen years is equivalent to any post-secondary education that did not result in a bachelor's degree. Seventeen years is equivalent to a bachelors degree, and anything over 17 years is equivalent to post-graduate work.

The independent variable in this study is whether the respondent is sexually active at Wave 1 of the Add Health survey. Whether a respondent is sexually active was determined by asking respondents "Have you ever had sexual intercourse? When we say sexual intercourse, we mean when a male inserts his penis into a female's vagina" (Harris, et al 2009). This measure does not include respondents who are engaged in sexual behaviors that do not meet this definition of intercourse. This variable is measured as a dichotomous variable, where respondents either have or have not had intercourse.

Gender is a moderating variable that affects the influence of sexual behavior on academic attainment due to society's construction of which sexual roles are appropriate for men and which

are appropriate for women. Gender is measured using Add Health's indicator of binary biological sex from Wave 1 of the study. This does not account for any respondents who might identify as transgender. Also, in cases where respondents were marked as belonging in one category of the biological sex variable at Wave I and the other category at Wave IV, this study assumed this discrepancy was a result of coding errors and removed those cases from the sample.

Another important variable in this study is a measure of peer acceptance. In the school-based survey from Wave I of the Add Health study, respondents were asked to name five male friends and five female friends. The variable 'in-degree', which this study uses as a measure of peer acceptance, is an indication of how often a respondent was nominated by other survey respondents as a friend. With each additional nomination, a respondent's level of peer acceptance increases. Measuring peer acceptance increases our ability to evaluate whether the hypothesis that social censure of sexual active females causes them to achieve less academically than their male counterparts is viable.

Also included in the analyses are other variables related to sexual activity and behaviors, all asked at Wave I of the Add Health Study. These include a binary variable, which indicates whether the respondent ever took a virginity pledge ("Have you taken a public or written pledge to remain a virgin until marriage?" [Harris, et al 2009]), and another binary variable indicating whether the respondent was treated for an STD in the last year (In the past year, have you received testing or treatment for a sexually transmitted disease or AIDS?" [Harris, et al 2009]). The female respondents in the Add Health Study were asked about their pregnancy history and this study includes both a binary variable regarding whether the respondent had ever been pregnant and a ratio variable indicating the number of times a respondent had ever been pregnant. Male respondents were not asked about their experience with pregnancy or fatherhood, and thus the impact of getting a woman pregnant or becoming a father cannot be measured.

One of the single best predictors of academic attainment is academic achievement, usually measured by grades. This study uses an approximated grade point average based on the

respondents' self-reported grades in English, history, math, and science at the time of the first wave of the survey. Using a traditional 4.0 grading scale, where A=4, B=3, C=2, D=1, and F=0 this study calculates the respondent's probable GPA.

This study accounts for differences in educational attainment expectations and desires through a question from the Wave I survey which asks: 'on a scale of 1-5, where 1 is low and 5 is high, how much do you want to go to college'. The possibility that different cultural norms regarding whether respondents wish to go to college present in *Playing for Keeps* (Edin and Kefalas 2005) are also present in the Add Health sample is accounted for by controlling for race. Race is indicated with a binary variable indicating whether the respondent is white or non-white.

To control for the effect of deviant behavior on academic outcomes, measures of delinquency, tobacco use, and binge drinking are included in these analyses. The first wave of the Add Health Study includes a list of questions regarding a respondent's past involvement in a number of delinquent behaviors. This list of questions is utilized in this study as an additive scale of delinquency. Binge drinking is defined as having more than 5 drinks on a single occasion and the measure used in this study asks how often a respondent has had more than 5 drinks in a single occasion in the last year (Over the past 12 months, on how many days did you drink five or more drinks in a row? [Harris, et al 2009]). Cigarettes are used as a measure of tobacco use in the Add Health study and this study measures involvement in cigarettes by asking, "During the past 30 days, on how many days did you smoke cigarettes" (Harris, et al 2009).

The contraction of STDs is another possible outcome of sexual behavior that could affect a respondent's academic attainment separately from any social backlash that might result from engaging in permissive sexual activity. The negative effects of an STD on a respondent's health might cause them to miss school and fail to complete the necessary work required to graduate from high school or to obtain entrance into a secondary education program. This study controls for the potential for negative health outcomes to effect school performance and subsequent attainment by combining several Add Health questions regarding specific sexually transmitted

infections to create a dummy variable that indicates whether a respondent has ever been diagnosed with an STD.

Adolescent behavior and academic attainment are also significantly affected by parental expectations and attachment. A meta-analysis of empirical studies examining parental involvement in the lives of adolescents found that overall parental involvement had a moderate positive effect on academic attainment (Fan and Chen 2001). Parents' expectations for their children's academic futures may also have an effect on whether a teen reaches certain educational milestones (i.e. high school graduation, going on to college). To control for parental expectations, this study uses a measure of parental expectations for academic attainment. Parental expectations for academic attainment are measured by adding together two questions that asked whether a respondent's mother and father would be disappointed if the respondent did not attend college.

Adolescents who are raised in two-parent homes are also less likely to engage in sexual activity than their peers who are raised in single-parent homes (Young, Jensen, Olsen, and Cundick 1991). To control for the effects of single-parent homes, this study includes a variable indicating whether or not a respondent lives with both biological parents.

Other independent variables present in this study that control for spuriousness are measures of self-esteem and a measure of the interaction between being sexually active and peer acceptance. The factored self-esteem variable is measured by asking the respondent to rank their response to a number of social questions along Likert-Scale response categories. These categories include the respondents perceived level of energy, whether they think they are well coordinated, whether they think they have a lot of good qualities, whether they think they have a lot to be proud of, whether they like themselves just the way they are, whether they think they are doing everything just about right, whether they feel socially accepted, and whether they feel loved and wanted. The interaction term examines if peer acceptance and sexual activity work together to effect a respondent's academic attainment. These two variables control for the possibility that a

respondent does not generally like himself or herself or feel socially accepted apart from their peer acceptance, and for the possibility that a respondent's peer acceptance and sexual behavior are not independent of one another. If peer acceptance and sexual behavior interact to affect academic attainment, the interaction may be different for males and females, due to different standards for sexual behavior. Frequencies for the primary variables of interest can be found in Table 1.

Table I: Frequencies

Variable	Frequency	Percent	Cumulative Percent
Highest Level of Education Achieved to Date (Wave 4)			
Not a High School Graduate	648	6.14	6.14
High School Graduate	1599	15.16	21.3
Some College	4617	43.77	65.07
Completed College (Bachelor's Degree)	2226	21.1	86.18
Post-Graduate Work	1458	13.82	100
	N = 10, 677		
Sexually Active			
	<u>Frequency</u>	<u>Percent</u>	<u>Cumulative Percent</u>
Not Sexually Active	6753	64.42	62.42
Sexually Active	3730	35.58	100
	N = 10, 483		

In merging the responses from the first wave of the Add Health survey, the Add Health peer network dataset, and the fourth wave of the survey, over five thousand cases were lost due to attrition. Further eliminated from the data were individuals who were married at the time of the first wave of the survey, as the sexual double standard presupposes that the respondents are single, never married adolescents. Also eliminated from the data set were any girls who reported having ever been pregnant at the time of the first wave of the survey. Inclusion of these young

women in initial analyses yielded no significant contribution of pregnancy to academic attainment, and any effect pregnancy might have on academic attainment could be expected to operate more through health and time constraints than the sexual double standard. In short, the effect of pregnancy is so nuanced that it was decided to remove those individuals from the survey altogether.

To avoid the missing data problems caused by list wise deletion in regression modeling, any variable with missing data was imputed using regression imputation. Regression imputation replaces missing values with a predicted score based on the reported scores of a variety of other variables. A regression equation was run for each of the imputed variables, based on the reported scores of other theoretically important variables that would be included in the analytic model. Each imputed variable was predicted based on the other variables included in the overall analytic model. All variables were imputed to account for missing data except gender, self esteem, parental attachment, and educational attainment. These variables had no missing data, and were thus not imputed.

Table II: Descriptive Statistics

N = 10,548

Variable Name	Variable Description	Mean	St. Dev.	Range
Female	Indicates whether respondent is female	0.52	0.50	0-1
Age	Respondent's age, in years, at the time of the first survey wave	16.03	1.69	12-21
White	Respondent's race, indicated as white or non-white	0.61	0.49	0-1
Black	Respondent's race, indicated as black or non-black	0.22	0.42	0-1
Hispanic/Latino	Respondent's race, indicated as Hispanic/Latino or not Hispanic/Latino	0.23	0.42	0-1
Intact Family	Indicates whether the respondent lives with both of their biological parents	0.56	0.50	0-1

Public Assistance	Indicates whether the respondent has a parent(s) who receives public assistance, such as welfare	0.09	0.28	0-1
Parent Education Level	Indicates the highest level of education attained by the respondent's parents	2.99	1.18	0-5
GPA	Estimated Grade Point Average based on Respondents' self-reported grades in English, Math, Science, and History	2.83	0.67	1-4
Ever had sex	Indicates whether the respondent has ever engaged in sexual intercourse at the time of the first survey wave	0.36	0.48	0-1
Romantic Sex partners	Respondent's number of romantic sexual partners as of January 1994, as answered at the time of the first survey wave	0.28	1.33	0-50
Non-romantic sex partners	Respondent's number of non-romantic sexual partners as of January 1994, as answered at the time of the first survey wave	0.50	2.10	0-50
Peer acceptance	The number of times the respondent was nominated as a friend by other students in their school	4.48	3.69	0-32
Virginity Pledge	Indicates whether the respondent has ever taken a virginity pledge as of the first survey wave	0.14	0.34	0-1
Treated for STDs	Dummy variable indicating whether the respondent has ever been treated for STDs	0.04	0.20	0-1
Delinquency	Additive scale of dummy delinquency variables indicating whether a respondent has engaged in a variety of delinquent behaviors in the 12 months prior to the survey	4.01	4.77	0-15
Smoking	Indicates whether respondent has smoked cigarettes in the 30 days prior to the survey	0.24	0.43	0-1
Binge Drinking	Indicates whether the respondent has engaged in binge drinking (5 or more alcoholic drinks at one time) in the 12 months prior to the survey	0.24	0.43	0-1

Parental Attachment	Alpha scale indicating the respondent's attachment to their parental figures	2.66	1.41	0-7
Parental Academic Expectations	Alpha scale indicating whether R's parents would be disappointed if R did not graduate from high school and college	4.81	0.96	1-7.5
Want College	Indicates whether R wants to go to college	4.50	0.95	1-5
Self Esteem	Alpha scale indicating R's level of self esteem	1.88	0.58	1-8
Educational Attainment	Variable indicating the respondent's level of educational attainment	3.20	1.06	1-5

Plan of Analysis

The theory behind this study rests on the concept of the sexual double standard. These analyses are limited in that there are no questions in the Add Health questionnaire that specifically ask about gender attitudes or gender roles. This means that there is no way to directly measure whether or not the adolescents in the study perceive or engage in thoughts that are in line with the 'sexual double standard'. However, the Add Health In-Home Questionnaire at Wave 1 asked respondents over the age of 15 a series of questions (not shown) regarding their perceptions regarding possible consequences of engaging in sexual intercourse. Based on correlational analyses (not shown) of gendered differences in whether or not a respondent's friends would respect them more if they had sex, if their partner would lose respect for them, and if having sex would make them more attractive to the opposite sex, I can infer the presence of the sexual double standard, at least in the minds of the respondents. Male respondents were statistically and significantly more likely than female respondents to indicate that their friends would respect them more if they had sex, and to report that having sex would make them more attractive to the opposite sex (Analyses not shown). Male respondents were significantly less likely than female respondents to indicate that having sex would cause their romantic partner to lose respect for

them. As these correlations reveal, male respondents are significantly less likely than female respondents to believe that their sexual activities will have a negative effect on their lives, and more likely than female respondents to believe that sex will have a positive effect on their lives. Most interesting to this study is the significant difference between male and female opinions regarding whether their friends will respect them more if they engage in sexual activity. Males were significantly more likely than females to believe that having sex would cause their friends to respect them more, supporting the hypothesis that males who engage in sexual behavior will be more popular than females who engage in sexual behavior.

To determine whether sexual activity has negative effects on female respondents' academic attainment as compared to males, and to ascertain whether peer acceptance serves as a mediator of that relationship, this study estimates several stepped ordinal regression models. Predicting the effects of sexual activity on a student's academic attainment necessitated the splitting of the sample into two groups based on gender. Ordinal regression was then used to separately predict the effect of sexual activity on male and female academic attainment. Post-estimation tests examine whether a specific hypothesized relationship exists between specified variables and/or populations (Long & Freese 2006). In this study, post-estimation Z tests (Clogg, et al 1995; Paternoster et al, 1998) were used to determine whether there was a significant difference in the way some variables affected male academic attainment compared to how those same variables affected female academic attainment.

After the main analyses, in an attempt to further explore the relationship between sexual activity, peer acceptance, and attainment, this study performed several supplemental analyses. The first set of supplemental analyses used ordinal regression models to examine the effect of the number of sexual partners on academic attainment, as moderated by gender. The second set of supplemental analyses examined whether the inclusion of a variable measuring the respondent's age at first sexual encounter attenuated the effect of simply being sexually active.

The Add Health survey, which surveyed respondents from 80 high schools and 52 middle schools, uses a systematic stratified sampling design to ensure that the sample is nationally representative. This sampling design requires post-stratification survey weighting to compensate for the oversampling of some populations (Harris, et al 2009). These post-stratification weights were applied to the analyses in STATA, using the survey command and the weights from Wave 4 of the Add Health survey. Using the Wave 4 weights allows this study to account for participants lost over time and to maintain a nationally representative sample.

RESULTS

The stepped ordinal regression models estimated for all female respondents (see Table III) revealed that being sexually active had a significant and negative effect on academic attainment. When only the respondents' age, race, family structure, whether the respondents' parent(s) had ever received public assistance, highest level of parental education, and GPA were included in the model (Model I), sexual activity was significantly and negatively associated with females' academic attainment ($p > .001$). Adding a measure of peer acceptance into the analysis (Model II) did not eliminate the negative effect of having had sex on academic attainment and revealed that peer acceptance was significantly and positively associated with higher levels of academic attainment, and this association was statistically significant ($p > .001$). When other variables were added into the model, the size of the effects of both sexual activity and peer acceptance decreased slightly but remained significant. Model III accounted for the possible effects of other variables associated with sexual activity: whether the respondent had ever made a virginity pledge, and whether the respondent had ever been treated for STDs. While both making virginity pledge and being treated for STDs had significant negative effects on academic attainment, the effects of being sexually active and being popular remained stable. Model IV added additional variables accounting for other risk taking and deviant behaviors. In this model, delinquency was not statistically significant, smoking was significantly and negatively associated

with academic attainment, and binge drinking was positively and significantly associated with attainment. The fifth model (Model V) included variables that accounted for other factors that influence whether adolescents attain higher levels of academic success. These included the respondent's attachment to their parents, whether their parents expected them to go to college, whether the respondent themselves wanted to go to college, and the respondents' self-esteem. Parents' academic expectations and the respondent's own desire to go to college were both significantly associated with higher levels of academic attainment, while the respondents' self-esteem was not significant associated. The final model (Model VI) included a variable to account for a possible interaction effect between sexual activity and peer acceptance. This interaction was positively associated with academic attainment ($p < .001$), and implies that sexually active girls who are popular, are more likely to attain academically than sexually active girls who are not popular.

These analyses support this study's first hypothesis, that sexual activity will have a negative effect on female academic attainment. Interestingly, the significant and positive association between the interaction term and academic attainment implies that girls with high levels of peer acceptance who have sex attain more than less accepted girls who have sex. In addition, the exact nature of the mediation of peer acceptance is difficult to determine, given the fact that the temporal relationship between peer acceptance and sexual activity remains unclear. That said, this analysis suggests that sexual activity and peer acceptance interact in a way that significantly effects female adolescents' academic attainment.

Table III: Effect of Sexual Activity, Female Respondents, N=5,392

Variable	Model I	Model II	Model III	Model IV	Model V	Model VI
	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)
Age	1.18*** (0.04)	1.18*** (0.04)	1.18*** (0.03)	1.17*** (0.03)	1.18*** (0.03)	1.18*** (0.03)
White	0.78 (0.12)	0.74 (0.12)	0.74 (0.12)	0.75 (0.12)	0.83 (0.13)	0.84 (0.13)
Black	1.32	1.31	1.32	1.28	1.25	1.27

	(0.26)	(0.26)	(0.26)	(0.26)	(0.25)	(0.25)
Hispanic/ Latino	0.62 (0.24)	0.62 (0.24)	0.67 (0.26)	0.65 (0.25)	0.68 (0.28)	0.67 (0.28)
Intact Family	1.36*** (0.10)	1.33*** (0.10)	1.32*** (0.1)	1.33*** (0.10)	1.81*** (0.16)	1.81*** (0.16)
Public Assistance	0.56*** (0.09)	0.58*** (0.09)	0.58 (0.09)	0.59*** (0.09)	0.57*** (0.08)	0.56*** (0.08)
Parent Education Level	1.77*** (0.09)	1.76*** (0.09)	1.76*** (0.09)	1.77*** (0.09)	1.71*** (0.09)	1.72*** (0.09)
GPA	3.60*** (0.24)	3.49*** (0.24)	3.50*** (0.24)	3.33*** (0.24)	2.90*** (0.20)	2.88*** (0.20)
Sexually Active	0.69*** (0.05)	0.68*** (0.05)	0.67*** (0.05)	0.71*** (0.06)	0.71*** (0.06)	0.50*** (0.06)
Peer acceptance		1.05*** (0.01)	1.05*** (0.01)	1.05*** (0.01)	1.04*** (0.01)	1.02* (0.01)
Virginity Pledge			0.79* (0.09)	0.77* (0.08)	0.77* (0.08)	0.77* (0.08)
Treated for STDs			0.68* (0.11)	0.71* (0.12)	0.69* (0.12)	0.71* (0.12)
Delinquency				0.98 (0.01)	0.99 (0.01)	0.99 (0.01)
Smoking				0.72** (0.08)	0.70** (0.08)	0.71** (0.08)
Binge Drinking				1.27* (0.12)	1.33** (0.12)	1.31** (0.12)
Parental Attachment Parents Academic Expectations					1.05 (0.04)	1.05 (0.04)
Desire to go to College					1.21*** (0.06)	1.21*** (0.06)
Self-Esteem					1.46*** (0.08)	1.46*** (0.08)
					0.90 (0.06)	0.90 (0.06)
Int: Sexually Active & Peer acceptance						1.07*** (0.02)
/cut1	4.30*** (0.56)	4.42*** (0.55)	4.38*** (0.54)	3.99*** (0.53)	6.31*** (0.63)	6.30*** (0.63)
/cut2	5.91*** (0.54)	6.03*** (0.54)	5.99*** (0.53)	5.62*** (0.52)	7.99*** (0.62)	7.99*** (0.62)
/cut3	8.61***	8.75***	8.72***	8.36***	10.82***	10.83***

	(0.55)	(0.54)	(0.53)	(0.52)	(0.63)	(0.63)
/cut4	10.12***	10.26***	10.24***	9.88***	12.36***	12.37***
	(0.57)	(0.56)	(0.55)	(0.54)	(0.64)	(0.64)

*p<.05, **p<.01, ***p<.001 two tailed

Table IV shows the estimated results of the stepped ordinal regression models regarding male survey respondents. For males, having sex was also negatively associated with academic attainment when only age, race, family structure, whether the respondents' parents had ever received public assistance, highest level of parental education, and GPA were included in the model (Model I). When peer acceptance was added to the model (Model II), it was positively associated with academic attainment and the effect of sexual activity remained significant and negative. In the third model, peer acceptance and sexual activity remained significantly associated with academic attainment while controlling for variables associated with sexual behavior. For males, both taking a virginity pledge and being treated for STDs were not significantly associated with academic attainment Model IV added variables measuring risky behaviors that are theoretically linked to academic attainment including delinquency, smoking, and binge drinking. Of those three variables, only smoking was significantly associated with male academic attainment. Smoking was negatively associated with attainment for male respondents. In this model, sexual activity remained significantly and negatively associated with academic attainment, while peer acceptance remained significantly and positively related. Model V included variables accounting for the respondents' attachment to their parents, whether their parents expected them to go to college, whether the respondent wished to go to college, and the respondent's self-esteem. For male respondents, only the respondent's desire to go to college had a significant association with academic attainment. When the interaction between peer acceptance and sexual behavior was included in the model (Model VI), it had a small and insignificant effect. These results do not support this study's hypothesis that sexual activity will have a positive effect on academic attainment for males, accounting for the effects of peer acceptance. In the case of male

respondents, however, the interaction between peer acceptance and sexual activity was insignificant, implying that these two things may interact differently for males than for females.

Table IV: Effect of Sexual Activity, Male Respondents, N=4,916

Variable	Model I	Model II	Model III	Model IV	Model V	Model VI
	OR	OR	OR	OR	OR	OR
	(SE)	(SE)	(SE)	(SE)	(SE)	(SE)
Age	1.18*** (0.04)	1.18*** (0.04)	1.19*** (0.04)	1.19*** (0.04)	1.22*** (0.04)	1.22** (0.04)
White	0.94 (0.12)	0.92 (0.12)	0.91 (0.12)	0.94 (0.13)	1.02 (0.14)	1.02 (0.14)
Black	0.91 (0.18)	0.91 (0.18)	0.91 (0.18)	0.89 (0.18)	0.89 (0.17)	0.89 (0.17)
Hispanic/ Latino	1.09 (0.36)	1.13 (0.37)	1.11 (0.36)	1.10 (0.36)	1.27 (0.46)	1.27 (0.46)
Intact Family	1.17 (0.10)	1.16 (0.10)	1.16 (0.10)	1.16 (0.10)	1.25 (0.17)	1.25 (0.17)
Public Assistance	0.63** (0.10)	0.64*** (0.11)	0.64** (0.11)	0.63* (0.11)	0.64** (0.10)	0.64*** (0.10)
Parent Education Level	1.68*** (0.07)	1.67*** (0.07)	1.67*** (0.07)	1.68*** (0.07)	1.61*** (0.07)	1.61*** (0.07)
GPA	3.36*** (0.24)	3.26*** (0.24)	3.27*** (0.24)	3.20*** (0.24)	2.84*** (0.22)	2.84*** (0.22)
Sexually Active	0.66*** (0.06)	0.63*** (0.06)	0.63*** (0.06)	0.65*** (0.07)	0.67*** (0.08)	0.68** (0.09)
Peer acceptance		1.05*** (0.01)	1.05*** (0.01)	1.05*** (0.01)	1.04*** (0.01)	1.04** (0.01)
Virginity Pledge			0.93 (0.12)	0.93 (0.12)	0.90 (0.12)	0.90 (0.12)
Treated for STDs			0.74 (0.17)	0.72 (0.17)	0.69 (0.15)	0.69 (0.15)
Delinquency				1.01 (0.01)	1.01 (0.01)	1.01 (0.01)
Smoking				0.70*** (0.07)	0.73** (0.08)	0.73** (0.08)
Binge Drinking				1.09 (0.12)	1.11 (0.12)	1.11 (0.12)
Parental Attachment					1.00 (0.05)	1.00 (0.05)
Parents					1.09	1.09

Academic Expectations					(0.06)	(0.06)
Desire to go to College					1.47***	1.47***
					(0.06)	(0.06)
Self-Esteem					1.05	1.05
					(0.11)	(0.11)
Int: Sexually Active & Peer acceptance						1.00
						(0.02)
/cut1	4.44***	4.54***	4.55***	4.59***	6.69***	6.69***
	(0.59)	(0.58)	(0.58)	(0.62)	(0.71)	(0.71)
/cut2	6.12***	6.22***	6.23***	6.28***	8.44***	8.44***
	(0.57)	(0.57)	(0.57)	(0.60)	(0.70)	(0.70)
/cut3	8.52***	8.63***	8.65***	8.70***	10.94***	10.95***
	(0.58)	(0.57)	(0.57)	(0.60)	(0.71)	(0.71)
/cut4	10.18***	10.30***	10.32***	10.38***	12.63***	12.63***
	(0.60)	(0.60)	(0.60)	(0.63)	(0.73)	(0.73)

*p<.05, **p<.01, ***p<.001 two tailed

These analyses show that while sexual activity is negatively associated with male and female academic attainment, the effect size is smaller for males than for females. The effect of sexual behavior on academic attainment for males is also less significant than the effect for females. Z tests, postestimation statistical tests to measure relationships between variable effects, can be used to determine if effects between two populations are equal or unequal (Clogg et al 1995; Paternoster et al 1998). Z tests of these two models reveal that there was no true difference between the effects of the variables in these analytical models on male versus female academic attainment. This means that, while being sexually active appeared to be more negatively associated with female academic attainment than with male academic attainment, this gender difference is not statistically significant. The interaction between sexual behavior and peer acceptance also appears to have a larger and more significant affect for females than for males, but this difference is also not statistically significant. These tests reveal that being sexually active does not affect female academic attainment significantly differently than it does male academic

attainment. The interaction between sexual activity and peer acceptance is also not significantly different, meaning that the relationship between sexual activity and peer acceptance is not more significant for females' academic attainment than for males'.

Sexual Partners and Academic Attainment

In supplemental analyses further examining sexual activity and its affect on academic attainment, the independent variables of interest were the respondent's number of romantic sexual partners and the respondent's number of non-romantic sexual partners.

The variable accounting for a respondents' number of non-romantic sexual partners was created using the interview question "Since January 1, 1994, with how many people, not including romantic relationship partners, have you had a sexual relationship?" (Harris, et al 2009). This ratio variable ranges from 0 (those who have never had sex or never had sex with a nonromantic partner) to 50 non-romantic sexual partners.

The variable measuring a respondent's number of romantic sexual partners was created by subtracting a respondents' number of non-romantic sexual partners from answers to the question "With how many people, in total, including romantic relationship partners, have you had a sexual relationship since January 1, 1994?" (Harris, et al 2009). The number of romantic sexual partners is measured as a ratio variable, where the values included range from 0 (those who have never had sexual intercourse) to 50. Ninety-three respondents answered this question with a number of partners equal to or exceeding 50 partners, with one respondent indicating having had as many as 500 sexual partners. In this study, to avoid problems in analysis due to outliers, the variable indicating a respondent's total number of sexual partners was recoded to reflect a threshold of 50 or more partners.

To expand on the main analyses in this study, I performed analyses predicting academic attainment based on a respondent's number of sexual partners. The purpose of these analyses was

to determine whether increased numbers of sexual partners negatively affected academic attainment. Kreager and Staff (2009) found that having more than 8 sexual partners negatively affected peer acceptance for adolescent females, but positively affected adolescent males' peer acceptance. These analyses build on Kreager and Staff's (2009) findings by evaluating whether increased numbers of sexual partners negatively affect academic attainment as well.

Table V shows the various models measuring the effects of a respondent's number of sexual partners and non-romantic sexual partners on female academic attainment. A respondent's number of romantic sexual partners and their number of non-romantic sexual partners had no significant effect on their likelihood of academic attainment. Peer acceptance was significant ($p < .000$) across all four models in which the variable was included, and was positively associated with increased levels of academic attainment. These models also accounted for the respondent's age, race/ethnicity, family structure, whether their parents had ever received public assistance, the respondent's parents' education, and grades. Also included in the models were variables dealing with whether the respondent had ever taken a virginity pledge, whether they had ever been treated for STDs, a scale of delinquent behavior, whether the respondent was a smoker, had engaged in binge drinking, their attachment to their parents, their parents' academic expectations, the respondent's own desire to go to college, and the respondent's self-esteem.

Table V: Effect of Number of Sexual Partners, Female Respondents, N=5,392

Variable	Model I	Model II	Model III	Model IV	Model V
	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)
Age	1.14*** (0.03)	1.14*** (0.03)	1.15*** (0.03)	1.14*** (0.03)	1.15*** (0.03)
White	0.77 (0.12)	0.73* (0.11)	0.73* (0.11)	0.74 (0.12)	0.82 (0.13)
Black	1.27 (0.26)	1.26 (0.26)	1.27 (0.26)	1.21 (0.25)	1.18 (0.24)
Hispanic/ Latino	0.61 (0.24)	0.61 (0.24)	0.65 (0.26)	0.63 (0.25)	0.67 (0.28)
Intact Family	1.40*** (0.1)	1.38*** (0.10)	1.36*** (0.10)	1.36*** (0.10)	1.83*** (0.16)

Public Assistance	0.57*** (0.09)	0.59*** (0.09)	0.58*** (0.09)	0.60*** (0.09)	0.58*** (0.08)
Parent Education Level	1.78*** (0.09)	1.77*** (0.09)	1.77*** (0.09)	1.78*** (0.09)	1.72*** (0.09)
GPA	3.68*** (0.24)	3.58*** (0.24)	3.59*** (0.24)	3.37*** (0.24)	2.93*** (0.21)
Romantic Sexual Partners	0.93 (0.07)	0.92 (0.07)	0.92 (0.07)	0.95 (0.07)	0.94 (0.07)
Non-Romantic Sexual Partners	0.97 (0.04)	0.97 (0.04)	0.98 (0.04)	1.00 (0.04)	1.01 (0.04)
Peer acceptance		1.04*** (0.01)	1.04*** (0.01)	1.05*** (0.01)	1.04*** (0.01)
Virginity Pledge			0.84 (0.09)	0.81* (0.08)	0.81* (0.08)
Treated for STDs			0.61** (0.11)	0.65* (0.12)	0.63 (0.11)
Delinquency				0.98 (0.01)	0.98 (0.01)
Smoking				0.69*** (0.07)	0.67*** (0.08)
Binge Drinking				1.21* (0.11)	1.26* (0.11)
Parental Attachment					1.04 (0.04)
Parents Academic Expectations					1.21*** (0.06)
Desire to go to College					1.46*** (0.08)
Self-Esteem					0.91 (0.06)
/cut1	4.00*** (0.54)	4.09*** (0.54)	4.08*** (0.53)	3.70*** (0.51)	6.03*** (0.61)
/cut2	5.61*** (0.52)	5.70*** (0.52)	5.69*** (0.52)	5.32*** (0.50)	7.71*** (0.60)
/cut3	8.30*** (0.53)	8.41*** (0.53)	8.41*** (0.52)	8.06*** (0.50)	10.53*** (0.61)
/cut4	9.80*** (0.55)	9.92*** (0.55)	9.92*** (0.54)	9.57*** (0.52)	12.07*** (0.62)

*p<.05, **p<.01, ***p<.001 two tailed

Table V: Effect of Number of Sexual Partners, Female Respondents, N=5,392

Variable	Model I	Model II	Model III	Model IV	Model V
	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)
Age	1.14*** (0.03)	1.14*** (0.03)	1.15*** (0.03)	1.14*** (0.03)	1.15*** (0.03)
White	0.77 (0.12)	0.73* (0.11)	0.73* (0.11)	0.74 (0.12)	0.82 (0.13)
Black	1.27 (0.26)	1.26 (0.26)	1.27 (0.26)	1.21 (0.25)	1.18 (0.24)
Hispanic/ Latino	0.61 (0.24)	0.61 (0.24)	0.65 (0.26)	0.63 (0.25)	0.67 (0.28)
Intact Family	1.40*** (0.1)	1.38*** (0.10)	1.36*** (0.10)	1.36*** (0.10)	1.83*** (0.16)
Public Assistance	0.57*** (0.09)	0.59*** (0.09)	0.58*** (0.09)	0.60*** (0.09)	0.58*** (0.08)
Parent Education Level	1.78*** (0.09)	1.77*** (0.09)	1.77*** (0.09)	1.78*** (0.09)	1.72*** (0.09)
GPA	3.68*** (0.24)	3.58*** (0.24)	3.59*** (0.24)	3.37*** (0.24)	2.93*** (0.21)
Romantic Sexual Partners	0.93 (0.07)	0.92 (0.07)	0.92 (0.07)	0.95 (0.07)	0.94 (0.07)
Non-Romantic Sexual Partners	0.97 (0.04)	0.97 (0.04)	0.98 (0.04)	1.00 (0.04)	1.01 (0.04)
Peer acceptance		1.04*** (0.01)	1.04*** (0.01)	1.05*** (0.01)	1.04*** (0.01)
Virginity Pledge			0.84 (0.09)	0.81* (0.08)	0.81* (0.08)
Treated for STDs			0.61** (0.11)	0.65* (0.12)	0.63 (0.11)
Delinquency				0.98 (0.01)	0.98 (0.01)
Smoking				0.69*** (0.07)	0.67*** (0.08)
Binge Drinking				1.21* (0.11)	1.26* (0.11)
Parental					1.04

Attachment					(0.04)
Parents					1.21***
Academic					(0.06)
Expectations					1.46***
Desire to go to					(0.08)
College					0.91
Self-Esteem					(0.06)
/cut1	4.00*** (0.54)	4.09*** (0.54)	4.08*** (0.53)	3.70*** (0.51)	6.03*** (0.61)
/cut2	5.61*** (0.52)	5.70*** (0.52)	5.69*** (0.52)	5.32*** (0.50)	7.71*** (0.60)
/cut3	8.30*** (0.53)	8.41*** (0.53)	8.41*** (0.52)	8.06*** (0.50)	10.53*** (0.61)
/cut4	9.80*** (0.55)	9.92*** (0.55)	9.92*** (0.54)	9.57*** (0.52)	12.07*** (0.62)

*p<.05, **p<.01, ***p<.001 two tailed

Table VI shows these same analyses for male respondents. While males' number of sexual partners was positively associated with higher levels of academic attainment, the effect was not significant. Increased numbers of nonromantic sexual partners was significantly and negatively associated with male academic attainment. Higher levels of peer acceptance were significantly associated with higher levels of academic attainment at $p < .05$.

Table VI: Effect of Number of Sexual Partners, Male Respondents, N=4,916

Variable	Model I	Model II	Model III	Model IV	Model V
	OR (SE)	OR (SE)	OR (SE)	OR (SE)	OR (SE)
Age	1.13*** (0.04)	1.14*** (0.04)	1.14*** (0.04)	1.16*** (0.04)	1.19*** (0.04)
White	0.93 (0.13)	0.91 (0.12)	0.9 (0.12)	0.94 (0.13)	1.03 (0.14)
Black	0.84 (0.17)	0.84 (0.17)	0.84 (0.17)	0.8 (0.17)	0.81 (0.16)
Hispanic/ Latino	1.06 (0.35)	1.09 (0.35)	1.07 (0.35)	1.08 (0.36)	1.25 (0.47)
Intact Family	1.21* (0.10)	1.20* (0.10)	1.20* (0.10)	1.19* (0.10)	1.27 (0.17)

Public Assistance	0.62** (0.10)	0.63** (0.11)	0.63** (0.11)	0.63** (0.10)	0.64** (0.10)
Parent Education Level	1.70*** (0.07)	1.69*** (0.07)	1.69*** (0.07)	1.70*** (0.07)	1.63*** (0.07)
GPA	3.43*** (0.24)	3.34*** (0.24)	3.34*** (0.24)	3.21*** (0.24)	2.84*** (0.22)
Romantic Sexual Partners	1.03 (0.08)	1.02 (0.08)	1.02 (0.08)	1.03 (0.08)	1.04 (0.07)
Non-Romantic Sexual Partners	0.97** (0.01)	0.97** (0.01)	0.97** (0.01)	0.97* (0.01)	0.97* (0.01)
Peer acceptance		1.04*** (0.01)	1.04*** (0.01)	1.04*** (0.01)	1.04*** (0.01)
Virginity Pledge			1 (0.13)	0.98 (0.13)	0.94 (0.12)
Treated for STDs			0.71 (0.17)	0.71 (0.17)	0.68 (0.16)
Delinquency				1.01 (0.01)	1.01 (0.01)
Smoking				0.66*** (0.07)	0.69*** (0.07)
Binge Drinking				1.01 (0.11)	1.03 (0.10)
Parental Attachment					0.99 (0.05)
Parents Academic Expectations					1.08 (0.06)
Desire to go to College					1.48*** (0.06)
Self-Esteem					1.08 (0.11)
/cut1	4.09*** (0.58)	4.15*** (0.58)	4.18*** (0.58)	4.28*** (0.61)	6.44*** (0.70)
/cut2	5.76*** (0.56)	5.82*** (0.56)	5.85*** (0.56)	5.96*** (0.59)	8.19*** (0.69)
/cut3	8.16*** (0.57)	8.23*** (0.57)	8.26*** (0.57)	8.37*** (0.60)	10.68*** (0.70)
/cut4	9.80*** (0.60)	9.88*** (0.59)	9.92*** (0.59)	10.04*** (0.11)	12.36*** (0.72)

Z tests of differences in the effects of the included variables on predicting academic attainment for males and females were also performed. All variables behaved similarly for both male and female respondents when sexual behavior was measured using a respondent's number of sexual partners. Peer acceptance was similarly associated with academic attainment for females and males. This calls into question this study's original hypothesis that females and males would experience different effects of sexual activity on their academic attainment. In particular, these analyses imply that it is not the number of sexual partners or non-romantic sexual partners that matters in this relationship.

Sexual Activity and Sexual Debut

Supplemental analyses were conducted to explore the relationship between sexual activity and age at which the respondent engaged in sexual intercourse for the first time. This "first sex" variable was constructed using a, controlling for age, race, family structure, whether a respondent's parents had ever received public assistance, highest level of parental education, GPA, delinquent behavior, cigarette use, binge drinking, and self-esteem.

The analyses in Tables VI and VII reveal that delaying sex has a positive and statistically significant effect on peer acceptance for female and male respondents. In other words, the longer adolescents wait to have sex for the first time, the more likely they are to have increased levels of academic attainment. While including age at first sex in the models negated the significance of the binary sexually active variable, the interaction between being sexually active and peer acceptance remains strong for both males and females. Z tests of the differences between these effects were consistent with previous z tests in this study and revealed no significant differences in the effects of these variables on male and female academic achievement.

Table VII: Effect of First Sex on Academic Attainment, Females N = 5,392

Variable	Model I	Model II
	OR (SE)	OR (SE)
Age	1.12*** (0.04)	1.12*** (0.04)
White	0.87 (0.14)	0.87 (0.14)
Black	1.33 (0.27)	1.34 (0.27)
Hispanic/ Latino	0.76 (0.32)	0.75 (0.32)
Intact Family	1.74*** (0.16)	1.75*** (0.16)
Public Assistance	0.55 (0.08)	0.54*** (0.08)
Parent Education Level	1.67*** (0.08)	1.68*** (0.08)
GPA	2.85*** (0.20)	2.84*** (0.20)
Had Sex	0.94 (0.09)	0.68* (0.10)
Age at First Sex	1.12*** (0.02)	1.12*** (0.02)
Peer acceptance	1.05*** (0.01)	1.03* (0.01)
Virginit Pledge	0.75** (0.08)	0.75** (0.08)
Treated for STDs	0.71 (0.13)	0.72 (0.13)
Delinquency	0.99 (0.01)	0.99 (0.01)
Smoking	0.75* (0.09)	0.75* (0.09)
Binge Drinking	1.39*** (0.13)	1.37*** (0.13)
Parental Attachment	1.06 (0.04)	1.05 (0.04)
Parents Academic Expectations	1.20*** (0.06)	1.20*** (0.06)
Desire to go to College	1.44*** (0.08)	1.44*** (0.08)

Self-Esteem	0.88 (0.06)	0.87** (0.06)
Int: Sexually Active & Peer acceptance		1.06** (0.02)
/cut1	7.26*** (0.64)	7.24*** (0.64)
/cut2	8.95*** (0.62)	8.93*** (0.62)
/cut3	11.80*** (0.63)	11.79*** (0.63)
/cut4	13.38 (0.64)	13.36*** (0.64)

*p<.05, **p<.01, ***p<.001 two tailed

Table VIII: Effect of First Sex on Academic Attainment, Males N = 4,916

Variable	Model I	Model II
	OR (SE)	OR (SE)
Age	1.18*** (0.04)	1.18*** (0.04)
White	1.03 (0.14)	1.03 (0.14)
Black	0.94 (0.19)	0.94 (0.19)
Hispanic/ Latino	1.24 (0.42)	1.24 (0.42)
Intact Family	1.22 (0.17)	1.22 (0.17)
Public Assistance	0.63** (0.10)	0.64 (0.01)
Parent Education Level	1.59*** (0.07)	1.58*** (0.07)
GPA	2.73*** (0.21)	2.74*** (0.21)
Had Sex	0.82 (0.10)	0.85 (0.13)
Age at First	1.09***	1.09***

Sex	(0.02)	(0.02)
Peer acceptance	1.05*** (0.01)	1.05*** (0.01)
Virginity Pledge	0.88 (0.11)	0.88 (0.11)
Treated for STDs	0.72 (0.16)	0.72 (0.16)
Delinquency	1.01 (0.01)	1.01 (0.01)
Smoking	0.75*** (0.08)	0.75*** (0.08)
Binge Drinking	1.14 (0.12)	1.15 (0.12)
Parental Attachment	1.00 (0.05)	1.00 (0.05)
Parents Academic Expectations	1.09 (0.06)	1.09 (0.06)
Desire to go to College	1.47*** (0.06)	1.47*** (0.06)
Self-Esteem	1.02 (0.10)	1.02 (0.10)
Int: Sexually Active & Peer acceptance		0.99 (0.02)
/cut1	7.53*** (0.71)	7.54*** (0.71)
/cut2	9.28*** (0.70)	9.29*** (0.70)
/cut3	11.85*** (0.71)	11.81*** (0.71)
/cut4	13.51 (0.73)	13.52*** (0.74)

*p<.05, **p<.01, ***p<.001 two tailed

DISCUSSION AND CONCLUSIONS

The main hypothesis in this study stated that being sexually active would be associated with more negative consequences for female adolescents than for male adolescents. More

specifically, being sexually active was expected to be negatively associated with female adolescents' academic attainment while having a positive or null effect on male adolescents' academic attainment. This hypothesis was not supported, as being sexually active did not have a significantly larger negative impact on female adolescents' academic attainment than male adolescents' academic attainment.

In contrast to the stated hypothesis, being sexually active was negatively associated with male academic attainment as well as females' academic attainment. This study shows that high school sexual behavior has a negative effect on high school graduation and post-secondary enrollment, and continues to have a negative effect on educational attainment beyond those milestones.

According to Miller and Simon (1974), peer support is lacking for females who engage in sexual activity, whereas males who engage in sexual activity are more likely to experience peer support. This study finds support for the existence of a relationship between sexual activity and peer acceptance, however the effect is not different for males than for females.. Unexpectedly, the interaction of peer acceptance and sexual activity revealed that adolescents with higher levels of peer acceptance who are sexually active experience higher levels of academic attainment than adolescents who are also sexually active but who have lower levels of peer acceptance. These findings, like Miller and Simon's (1974) findings, suggest that academic attainment may be more susceptible to the combined influences of sexual activity and peer acceptance, though the intricacies of this relationship remain unclear. It is possible that peer acceptance may be more important in predicting academic attainment than sexual activity, at least for female respondents.

The supplemental analyses reveal that sex has a negative effect on academic attainment, primarily as a result of the respondents' age at their sexual debut. While the significance of a respondent's number of non-romantic sex partners had a marginal or insignificant and negative effect on academic achievement, the first sex, negated the effect of beings sexually active for both groups entirely. What is particularly interesting to this study is that Z tests revealed that, contrary

to the idea of the sexual double standard, not even age at first sex appears to have a more negative impact on academic achievement for females than for males. There was no significant difference in the effect of age at first sex for males than for females.

The primary limitations of this study stem from the limitations of the Add Health survey questions regarding sexual behaviors. The first wave of the survey contains no questions about non-vaginal sexual intercourse or behavior. The question used to determine whether a respondent was sexually active asked “have you ever engaged in sexual intercourse” (Harris, et al 2009). The survey goes on to define sexual intercourse as “when a male inserts his penis into a female’s vagina” (Harris, et al 2009). This means that teens whose sexual activities were limited to oral or anal sex were not considered ‘sexually active’ by this study. The survey’s emphasis on heterosexual intercourse excludes homosexual teens that have never engaged in sexual activity with a member of the opposite sex. Given the stigma associated with homosexuality and its effects on academic attainment (Pearson, et al 2007), it is important for further study to account for the effects of homosexual sexual behaviors on academic attainment.

Additional limitations, and the main reason that the predictive mechanism of peer acceptance and sexual behavior remains unclear, are due to the study’s inability to determine the temporal relationship between sexual activity and peer acceptance. The Add Health survey asks questions about sexual activity and peer acceptance at the same point in time. This makes it impossible to determine which comes first, and whether peer acceptance affects sexual activity or whether sexual activity effects peer acceptance.

Peer acceptance may also be a poor measure of stigma. While not being nominated as a friend may indicate social isolation, it is possible that this measure is merely a measure of peer indifference. Future research should attempt to identify peer rejection more clearly, perhaps through asking respondents to name the people that they dislike and don’t consider friends rather than having them name people they do like.

While not a central focus of this study, the effects of having an intact family on females' academic attainment and its apparent differential effect on males' academic attainment may be a byproduct of the construction of the 'intact family' variable. Having an intact family, measured dichotomously, required the respondent to be living with both of their biological parents. This means that respondents living with one biological parent and a stepparent, as well as respondents living with two adoptive parents, were not considered to have an intact family structure. Respondents living with two parents of the same gender were also not considered to have an intact family, as questions were designed to assess heterosexual parenthood, and asked about the respondent's mother figures and father figures.

This research suggests that peer acceptance is a contributing factor in the effects of sexual activity on academic attainment but does not support the hypothesis that females would be more negatively impacted than males. As peer reactions toward sexually active teens are relatively unexplored, this study's findings, while somewhat inconclusive, provide a platform for further investigation.

Further exploration of the relationship between sexuality, peer acceptance, and academic attainment should focus on several things. Selection may be an issue in studying this relationship. For instance, it is difficult to determine whether sexual activity has reduced a respondent's peer acceptance or if a respondent was not popular even before becoming sexually active. Both peer acceptance and sexual activity was measured at Wave 1 in this study, making causality difficult to determine. Further studies should also add a measure of peer sexual activity to these analyses. For instance, teens experiencing social rejection after engaging in sexual activity may experience rejection because their peer group does not endorse sexual behavior. If a sexually active teen's peers are having sex and have favorable attitudes toward sexual activity, they may be less likely to feel rejected. This may also relate back to selection if adolescents build bonds with their peers based on their opinions about sexual activity. It's possible that sexual behavior has a negative effect when an adolescent's peers disapprove of being sexually active.

The moderately significant and positive effect of higher numbers of non-romantic sexual partners on male academic achievement may also warrant further investigation. This study's hypotheses focused on female sexual behavior and expectations, but further study could examine the expectations for males. Future research should ask whether males are being encouraged to have sex while females are not being encouraged to engage in or abstain from sex. Perhaps the sexual double standard appears more in those encouraged to have sex than those punished for having sex.

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