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IN PURSUIT OF PATERNAL SIGNIFICANCE: FATHERS' INFLUENCE ON THEIR
DAUGHTERS' AND SONS' SEXUAL BEHAVIORS AND BELIEFS

A thesis submitted in partial fulfillment of the requirements for the degree of Master of
Science at Virginia Commonwealth University.

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“I will be a Father to you, and you shall be My sons and daughters,
says the Lord Almighty.”

2 Corinthians 6:18

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Abstract

IN PURSUIT OF PATERNAL SIGNIFICANCE: FATHERS' INFLUENCE ON THEIR DAUGHTERS' AND SONS' SEXUAL BEHAVIORS AND BELIEFS

By Rachel S. Everley, M.S.

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Science at Virginia Commonwealth University.

Virginia Commonwealth University, 2008

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Department of Sociology

The United States has the highest teen pregnancy and adolescent STD rates of any industrialized nation. Numerous factors are involved in adolescent sexual decision-making and the social-ecological framework suggests that there are multiple levels of influence on adolescent development, including familial. Utilizing survey data from the Virginia Abstinence Education Initiative (VAEI), this project specifically explores paternal influences on adolescent sexual behavior and beliefs by examining paternal residence in the home, perceived paternal figure sexual beliefs, and father-child relationship factors. Results indicate that paternal figures influence their daughters' and sons' sexual behaviors as well as beliefs. Differences in paternal figure influence across

gender were found as well. Those endeavoring to develop more effective teen pregnancy prevention and abstinence education programs may consider the involvement of paternal figures in future efforts.

CHAPTER 1 Introduction

Significance

Adolescent sexual activity is a concern for parents, educators, legislators, and concerned citizens throughout the United States. Early onset of sexual activity can be both a health and social problem for all involved. Teen pregnancy and the occurrence of sexually transmitted diseases (STDs) among adolescents are two undesirable consequences of adolescent sexual activity. Teenagers in the United States have higher STD rates than teenagers in other developed countries. Teens in the U.S. also have the highest pregnancy rates, birthrates, and abortion rates among adolescents in all developed nations (Guttmacher Institute, 2002). In 2000, the state of Virginia ranked 19th in teen pregnancy rates per 1,000 females aged 15-19, with a rate of 72 per 1,000 (National Campaign to Prevent Teen Pregnancy, 2004).

Teenage mothers, fathers, and their children shoulder the negative effects of teen pregnancy. Teen mothers are less likely to finish high school, making them more likely to live in poverty. Babies born to teen mothers are more likely to have low birth weight and the subsequent health problems related to this condition (Maynard, 1996). In later years, boys born to teen mothers have higher levels of drug use, gang membership, unemployment, and early parenthood. Girls born to teen mothers are also more likely to become teen mothers themselves than those born to adult women (Pogarsky et al, 2006).

Teen childbearing in Virginia has been shown to cost taxpayers (federal, state, and local) \$177 million in 2004 (National Campaign to Prevent Teen Pregnancy, 2006). The costs of teen childbearing are primarily associated with health care, lost tax revenue, foster care and other child services, and the incarceration of sons to teen parents—all negative consequences of the children of teen mothers.

Great efforts have been made in recent years to curtail the rates of teen pregnancy and STDs among this at-risk population. Success, however, has been variable. The National Center for Health Statistics recently revealed that the overall teen birth rate has decreased 33.3% between 1991 and 2004 (Hamilton et al., 2004). However, disproportionate rates of syphilis, gonorrhea, and Chlamydia still affect adolescents and young adults. Approximately one-fifth of reported cases are accounted for in these age groups (Guttmacher Institute, 2002). Recent findings from the Centers for Disease Control and Prevention (2008) indicated that one in four women aged 14-19 (or 3.2 million adolescents) had at least one STD (CDC, 2008).

Allocation of federal funding is one of the large-scale efforts utilized as a means to combat the common consequences of adolescent sexual activity. With the passage of the Adolescent Family Life Act (AFLA) in 1981 and special provisions under the Temporary Assistance to Needy Families Act (TANF)—Title V, which was passed in 1996, funding for abstinence-only education has become the mandate of the federal government (Policy and Advocacy, 2004). Federal monies are earmarked for programs with an emphasis on abstinence-only education, as abstinence is identified by many as the most reliable means of preventing pregnancy and STDs. It is through this funding that

the Virginia Abstinence Education Initiative (VAEI) was established through the Virginia Department of Health (VDH). Funding was first made available to the VDH in 1998, for startup costs including training and program development. Implementation of the VAEI began in the 1998-1999 school year.

The current political climate surrounding abstinence-only education reveals people with intense opinions on both sides of the issue. The objective of this research project is not to address the efficacy of abstinence-only education, but to use existing data that have been made available, in an effort to aid in the development of more comprehensive teen pregnancy prevention programs.

Teen pregnancy prevention program (including abstinence-only education) development is based on a number of factors. Programs differ in their emphasis, ranging from personal, peer, family, and community factors, as well as vocational skill development and early childhood sexuality education (National Campaign to Prevent Teen Pregnancy, 2001). Within those parent-oriented sexual education programs, there is little differentiation between the involvement of mothers and fathers in their adolescents' lives. This project aims to specifically examine the impact of fathers on their adolescent children's sexual behaviors and beliefs—an area of limited study.

Background

When discussing today's modern, changing family there is little mention of fathers' roles or involvement. This is evidenced by the paucity of scholarly efforts regarding fatherhood. Most academic research has focused on mothers' roles, or quantifies fathers' involvement in comparison to that of mothers'. While there is far

greater information regarding motherhood, a renewed interest in fatherhood research appears to be emerging. In addition to its interest in general, this topic is important to study because the paternal role in the family is changing as gender roles shift. As fathers generally begin to spend more time in the day-to-day lives of their children (Casper and Bianchi, 2002; Yeung, et al., 2001), there is an opportunity to examine the impact of this involvement.

Currently, parenting (and fathering in particular) is undergoing changes as a result of the ever-increasing number of women in the paid labor market as well as other cultural factors. As the number of female-headed families has increased, so have single parent families with fathers as the head of household (Casper and Bianchi, 2002). Increasing divorce rates, non-marital births, and the general postponement of marriage all present opportunities for single-father families. Many men also find themselves raising children as a stepfather (Casper and Bianchi, 2002). Additionally, some men are choosing to initiate fatherhood through adoption as single fathers or in committed homosexual relationships. These two avenues are relatively new and little research has been conducted in either.

A trend towards bifurcation is also emerging. While some fathers are spending more time with their children than ever before, still others are opting-out of parenting. This development is apparent in regards to co-residential fathering, which has seen a generally steady decline since the late 19th century (Casper and Bianchi, 2002). Additionally, high incidence of divorce or never marrying between parents, has led to a distinction between a biological and a “social” parent, in most cases a stepfather.

In summary, it is evident that the role of fathers is undergoing drastic transformations. An acceptance of greater shared parenting within the family is rising, though mothers still do more caregiving and spend more time with children than fathers (Yeung et al., 2001). However, generally speaking, fathers in intact heterosexual families are spending more time than ever before with their children.

The primary objective of this project is to examine the influence of paternal figures on adolescents' sexual behaviors and beliefs. Is the increased time spent with their children having an impact on their sexuality decisions? Current statistics indicate that teen pregnancy and STD rates are a concern in the United States. Is it possible that the role of fathers in their children's lives may be one factor that could aid in decreasing these rates?

In Chapter 2, I present a review of the relevant literature regarding paternal influence on adolescent sexuality and on adolescents in general. I then discuss the social-ecological framework as the theoretical basis for this project in Chapter 3—specifically applications of the social ecological framework to adolescent sexuality. In the methods chapter (Chapter 4) I review the general research question and design, data collection measure and procedure, variables of interest, and data analysis. Chapter 5 focuses solely on the results of the analysis. In the concluding chapter, I discuss the implications of this project in the area of adolescent sexuality and on teen pregnancy prevention programs, the limitations of this project, and make recommendations for future research.

CHAPTER 2 Review of Literature

Numerous studies have addressed the topic of adolescent sexual activity. Although the breadth of these studies is extensive, much remains to be explored in terms of influences on this complex behavior. Often, research on adolescent sexuality focuses primarily on adolescent female sexuality and disregards that of males. With the absence of sufficient research on male adolescent sexuality, there is potential for the implication that the negative consequences of adolescent sexuality (teen pregnancy and transmission of STDs) are primarily a female problem. This research project is concerned specifically with familial characteristics and paternal influence as potential factors in adolescents' (both males and females) sexual behaviors and beliefs. In this chapter I will discuss the two main areas of fatherhood research, father relationship and father presence, as well as the intersectional impacts of paternal influence.

Within the area of fatherhood research, there is a clear division within the literature. Much of the scholarship has focused on whether the presence or absence of fathers in the home has an effect on child outcomes. The second primary area of fatherhood research focuses on the father-child relationship. It should be noted that the two primary areas of focus (father presence and father relationship) are not mutually exclusive. The mere presence of a father in his child's life does establish a relationship, but not necessarily a positive one. Conversely, father-child relationship does not clarify

the physical presence or absence of a father (i.e., divorce, etc.). Therefore, many articles with a primary interest in the relationship between fathers and their children also address paternal residency.

In addition to discussing the impacts of father presence and the father-child relationship, this literature review will also address other intersectional factors that may impact adolescents' outcomes either in conjunction with their fathers or exclusive of them. These intersectional impacts include an examination of racial/ethnic and class differences among families. The interaction between mothering and fathering is also reviewed, in order to better understand if these two factors have effects that are independent of one another. The father-child relationship and paternal residency has an impact on many factors, only some of which include adolescent sexuality. This review includes many different outcomes, not only those directly related to sexuality. Finally, because the fatherhood literature is scarce, articles often address only daughters or sons, and not necessarily both.

Father Presence

Sexuality Outcomes

Much of the body of fatherhood research focuses on whether the presence or absence of fathers in the home has an effect on child outcomes. Ellis et al. (2003) conducted a cross-national study of fathers and daughters in the United States and New Zealand. Findings suggested that father absence places daughters at risk for early sexual activity and teen pregnancy. Daughters whose fathers were absent beginning early in their lives had the highest rates of both early sexual activity and adolescent pregnancy.

The second highest rates were found in late father-absent girls (girls whose fathers left the home later in their lives). Father-present girls were found to have the lowest rates of both sexual outcomes. When controlling for family and outside stressors, father-absence in itself was still found to be a significant factor, not simply the subsequent stressors that come with this configuration such as loss of income, loss of parent, or family conflict. Summarily, father absence was a major risk factor, while father presence was found to be a protective factor against early sexual activity and teenage pregnancy.

Adolescent virgins living in two biological parent households were questioned in a longitudinal study examining their parental relationships (Regnerus & Luchies, 2006). In these biologically intact families, close father-daughter relationships were found to be significantly associated with the timing of daughters' first sex. Daughters with close relationships were less likely to report initiation of sexual activity between the two study waves. The direct father-daughter effect appeared to be mediated by both actual and cognitive opportunities for sexual activity, suggesting that the father-daughter relationship has an impact not only on daughters' behavior, but also on other situations such as dating opportunities and perceived guilt. No significant relationship was found between fathers and sons.

Taking a biological approach, Quinlan (2003) examined the role of father absence on daughters' reproductive development. Quinlan found that parental separation and father absence during early childhood and adolescence increased the pace of daughters' reproductive development. Reproductive development was measured by age at first menarche, age at first pregnancy, and age at first voluntary intercourse. The timing of

parental separation and changes in caretaking are predictive of the timing of reproductive events. The risk of early development decreased as the length of time girls lived in a two-parent biologically intact home increased. Evidently, there are clear reproductive impacts when fathers are present in their daughters' lives. As Miller et al. (2001) indicate, these reproductive impacts have inevitable effects for adolescent pregnancy risks due to their association with sexual behavior.

Supporting Outcomes

Examining the role of father presence in gender role development, Mandara et al. (2005) looked at fifty-two father absent and fifty-four father present African-American adolescents. Father-absent daughters perceived themselves to be higher in masculinity than father-present girls, though daughters did not desire this masculinity. Boys with absent fathers were found to have lower perceptions of masculinity, though sons reported that they desired greater masculinity. Results indicate that father presence has an impact on gender role development, and if absent, fathers may impact development in ways that may be perceived as negative by their children. There is some question then, if children would then be more likely to act in more typical gender roles (i.e., sons acting more "manly" and girls acting more feminine) in order to compensate, and often, behaving in one's traditional gender roles has sexual connotations as well.

Father Relationship

Sexuality Outcomes

The second primary area of fatherhood research focuses on the father-child relationship. Parker-White et al. (1995) sought to examine parents' communication about

sixteen sexuality topics with their children. A purposive sample of rural Midwestern parents was drawn; a total of 600 parents with children ranging from 5-18 agreed to participate. Though the sample was largely homogenous in race, (Caucasian, 97%), occupation and economic status varied greatly among parents. For fathers completing the mailed questionnaire, 92 responded regarding their daughters, while 114 responded about their sons. Parents were asked to indicate their comfort level in discussing human sexuality with their children as well as their attitudes regarding adolescent sexual behavior. Results indicate that parent and child gender influenced their interactions and discussions regarding sexuality, as well as individual characteristics of both parents and children. When communicating with their daughters, fathers specifically communicated both factual and values-based topics regarding sexual issues. General positive family relationships were found to increase discussion of sexual and values-based topics with both daughters and sons.

Examining adolescent-parent relationships before and after first sexual activity, Ream and Savin-Williams (2005) were interested in changes in shared activities, closeness, and problem-focused interactions with regard to the adolescents' sexual activity. The authors assert that an adolescent's "strain toward maturity" is greater than the "control response" elicited by parents as a consequence of their problem behavior (i.e., early sexual activity). Analyses from Wave 1 and 2 of the Add Health Survey were conducted for each parent-child gender dyad. Results indicate that sexual activity was preceded by decreased shared activities, decreased closeness, and high problem-related interactions. Additionally, each of these measures increased after onset of adolescent

sexual activity. In essence, parent-child relationship is predictive of adolescents' first sexual activity, and also deteriorates after initiation of sexual activity. Father-child relationship quality can be an indicator of early sexual initiation.

In a study of Ecuadorian daughters and their families, Guijarro et al. (1999) examined the family risk factors associated with adolescent pregnancy. One hundred and thirty-five urban female adolescents aged 12-19 were interviewed in this study. In addition to finding that non-pregnant daughters were more likely to live with both their biological parents (a father presence impact), the relationship between fathers and daughters was also a significant predictive factor. Pregnant daughters reported lower communication levels with their fathers than did non-pregnant girls. Though mother-daughter communication was greater for both groups (pregnant and non-pregnant) in general, for pregnant adolescents, father communication was much worse. These findings indicate that poor father-daughter communication is a risk factor for adolescent pregnancy while conversely, effective father-daughter communication would be regarded a protective factor against such outcomes.

Dittus et al. (1997) specifically addressed the impact that African-American fathers have on their adolescent children's sexual behavior. Youth between the ages of 14 and 17 completed surveys about their communication with parents. Father disapproval of teen sexual activity (as perceived by the sons and daughters) was found to be predictive of a delay in first sex. There were no significant differences between sons and daughters in regards to the delay in sexual initiation. The authors found this to be

true regardless of the father-child living situation (i.e., present or absent) and independently significant of mothers' perceived beliefs.

Supporting Outcomes

As an example of the fact that father absence from the household does not equate with absence from their children's lives, King and Sobolewski (2006) exclusively examined non-resident fathers. Using the National Survey of Families and Households, data collected from 453 adolescents was used for analysis. Father relationship quality and responsive fathering (considering their children's opinions in decision-making) were examined. Father-child contact (presence) did not have a direct impact on any of the measured child outcomes, but did relate to higher father-child relationship quality. Children with responsive fathers had fewer internalizing and externalizing problems. Non-resident fathers were found to provide a unique contribution to their children's lives, even when controlling for the mother-child relationship.

In an additional study of paternal relationships and child outcomes, Videon (2005) found that higher levels of satisfaction in the father-child relationship (as reported by adolescents) are related to a reporting of fewer depressive symptoms by adolescents. Furthermore, the father-child relationship has a significant effect on overall adolescent well-being that is independent of the mother-child relationship impact. The author concludes that the impact of mothers is not significantly different from that of fathers, though a great deal more has been written about the mother-child, or mother-daughter bond.

In recent work by Stolz et al. (2005), the authors collected data from 644 adolescents in order to assess parental support in regards to depression, social initiative and antisocial behavior. The authors attempted to determine the relative importance of both mothers and fathers in regards to these outcomes. Fathers were found to have a differential impact on both daughters' and sons' social initiative (engaging socially outside of the home). With regards to daughters' adolescent depression, supportive, positive fathering explains lower levels of its occurrence. The authors summarize that by isolating fathers' individual contributions, the most prominent finding is the evident effect in daughters' and sons' lives when they feel that their fathers truly care about them. These findings indicate that fathers do in fact make unique impacts on their children's lives—impacts distinct from those that mothers offer.

Including stepfathers as well as nonresident biological fathers in her analysis, King (2006), evaluated data collected from 1,149 adolescents completing the National Longitudinal Study of Adolescent Health (Add Health Survey hereafter) with men in each role. The purpose of the study was to examine the antecedents and consequences of the relationship between adolescents and their stepfathers and nonresident fathers. No significant differences between sons and daughters were found in regards to the impact of father closeness on internalization of problems or failing grades in school. However, the association between fathers or stepfathers and sons is greater than for daughters in regards to externalizing problems. Residence of father was also found to be the best indicator of father-adolescent relationship, offering further support for father presence.

In an effort to examine the link between father-child connection, father-child communication, father-child relationship quality, and adolescent well-being, Brotherson et al. (2003) drew a representative sample of 362 father-adolescent dyads from the National Survey of Families and Households (NSFH). Gender effects were analyzed as well. Within father-child dyads, father-child connection (through activities) was found to have a significant effect on relationship quality and connection was found to have a greater impact than communication on relationship quality. The effect of relationship quality on adolescent well-being was significant (impacts on bullying, temperament, social skills, anxiety, and independence). A stronger (statistical) relationship was found in father-daughter dyads than father-son dyads.

Again using data from the National Survey of Families and Households, Aquilino (2006) examined the relationship between young adults (aged 18-24) and their noncustodial (or nonresident) father (N=359). Data were collected at the first and second waves of the NSFH, allowing for study over time and utilizing the life course perspective to understand father-child relations as children moved from adolescent to young adulthood. Results indicate that early father-child factors in childhood have long-term consequences. Fathers who maintained a high level of involvement (defined as contact and participation in decision-making) were more likely to have close relationships with their sons and daughters as adults. Nonresidential fathers (through either non-marital births or early childhood separation/divorce) were also less likely to have a relationship with their adult children (both sons and daughters).

Using two waves of the Add health survey (N=2,387), Cookston and Finlay (2006) were interested in the longitudinal impact of father involvement and adolescent adjustment. Results indicate that mother and father involvement provided unique associations in regards to adolescent delinquency, drug use, and depression. For all examined measures, the impact of father involvement was more stable than mother involvement, suggesting that father involvement explains a unique variance in adolescent outcomes. For both daughters and sons, father involvement was found to be a significant predictor of adolescent depression, while mothers appeared to have a greater impact on other outcome measures.

Specifically interested in African American father-daughter relationships, Levine-Coley (2003) collected data from 302 adolescent low-income girls, making inquiries about their primary father. Two-thirds of the respondents indicated that their primary father was biological; for the remainder a social father was indicated. Residency of fathers was also examined. Of particular interest was fathers' impact on their daughters' psychosocial functioning, as measured by internalizing (depressive symptoms) and externalizing (school problems, delinquency) problems. Within this sample, the relationship between fathers and daughters was found to be of more significance than only the residence of the father figure. Results indicate that father attachment had a significant impact of daughters' depressive symptoms and engagement in problem behaviors even when family characteristics and mother-attachment were controlled for. This impact was driven not by father support, but instead by alienation and disengagement due to less contact with their daughters. However, the authors advise

caution during interpretation, as there is no mechanism for assessing the relationship of such factors. In any event, the combination of father contact and relationship qualities has an impact on adolescent daughters' report of depressive symptoms. This finding was apparent for girls who had either a positive or negative emotional attachment to their absent/inrequently seen fathers. Though the authors here found no impact of father absence or presence, they did find an impact regarding contact with their daughters. However, these two variables are not entirely exclusive. It seems apparent that if a father does not live with his daughter, he will have less contact with her than if he resided in her home. In essence, finding that frequency of contact between fathers and daughters is significant lends peripheral support to the impact of father presence or absence.

Intersectional Impacts

In order to fully understand fathers' impact on their children's lives, the "father factor" must be examined across race and class. Exploring the intersectional nature of father impacts will aid in determining if these positive impacts are specific only to a particular group. An assessment of the above literature highlights the consistent benefits of fathers in their children's lives.

In regards to social and economic class, father presence and father relationship were found to remain significant when income was controlled for in much of the literature (Ellis et al., 2003; Quinlan, 2003; Hawkins et al., 2006; King, 2006; Videon, 2005; Dittus et al., 1997; and Mandara et al., 2005). Guijarro et al. (1999) found that a slightly greater percentage of pregnant girls were in single-family (less income) homes than in two-parent homes (52% versus 42% of non-pregnant girls). Regnerus and

Luchies (2006) found that mother's education level (used as a proxy for income in intact two-parent homes) had no effect on daughter's sexual initiation between waves.

Summarily, it is apparent that fathers' impacts are present in their children's lives outside of a sheer monetary impact, though income may help to explain the magnitude of said impact.

In many instances, an examination of racial differences is often synonymous with an examination of class differences. However, this is not always the case. Two of the reviewed studies involved cross-national samples. Ellis et al., (2003) compared adolescent girls in New Zealand and the U.S. in regards to father presence and adolescent sexual activity and teen pregnancy. Findings within both samples (i.e. countries) were similar and significant—daughters with absent fathers during early childhood had the highest rates of both sexual activity and teen pregnancy. A second study looked at adolescent Ecuadorian girls (Guijarro et al., 1999). Again, results indicated that family characteristics were significantly different between the pregnant and nonpregnant girls. Father impacts appear to be significant cross-culturally.

Specifically addressing racial differences within the United States, findings remain consistent: dads matter. King (2006) found that race was not a predictive factor in determining stepfather and nonresident biological father closeness—closeness that led to positive outcomes for children. In contrast, four projects were highly or totally racially exclusive. Parker-White et al. (1995) based their study on a rural Midwestern sample that was 97% White, while Dittus et al. (1997), Mandara et al. (2005) and Levine-Coley (2003) explicitly sampled Black fathers. Each of these studies found fathers to have

significant impacts on their children (specifically in regards to their sexual behavior, communication, and internalization/externalization of problems)—further illustrating the significance of fathers across race.

Many suppose that father impacts are merely a guise for the role of mothers and mothering. Therefore a potential intersection between the two exists. Several of the reviewed articles went to great lengths in an effort to disclaim this popular belief. Fathers were found to have an impact on their children's lives independent from that of the mother-child relationship in regards to depressive symptoms (Videon, 2005; Levine-Coley, 2003), problem behavior (Levine-Coley, 2003), and fewer internalizing and externalizing problems (King and Sobolewski, 2006).

In addition to the intersections of race and class, there are also potential intersections between the two primary areas of research: father presence and relationship. The link between family structure (father presence/absence) and father involvement (relationship) is also of interest. Utilizing data from the 1979 National Longitudinal Survey of Youth (N=2733), Carlson (2006) attempted to determine if relationship factors mediate the impact of father absence or presence. Findings supported the author's hypothesis that father involvement would mediate father absence. However, additionally, father involvement was also found to matter *more* when the father lived in the home. Therefore, these results support both the impact of father relationship quality and father presence. Father involvement was also found to have a direct impact on their adolescent children's behavior. Daughters and sons were found to have significantly fewer behavioral problems if their fathers were involved in their lives.

Summary

A review of the literature regarding fathers and their children clearly substantiates the principle aspect of the argument for fathers. Unquestionably, fathers have an impact on their children's lives, particularly in regards to their sexual decision-making. The impacts of fathers are numerous, varied, significant, unique, and lasting.

Fathers who are present in the home have been found to have a specific impact on their daughters' early sexual activity (Ellis et al. 2003), timing of reproductive development (Quinlan, 2003), and teenage pregnancy and risk of teenage pregnancy (Miller, 2001; Ellis et al. 2003). Present fathers also have an impact on both their sons' and daughters' gender role development (Mandara et al. 2005) and father-child relationship in adolescence and adulthood (Aquilino, 2006). In an effort to understand the connection between fatherhood and child outcomes, several studies established support for father presence as a significant factor as well (Guijarro et al. 1999; King, 2006; and Levine-Coley, 2003).

In addition to the significance of the simple presence of fathers in their children's lives, the relationship between fathers and children is also of great importance. Clearly, from the previous review of the literature, there is a greater abundance of research focused on the father-child relationship than the presence or absence of a father. A review of the literature demonstrates that relationship quality has an impact on: increased discussions of sexual and value based topics (Parker-White et al., 1995), decreased internalization and externalization of problems (King and Sobolewski, 2006; King, 2006; Levine-Coley, 2003), early sexual initiation/delay in first sex (Ream and Savin-Williams,

2005; Dittus et al., 1997), general risky behaviors (Ream and Savin-Williams, 2005); adolescent pregnancy (Guijarro et al., 1999), increased sociability (Stolz et al., 2005; Brotherson et al., 2003), depressive symptoms (Videon, 2005; Stolz et al., 2005; Cookson and Finlay, 2006; Levine-Coley, 2003), school performance/grades earned (King, 2006), temperament, anxiety, and independence (Brotherson et al., 2003), and adult father-child relationship (Aquilino, 2006).

Further analysis of fathers' and paternal figures' impact on their children's sexual behaviors and beliefs is warranted, with a particular emphasis on examining both father presence and father relationship within the same sample, an area that appears to be lacking. In addition, some literature suggests potential gender differences in the influence of father's on their children's sexual behaviors and beliefs; therefore, the influence on daughters and sons will be compared.

CHAPTER 3 Theoretical Frameworks

In this chapter I discuss the social-ecological theory as a framework for understanding paternal influence on adolescent sexuality. Bronfenbrenner's theory of human development focuses on in the interactions between people and their environments. I will also discuss the specific applications of this theory to the study of adolescent sexuality.

Social-Ecological Theory

The foundation of this research project comes from the social-ecological framework, a theory of human development introduced by Urie Bronfenbrenner in his work "The Ecology of Human Development" (1979). Bronfenbrenner describes human development as being determined by the interaction between a person and their environment. His work is an integrative model emphasizing both the immediate environmental settings and the larger contexts in which the individual and the environmental settings exist (Glossop, 1988). Social-ecological theory is focused on the interaction between the various inter-related systems of influence. Bronfenbrenner (1979) explains his model of human development as distinctive in its focus on the way individuals acclimate to their immediate environment through the influences of larger social contexts.

This ecological environment is typically represented as nested circles; each circle containing the next. These structures are identified as the micro-, meso-, exo-, and macrosystems. The innermost circle is the microsystem, a “pattern of activities, roles, and interpersonal relations experienced by the developing person in a given setting with particular physical and material characteristics,” (Bronfenbrenner, 1979, p. 22). These settings are instances when people engage in face-to-face interaction. Examples include family, peers, classrooms, daycare, and the workplace. An additional key element is the experience of individuals within the setting, as it will differ for everyone (building on the concepts of the phenomenological approach).

The mesosystem is made up of the “interrelations among two or more settings in which the developing person actively participates,” (Bronfenbrenner, 1979, p. 25). More succinctly, the mesosystem is a grouping of, or the interactions between microsystems. Examples for a child might include the relationship between home and school; for an adult, this might mean the interaction between family and work.

The middle circle is the exosystem, which refers to “one or more settings that do not involve the developing person as an active participant, but in which events occur that affect, or are affected by, what happens in the setting containing the developing person,” (Bronfenbrenner, 1979, p. 25). Examples for a child might be their parent’s employment, school board meetings, and health insurance company decisions.

Finally, the macrosystem refers to “consistencies, in the form and content of lower-order systems (micro-, meso-, and exo-) that exist, or could exist, at the level of the subculture or the culture as a whole, along with any belief systems or ideology

underlying such consistencies,” (Bronfenbrenner, 1979, p. 25). Religion, socioeconomic status, cultural traditions, ethnicity, and politics are examples of macrosystems.

Ecology Applied

Further research by Small et al. (1994) established an ecological, risk-factor framework to address variables associated with adolescent sexual activity. Their model states that the risk factors for adolescent sexual activity can be categorized as personal factors, familial factors, extrafamilial factors, or macrosystems. The current project will focus on the familial level of an adolescent’s social ecology. Findings from Small et al. (1994) also indicated that permissive parental values were strong risk factors for adolescent sexual activity.

In assessing risk factors with regard to African-American adolescent sexuality, Mandara et al. (2003) found that the personal, familial, and extrafamilial factors of an adolescent’s social ecology were associated with whether or not the adolescent was a virgin. The more risk factors present in an adolescent’s life, the greater chance the adolescent was not a virgin.

Utilizing a similar conceptual framework to that of Bronfenbrenner, Tolman (1999) developed a model of adolescent sexual health which involved four levels: 1) individual level, 2) romantic/dating relationships, 3) social relationships, and 4) sociocultural/sociopolitical. Tolman et al. (2003) attempted to expand this model by specifically examining the relationship of gender to adolescent sexual health. The explicit aim of this project was to identify a model of female adolescent sexual health based in feminist theory. In so doing, the authors determined that the social construction

of female gender had an impact on female adolescent sexual activity. While conducting their project, the researchers were asked to collect information from adolescent males in the school as well as the females.

Upon interviewing boys in addition to girls, a number of similarities were found to exist in the adolescents' descriptions of different areas of sexuality. The authors concluded that the same four nested levels were evident in boys' lives as they were in girls': individual, dating and romantic relationships, social relationships, and sociocultural/sociopolitical contexts. Adjustments were made in the original model in order to create an applicable model for male adolescent sexual activity, and it was noted that the models "overlapped at least as much as they differed," (Tolman et al., 2003, p. 10). Further review of adolescents' narratives suggested to the authors the importance of including heterosexuality as an institution that controls both boys and girls:

The emerging overlaps and differences between our models of female and male adolescent sexual health reflected the importance of how the mandates for males and females fit together within our theoretical framework. That is, rather than parallel versions of compulsory heterosexuality for boys and girls, we began to see how these highly gendered processes and subsequent experiences are fundamentally integrated (Tolman et al., 2003, p. 10).

In an effort to summarize the impact of gender on sexuality, Tolman et al. coined the term "gender complementarity." Gender complementarity is envisioned as an alternative to the discussion of gender differences and similarities and states that male and female adolescent sexuality fit together in order to reproduce "normal" sexuality. This model also states that the sexual health barriers experienced by boys and girls are

markedly different and therefore keeping gender as a central role in understanding adolescent sexuality is of necessity.

In applying the framework of Bronfenbrenner to this research project, first, and most clearly, the microsystem is of interest, since participants' families are situated here. The focus of this project is to gain a greater understanding of adolescents' sexual behaviors and beliefs, within the context of the father-child relationship, fathers' sexual values, and father presence in the home. In addition to a direct application of Bronfenbrenner's systems of human development to this project, the general postulates of the social-ecological framework, and the findings that this model is applicable to adolescents with differing racial and ethnic backgrounds (Perkins et al. 1998), and the nature of the research question, the social-ecological model is an appropriate theoretical perspective for this project.

In summary, the purpose of this study is to use the social-ecological model to examine the relationships between fathers and their children, at selected Virginia middle schools through secondary data analysis, with the primary focus being adolescents' sexual decision-making and sexual values. Using a deductive approach, I will use the ecological framework as a guide for the analysis, specifically focusing on the paternal relationship as an aspect of the microsystem. The hypotheses that paternal presence in the home and paternal sexual values will have an impact on adolescents' sexual behaviors and beliefs will be tested. This project will focus on the social relationships level of influence of Tolman's (1999) work where paternal figure-child relations are situated, as well as the romantic/dating relationships level, where adolescents' sexual decisions are

made. More specifically, gender differences among the impact of fathers will be examined in order to better understand Tolman et al.'s (2003) concept of gender complementarity. In addition, this project will focus on the paternal relationship and residence as a familial level influence, as seen in the frameworks of Small et al. (1994) and Mandara et al. (2003).

CHAPTER 4 Methodology

This chapter discusses the basic research question and design of the project, as well as the sample, survey instrument used for data collection, measures and the variables of interest. The procedure and hypotheses of the project are included as well, in addition to the data analysis approach.

Research Question and Design

I completed a secondary data analysis on a dataset comprised of adolescents' survey response to questions regarding sexual behaviors and beliefs. The relationship between paternal factors (relationship and residency) and adolescents' behaviors and beliefs regarding sexuality were of primary interest.

Survey data were collected through the Virginia Department of Health, Virginia Abstinence Education Initiative. The self-administered surveys were completed by participants in effort to evaluate program effectiveness using pre-and post-program responses. The current study utilized pre-test only data from the 2003-2004 school year. Although the VAEI allocated project funding for several years, only the most recent wave of data available (that collected in 2003) will be used for this project. By analyzing the most recent sample, findings and implications will be most applicable for future planning initiatives. Examining responses prior to the abstinence education program leads to a more representative assessment of students' behaviors and beliefs at the time of program

initiation. Post-test responses are likely to reflect an influence of program content, while Pre-test surveys limit the effects of the education program on the students' beliefs and practices.

There are both benefits and limitations to secondary data analysis. The primary benefits are cost and convenience, which increase the feasibility of completing a study with this research design. However, limitations are present as well, such as the restricted amount of information that can be gathered from previously completed surveys. Limited knowledge of the data collection procedures is also a limitation. Further discussion of this project's limitations will follow in the closing chapter.

Sample

The study population was students participating in the program from the 5th to the 12th grade. However, the program was designed for primary implementation with 7th and 8th graders, which comprised the majority of the sample (84%). For the purposes of sample homogeneity, participants reporting a grade level other than 7th or 8th were removed, for an overall sample size of N= 696. Students selected for participation were not selected on an individual basis, but instead were asked to participate because their school had received funding. Schools receiving funding were located in rural, urban, and suburban regions of Virginia. Because students were chosen for participation based on their existing enrollment in particular schools, this design employed a non-probability, convenience-sampling frame. No "master" list of all adolescents in Virginia was developed to allow for the random selection of students, so that probability sampling was not an option for this design. The population of interest for this project is all adolescents

in Virginia, although based on the sampling method, generalization to all adolescents will not be possible.

In order to participate in the program for the first two years, passive consent for each student was required, such that every student automatically participated unless a parent or guardian signed a form withholding their consent. In approximately the third year of funding, a change in IRB requirements led to the use of active consent by parents. This form of consent required parents or guardians to come to school and sign a form giving their child permission to participate. This change in consent procedure significantly decreased the number of participants in the program. In addition to a decreased sample size, the resulting sample of participants represents adolescents whose parents or guardians supported their involvement in an abstinence education program and had the motivation to enroll their child. This sample may therefore not be representative and has the potential to skew results towards greater parental involvement than is evident in the general population.

In addition to the customary concerns of informed consent and assent/voluntary participation, risk of harm to the participant, and anonymity/confidentiality, extra precautions were taken in this project due to the age of potential participants and the sensitive nature of the topic being studied. As mentioned, students were assured that their responses and identity were kept private and no one would have access to their personal information.

Because this project used secondary data with no identifying markers, it does not meet the criteria for human subjects research and is therefore exempt from the Institutional Review Board (IRB).

Survey Instrument

The “Survey of Youth Attitudes and Behaviors” was the primary data collection instrument utilized in this research design. This survey was given to all students involved in the VDH-funded abstinence education projects statewide, with an explanation to participants, as follows:

This survey is being given to groups of young people throughout Virginia in order to find out how young people like you think about love, relationships, marriage, and sex. Your answers on this survey will be confidential. On the cover page, you will see a label with an “ID code.” You may be asked to fill out the survey again in the future. Your ID Code will help us connect your “before and after” survey answers without identifying you personally. By doing this, we can see how, and if, the way you think about these issues changes as you get older (Survey of Youth Attitudes and Behaviors, Virginia Department of Health, 2000).

The questionnaire asked students to create their ID Codes using their birthdates and initials. Additional instructions read:

Please work on this survey by yourself and answer each item as honestly and completely as you can. You may skip any questions you do not want to answer. Please read each item carefully. It may seem, at times, that you are being asked the same questions over and over again. However, if you read very carefully, you will notice some minor but important differences. In addition, please pay close attention to the instructions for each item. You may be asked to skip some items that do not apply to you. In addition, there are times when you may be asked to select more than one response. Below are some definitions that may help you. Please read carefully before you begin (Survey of Youth Attitudes and Behaviors, Virginia Department of Health, 2000).

Participants were provided with several definitions: *parent* refers to the adult(s) who is most responsible for raising you, *sex* refers to sexual intercourse (sometimes it is also called “going all the way” or “doing it”), and *abstinence, to remain abstinent, and to abstain* refers to not having sex. Students were instructed to refer back to these definitions as often as needed. Demographic information (sex and race) was collected as well.

The sixty-six questions that comprise the survey instrument are separated into four categories, each addressing specific aspects of the participant’s life: *tell us something about yourself, tell us something about your parents, tell us what you think, and tell us something about what you do*. Within the survey, several constructs regarding sexual attitudes and beliefs were measured. Project staff at the Virginia Department of Health and the VAEI Evaluation Consortium developed the following eleven constructs, divided into three categories:

Youth’s Attitudes/Perceptions

1. *Sexual Values*: an eleven-item scale assessing what sexual behaviors participants feel are appropriate for themselves or others their age. Specifically, sexual values are addressed by questions pertaining to:
 - an affirmation of abstinence until marriage (4 questions)
 - love as a justification for sex (3 questions)
 - sex as proof of love or relationship commitment (3 questions)
 - the value of secondary virginity (committing to abstinence until marriage after having already had sex) (1 question)
2. *Independence from Peer Influence*: a three-item scale assessing participant’s perceived ability to act and think independent of their peers’ sexuality beliefs.
3. *Personal Efficacy*: a six-item scale measuring adolescent’s perceptions of their ability to make decisions for themselves and maintain their positions if they were placed in a situation in which they did not want to have sex.

4. *Future Orientation*: a three-item scale assessing the extent to which participants' felt that having sex as a teenager would affect their academic, family, and career goals.
5. *Consequences*: a six-item scale measuring adolescents' perceptions of the risks associated with having sex, including whether these consequences could happen to them, the seriousness of each consequence, and whether these risks would serve as a deterrent to sexual activity. This measure specifically addresses two consequences:
 - Pregnancy (3 questions)
 - AIDS/STDs (3 questions)
6. *Marriage*: a two-item measure assessing participants' expectations about future marriage, and the age at which they expect to get married (if at all).
7. *Behavioral Intent*: a two-item scale regarding adolescents' intent to abstain from sexual activity for the next year, and until marriage.

Youth's Behaviors

8. *Related Risk Behaviors*: a six-item construct assessing participation in other risk-related behaviors such as tobacco, alcohol, marijuana, or other drug use, early or frequent drinking, and any age differential between boy/girlfriend
9. *Sexual Behaviors*: a four-item scale questioning prior sexual experience, as well as frequency of encounters, recency, and perceived opportunity for sex within the next year.
10. *Pledges/Commitments*: a nine-item composite measuring personal commitments and pledges to abstaining from sex, tobacco, alcohol, and drugs. Questions are primarily centered on pledges or commitments to abstain from sex, including opportunity for signing a pledge, length and public affirmation of commitment, and ability to maintain the pledge since establishing it.

Peers

11. *Sexual Values and Behavior*: a two-item scale measuring participants' opinions about their friends' approval or disapproval of sex, and their friends' engagement in sexual activity.

Additionally, the optional Parental Factors Module was included in the administered survey. This module contained an additional thirty-three questions for students to

complete. Questions are answered regarding mother and fathers individually, as well as both parents together. These questions specifically address:

- Respect/Approachability—Father (2 questions)
- Respect/Approachability—Mother (2 questions)
- Values—Father (3 questions)
- Values—Mother (3 questions)
- Connectedness—Father (7 questions)
- Connectedness—Mother (7 questions)
- Parent-Child Communication (1 question)
- Presence of Rules (6 questions)
- Enforcement of Rules (1 question)
- Agreement about Rules (1 question)

Measures

Independent Variables

Because the focus of this project is paternal-child relations, I created three paternal indices from the Parent Module based on similarity in questioning and to alleviate repetitiveness. These indices were culled from the survey questions and constructs. Questions within these indices were answered using either of two formats, both involving Likert scales ranging from either 1 to 3 or 1 to 5.

Belief Congruence (BC) (3 questions regarding similarity in beliefs)
(overall $\alpha = .65$; daughter only $\alpha = .69$; son only $\alpha = .59$)

- *My father and I feel the same way about most things.*
 - Item ranged from 1 (almost never true) to 3 (almost always true)
- *My father and I have a lot in common.*
 - Item ranged from 1 (almost never true) to 3 (almost always true)
- *My beliefs and values about sex are like those of my father.*
 - Item ranged from 1 (strongly agree) to 5 (strongly disagree)
 - Collapsed for analysis: range 1 (disagree) to 3 (agree)

Father Communication (FC) (3 questions regarding the depth and openness in communication)
(overall $\alpha = .67$; daughter only $\alpha = .69$; son only $\alpha = .66$)

- *My father and I have serious personal discussions.*
 - Item ranged from 1 (almost never true) to 3 (almost always true)
- *I can tell my father most things that I am worried about.*
 - Item ranged from 1 (almost never true) to 3 (almost always true)
- *I feel I can go to my father with important questions about sex.*
 - Item ranged from 1 (strongly agree) to 5 (strongly disagree)
 - Collapsed for analysis: range 1 (disagree) to 3 (agree)

Relationship Quality (RQ) (5 questions regarding adolescent's perceptions of their paternal relationship)

(overall $\alpha = .75$; daughter only $\alpha = .76$; son only $\alpha = .75$)

- *I seem to be drifting further and further apart from my father.*
 - Item ranged from 1 (almost always true) to 3 (almost never true)
- *My relationship with my father seems to be going nowhere.*
 - Item ranged from 1 (almost always true) to 3 (almost never true)
- *I feel close to my father.*
 - Item ranged from 1 (almost never true) to 3 (almost always true)
- *I have a lot of respect for my father's ideas and opinions about sex.*
 - Item ranged from 1 (strongly agree) to 5 (strongly disagree)
 - Collapsed for analysis: range 1 (disagree) to 3 (agree)
- *I have support from my father to wait until marriage before having sex.*
 - Item ranged from 1 (strongly agree) to 5 (strongly disagree)
 - Collapsed for analysis: range 1 (disagree) to 3 (agree)

In addition to these constructs, I used two other questions from the Parent Module of the survey instrument:

- *My father thinks it is okay for people to have sex before marriage.*
 - Item ranged from 1 (strongly agree) to 5 (strongly disagree)
 - Collapsed for analysis: range 1 (disagree) to 3 (agree)
- *Would your father approve or disapprove of people your age having sex?*
 - Item ranged from 1 (strongly disapprove) to 5 (strongly approve)
 - Collapsed for analysis: range 1 (disapprove) to 3 (approve)

In order to determine **paternal residency**, responses to the following question were utilized:

- *My father and mother are:*
 - *Married to each other*
 - *Divorced from each other*

- *Separated from each other*
- *Dating each other*
- *Living together*
- *Widowed/No longer living*

From this question, I created a new variable: “parental co-residence.” Participants reporting that their parents were either married or living together were coded as “yes” and those reporting that their parents were divorced, separated, or dating were coded as “no.”

Dependent Variables

The impact of fathers on adolescent sexual behavior as well as adolescent sexual beliefs is of primary interest in this project. Dependent variables fall within one of these two categories.

1. Sexual Behavior and Intent

Virginity Status (VS): measured by response to one question

- *Have you ever had sex?*
 - Yes
 - No

Behavioral Intent (BI): (2 questions regarding participants’ intent to remain abstinent until marriage and for the next 12 months)

(overall $\alpha = .71$; daughter only $\alpha = .64$; son only $\alpha = .76$)

- *How likely do you think it is that you will remain abstinent until you are married?*
 - I am sure I will abstain until I am married
 - I probably will abstain until I am married
 - I am not sure whether or not I will abstain until I am married.
 - I probably will not abstain until I am married.
 - I am sure I will not abstain until I am married.
 - Collapsed for analysis: range 1 (not likely to abstain) to 3 (likely to abstain)
- *If someone you were attracted to tried to get you to have sex with them during the next year, what would you do?*
 - I definitely would not do it.

- I probably would not do it.
- I'm not sure whether or not I would do it.
- I probably would do it.
- I definitely would do it.
- Collapsed for analysis: range 1 (not likely to abstain) to 3 (likely to abstain)

2. Sexual Values

Abstinence Affirmation (AA): (4 questions regarding participants' beliefs about abstinence)

(overall $\alpha = .80$; daughter only $\alpha = .76$; son only $\alpha = .83$)

- *It is important for ME to remain abstinent until I get married.*
 - Item ranged from 1 (strongly agree) to 5 (strongly disagree)
 - Collapsed for analysis: range 1 (disagree) to 3 (agree)
- *I have a strong commitment to remain abstinent until I am married.*
 - Item ranged from 1 (strongly agree) to 5 (strongly disagree)
 - Collapsed for analysis: range 1 (disagree) to 3 (agree)
- *I have clear and definite ideas about why I should remain abstinent until I'm married.*
 - Item ranged from 1 (strongly agree) to 5 (strongly disagree)
 - Collapsed for analysis: range 1 (disagree) to 3 (agree)
- *Having sex before marriage is against my idea of what is right.*
 - Item ranged from 1 (strongly agree) to 5 (strongly disagree)
 - Collapsed for analysis: range 1 (disagree) to 3 (agree)

Love as Justification (LJ): (3 questions regarding participants' beliefs that love serves as justification of sexual behavior)

(overall $\alpha = .82$; daughter only $\alpha = .82$; son only $\alpha = .82$)

- *It is OK to have sex with a serious boy/girlfriend.*
 - Item ranged from 1 (strongly agree) to 5 (strongly disagree)
 - Collapsed for analysis: range 1 (disagree) to 3 (agree)
- *I don't see it as a problem if I am in love and sex 'just happens'.*
 - Item ranged from 1 (strongly agree) to 5 (strongly disagree)
 - Collapsed for analysis: range 1 (disagree) to 3 (agree)
- *It is OK for people to have sex before marriage if they are in love.*
 - Item ranged from 1 (strongly agree) to 5 (strongly disagree)
 - Collapsed for analysis: range 1 (disagree) to 3 (agree)

Sex as Proof (SP): (4 questions regarding participants' beliefs that having sex proves various individual characteristics or feelings towards others)

(overall $\alpha = .75$; daughter only $\alpha = .70$; son only $\alpha = .76$)

- *Having sex is the best way to show your boy/girlfriend that you really care about him/her.*
 - Item ranged from 1 (strongly agree) to 5 (strongly disagree)
 - Collapsed for analysis: range 1 (disagree) to 3 (agree)
- *Having sex is the best way for my boy/girlfriend to show that he/she loves me.*
 - Item ranged from 1 (strongly agree) to 5 (strongly disagree)
 - Collapsed for analysis: range 1 (disagree) to 3 (agree)
- *Having sex proves that you are mature.*
 - Item ranged from 1 (strongly agree) to 5 (strongly disagree)
 - Collapsed for analysis: range 1 (disagree) to 3 (agree)
- *Having sex proves that a person is popular and attractive.*
 - Item ranged from 1 (strongly agree) to 5 (strongly disagree)
 - Collapsed for analysis: range 1 (disagree) to 3 (agree)

The BI, AA, LJ, and SP indexes (or constructs) were developed by the VAEI but I re-calculated each index for this project in order to obtain the reliability information for the entire sample as well as for daughters and sons individually.

Procedure

Surveys were completed in a classroom setting and administered by trained personnel knowledgeable of the VAEI, its purpose, and the need for accurate pre-and post-data collection.

Hypotheses

Based on the literature reviewed as well as the theoretical framework guiding the study, the following hypotheses regarding paternal influence on adolescents' sexual behaviors and attitudes were tested:

Sexual Behavior and Intent

Students will be more likely to be virgins and have greater intent to remain abstinent if:

H1: Their paternal figure resides in their household;

H2: They report a high congruence of beliefs with their paternal figures;

H3: They report that their paternal figures disapprove of adolescents their age engaging in sexual activities;

H4: They report that their paternal figures disapprove of pre-marital sex;

H5: They report high levels of communication with their paternal figures;

H6: They report high relationship quality with their paternal figures.

Sexual Beliefs

Students will have greater affirmation of abstinence, less support for the ideas that sex proves feelings or character, and less support for the idea that love is justification for sexual activity if:

H7: Their paternal figure resides in their household;

H8: They report a high congruence of beliefs with their paternal figures;

H9: They report that their paternal figures disapprove of adolescents their age engaging in sexual activities;

H10: They report that their paternal figures disapprove of pre-marital sex;

H11: They report high levels of communication with their paternal figures;

H12: They report high relationship quality with their paternal figures.

Gender Differences

H13: The impact of paternal presence, paternal-child relationship factors, and paternal sexual values on sexual behaviors and beliefs will be different between daughters and sons.

Data Analysis

Statistical Package for the Social Science (SPSS) version 15.0 was used for all statistical procedures. Bivariate crosstabulation analysis was used to examine the relationship between virginity status and father relationship factors, as well as paternal residence. I utilized correlational analysis and independent samples t-tests to understand the influence of paternal factors on adolescents' sexual beliefs and behavioral intent. Finally, I used OLS and logistic regression analyses in order to determine the relative contribution of significant paternal predictor variables to virginity status and adolescent beliefs, as well as to determine the impact of gender on these variables.

CHAPTER 5 Results

I present sample demographics first in this chapter, followed by a discussion of the students' sexual behaviors and behavioral intent as influenced by paternal residence in the home, paternal sexual values, and paternal relationship factors. Next, I address students' sexual values, specifically their affirmation of abstinence as positive lifestyle choice, their support for the ideas that sex proves personal feelings or personality characteristics, and their support for the ideas that love justifies engaging in sexual behavior. Finally, I discuss gender differences in sexual behaviors and beliefs.

Demographic Sample

A slight majority (57%, $n=457$) of respondents in this sample were female. Fifty-nine percent of the sample was Caucasian ($n=408$), while thirty percent was African-American ($n=205$), and eleven percent ($n=74$) represented other racial/ethnic minority groups recoded into an "other" racial category¹. On average, participants were 13.05 years old ($SD=.584$) and the majority (89%, $n= 616$) were in the seventh grade. The remaining participants (11%, $n=80$) were in the eighth grade. Eighty-seven percent ($n=511$) reported that they were virgins, i.e. they responded that they had never had sex, at the time of survey completion.

¹ including American Indian/Aleutian//Native American, Latino/Hispanic, Asian/Pacific Islander, and Biracial/Multiracial

I examined characteristics of the participants' families as well. When asked who they thought about as their male parent, eighty-five percent of participants ($n= 611$) identified their biological fathers, ten percent step-fathers ($n=71$), and others identified their grandfathers (3%, $n=18$), uncles (2%, $n=15$), or foster fathers (<1%, $n=5$)². Female parent identity was identified as primarily mothers (94%, $n=698$). Grandmothers (2%, $n=18$), step-mothers (1.5%, $n=13$), aunts (1%, $n=9$), and foster mothers (<1%, $n= 4$) were also identified.

The majority of participants reported that their male and female parents were married (58%, $n= 396$), while others were divorced from each other (23%, $n= 156$), separated from each other (13%, $n=91$), living together (3%, $n=21$), or dating each other (2%, $n=14$).

No marked differences were evident in the demographic information (age, grade, ethnicity, paternal or maternal figure identity, or parents' marital status) for boys or girls.

Sexual Behavior and Intent

In order to better examine the following results regarding participants' sexual behavior and behavioral intent, I present each hypothesis individually, with results for both daughters and sons. I used Chi-square tests and t-tests for independence to test the hypotheses for virginity status (VS) while correlations were used to test the hypotheses regarding behavioral intent (BI). I completed regression analyses for both variables to determine the relative contribution of the independent variables.

H1: Students will be more likely to be virgins (VS) and have greater intent to remain abstinent (BI) if their paternal figure resides in their household.

² The terms paternal figure and father are used interchangeably throughout this text.

(VS): Results indicated that paternal residence in the home was not a significant predictor of virginity status for daughters but was a significant predictor for sons. Sons whose fathers resided in the home with them were more likely to be virgins than sons whose fathers did not reside in the home. This hypothesis was supported for sons but not for daughters (see Table 1).


(BI): Results indicated that paternal residence in the home was significantly related to daughters' report of their intent to remain abstinent ($r = .167$, $p < .001$, $n = 378$), but was not significantly related to sons' report of abstinence intent ($r = .107$, $n = 292$). Daughters whose fathers reside in the home reported higher intent to remain abstinent than did daughters whose fathers did not reside in the home. This hypothesis was supported for daughters but not for sons (see Table 2).

Table 1. Mean Values or Frequencies for Predictor Variables of Virginitly Status

	<u>Virgins</u>	<u>Non-virgins</u>	<u>t (df)</u>	<u>X²(Gamma)</u>
Parental Co-Residence (%)				
<i>Daughters</i>			----	.318 (-.116)
Yes (<i>n</i> =183)	91.3	8.7		
No (<i>n</i> =102)	89.2	10.8		
<i>Sons</i>			----	4.116 (-.344)*
Yes (<i>n</i> =155)	86.5	13.5		
No (<i>n</i> =74)	75.7	24.3		
Belief Congruence				
Daughters	6.62 (1.61) ^a	5.82 (1.95)	2.646 (305)**	----
Sons	6.76 (1.53)	6.63 (1.36)	.468 (235)	----
Father Communication				
Daughters	4.99 (1.87)	4.67 (1.84)	.933 (305)	----
Sons	5.88 (1.80)	5.72 (1.90)	.496 (231)	----
Relationship Quality				
Daughters	12.59 (2.45)	11.39 (2.70)	2.620 (305)**	----
Sons	12.73 (2.51)	11.56 (2.60)	2.634 (233)**	—
Pre-Marriage Sex Approval				
Daughters	1.48 (.65)	1.65 (.77)	-1.351 (311)	----
Sons	1.58 (.71)	1.95 (.84)	-3.056 (239)**	----
Age of Sex Disapproval				
Daughters	1.06 (.31)	1.30 (.70)	-1.880 (30.34)	----
Sons	1.17 (.47)	1.82 (.90)	-4.124 (36.60)**	----

** $p < .01$, * $p < .05$ ^a Mean(Standard Deviation)

Table 2. Correlations for Participants' Behavioral Intent and Predictor Variables

Measures 	1	2	3	4	5	6	7
1. Behavioral Intent	--	.156*	.354**	.277**	-.451**	-.504**	.104
2. Father Communication	.165*	--	.470**	.543**	.002	-.092	.010
3. Father Relationship Quality	.273**	.475**	--	.636**	-.358**	-.334**	.254**
4. Belief Congruence	.335**	.484**	.631**	--	-.167**	-.189**	.033
5. Age of Sex Disapproval	-.191**	.027	-.140**	-.044	--	.417**	-.259**
6. Pre-Marriage Sex Approval	-.318**	-.088	-.250**	-.147**	.230**	--	-.179**
7. Paternal Residence ^a	.167**	.066	.295**	.236**	-.089	-.153**	--

Note: Male participants (n=348) are presented above the diagonal, and female participants (n=457) are presented below the diagonal. ^a In home= 1, Not in home=0

** $p < .001$; * $p < .05$

H2: Students will be more likely to be virgins (VS) and have greater intent to remain abstinent (BI) if they report a high congruence of beliefs with their paternal figures.

(VS): Results indicated that daughters reporting a higher congruence of beliefs with their paternal figures were more likely to be virgins. However, there was not a significant relationship between sons' congruence of beliefs with their paternal figures and sons virginity status. This hypothesis was supported for daughters but not for sons (see Table 1).

(BI): Positive correlations were indicated between participants' congruence of beliefs with paternal figures and their intent to remain abstinent, for both daughters and sons. A stronger relationship

between behavioral intent and belief congruence was found for daughters ($r = .335, p < .001, n = 416$) than for sons ($r = .277, p < .001, n = 312$). This hypothesis was supported (see Table 2).

H3: Students will be more likely to be virgins (VS) and have greater intent to remain abstinent (BI) if they report that their paternal figures disapprove of adolescents their age engaging in sexual activities.

(VS): Paternal disapproval of adolescent sexual activity was found to be a significant predictor of sons' virginity status, but not of daughters'. Sons reporting that their paternal figures disapproved of this behavior were more likely to be virgins than sons whose fathers had greater approval or early adolescent sexual activity. This hypothesis was supported for sons but not for daughters (see Table 1).

(BI): Results indicated that paternal figure disapproval of adolescent sexual activity at their current child's age was significantly related students intent to remain abstinent. Daughters reporting lower father approval of sexual activities at current age reported a greater intent to remain abstinent ($r = -.191, p < .001, n = 373$). Fairly strong relationships were also indicated between sons' intent to remain abstinent and their perceptions of their fathers' approval of adolescents' engaging in sexual activities ($r = -.451, p < .001, n = 274$). This hypothesis was supported for daughters and sons (see Table 2).

H4: Students will be more likely to be virgins (VS) and have greater intent to remain abstinent (BI) if they report that their paternal figures disapprove of pre-marital sex.

(VS): Paternal figure disapproval of pre-marital sex was a significant predictor of sons' virginity status but not of daughters'. Sons reporting higher levels of paternal disapproval were more likely to be virgins than those reporting lower levels of disapproval. This hypothesis was supported for sons, but not for daughters (see Table 1).

(BI): Results indicated a significant negative relationship between fathers' approval of pre-marital sex and daughters' intent to remain abstinent ($r = -.318, p < .001, n = 424$). A similar significant negative relationship was also found between sons' intent to remain abstinent and their fathers' approval of pre-marital sex ($r = -.504, p < .001, n = 321$). This hypothesis was supported (see Table 2).

H5: Students will be more likely to be virgins (VS) and have greater intent to remain abstinent (BI) if they report high levels of communication with their paternal figures.

(VS): Reported communication levels with fathers were not indicated as having a significant impact on either daughters' or sons' virginity status. This hypothesis was not supported (see Table 1).

(BI): Results indicated a significant, though weak, relationship between paternal figure-child communication level and students' behavioral intent to remain abstinent. This significant relationship was found for both

daughters ($r=.165, p<.01, n=414$) and for sons ($r=.156, p<.001, n=310$).

This hypothesis was supported (see Table 2).

H6: Students will be more likely to be virgins (VS) and have greater intent to remain abstinent (BI) if they report high relationship quality with their paternal figures.

(VS): Students (both daughters and sons) reporting high relationship quality with their paternal figures were more likely to be virgins. This hypothesis was supported (see Table 1).

(BI): A Significant, positive relationship was indicated between paternal figure relationship quality and students' intent to remain abstinent. This significant relationship was apparent for both daughters ($r=.273, p<.001, n=414$) and for sons ($r=.354, p<.001, n=310$). This hypothesis was supported (see Table 2).

Virginitly Status Summary

Daughters' virginitly status was found to be significantly related to their congruence of beliefs with their fathers and father-daughter relationship quality. Paternal residence in the home, paternal figure-child communication level, fathers' disapproval of pre-marital sex, and fathers' disapproval of adolescent sexual activity were not found to have significant impacts on virginitly status within this sample. Two of the six hypotheses regarding daughters' virginitly status were supported.

Sons' virginity status was found to be significantly related to paternal residence in the home, paternal figure relationship quality, paternal figure disapproval of early adolescent sexuality, and fathers' disapproval of pre-marital sex. Congruence of beliefs and communication level were not found to differ significantly between virgins and non-virgins. Four of the six hypotheses regarding sons' virginity status were supported within this sample.

Logistic regression analysis was performed using the predictor variables of students' virginity status. Table 3 shows the logistic regression coefficient, Wald test, and odds ratio for each predictor. The regression was found to be statistically significant for daughters (χ^2 , (6, $n=232$) =13.57, $p<.05$), as well as for sons (χ^2 , (6, $n=180$) =25.35, $p<.01$). At the .05 significance level (for daughters) and the .01 significance level (for sons), one predictor variable was found to have a significant effect on students' virginity status—fathers' approval of adolescents their children's age engaging in sexual activities. The odds ratio for this variable indicated that, when other variables are held constant, sons and daughters who perceived their fathers as disapproving of adolescents their age involved in sex were more likely to be virgins. The other dependent variables (parental co-residence, belief congruence, relationship quality, communication level, and paternal disapproval of pre-marital sex) did not have a significant effect in the logistic regression model.

Table 3. Logistic Regression Analysis of Predictor Variables for Virginity Status

Predictor	B	SE	Odds Ratio	Wald statistic
Parental Co-residence				
Daughters	-.028	.502	.972	.003
Sons	-.233	.505	.792	.214
Belief Congruence				
Daughters	-.270	.174	.763	2.393
Sons	.457	.243	.060	3.539
Father Relationship Quality				
Daughters	-.149	.123	.862	1.468
Sons	-.197	.137	.821	2.071
Father Communication				
Daughters	.073	.156	1.076	.221
Sons	-.102	.169	.903	.367
Pre-Marital Sex Approval				
Daughters	-.229	.429	.796	.284
Sons	.034	.382	1.034	.008
Age of Sex Approval				
Daughters	.990	.473	2.691	4.386*
Sons	1.138	.402	3.121	8.015**

Note: Daughters, Model $\chi^2(6) = 13.57, p < .05; n=232; -2LL = 131.921$

Sons, Model $\chi^2(6) = 25.35, p < .01; n=180; -2LL = 126.822$

** $p < .01, * p < .05$

Behavioral Intent Summary

Daughters' intent to remain abstinent was found to be significantly related to paternal residence in the home, congruence of beliefs with their father, perception of fathers' approval or disapproval of sexual activities at their age and prior to marriage, communication with their fathers, and father relationship quality. Each of the six hypotheses for daughters' behavioral intent was supported by the present findings.

Sons' intent to remain abstinent, as measured by the behavioral intent (BI) index was found to significantly related to congruence of beliefs with father, perception of fathers' approval of pre-marital sex and adolescent sexual activity, father communication, and father relationship quality. Five of the six hypotheses regarding sons' behavioral intent to remain abstinent were supported. Paternal residence in the home was not found to have a significant impact on sons' behavioral intent.

An OLS regression analysis was performed in order to determine the relative importance of each predictor variable on students' behavioral intent to remain abstinent. Table 4 shows the regression for both daughters and sons. The regression significantly predicted daughters' behavioral intent ($F(6, 311) = 12.731, p < .001$), explaining approximately 20% of the variation. R^2 for the model was .200, and adjusted R^2 was .185. The beta coefficients were significant at the .01 level for belief congruence, father approval of pre-marital sex, and father approval of early adolescent sexual activity. The standardized regression coefficients show that belief congruence has the largest impact on daughters' behavioral intent, with a beta of .303. The second greatest predictor of behavioral intent is father approval of pre-marital sex, with a beta of -.177. Here it is

seen that daughters' perception of their fathers' disapproval of pre-marital sex leads to greater report of behavioral intent to remain abstinent. The results support the general hypothesis that daughters' sexual beliefs are impacted by those of their fathers.

The regression also significantly predicted sons' behavioral intent ($F(6, 223) = 21.688, p < .001$), explaining approximately 38% of the variation (see Table 4). R^2 for the model was .375, and adjusted R^2 was .358. The beta coefficients were significant at the .01 level for paternal figures' disapproval of pre-marital sex and fathers' disapproval of sexual activity at their child's age. The standardized regression coefficients show that fathers' approval of pre-marital sex has the greatest impact on sons' behavioral intent, with a beta of -.422. The second greatest predictor of behavioral intent is father approval or disapproval of adolescent sexual activity (for adolescents their children's current age), with a beta of -.205. These results indicated that sons' whose paternal figures disapproved of these two activities were likely to report greater intent to remain abstinent.

Table 4. Regression of Predictor Variables for Behavioral Intent to Remain Abstinent

Variable	<u>B</u>	<u>β</u>	<u>t-value</u>
Communication with Father			
Daughters	-.004(.038) ^a	-.007	-.109
Sons	-.003(.054)	-.004	-.064
Father Relationship Quality			
Daughters	-.008(.034)	-.016	-.237
Sons	.085(.049)	.128	1.733
Belief Congruence			
Daughters	.209(.046)	.303	4.508**
Sons	.079(.076)	.074	1.040
Age of Sex Approval			
Daughters	-.437(.155)	-.150	-2.814**
Sons	-.504(.157)	-.205	-3.221**
Pre-Marital Sex Approval			
Daughters	-.318 (.098)	-.177	-3.232**
Sons	-.820(.120)	-.422	-6.862**
Paternal Residence ^b			
Daughters	.236(.127) ^b	.099	1.861
Sons	-.253(.181)	-.079	-1.393

Daughters: $R^2=.200$, $p < .01$; Sons: $R^2=.375$, $p < .01$;

** $p < .01$

^a Standard Error of Unstandardized Coefficients

^b In home= 1, Not in home=0

Sexual Beliefs

Each hypothesis will be presented individually, with a discussion of results for both daughters and sons. Correlational analysis was used to test the hypotheses regarding affirmation of abstinence (AA), love as justification for sex (LJ), and sex as proof of feelings or individual characteristics (SP). Regression analyses were then completed for

each variable to determine the relative contribution of the significant independent variables.

H7: Students will have greater affirmation of abstinence, less support for the ideas that sex proves feelings or character, and less support for the idea that love is justification for sexual activity if their paternal figure resides in their household.


(AA): A significant relationship between paternal figure residence in the home and students' affirmation of abstinence as a positive lifestyle choice was indicated in this sample. This relationship was significant for both daughters ($r = .186, p < .001, n = 375$) and for sons ($r = .135, p < .05, n = 286$). Both daughters and sons who lived with their fathers reported stronger agreement with abstinence as a lifestyle choice than students who did not reside with their fathers (see Table 5).

(SP): Paternal residence in the home had no impact on students' reported beliefs that sex proves feelings for a significant other, or that sex proves individual characteristics. A relationship was not indicated for daughters ($r = -.068, n = 378$) or sons ($r = -.082, n = 291$). This hypothesis was not supported (see Table 6).

(LJ): Results indicated that paternal residence in the home had a significant impact on daughters' beliefs that love justifies sexual involvement ($r = -.131, p < .05, n = 379$), but not sons ($r = -.071, n = 292$). Daughters living with their fathers reported lower agreement with the belief that love justifies involvement in sexual behavior than daughters

who did not reside with their fathers. This hypothesis was supported for daughters, but not for sons (see Table 7).


Table 5. Correlations for Participants' Abstinence Affirmation and Predictor Variables

Measures 	1	2	3	4	5	6	7
1. Abstinence Affirmation	--	.117*	.363**	.284**	-.384**	-.520**	.135**
2. Father Communication	.222*	--	.470**	.543**	.002	-.092	.010
3. Father Relationship Quality	.350**	.475**	--	.636**	-.358**	-.334**	.254**
4. Belief Congruence	.374**	.484**	.631**	--	-.167**	-.189**	.033
5. Age of Sex Disapproval	-.190**	.027	-.140**	-.044	--	.417**	-.259**
6. Pre-Marriage Sex Approval	-.344**	-.088	-.250**	-.147**	.230**	--	-.179**
7. Paternal Residence ^a	.186**	.066	.295**	.236**	-.089	-.153**	--

Note: Male participants ($n=348$) are presented above the diagonal, and female participants ($n=457$) are presented below the diagonal. ^a In home= 1, Not in home=0


** $p < .001$; * $p < .05$

Table 6. Correlations for Participants' Sex as Proof Beliefs and Predictor Variables

Measures 	1	2	3	4	5	6	7
1. Sex as Proof	--	.076	-.298**	.220**	.295**	.363**	-.082
2. Father Communication	-.053*	--	.470**	.543**	.002	-.092	.010
3. Father Relationship Quality	-.225**	.475**	--	.636**	-.358**	-.334**	.254**
4. Belief Congruence	-.189**	.484**	.631**	--	-.167**	-.189**	.033
5. Age of Sex Disapproval	.210**	.027	-.140**	-.044	--	.417**	-.259**
6. Pre-Marriage Sex Approval	.158**	-.088	-.250**	-.147**	.230**	--	-.179**
7. Paternal Residence ^a	-.068**	.066	.295**	.236**	-.089	-.153**	--

Note: Male participants ($n=348$) are presented above the diagonal, and female participants ($n=457$) are presented below the diagonal. ^a In home= 1, Not in home=0
 ** $p < .001$; * $p < .05$

Table 7. Correlations for Participants' Love as Justification Beliefs and Predictor Variables

Measures 	1	2	3	4	5	6	7
1. Love as Justification	--	-.076	-.319**	-.234**	.386**	.492**	.071
2. Father Communication	-.185**	--	.470**	.543**	.002	-.092	.010
3. Father Relationship Quality	-.250**	.475**	--	.636**	-.358**	-.334**	.254**
4. Belief Congruence	-.294**	.484**	.631**	--	-.167**	-.189**	.033
5. Age of Sex Disapproval	.185**	.027	-.140**	-.044	--	.417**	-.259**
6. Pre-Marriage Sex Approval	.383**	-.088	-.250**	-.147**	.230**	--	-.179**
7. Paternal Residence ^a	-.131*	.066	.295**	.236**	-.089	-.153**	--

Note: Male participants ($n=348$) are presented above the diagonal, and female participants ($n=457$) are presented below the diagonal. ^a In home= 1, Not in home=0
 ** $p < .001$; * $p < .05$

H8: Students will have greater affirmation of abstinence, less support for the ideas that sex proves feelings or character, and less support for the idea that love is justification for sexual activity if they report a high congruence of beliefs with their paternal figures.

(AA): A significant relationship between students' congruence of beliefs with their paternal figure and their affirmation of abstinence as a positive lifestyle choice was indicated. A fairly strong, positive relationship was found for daughters ($r = .374, p < .001, n = 414$) and a positive relationship was indicated for sons as well ($r = .284, p < .001, n = 306$). This hypothesis was supported in the expected direction (see Table 5).

(SP): Results indicated that a significant relationship existed between students' congruence of beliefs with their paternal figures and students' agreement with the idea that sex serves as proof of feelings or personality characteristics. Negative relationships were found for both daughters ($r = -.189, p < .001, n = 415$) and for sons ($r = -.220, p < .001, n = 311$), indicating that the greater reported belief congruence, the lower reported agreement with the "sex as proof" thinking. This hypothesis was supported in the expected direction (see Table 6).

(LJ): Students' beliefs regarding love as justification for sexual activity were found to be significantly related to their congruence of beliefs with their paternal figures. This significant, negative relationship was found for both daughters ($r = -.294, p < .001, n = 416$)

and for sons ($r = -.234, p < .001, n = 312$). The negative relationship indicated that greater congruence of beliefs was related to less agreement with ideas of love as justification for sex. This hypothesis was supported in the expected direction (see Table 7).

H9: Students will have greater affirmation of abstinence, less support for the ideas that sex proves feelings or character, and less support for the idea that love is justification for sexual activity if they report that their paternal figures have low approval of adolescents their age engaging in sexual activities.

(AA): Significant negative relationships were observed between students' affirmation of abstinence and their paternal figures' approval of adolescent sexual activity for both daughters ($r = -.190, p < .001, n = 373$) and for sons ($r = -.384, p < .001, n = 269$). The negative relationships indicated that students had higher levels of abstinence affirmation when their fathers' disapproved of adolescents their age engaging in sex. This hypothesis was supported (see Table 5).

(SP): A significant relationship between students' beliefs that sex proves personality characteristics or feelings and their fathers' disapproval of adolescent sexual activity was evidenced in this sample. A positive relationship was indicated for both daughters ($r = .210, p < .001, n = 372$) and sons ($r = .295, p < .001, n = 273$). The direction of this relationship indicated that students whose paternal figures disapproved of adolescents their age engaging in sexual

activity had less support for “sex as proof” beliefs. This hypothesis was supported (see Table 6).

(LJ): Students’ support for the idea that love justifies sexual behaviors was found to be significantly related to paternal figure disapproval of adolescents their age engaging in sexual activity. This relationship was significant for both daughters ($r = .185, p < .001, n = 374$) and for sons ($r = .386, p < .001, n = 273$), though a stronger relationship between the two variables was present among sons. This hypothesis was supported (see Table 7).

H10: Students will have greater affirmation of abstinence, less support for the ideas that sex proves feelings or character, and less support for the idea that love is justification for sexual activity if they report that their paternal figures have low approval of pre-marital sex.

(AA): A fairly strong, significant relationship was indicated between paternal figures’ disapproval of pre-marital sex and students’ affirmation of abstinence. Negative relationships were indicated for both daughters ($r = -.344, p < .001, n = 422$) and for sons ($r = -.520, p < .001, n = 316$). The negative relationships indicated that students had higher levels of abstinence affirmation when their paternal figures disapproved of pre-marital sex. This hypothesis was supported (see Table 5).

(SP): Results indicated that paternal figure disapproval of pre-marital sex was found to be significantly related to students’ support for the idea that sex proves feelings or personality characteristics. These

findings were significant for both daughters ($r = .185, p < .001, n = 424$) and for sons ($r = .363, p < .001, n = 321$). This hypothesis was supported (see Table 6).

(LJ): A fairly strong, significant relationship was indicated between students' love as justification for sex beliefs, and paternal figure disapproval of pre-marital sex. This relationship was significant for both daughters ($r = .383, p < .001, n = 425$) and sons ($r = .492, p < .001, n = 321$). This hypothesis was supported (see Table 7).

H11: Students will have greater affirmation of abstinence, less support for the ideas that sex proves feelings or character, and less support for the idea that love is justification for sexual activity if they report high levels of communication with their paternal figures.

(AA): Communication level between paternal figures and their children was found to be significantly related to students' affirmation of abstinence. Positive relationships were noted for both daughters ($r = .222, p < .001, n = 411$) and sons ($r = .117, p < .05, n = 305$). The positive relationship indicated that higher levels of communication were associated with greater affirmation of abstinence. This hypothesis was supported (see Table 5).

(SP): Results indicated that there was not a significant relationship between students' communication level with their paternal figures and their support for the ideas that sex proves feelings or personality characteristics. A significant relationship was found for neither

daughters ($r = -.053$, $n = 413$) nor sons ($r = -.076$, $n = 310$). This hypothesis was not supported (see Table 6).

(LJ): Results were mixed regarding a significant relationship between parental figure-child communication and students' support of the idea that love justifies sexual behavior. For sons, a significant relationship was not found ($r = -.076$, $n = 310$). However, a significant, negative relationship between father-daughter communication and daughters' beliefs regarding love as justification for sexual activity ($r = -.185$, $p < .001$, $n = 414$) was indicated. Higher levels of communication were significantly related to daughters having less agreement with love as justification beliefs. This hypothesis was supported for daughters, but not for sons (see Table 7).

H12: Students will have greater affirmation of abstinence, less support for the ideas that sex proves feelings or character, and less support for the idea that love is justification for sexual activity if they report high relationship quality with their paternal figures.

(AA): Paternal figure relationship quality was found to be significantly related to students' affirmation of abstinence. This fairly strong relationship was indicated for daughters ($r = .350$, $p < .001$, $n = 411$) as well as for sons ($r = .363$, $p < .001$, $n = 305$). Students reporting higher relationship quality also reported higher affirmation of abstinence. This hypothesis was supported (see Table 5).

(SP): A significant relationship, in the expected negative direction, between sex as proof beliefs and relationship quality was indicated for daughters ($r = -.225, p < .001, n = 412$) and for sons ($r = -.298, p < .001, n = 310$). Higher relationship quality was correlated with statements that sex proves feelings or personality characteristics. This hypothesis was supported (see Table 6).

(LJ): Students' support for the idea that love is justification for involvement in sexual behavior was found to be significantly and negatively related to their reported paternal figure relationship quality. These findings were significant for both daughters ($r = -.250, p < .001, n = 413$) and for sons ($r = -.319, p < .001, n = 310$). These results indicate that higher relationship quality was related to lower agreement with beliefs that love justifies sex. This hypothesis was supported (see Table 7).

Abstinence Affirmation Summary

Student's (both daughters and sons) affirmation of abstinence as a positive personal lifestyle choice was found to be significantly impacted by paternal residence in the home, congruence of beliefs with their paternal figures, fathers' disapproval of early adolescent sexual activity, paternal figure disapproval of pre-marital sex, communication with their fathers, and the quality of the father-child relationship. Each of the six hypotheses regarding students' affirmation of abstinence was supported in this sample.

Multivariate regression analysis was performed for each of the dependent variables. For daughters, the model significantly predicted daughters' abstinence affirmation ($F(6, 310) = 15.814, p < .001$), explaining approximately 24% of the variation (see Table 8). R^2 for the model was .238, and adjusted R^2 was .223. The beta coefficients were significant at the .01 level for belief congruence, parental figure disapproval of early adolescent sexual activity, and paternal disapproval of pre-marital sex. The standardized regression coefficients show that belief congruence had the largest impact on daughters' behavioral intent, with a beta of .234. The second greatest predictor of daughters' abstinence affirmation was father approval of pre-marital sex, with a beta of -.223. Father communication, relationship quality, and parental co-residence were not significant predictors in this model.

The regression model was also a significant predictor of sons' abstinence affirmation ($F(6, 219) = 19.493, p < .001$), and explained approximately 35% of the variation (see Table 8). R^2 for the model was .354 and the adjusted R^2 was .336. Two predictor variables were found to be significant in the model. Paternal figure disapproval of pre-marital sex was the greatest predictor ($t = -6.785, p < .01$) and fathers' disapproval of adolescent sexual activity was a significant predictor as well ($t = -2.235, p < .05$). The other predictor variables (paternal communication, relationship quality, belief congruence, and paternal residence in the home) were not significant within this model.

Table 8. Regression of Predictor Variables for Abstinence Affirmation

Variable	<u>B</u>	<u>β</u>	<u>t-value</u>
Communication with Father			
Daughters	.041(.073) ^a	.033	.559
Sons	-.163(.101)	-.106	-1.623
Father Relationship Quality			
Daughters	.072(.065)	.074	1.103
Sons	.140(.091)	.116	1.537
Belief Congruence			
Daughters	.318(.089)	.234	3.561 ^{**}
Sons	.280(.144)	.144	1.948
Age of Sex Approval			
Daughters	-.772(.288)	-.140	-2.683 ^{**}
Sons	-.645(.288)	-.144	-2.235 [*]
Pre-Marital Sex Approval			
Daughters	-.788(.188)	-.223	-4.185 ^{**}
Sons	-1.493(.220)	-.426	-6.785 ^{**}
Paternal Residence ^b			
Daughters	.400(.246)	.085	1.630
Sons	-.119(.336)	-.021	-.356

Daughters: $R^2=.238$, $p < .01$, $n = 310$; Sons: $R^2=.354$, $p < .01$, $n = 219$

^{**} $p < .01$, ^{*} $p < .05$

^a Standard Error of Unstandardized Coefficients

^b In home= 1, Not in home=0

Sex as Proof Summary

Daughters' sexual beliefs that sex is proof of certain feelings or personal characteristics was found to be significantly impacted by belief congruence, fathers' approval level of pre-marital sex and adolescent sexual activity, and father-daughter relationship quality. Three of the six hypotheses were supported within this sample.

Daughters' sex as proof beliefs were not found to be impacted by paternal residence in the home or level of communication with their fathers.

Belief congruence with fathers, paternal figure disapproval of adolescents engaging in sex, paternal figure disapproval of pre-marital sex, and father-son relationship quality were found to have a significant impact on sons' agreement with beliefs that sex proves personal characteristics or feelings for another person. Results did not indicate a significant relationship between paternal residence in the home or father-son communication and sons' sex as proof sexual values. Four of the six hypotheses were supported.

Table 9 shows the regression analysis for students' sex as proof beliefs. For daughters, this model significantly predicts 10% of the variance ($F(6, 310) = 5.509$, $p < .001$). R^2 for the model was .098 and the adjusted R^2 was .080. Two predictor variables were found to be significant in the model for daughters. Communication with paternal figure was the greatest predictor, with a beta value of -.146, while paternal figure disapproval of pre-marital sex was the second significant predictor with a beta value of .122. The remaining predictor variables (relationship quality, belief congruence, father disapproval of adolescence sexual activity, and paternal residence in the home) were not significant in this model for daughters. For sons, the model significantly predicted their sex as proof beliefs ($F(6, 223) = 8.873$, $p < .001$) as well. R^2 for the model was .197 and the adjusted R^2 was .175. The model explained 20% of the variation. Paternal figure disapproval of pre-marital sex was the only significant predictor within the regression, with a beta of .324. The remaining variables (communication, relationship quality, belief

congruence, paternal figure disapproval of adolescent sexual activity, and paternal residence in the home) were not significant.

Table 9. Regression of Predictor Variables for Sex as Proof Beliefs

Variable	<u>B</u>	<u>β</u>	<u>t-value</u>
Communication with Father			
Daughters	-.094(.047) ^a	-.146	-1.989*
Sons	.020(.092)	.016	.223
Father Relationship Quality			
Daughters	.018(.053)	.022	.341
Sons	-.108(.083)	-.110	-1.304
Belief Congruence			
Daughters	-.088(.065)	-.097	-1.354
Sons	-.097(.128)	-.061	-.760
Age of Sex Approval			
Daughters	.255(.210)	.069	1.211
Sons	.402(.270)	.108	1.489
Pre-Marital Sex Approval			
Daughters	.290(.138)	.122	2.106*
Sons	.934(.201)	.324	4.647**
Paternal Residence ^b			
Daughters	-.214(.179)	-.068	-1.192
Sons	.388(.306)	.082	1.269

Daughters: $R^2=.098$, $p < .01$, $n = 310$; Sons: $R^2=.197$, $p < .01$, $n=223$

** $p < .01$, * $p < .05$

^a Standard Error of Unstandardized Coefficients

^b In home= 1, Not in home=0

Love as Justification Summary

Paternal residence in the home, congruence of beliefs with fathers, paternal disapproval of adolescent sexuality and pre-marital sex, communication with paternal figures, and father-daughter relationship quality were found to have a significant impact on daughters' sexual beliefs regarding love serving as justification for engaging in sexual behavior. Each of the six hypotheses was supported within this sample.

Sons' beliefs regarding love as justification for involvement in sexual activity were significantly impacted by belief congruence, paternal disapproval of adolescents their child's age engaging in sexual activity, paternal disapproval of pre-marital sex, and father-son relationship quality. Paternal figure communication and paternal residence in the home did not have a significant impact on sons' support for the idea that love justifies sexual behavior. Four of the six hypotheses were supported.

Table 10 shows the multivariate regression for students' love as justification for sex beliefs. This regression model significantly predicted daughters' love as justification beliefs ($F, (6, 310) = 16.095, p < .001$), explaining 24% of the variation. R^2 for the model was .241 and the adjusted R^2 was .226. Two predictor variables were found to be significant within this model: congruence of beliefs with their paternal figures and fathers' disapproval of pre-marital sex. With a beta of .329, fathers' disapproval of pre-marital sex had the greatest impact within the model. With a beta of -.248, congruence of beliefs with their paternal figures was the second greatest significant predictor. Paternal figure communication, father relationship quality, paternal figure disapproval of

adolescent sexuality, and paternal residence in the home were not significant within this model.

For sons, this model also significantly predicted support for the idea that love justifies involvement in sexual behavior ($F(6, 223) = 18.760, p < .001$), and explains 34% of the variation (see Table 10). R^2 for the model was .342 and the adjusted R^2 was .323. Five predictors were found to be significant within the model: paternal figure communication, relationship quality, congruence of beliefs with their father, paternal figure disapproval of early adolescent sexual activity, and paternal figure disapproval of pre-marital sex. Two predictors were found to be significant within the model. Fathers' disapproval of pre-marital sex had the greatest predictive impact, with a beta of .396. The second greatest predictive factor, with a beta of -.177, is paternal figure-child relationship quality. Paternal residence in the home was not a significant predictor within this model.

Table 10. Regression of Predictor Variables for Love as Justification for Sex Beliefs

Variable	<u>B</u>	<u>β</u>	<u>t-value</u>
Communication with Father			
Daughters	-.112(.072) ^a	-.092	-1.540
Sons	.194(.086)	.147	2.261*
Father Relationship Quality			
Daughters	.067(.065)	.070	1.036
Sons	-.183(.077)	-.177	-2.378*
Belief Congruence			
Daughters	-.337(.089)	-.248	-3.782**
Sons	-.252(.119)	-.152	-2.113*
Age of Sex Approval			
Daughters	.475(.287)	.086	1.653
Sons	.494(.248)	.128	1.992*
Pre-Marital Sex Approval			
Daughters	1.163(.188)	.329	6.183**
Sons	1.189(.188)	.396	6.325**
Paternal Residence ^b			
Daughters	-.327(.244)	-.070	-1.341
Sons	.426(.286)	.087	1.494

Daughters: $R^2=.241$, $p<.01$, $n=310$; Sons: $R^2=.342$, $p<.01$, $n=223$

** $p<.01$, * $p<.05$

^a Standard Error of Unstandardized Coefficients

^b In home= 1, Not in home=0

Gender Differences

In an effort to better examine gender differences in sexual behaviors and beliefs, each dependent variable of interest will be presented individually. Similarities and differences across genders will be examined and regression analyses will be completed to examine whether gender is a significant impact on the dependent variables.

H13: The impact of paternal presence paternal-child relationship factors, and paternal sexual values on sexual behaviors and beliefs will be different between daughters and sons.

Sexual Behaviors and Intent

Virginit

Father-child relationship quality and father-child communication had similar impacts on daughters' and sons' virginity status. Report of higher relationship quality was found for both male and female virgins than for male and female non-virgins. Additionally, communication with fathers was not significant for either daughters' or sons' virginity status. Differences were found regarding the impact of paternal residence in the home (not significant for daughters, significant for sons); congruence of beliefs with fathers (significant for daughters, not significant for sons); and fathers' sexual values (not significant for daughters, significant for sons).

In order to determine if gender has a significant overall impact on virginity status, independent of the additional father-related impacts, logistic regression analysis was performed. Table 11 shows the regression coefficient as well as the Wald test and odds ratio for each significant predictor, including gender. The regression was found to be statistically significant (χ^2 , (7, $n= 412$) =34.14, $p< .001$.) At the .01 significance level, one predictor variable was found to have a significant partial effect—fathers' approval of children their child's age engaging in sexual activities. Being female was not a significant predictor within the model.

Table 11. Regression for Virginity Status (Gender Included)

Predictor	B	SE	Odds Ratio	Wald statistic
Communication with Father	.015	.111	1.015	.018
Father Relationship Quality	-.150	.088	.861	2.860
Belief Congruence	-.006	.137	.994	.002
Pre-Marital Sex Approval	-.051	.278	.950	.034
Age of Sex Approval	1.035	.289	2.816	12.827**
Paternal Residence	-.251	.345	.778	.530
Female Gender	-.227	.350	.797	.419

Note: Model $\chi^2(1) = 34.14, p < .01; n = 412; -2LL = 266.448$

** $p < .01$

Behavioral Intent

Behavioral intent among daughters and sons was influenced similarly by the five independent variables. Belief congruence, fathers' sexual values, communication with father, and father-child relationship quality all had significant impact on daughters' and sons' behavioral intent to remain abstinent, in the same direction for males and females. Paternal residence in the home was found to have a significant impact on daughters' behavioral intent, but not on sons'.

Table 12 shows the multiple regression for students' behavioral intent to remain abstinent, and includes gender as a predictor variable. This model significantly predicted participants' behavioral intent ($F(7, 535) = 33.054, p < .001$), explaining 30% of the variation. R^2 for the model was .305 and the adjusted R^2 was .295. Though not the greatest predictor, being female was a

significant contributor to the model with a beta of .155. Females were more likely to have greater intent to remain abstinent than males, when other variables in the model were controlled. Paternal figures' sexual values and participants' congruence of beliefs with their fathers were also significant predictors.

Table 12. Regression for Behavioral Intent (Gender Included)

Variable	<u>B</u>	<u>β</u>	<u>t-value</u>
Communication with Father	-.010(.032) ^a	-.014	-.308
Father Relationship Quality	.024 (.028)	.041	.831
Belief Congruence	.173 (.041)	.202	4.260**
Age of Sex Approval	-.531 (.108)	-.199	-4.913**
Pre-Marital Sex Approval	-.564 (.077)	-.297	-7.323**
Paternal Residence ^b	.052 (.106)	.019	.491
Female Gender ^c	.417 (.105)	.155	3.969**

$R^2=.305, p < .01$

** $p < .01$

^a Standard Error of Unstandardized Coefficients

^b In home= 1, Not in home=0

^c Female =1, Male =0

Sexual Beliefs

Affirmation of Abstinence

Results regarding students' affirmation of abstinence as a positive lifestyle choice were similar across gender. Paternal residence in the home, congruence of beliefs with father, paternal figure disapproval of pre-marital and early adolescent

sexuality, father-child communication, and relationship quality significantly impacted students' abstinence affirmation for both daughters and sons. Each hypothesis was supported in the same direction across gender.

Multivariate regression analysis was performed to determine the overall impact of gender on participants' affirmation of abstinence. This model significantly predicted participants abstinence affirmation ($F(7,530) = 32.490, p < .001$), explaining approximately 30% of the variance (see Table 13). R^2 for the model was .303 and the adjusted R^2 was .294. In addition to the significant predictors of belief congruence and paternal disapproval level of pre-marital sex and early adolescent sexual activity, being female was a significant predictor. With a beta of .107, it is not the greatest contributor to abstinence affirmation, but is still important. Females were more likely than males to have a higher affirmation of abstinence as a positive personal lifestyle choice.

Table 13. Regression for Abstinence Affirmation (Gender Included)

Variable	<u>B</u>	<u>β</u>	<u>t-value</u>
Communication with Father	-.046 (.060) ^a	-.034	-.753
Father Relationship Quality	.095 (.053)	.087	1.761
Belief Congruence	.314 (.077)	.197	4.103**
Age of Sex Approval	-.766 (.199)	-.155	-3.847**
Pre-Marriage Sex Approval	-1.131 (.143)	-.320	-7.908**
Paternal Residence ^b	.193 (.199)	.037	.969
Female Gender ^c	.539 (.197)	.107	2.733**

$R^2=.303, p < .01$

** $p < .01$

^a Standard Error of Unstandardized Coefficients

^b In home= 1, Not in home=0

^c Female =1, Male =0

Sex as Proof

Daughters and sons sex as proof beliefs were significantly impacted by congruence of beliefs with their fathers, paternal disapproval of students their child's age engaging in sexual activity, paternal disapproval of pre-marital sex, and father-child relationship quality. Participants reporting high congruence of beliefs and relationship quality, as well as father disapproval or pre-marital sex or early adolescent sexual activity were less likely to report beliefs that sex proves feelings or personal characteristics. Neither paternal residence in the home nor father-child communication was found to have a significant impact for daughters or sons.

Table 14 shows the regression analysis for sex as proof beliefs for both daughters and sons in order to determine the overall impact of gender on these beliefs. This model significantly predicts participants' beliefs regarding whether or not sex proves one's feelings or personal characteristics ($F(7, 534) = 18.914$, $p < .001$) and explains 20% of the variance. R^2 for the model was .201 and adjusted R^2 was .190. Father relationship quality, paternal disapproval or adolescent sexual activity and pre-marital sex, and being female were significant contributors to the model. Females were less likely than males to support the ideas that sex serves as proof of feelings or personal characteristics.

Table 14. Regression for Sex as Proof Beliefs (Gender Included)

Variable	<u>B</u>	<u>β</u>	<u>t-value</u>
Communication with Father	.024 (.049) ^a	.024	.487
Father Relationship Quality	-.095 (.044)	-.114	-2.154*
Belief Congruence	-.104 (.062)	-.085	-1.660
Age of Sex Approval	.398 (.166)	.104	2.403*
Pre-Marital Sex Approval	.609 (.118)	.224	5.175**
Paternal Residence	.040 (.163)	.010	.246
Female Gender	-.853 (.162)	-.221	-5.274**

$R^2 = .201$, $p < .01$

** $p < .01$, * $p < .05$

^a Standard Error of Unstandardized Coefficients

^b In home= 1, Not in home=0

^c Female =1, Male =0

Love as Justification

The impacts of father-child belief congruence, paternal disapproval of adolescent sexual activity and pre-marital sex, and father-child relationship quality were similar across gender. Participants reporting high belief congruence, high relationship quality, and high father disapproval or pre-marital sex and early adolescent sexual activity were less likely to report beliefs that love served as a justification for involvement in sexual behavior. Gender differences were noted in regards to the impact of paternal residence in the home and father-child communication. For daughters, these two factors were found to have a significant impact on their love as justification beliefs, while for sons' there was no significant impact.

In order to determine the overall relative impact of gender on beliefs that love serves as a justification for involvement in sex, multiple regression was performed. The resulting model significantly predicted students' love as justification beliefs ($F(7, 534) = 28.126, p < .001$), and explains 27% of the model (see Table 15). R^2 for the model was .272 and the adjusted R^2 was .262. Three predictors were found to be significant within the model: belief congruence, paternal disapproval level of adolescent sexual activity, and paternal disapproval level or pre-marital sex. Gender was not significant in the overall model for love as justification beliefs.

Table 15. Regression for Love as Justification for Sex Beliefs (Gender Included)

Variable	<u>B</u>	<u>β</u>	<u>t-value</u>
Communication with Father	.016 (.056) ^a	.013	.283
Father Relationship Quality	-.031 (.050)	-.031	-.615
Belief Congruence	-.320 (.071)	-.219	-4.508**
Age of Sex Approval	.519 (.187)	.114	2.774**
Pre-Marriage Sex Approval	1.185 (.134)	.364	8.844**
Paternal Residence ^b	-.035 (.185)	-.007	-.190
Female Gender ^c	-.184 (.184)	-.040	-.999

$R^2 = .272, p < .01$

** $p < .01$

^a Standard Error of Unstandardized Coefficients

^b In home = 1, Not in home = 0

^c Female = 1, Male = 0

Summary

Analysis indicated that students' sexual behaviors and beliefs were related to different paternal factors. Congruence of beliefs with fathers, paternal disapproval of adolescents their child's age engaging in sex, and paternal disapproval of pre-marital sex were the most consistently significant predictors of virginity status, behavioral intent, and students' sexual beliefs.

Gender differences in adolescent behaviors and beliefs were indicated as well. In comparison to males, females were more likely to have a greater intent to remain abstinent, more likely to affirm abstinence as a positive lifestyle choice, and less likely to support the ideas that sex proves feelings or personality characteristics. Within this

sample, gender did not have an impact on students' virginity status or on students' support for the ideas that love justifies engaging in sexual activity.

Results suggest that fathers affect both their daughters' and their sons' sexual beliefs and behaviors in a myriad of ways—but not always in the same way for each gender. Further discussion of these impacts will be addressed in the following chapter.

CHAPTER 6 Discussion

This study explored paternal influences on adolescent sexual behaviors and beliefs, as well as gender differences among factors of paternal influence. The analysis was guided by the social-ecological framework, which states that familial level relationships and paternal sexual values can influence adolescent sexuality, as well as by existing literature suggesting that paternal residence in the home and the father-child relationship are influential factors on adolescent sexuality.

The basic research question of this project was how fathers influence their daughters' and sons' sexual behaviors and beliefs. Analysis indicated evidence of paternal influence on adolescents' sexual behavior, behavioral intent, and sexual beliefs. Adolescents' perceptions of their paternal figures' sexual values and their congruence of beliefs with their fathers appeared to have the greatest influence on daughters' and sons' sexual beliefs, while father-child relationship quality appeared to influence both daughters' and sons' virginity status.

In this chapter I discuss the paternal influences on students' sexual behavior and behavioral intent, as well as their sexual beliefs. Gender differences in paternal influence are discussed as well. I also address the limitations of the current project, recommendations for future research, and implications of the present findings.

Sexual Behavior and Behavioral Intent

Table 16 summarizes the significant relationships between paternal influence and sexual behavior and behavioral intent.

Table 16. Paternal Influence on Sexual Behavior and Behavioral Intent

	Daughters' Virginity Status	Sons' Virginity Status	Daughters' Behavioral Intent	Sons' Behavioral Intent
Communication Level			X	X
Relationship Quality	X	X	X	X
Belief Congruence	X		X	X
Age of Sex Approval		X	X	X
Pre-Marital Sex Approval		X	X	X
Paternal Residence		X	X	

Note: Significant relationships are indicated with an "X".

Virginity status, the measure of sexual behavior, was significantly influenced by paternal residence for sons but not for daughters. These results differ from the findings of Ellis et al. (2003) and Regnerus and Luchies (2006) which found that paternal residence in the home led to delayed initiation of sex for daughters. Conversely, paternal residence in the home was significant for sons, which was not found in the previous work by Regnerus and Luchies (2006). There has been limited research regarding paternal residence and sons, so this project may add to the body of research in this area.

Interestingly, daughters' intent to remain abstinent was influenced by paternal residence

in the home, but sons' intent was not. This suggests that fathers' presence influences their daughters' sexual *behavioral intent* and their sons' sexual *behavior*.

Congruence of beliefs with their paternal figures was found to have a significant influence on daughters' virginity status, but not on sons'. Daughters reporting a higher congruence of beliefs with their paternal figures were more likely to be virgins. Belief congruence had a similar effect across gender in terms of behavioral intent—students reporting high congruence of beliefs with their paternal figures had greater intent to remain abstinent. While there is research on the influence of paternal sexual values and adolescent sexual values on sexual activity, I found no literature on the congruence of beliefs between fathers and their children. This study suggests that it is possible that belief congruence may be a facet of the father-child relationship or an extension of paternal sexual values—further study is indicated.

Paternal sexual values (as reported by students) were found to influence sons' virginity status, but not daughters'. Sons reporting paternal disapproval of pre-marital sex and disapproval of early adolescent sexual activity were more likely to be virgins. Paternal sexual values had a similar effect for both daughters and sons regarding their intent to remain abstinent. Students reported greater intent to remain abstinent if they perceived their paternal figures as disapproving of pre-marital sex and early adolescent sexual activity. These findings lend support to Small's (1994) application of the social ecological framework, which found that parental values (but not specifically fathers) were strong predictors of adolescent sexual activity. Additionally, Dittus et al. (1997) found that students' perception of paternal sexual values had an effect on their

engagement in sexual activity. Within this sample, it appears that the influence of paternal sexual values may extend to daughters' and sons' sexual intent as well as behavior.

Father-child relationship factors had varied effects. Communication level did not have a significant influence on students' virginity status but did have a weak influence on their intent to remain abstinent; students reporting high communication levels reported greater intent to remain abstinent. Father-child relationship quality (as reported by students) was a significant influence on virginity status and intent to remain abstinent. Daughters and sons reporting high relationship quality were more likely to be virgins and report greater intent to remain abstinent. This finding is consistent with previous work suggesting the influence of the father-child relationship on sexual activity (Guijarro et al., 1999; Ream and Savin-Williams, 2005). Parker-White et al. (1995) found that a positive father-child relationship influenced communication about sexual facts and values between daughters and sons. In the current project, communication level (in general rather than specifically focused on sexuality) influenced students' intent to remain abstinent, but not their actual virginity status, which supports research that students' intentions and behaviors are not always harmonious.

Sexual Beliefs

This project took an exploratory turn in examining daughters' and sons' sexual beliefs, as there is limited research or theoretical development in this area. The majority of adolescent sexuality research centers around rates of sexual activity, teen pregnancy,

and STDs—and not their sexual attitudes or beliefs. Table 17 summarizes the significant findings regarding paternal influence on sexual beliefs.

Table 17. Paternal Influence on Sexual Beliefs

	Daughters' Abstinence Affirmation	Sons' Abstinence Affirmation	Daughters' Sex as Proof Beliefs	Sons' Sex as Proof Beliefs	Daughters' Love as Justification Beliefs	Sons' Love as Justification Beliefs
Communication Level	X	X			X	
Relationship Quality	X	X	X	X	X	X
Belief Congruence	X	X	X	X	X	X
Age of Sex Approval	X	X	X	X	X	X
Pre-Marital Sex Approval	X	X	X	X	X	X
Paternal Presence	X	X			X	

Note: Significant relationships are indicated with an "X".

Paternal residence had a significant influence on daughters' and sons' affirmation of abstinence as a positive lifestyle choice but not on students' support for the idea that sex serves as proof of feelings or personality characteristics. Results varied regarding students' beliefs about "love as justification" for sex. Paternal residence in the home was found to influence daughters' support for the idea that love was justification for engaging in sexual activity, but did not influence sons' support for this same idea.

Congruence of beliefs with their fathers and paternal figure sexual beliefs (disapproval of pre-marital sex and disapproval of adolescents their child's age having sex) were each found to be a significant influence on daughters' and sons' affirmation of abstinence as a positive lifestyle choice, support for the ideas that sex proves feelings or

personality characteristics, and support for the ideas that love serves as justification for engaging in sexual activity.

Paternal figure relationship factors had varied influence. Significant relationships were found between father-child communication level and daughters' and sons' affirmation of abstinence, and daughters' beliefs that being in love justifies engaging in sexual activity. Students' sex as proof beliefs were not found to be influenced by paternal figure communication level, nor were sons' love as justification beliefs. Relationship quality as reported by students was found to be significantly related to daughters' and sons' sexual beliefs (affirmation of abstinence, sex as proof of love or personality characteristics, and love as justification for engaging in sexual activity).

There is limited research or theoretical development regarding adolescents' sexual beliefs. Small (1994) and Mandara et al. (2003) found that familial level factors, including sexual beliefs, can be indicators of adolescents' sexual behaviors; however, their work did not address adolescents' sexual beliefs. The results of this project suggest that Bronfenbrenner's social ecological framework (and specifically its application to adolescent sexuality) may be applicable to sexual beliefs as well as the sexual behaviors of adolescents. Congruence of beliefs with father was a significant influence for both daughters and sons and may indicate support of familial level factors as well. Agreeing with their paternal figures on matters of sexuality is likely to lead to a more peaceful home life, so that students may adopt their paternal figures values as their own to reduce family stress and increase positive family functioning—a relationship previously indicated in the literature (Corcoran et al. 2000).

Overall, it appears that perceived paternal sexual values and father-child relationship factors have greater influence on adolescent sexuality than simply father presence in the home. Father presence in the home was indicated as significant factor, but did not have as much influence. These findings are supported by literature on father presence, but suggest that there may be other factors of interest as well. It is possible that fathers' perceived sexual values and relationship factors are of greater influence because they indicate minimally active involvement (relationship quality) in their children's lives, as well as at least minimal mention of sexuality with their children. In order for students to have perceived their fathers' sexual values there would have to be some instance where these views were made apparent. Paternal presence in the home alone is not an indicator of either of these factors. One contribution of this project is the analysis of father relationship factors, fathers' perceived sexual values, and father presence within the same sample. Future research should continue to assess more than one of these factors at a time in order to develop a better understanding of paternal influences.

Gender Differences

Differences in sexual behaviors and beliefs were noted between genders. Girls were more likely to: have a greater intent to remain abstinent, have a greater affirmation of abstinence as positive lifestyle choice, and be less likely to support the ideas that sex serves as proof of feelings or personal characteristics. Within this sample, gender had no impact on virginity status or support for the ideas that love justifies involvement in sexual activity. These results suggest that gender may play a significant role in adolescents' sexual values.

This project appears to lend support for Tolman's theory of gender complementarity. It may be that paternal influence is one way that adolescent males and females develop different sexual beliefs, and begin to participate in "normal" sexual behavior. Risman (2004) states that gender is a social construction formed by social processes: the individual level, interactional cultural expectations, and the institutional domain. It is within the individual level that gender develops. The social construction of gender for both males and females may be shaped by their paternal influences and development at the individual level. Daughters and sons differed in this sample, in that, most simply, daughters were influenced more by the congruence of beliefs with their father, while sons were influenced more by their perceptions of paternal figure sexual values. Females were also less likely to support beliefs that sex proves feelings or personality characteristics (such as popularity and maturity) and more likely to affirm abstinence and their intent to remain abstinent.

These results may speak to the gender double standard that is often evident in sexuality. This double standard persists when people "do" gender by ascribing to appropriate beliefs and behaviors based on ideas of masculinity and femininity (Risman, 2004). In this case, fathers' influence may be a factor of influence in producing the gender double standard. According to Tolman (1994, 1999) the social construction of female sexuality often denies adolescent girls their feelings of sexual desire and access to information regarding their sexuality. Feminist theory suggests that patriarchy or male dominance influences female sexuality, as it determines what is "appropriate." Tolman (1999) found that girls who held more traditional (patriarchal) beliefs about femininity

where more likely to engage in sexually risky behaviors. Results from this project indicated that daughters reported more conservative sexual beliefs than sons, which may lend support for the idea that females are socialized differently in regards to their sexuality than sons are.

Limitations

The results indicating paternal impact on adolescent sexuality should be considered with cautious support for several reasons. First, random sampling was not used in this project. Data were collected using a non-probability, convenience sampling method. Without the use of random sampling, statistical inference and generalizability to the greater population are not possible. The results found in this sample can only be used to make general statements about the sample itself, and not about all adolescents in Virginia or the United States.

Additionally, this project employed a cross-sectional design, where all data were collected from the sample at one time. Therefore, the dataset used for analysis represents only a snapshot of students' lives. Utilizing a cross-sectional design does not lend itself to establishing causality within the sample, primarily because time-order or the directionality of the relationships cannot be ascertained. A longitudinal study design is needed to in order to make causal inferences. It is possible that factors found to have an impact on adolescents' sexual behaviors and beliefs may be of impact only at the current point in time, and not throughout adolescence. Similarly, the overall age of the sample is a consideration. The majority of students in the sample (72%) were age 13 and in the 7th grade (89%). Eighty-seven percent of the students also reported that they had never had

sex at the time of the survey completion. It may be that students at this age have yet to fully form their individual sexual beliefs, and their sexual activity will be limited compared to that of older adolescents.

The nature of secondary data analysis and survey research is also a limitation of the current project. There is a concern about non-response bias, or the bias that results in differences between those who agree to participate and those who don't (Adler and Clark, 2003). In this case, the non-response bias could be attributed to parental involvement, arguably a factor of specific interest in this project. Students whose parents consented for their enrollment in the program may differ greatly from students whose parents were not as motivated to come to the school and enroll their child in the program. The nature of the survey instrument and of the questions asked may also be a limitation to this project. Survey questions were framed in alignment with the abstinence program they accompanied. Questions may have reinforced abstinence values and may not accurately reflect students' actual beliefs about sex, but rather their selection from the constrained options presented to them. Secondary data analysis also limits my personal knowledge of the data collection procedures. There is a possibility that surveys were administered differently to students depending on the proctor. This could lead to variability in responses that are not apparent in the dataset.

Also related to analyzing secondary data is the reliance on existing measures of constructs. Paternal influence could only be examined based on the questions included in the survey instrument, and these questions may not capture important aspects of this construct. Additionally, paternal sexual values were primary variables of interest in this

project and there is no direct measure for this in the survey. Students reported their perceptions of their paternal figures sexual values, which may or may not be accurate. However, it may be likely that students' perception of their fathers' beliefs is more likely than their fathers' actual beliefs to influence their own beliefs and behaviors.

A final limitation in the current project is the definition of sex as used on the survey instrument. Sex was defined as sexual intercourse, with students instructed that it is sometimes also called "going all the way" or "doing it." Abstinence, to remain abstinent, and to abstain were all defined as not having sex. There are inherent problems with limiting the study of adolescent sexuality to refer only to sexual intercourse. Researchers may be missing a number of sexual behaviors that affect students' emotional and physical well-being, including oral sex, anal sex, and other sexual activities that place students at risk for contracting STDs. Additionally, there is concern that this definition of sex may lead respondents to assume only heterosexual sexual activity. Students in same-sex sexual activities may have been unsure about how to respond to sex-related questions on the survey.

Recommendations

Future research of paternal impacts on adolescent sexuality will contribute to a greater understanding of adolescents' beliefs and behaviors as they transition into adulthood. Further research can also add valuable knowledge to the development and implementation of sex education programs with the aim of decreasing teen pregnancy and STD infection rates.

In order to gain a better understanding of adolescents' sexual behaviors and beliefs, research utilizing random sampling and a longitudinal research design will be valuable. This type of research design will allow for causal inferences to be made from data analysis. Survey research should also include a broader definition of sex. The full spectrum of adolescent sexual activity should be examined, not just intercourse. In addition, inquiry into sexual activity for students of all sexual orientations should be emphasized.

Examining a greater age range of students would also be beneficial in understanding paternal impacts on adolescent sexuality. It is likely that paternal impact will be different in different stages of adolescence. Fathers may be more likely to talk with their children regarding sexual matters when they are older. This may explain why paternal figure-child communication was not an overly significant factor in this project as it had been indicated to be in previous research (Parker-White et al., 1995; Guijarro et al., 1999).

Further research in gender complementarity may be warranted as well. The current project found differences in paternal influence between daughters and sons, particularly in their sexual beliefs. Additionally, analysis of maternal influence on adolescent sexuality would be helpful in order to examine maternal and paternal influence independent of one another—as some claim that significant results for father influence may actually be measuring overall parenting and not fathers exclusively.

Finally, a qualitative research design emphasizing students' opinions about paternal influences on sexuality would be beneficial. Asking daughters and sons directly

about their perception of paternal figure influence, as well as relationship factors, fathers' sexual beliefs and the presence or absence of their father in the home as related to the sexual behavior and beliefs would add to this area of research and may capture more information than from the survey instrument alone. Improvements to the survey may also be helpful. Surveys should be designed with the intent of collecting the most accurate data possible and should not only reflect the specific aims of the teen pregnancy prevention or abstinence education program at hand.

Conclusions

This project was undertaken with the intent to gain a better understanding of paternal influence on adolescents' sexual behaviors and beliefs. Results indicated that fathers influence their children's sexual behaviors and beliefs in a myriad of ways—and sometimes differently by gender.

Implications for program development can be culled from this project. Involving paternal figures in teen pregnancy prevention programs looks to be a promising route. Fathers and other paternal figures should be encouraged to be active participants in their child's sexual education, including increasing communication levels, sharing their sexual beliefs with their children and developing a positive relationship—all of which were found to influence students' sexual behaviors and beliefs.

Congruence of beliefs with their fathers and students' perceptions of their paternal figures' sexual beliefs were the most consistently significant influences—and had greater impact overall than paternal residence in the home. These findings suggest that involvement of fathers requires more than their physical presence, so including non-

resident fathers in sexual education programs would likely be beneficial as well.

Additionally, gender-specific programs may also be helpful. Within this sample, paternal figures had different impacts on their daughters and sons. Gender specific dyads (father-daughter, father-son) may address the gendered nature of their sexual behaviors and beliefs in an open manner. Paternal figure education efforts are also recommended. Highlighting the importance of involvement in their children's lives may encourage fathers to take a more active role if they are made aware of their influence on their children's sexual behaviors and beliefs. Paternal figures need to understand that their sexual beliefs and relationship with their child can influence their child's sexual decisions-making and lead to healthier adolescent sexuality.

This project contributes to the social-ecological framework and to the limited literature regarding paternal influences on adolescent sexuality. Paternal residence in the home, paternal figure-child relationship quality, belief congruence, and students' perceptions of their fathers' sexual beliefs all had significant influence on daughters' and sons' sexual behavior, behavioral intent, and sexual beliefs. In short, fathers and paternal figures matter.

Paternal influence on adolescent sexuality may have lasting impacts in their children's lives, especially in regards to teen pregnancy and contraction of STDs. This is of particular importance in light of current statistics regarding teen pregnancy and STD rates in the United States; teens in the United States have higher rates of pregnancy, birth, abortion, and STD contraction than all other industrialized nations. These alarming statistics indicate that there is much progress to be made in this area. Results from this

project suggest that the inclusion of paternal figures in teen pregnancy prevention and abstinence education programs may help shape adolescents' decisions about sexual behaviors and sexual beliefs, leading them to make healthier sexual decisions.

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