Father absence and early sexual debut: Understanding the influence of gender, risk, and protective factors

Lailatul Qamar Ali Husin

Iowa State University

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Father absence and early sexual debut:
Understanding the influence of gender, risk, and protective factors

by

Lailatul Qamar Ali Husin

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Brenda J. Lohman, Major Professor
Kere Hughes-Belding
Tricia K. Nepl

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The objectives of the present study were to: (1) understand how a father’s absence can influence an adolescent’s early sexual debut differently for males and females; and (2) identify the individual and family risk and protective factors associated with rates of early sexual debut. This study used a sample of adolescents from *Welfare, Children, and Families: A Three-City Study*, Waves 1 (age 10-14 years) and Wave 3 (age 15-20 years) \(n=928\). Risk factors assessed included adolescent school problems as well as drug and alcohol use, while protective factors assessed included positive father-adolescent relationships, parental monitoring and adolescent academic achievement. To expand the current literature on both male and female sexual debut, duration of father absence was considered. Logistic regressions were conducted to test the impact of father absence on early sexual debut, despite individual and family risk and protective factors. Findings revealed that gender and delinquency (both school problems and drug and alcohol use) are predictors of early sexual debut. Furthermore, a significant interaction was found between adolescent gender and father absence. Specifically, the longer a father is absent (in years) from the household, the greater the odds of early sexual debut for girls; however, this effect was not statistically significant for boys. Implications regarding these findings are discussed to provide a better understanding regarding the risk and protective factors associated with early sexual debut across genders.
CHAPTER 1. INTRODUCTION

Adolescence has been described as a period of heightened vulnerability to adverse health outcomes (Khurana, Romer, Betancourt, Brodsky, Giannetta, & Hurt, 2012). It is a transitional stage of physical, cognitive, and emotional development occurring before the onset of puberty and ending by adulthood. In the United States, nearly one third (29.3%) of ninth graders have reported that they have had sexual intercourse. In early adolescence (aged 11–14 years), abstract thinking is poorly developed, limiting the ability of youth to consider long term consequences of behavior (Wisnieski, Sieving & Garwick, 2013). Research has shown that adolescents are not only sensitive to the risks but also tend to underestimate them (Reyna & Farley, 2006). These increased risks may be attributed to adolescents’ lack of cognitive maturity and poor decision-making skills, which therefore may make them less likely to use contraception (Centers for Disease Control, 1992); thus, it is very important to understand the risk and protective factors associated with early sexual debut (Brooks-Gunn & Paikoff, 1997). The decision made by an adolescent to engage in sexual intercourse for the first time is an important transition and, if experienced too early, may lead to other risky sexual behaviors, such as teen pregnancy, sexual transmitted infection, and HIV (Babalola, 2004; Centers for Disease Control and Prevention, 2010; Klavs, Rodrigues, Weiss, & Hayes, 2006; Wisnieski et al., 2013). It also places the youth at increased risk of lower levels of academic achievement and increased levels of substance use (Schvaneveldt, Miller, Berry, & Lee, 2001; Whitbeck, Yoder, Hoyt, & Conger, 1999).

Approximately 10 to 20% of individuals who are having sexual intercourse before the age of 15 are more likely to use birth control inconsistently, have sex under the influence of
alcohol or drugs, have more sexual partners during adolescence (Kaiser Family Foundation, 2012), and not seek testing or treatment for sexually transmitted infections (Kaestle, Halpern, Miller & Ford, 2005; Kotchick, Shaffer, Forehand, & Miller, 2001; Tu, Batteiger, Wiehe, Ofner, Van der Pol, Katz et al., 2009). The magnitude of these negative outcomes not only affects the adolescent but also their family, community, and society. Therefore, this forces the need for a deeper understanding of individual-level and social contextual influences on adolescents’ sexual behaviors.

For the current study, early sexual debut has been defined as an adolescent engaging in sexual intercourse before he/she is 15 years old (Lohman & Billings, 2008). Previous research has delineated protective factors that consistently lower the risk of early sexual debut including parental monitoring (Gilliam, Berlin, Kozloski, Hernandez, & Grundy, 2007; Lammers, Ireland, Resnick, & Blum, 1999) and adolescent academic achievement (Moore & Chase-Lansdale, 2001; Schofield, Bierman, Heinrichs, & Nix, 2008). Nevertheless, previous research has also shown a variety of risk factors associated with early sexual debut, such as school problems (Lohman & Billings, 2008; Peltzer, 2010), drug and alcohol use (Lohman & Billings, 2008; Looze, Eijden, Verdumen, Vermeulen-Smit, Schulten, Vollebergh, & Bogt, 2012; Peltzer, 2010), low family income (Lohman & Billings, 2008; Moore & Chase-Lansdale, 2001), born to a teenage mother (Hardy, Shapiro, Astone, Miller, Brooks-Gun, & Hilton, 1997; Lohman & Billings, 2008; Wu & Thomson, 2001), and low maternal education (Jordahl & Lohman, 2009; Lohman & Billings, 2008; Moore, 2001). One of the profound factors that has been shown to be related to early sexual debut is the absence of the father from the home, referred to here as father absence (Draper & Harpending, 1982; Ellis, Bates, Dodge, Fergusson, Horwood, Pettit et al., 2003). These studies explain the effect of father
absence on pubertal timing and, ultimately, on early sexual debut, particularly for girls. However, the effect of father absence has not been examined in detail regarding factors such as duration, positive father-adolescent relationship, or for both genders simultaneously.

**Importance of Fathers**

In the United States, one out of every three children lives in a father-absent home (U.S. Census Bureau 2009). The prior literature that has assessed early sexual debut has also detailed the significant impact fathers can have on their child’s age of sexual onset, especially for the 33% of children living in father-absent homes. A plethora of work has addressed father absence and early sexual debut (Babalola, 2004; Brooks-Gun et al., 2009; Coley & Chase-Lansdale, 2000; Ellis et al., 2003; Hendricks, Cesario, Murdaugh, Gibbons, Servonsky, Bobadilla et al., 2005; Mendle, Harden, Turkheimer, Quinlan, 2003, Winter, Karvonen & Rose, 2012; Van Hulle, D’Onofrio, Bingham, Miller, & Adams, 1990). Specifically, these works have shown that father absence from the household increases an adolescent’s chances for early sexual debut. However, most of this research does not take into account the duration of father absence, nor have these studies included a multitude of individual and family risk and protective factors simultaneously. Thus, the present study attempted to extend the current literature by examining the length of time that the father has not been present in the household, while considering important individual and family risk and protective factors for early sexual debut.

Indeed, the plethora of work examining father absence shows that adolescent girls reared in father-absent homes experience sexual behaviors at an earlier age; nevertheless, researchers must also consider that fathers out of the household can invest in their children
through time and positive father-adolescent relationships. Little work has addressed the impact of both father absence and relationship quality simultaneously regarding sexual debut. Studies by Belsky (1991) and Ellis (2004) addressed father absence resulted in early sexual debut, especially if their father did not invest his time for them. However, these studies only assessed female sexual debut. Beyond this body of work, research has shown that father involvement (Ellis et al., 2003; Jordahl & Lohman, 2009; Lohman & Billings, 2008) and positive father-adolescent relationships (Draper & Harpending, 1982, 1988, Ellis; 2009) can act as protective factors to lower the risk of early sexual debut. Thus, it is important not only to consider duration of father absence, but also the quality of the father-adolescent relationship.

**Fathering and gender**

The majority of the aforementioned studies regarding fathers has addressed early sexual debut of females only. Belsky, Steinberg, Houts, Friedman, DeHart, Cauffman et al. (2007) found that, for boys, the absence of a father resulted in inconsistent evidence regarding putatively positive outcomes (e.g., popularity, self-confidence) and negative ones (e.g., delinquency, as well as risky sexual behaviors and promiscuity). Given the dearth of information about adolescent boys, it was the aim of the current study to fully understand the effect that father absence has on both male and female early sexual debut, while considering the risk and protective factors that have previously been established in the literature. The current study was conducted to extend the work of Lohman and Billing (2008) that assessed the risk and protective factors that influence rates of early adolescent sexual debut for a sample of low-income urban adolescent boys by looking at both adolescent boys and girls.
This study also simultaneously considered the impact of both father absence and positive father-adolescent relationships on sexual debut. It was anticipated that this comprehensive approach would provide a better understanding of the factors that can lead to early sexual initiation for both sexes.

In sum, as supported by the literature review provided, the central aim of the current study was to understand the importance of the father’s role in a child’s life, particularly regarding sexual behaviors. Specifically, the overall purpose of this study was to examine the duration of father absence and how it is related to early sexual debut of the adolescent. Previous research has yet to address the effects father absence has on early sexual debut for both female and male adolescents in the same study. Thus, the current study examined how adolescent gender moderates the relationship between father absence and sexual debut. An additional aim was to test if these relationships hold after controlling for multiple individual and family risk and protective factors that have been shown consistently in the literature to increase or decrease early sexual debut. Three specific hypotheses were posed:

1. Duration of father absence from the household would increase the probability of early sexual debut of both males and female adolescents.

2. The individual risk factor of delinquency, as assessed by school problems as well as alcohol and drug use, would increase the probability of early sexual debut of both males and female adolescents;

3. Individual and family protective factors would decrease the probability of early sexual debut of both males and female adolescents. Specific factors examined include positive father-adolescent relationships, parental monitoring, and academic achievement.
CHAPTER 2. LITERATURE REVIEW

The literature review begins with a discussion of bioecological theory as well as resiliency theory. Second, the literature regarding duration of father absence from the home, as well as several individual risk factors are detailed. Third, the protective effects of the individual factors of academic achievement and the family processes of parental monitoring and positive father-adolescent relationships are summarized. Lastly, the influences of the effects of ethnicity and gender on adolescent sexual debut are examined as well as family income and maternal education.

Theoretical Framework

In this study, Bioecological Theory (Bronfenbrenner, 1979, 1989), as well as a risk and resiliency framework (Friedman & Chase-Lansdale, 2002; Rutter, 1987), were employed in order to understand the risk and protective factors of adolescent early sexual debut (Jordahl & Lohman, 2009; Lohman & Billings, 2008). Bioecological theory, as described by Bronfenbrenner, defines development as the phenomenon of continuity and change in the biopsychological characteristics of human beings, both as individuals and as groups. Development occurs in overlapping systems which both affect and are affected by the adolescent. Occurrences and attributes of a system, for instance the family, affect the other systems, which then affect an adolescent's decisions, behaviors, and outcomes (Jordahl & Lohman, 2009).

The first system in bioecological theory is the microsystem which includes the interactions of the adolescent with his/her immediate environment, such as the family (Bronfenbrenner, 1979). In this bidirectional relationship it is understood that the adolescent
will affect the family (system) and the family will affect the adolescent in return. First, the demographic factors of the adolescent (individual factors) such as ethnicity, gender, as well as individual behaviors such as academic achievement and delinquency were considered in this study. Secondly, characteristics of the family microsystem including the familial demographic attributes of family structure as well as the family processes of parental monitoring, father absence, as well as positive father-adolescent relationship, were considered. Research has continually shown that parents are effective agents of adolescents’ behaviors. The combination of parental support and control (i.e., warm, caring parenting with appropriate supervision and control) is considered to contribute to better social outcomes for the adolescent (Looze, Harakeh, Van Dorsselaer, Raaijmakers, Vollebergh, & Bogt, 2012).

Finally, a risk and resiliency framework was used as a lens in which to examine aforementioned characteristics. Risk factors are defined as factors present in the individual or the environment that increase the probability of a negative outcome whereas protective factors are individual or environmental factors associated with positive outcomes in the presence of risk (Compas, 2004; Jordahl & Lohman, 2009). In this study, the risk factors are father absence and delinquency behaviors including school problems as well as drug and alcohol use, while the protective factors are positive father-adolescent relationships, parental monitoring, and adolescent academic achievement.

**Father Absence**

It has been suggested that adolescents are least likely to have early sexual debut if they are reared in a two-parent household with both biological parents (Dittus, Jaccard, & Gordon, 1997). Growing up in a single-parent family, without the stability of parenting from
both parents has been associated with early sexual debut for both male and female adolescents (Kaufman, 2006). Results have shown that single parents exert less impact over their children and usually find it more difficult to manage and discipline their children (Longmore, Manning & Giordano, 2001). Two parents may be able to more closely monitor their children’s activities and social networks and, thus, reduce the tendency of early sexual debut (Mendle et al., 2009). The presence of the father is one of the main protective factors in delaying sexual debut among girls (Moore & Chase-Lansdale, 2001). A study by Santelli, Lowry, Brener, and Robin (2000) revealed that both male and female adolescents from non-intact families were more likely to have had sexual intercourse. Adolescent females from single parent households were more likely to have initiated sexual intercourse compared to adolescent females from two parent households. Mendle et al. (2009) observed children from father absent homes as experiencing unstable, conflicted or stressed parental relationships. It is also expected that these youth mature in such a way that their reproduction is geared toward mating rather than parenting, tending to have accelerated sexual onset, multiple sexual partners and erratic relationships (Mendle et al.).

The majority of the aforementioned research has addressed if the father is in the household or not and has failed to address the influence of the duration of father absence on early sexual debut. However, Biller (1974) has done a similar study looking at the effect of father absence that could be detrimental to a child’s development as a whole. Biller found that the combination of early onset (the age of the child when the father was absent) and long duration of father absence are more damaging than later onset and shorter duration. Belsky, Steinberg, and Draper, (1991) proposed the effect of family disruption that assesses father absence and early timing of menarche. Moreover, much literature has shown that girls who
reach their menarche early are more likely to engage in early sex (Cavanagh, 2004; Ellis et al., 2003; Klavs, et al., 2006). Moffit, Caspi, Belsky, and Silva, (1992) suggested that the longer duration of father’s absence, the higher impact it may have towards growth and development of adolescents. This is due to stress associated with the father’s absence that may alter the cortisol levels that trigger early puberty. The longer the father is absent from home, the higher the cortisol level will be in adolescent girl which then may predict the tendency of having early sexual debut (Moffit et al.). Another study by Ellis (2004) indicated that adolescent girls who were exposed to prolonged distress (i.e., father absence) had significantly earlier ages of menarche than girls who were not exposed to any strong traumatic events. It was also predicted that adolescent girls who have early menarche tend to experience early sexual debut compared to later maturing girls (Crockett, 1994; Ellis, 2004; Magnusson, 1988). In sum, a father plays an important role in a child’s life, and the effect of absence of a father should be analyzed in detail.

**Risk Factors**

**Adolescent delinquency**

Studies have shown consistent and positive links between adolescent delinquent behaviors (Childs & Sullivan, 2013; Doljanac & Zimmerman, 1998) as well as the use of substances (Kalina . Geckova, Klein, Jarcuska, Orosova, Van Dijk et al., 2013; Smith, 1997) and the rates of early sexual debut. Jordahl and Lohman (2009) reported that adolescents who engaged in delinquent acts are two and one half times more likely to experience early sexual debut. In the current study, these established relationships were explored by separating delinquency into school problems as well as alcohol and substance abuse. An abundance of
literature suggests that adolescent who use drug and alcohol are significantly prone to have sex at earlier ages (Lammers et al., 1999; Lohman & Billings, 2008; Rosenbaum & Kandel, 1990). Adolescents who are involved in school problems also have an earlier age of first sex (Gevers, Matthews, Cupp, Russell, & Jewkes, 2013; Lohman & Billings, 2008).

**Protective Factors**

**Positive father-adolescent relationships**

Research has suggested that a higher positive parent-adolescent relationship is associated with lower levels of adolescent unprotected intercourse and intercourse initiation (Deptula, Henry, & Schoeny, 2010). Girls, in particular, tend to have an older age of sexual debut when they have high quality relationships with their fathers (Regnerus & Luchies, 2006). A study by Draper and Harpending (1982, 1988) revealed that girls whose early family experiences are described by more harmonious male-female relationships and relatively high paternal investment (e.g., marital stability, marital satisfaction, reliable provisioning by the father, and involvement by the father in child care) perceive that male parental investment is important to reproduction. Therefore, it was hypothesized that girls with high quality father presence develop in a manner that slows the onset of sexual activity and reproduction.

Weiland-Bowling and Werner-Wilson (2000) found that adolescent females who are considered to have responsible sexual behavior generally have: (a) fathers who are very involved in parenting and have high quality of father-daughter relationship; (b) fathers who encourage androgynous behavior in their daughters; and (c) positive communication with fathers regarding men, dating, sex, and marriage. McBride and colleagues (2003) also
discussed the importance of affect between parent and child and noted that positive affect is implicated in the delay of sexual intercourse and other individual factors (such as pubertal development). This is important since the earlier the pubertal onset, the higher the chance that the adolescents will engage in early sexual debut. Positive parent-adolescent relationships are centrally important in shaping adolescent’s sexual activity (Coley, Votruba-Drzal & Schindler, 2009) since parents are the agents to provide emotional connections, behavioral constraints, and modeling. This, in turn, will affect the children’s development of self-regulation which will influence their decision-making and expectations regarding their sexual behaviors and intimate relationships (Hauser-Kunz & Grych, 2013). Fathers and mothers each make unique contributions to child development due to their different parental gender roles (Murry, Mayberry & Berkel, 2013); and, because fathers are more likely to be the disciplinarian (Marsiglio & Roy, 2012), the relationship may act as a conduit through which fathers impart his beliefs and morals. This helps adolescent children in developing decision making skills which will then influence their sexual timing (Sieverding, Adler, Witt, & Ellen, 2005).

**Parental monitoring**

Parental monitoring, or the knowledge of their child’s whereabouts, is a particularly important precursor of adolescent sexual behaviors (Buhi & Goodson, 2007). Lack of adult supervision has been revealed as one of the contextual factors in determining early sexual debut (Timm, Reed, Miller & Valenti, 2011). Sieverding et al. (2005) suggested that parental monitoring which involves knowing the peers and activities of their children will restrict children’s opportunities to engage in early sexual debut, and affect their perceptions and
intentions regarding sexual activities. If parents are aware of their children’s activities, peers, and whereabouts, their involvement tends to decrease the tendency of their children to succumb to the risks associated with sexual behaviors. Adolescents are reported to have a better outcome if parents are attentive to their behavior, stay informed on their activities, and structure their environment (Hoeve, Dubas, Eichelsheim, Van der Laan, Smeenk & Gerris, 2009). Adolescents who indicated successful parental monitoring were also found to be significantly less favorable regarding initiating intercourse compared to adolescents who reported more unrestricted time and, thus, were more likely to express cognitions that favored initiating intercourse (Sieverding et al., 2005).

Adolescent academic achievement

There is much research associating academic achievement with early sexual debut (Schofield et al., 2008, Schvaneveldt, Miller, Berry, & Lee, 2001). Adolescents, both males and females, who reported doing well in school generally have an older age of sexual debut (Davis & Friel, 2001; Schvaneveldt et al., 2001). Schofield et al. (2008) suggested that adolescents who have a higher academic achievement tend to be more involved in extracurricular activities than in sexual activity. On the other hand, adolescents who do not do well in school are more attracted to the perceived pleasures of unrestrained behaviors which include sexual activity (Bearman & Bruckner, 2001).

Covariates

Gender and ethnicity

Prior research on sexuality during adolescence has focused more on females rather than males due to the sociocultural and economic effects of teenage pregnancy (Upchurch,
Aneshensel, Sucof, & Levy-Storms, 1998). However, recent work has begun to consider sexual behaviors for both males and females as well as how these behaviors may vary across ethnicity. For example, Upchurch et al. (1998) found that males typically have an earlier age at sexual debut compared to females. In addition, Upchurch et al. found that African-American males had the lowest median age of sexual debut, followed by Hispanic males, and then white and African-American females. Asian-American males reported the highest median age at sexual debut. In addition, the Centers for Disease Control (CDC, 2009) reported that early sexual debut varied among non-Hispanic white, non-Hispanic African-American and Hispanic. In a sample of female adolescents aged 15-19 years, 22.9% of non-Hispanic African-American adolescents compared to 11.6% non-Hispanic white females were reported to have early sexual debut.

**Born to a teenage mother**

Past research has shown that children of teen mothers are more likely to engage in early sexual intercourse and bear children in their teen years in comparison to children born to mothers in their 20s and beyond (Hardy, Astone, Brooks-Gunn, Sharpio, & Miller, 1998). East, Felice, and Morgan (1993) suggested that girls, in particular, who were born to a teenage mother were more likely to have an early sexual debut. Furthermore, adolescents who are born and raised by a teenage mother are not only more likely to engage in early sexual debut but also have lower academic achievement and are more likely to report frequent substance use (Crockett, Bingham, Chopak, & Vicary, 1994).
**SES: Family income and maternal education**

Socioeconomic status (SES), as measured by family income and maternal education, may influence health by circumscribing social and educational opportunities, limiting access to prevention and treatment services, and shaping health behaviors (Santelli et al., 2000). Due to these disadvantages, SES is associated with many health related outcomes for youth such as early sexual debut (Lammers et al., 1999; Moore & Chase-Lansdale, 2001; Mott, Fondell, Hu, Kowaleski-Jones, & Menaghan, 1996); adult and child mortality rates (Adler, Boyce & Cheney, 1994; Pappas, 1994; Singh & Yu, 1996), and reproductive health outcomes such as unintended pregnancy (Brown, 1995) and adolescent birth rates (Alan Guttmacher Institute, 1994; Brown, 1995; Hoefferth 1987).

Specific to parental education, Santelli et al., (2000) found that adolescent females whose parents had less than a high school education were more likely to report recent sexual activity than were adolescent females whose parents were college graduates. They also found that adolescents whose parents had not completed high school were 2.5 times more likely to have had sexual intercourse than adolescents whose parents were college graduates. The other important impact of SES is an association between parental education and condom use among females. This correlation between parental education and condom use indicates that failure to educate children on safe sex increases the probability of an unintended pregnancy (Santelli et al.). According to the Alan Guttmacher Institute (1994), the birth rate among women with lower SES aged 15 to 19 years was approximately 10 times the rate among higher-income adolescents. Kaufman (2006) also revealed that an adolescent is eight times more likely to become pregnant with a high risk environment that includes lower SES, minority group membership and a poor neighborhood. The current study utilized two
determinants of SES, including information about family income as well as maternal education.

**Purpose and Hypotheses of the Study**

The central aim of this study was to understand the importance of the father’s role in a child’s life, particularly regarding sexual behaviors. Specifically, the overall purpose of this study was to examine the duration of father absence and how it is related to early sexual debut of the adolescent. Previous research has yet to address the effects father absence has on early sexual debut for both female and male adolescents in the same study. Thus, the current study examined how adolescent gender moderates the relationship between father absence and sexual debut. An additional aim was to test if these relationships hold after controlling for multiple individual and family risk and protective factors that have been consistently revealed in the literature to increase or decrease early sexual debut. Three specific hypotheses were addressed in this study:

1. Duration of father absence from the household would increase the probability of early sexual debut of both males and female adolescents;

2. The individual risk factor of delinquency, as assessed by school problems as well as alcohol and drug use, would increase the probability of early sexual debut of both males and female adolescents; and

3. Individual and family protective factors would decrease the probability of early sexual debut of both males and female adolescents. Specific factors included positive father-adolescent relationship, parental monitoring, and academic achievement.
CHAPTER 3. METHODOLOGY

Sample and Procedure

Data utilized in this research were taken from a longitudinal study, entitled: Welfare, Children and Families: A Three-City Study, from 1999 to 2005, which focused on the impact of welfare reform on families (Winston, Angel, Burton, Chase-Lansdale, Cherlin, Moffit et al., 1999). Prior to conducting this research, permission to conduct the study was approved by the Institutional Review Board at Iowa State University (see Appendix).

The current study utilized information from Wave 1 and Wave 3 (1999 and 2005, respectively). The Three-City Study was comprised of a household-based, stratified random-sample of over 2,000 low-income children and their caregivers in low-incomes neighborhoods in Boston, Chicago, and San Antonio. In 1999, over 40,000 households were screened by professional, trained interviewers to identify eligible families with a child between the ages of 0 and 4 as well as 10 to 14 years of age, with a woman as the primary caregiver. Eighty-two percent of the eligible families agreed to participate in the study, with an overall response rate of 74%. The second wave of data was collected approximately 16 months following Wave 1. Eighty-eight percent of the families completed a second interview. The third wave of data collection took place four years later in 2005, with 80% of families from Wave 1 participating in Wave 3. The children were between the ages of 15 and 20.

In Wave 1, the primary caregiver and one focal child were selected from the eligible households to complete cognitive assessments and in-person interviews. Primary caregivers completed two-hour interviews regarding themselves, their families, households, and
children. Demographic information, such as race, income, and family structure was collected from the caregivers using the survey. Adolescent children participated in 30-minute in-person interviews separate from their mother. They were asked about several things such as school performance, and relationships with their parents. Both mothers and adolescents completed surveys using a Computer Assisted Personal Interview (CAPI), which enables trained field interviewers to enter responses into a laptop during the interview process. Furthermore, adolescents and mothers used an Automated Computer Assisted Survey Interview (ACASI) when answering potentially sensitive questions like those related to alcohol use. ACASI allows the respondents to enter answers directly into the laptop computer, while listening to questions on headphones, and has been shown to increase the response rate and validity of reporting on sensitive topics (Turner, Miller & Rogers, 1998).

**Measures**

**Early sexual debut**

At each wave, adolescents were asked 25 questions to gather information about their past and present sexual experiences, unprotected sex and pregnancy. Examples of questions included if they had engaged in sexual intercourse and age at first sexual intercourse. Early sexual debut was measured at Wave 3 based on responses to the question ‘Have you ever had sexual intercourse? (e.g., “having sex”, “making love” or “going all the way”). Utilizing the adolescent’s age in months at Wave 3 as well as the question, “How old were you the first time you had sexual intercourse?” a dummy variable, with a value of 1 indicating “sexually active before age 15” and a value of 0 indicating “not sexually active by age 15” was created. The cutoff 15 years was chosen given the social and psychological differences
in experiences and outcomes related to sexual experiences prior to this age (Lohman & Billings, 2008).

**Father absence**

**Duration of father absence from the household**

In Wave 1, duration of father absence was measured by using maternal report of whether the father resided in the household in Wave 1. If the father did not reside in the household, mothers were asked what year they stopped living together. The year of separation was then subtracted from the year the data was collected in Wave 1 (1999). The range of years of father absence was zero to 15 years.

**Risk factors**

**Adolescent delinquency, Wave 1**

Adolescents reported their engagement in delinquent behaviors by answering a series of 17 questions adapted from The National Longitudinal Study of Youth (NLSY; Borus, Carpenter, Crowley, & Daymont, 1982) and the Youth Deviance Scale (Gold, 1970; used by Steinberg, Mounts, Lamborn, & Dornbusch, 1991). Coley and Chase-Lansdale (2000) have previously used this series of 17 items with low-income minority adolescents. Each question was scored by the adolescents using a 4-point Likert scale with 1 (never) representing lack of involvement and 4 (often) representing frequent involvement. Items assessed three subscales including serious delinquency, alcohol and drug use, as well as school problems. Serious delinquency was not used in these analyses. Due to skewness of the data, each subscale was standardized, averaged, and logged for all items. *School problems* was comprised of five
items including copying homework, having detention, cheating on a test, being suspended or expelled, and damaging others’ property ($\alpha = .61$). Five items were averaged to create the subscale of *alcohol and drug use* in which the adolescent was asked about using tobacco marijuana, heroin, cocaine, LSD, alcohol and also use of fake ID ($\alpha = .65$).

**Protective factors**

**Positive father-adolescent relationship, Wave 1**

The Inventory of Parent and Peer Attachment (IPPA; Armsden & Greenberg, 1986, 1987) was completed by the adolescent to report on their relationship with their fathers at each wave of the survey. This 12-items inventory rated 1 as the lowest (never true) and 5 as the highest (always true) denoting more warmth and connectedness, trust and communication, and anger and alienation. Positive father-adolescent relationship quality was calculated by reverse coding six items and creating a mean of all the items scored, with higher scores representing greater relationship quality ($\alpha = .68$).

**Parental monitoring, Wave 1**

Parental Monitoring was created from the parenting monitoring composite, with higher scores (0, lowest; 4, highest) reflecting more parental monitoring. Adolescents were asked a series of questions assessing curfew, caregivers’ knowledge of friends, caregivers’ knowledge of after-school and nightly whereabouts, and caregivers’ knowledge of how the adolescent spends free time and money (Steinberg, Mounts, Lamborn, & Dornbusch, 1991). A composite score for parental monitoring was created by taking the mean score across all eight items in the parental monitoring section ($\alpha = .66$).
Adolescent academic achievement, Wave 1

Academic Achievement were measured using adolescent’s report on the grades that appeared on their last report card by using a scale of 1 (F’s) to 5 (A’s).

Covariates

Gender and ethnicity of adolescent, Wave 1

Three dummy coded variables were created to represent the adolescent’s ethnicity. The three categories were Non-Hispanic White, African American, and Hispanic. A value of 1 represents membership in a group and a value of 0 represents non-membership. The referent group in the analyses was Hispanic. A single question asked the adolescents’ gender with males coded 1 and females coded 0.

Born to a teenage mother, Wave 1

A dichotomized variable was created if the adolescent was born to a teenage mother before age 18 (value of 1) or not born to a teenage mother (value of 0).

Family income, Wave 1

At each wave, family income was assessed during the two-hour interview with the mothers. Mothers were asked to give their previous month’s income before taxes and deductions. Mothers not only reported how much they made in one month, but also the source of the income: unemployment insurance, food stamps, SSI, cash welfare income, child support payments, social security disability, worker’s compensation/other disability, social security retirement or survivor payments, other pension or retirement income, income from relatives, income from friends, and any other source of income. To calculate total household
income, a composite score of the sum of the total sources was created for each wave; higher scores indicate higher income.

**Maternal education, Wave 1**

Mother’s education was assessed with a dummy variable that was created with 1 representing less than a high school education and 0 representing high school education or higher.
CHAPTER 4. RESULTS

This study focused on the influence of fathers on adolescent early sexual debut using a sample of low-income minority males and females in Boston, Chicago, and San Antonio. All analyses were run in SPSS 21.0. First, descriptive statistics were utilized to provide information on the covariates and study variables of the sample. This included their ethnicity, gender, duration of father absence, family income, maternal education, and whether they were born to a teenage mother. Next, Pearson Product Moment Correlations were assessed amongst all study variables. Finally, to answer the three hypotheses, logistic regressions were conducted to test the impact that fathering and individual as well as family risk and protective factors have on an adolescent's propensity to engage in early sexual debut (see Figure 1).

Table 1 displays means, standard deviations, and ranges for early sexual debut as well as the age of first sexual intercourse. By Wave 3, 37.8% \((n = 928; \text{male}=454, \text{female}=474)\) of the adolescents engaged in early sexual debut and the average age of first sexual intercourse for this sample was 13.56 years \((SD = 1.48)\). Means, standard deviations, and ranges for the risk and protective factors are displayed in Table 2 while the covariates are shown in Table 3. Just over 87% of the adolescents did not live with their fathers and the average length of father absence was 9.55 years. The adolescents were predominantly Hispanic \((47.8\%)\) and African American \((42.0\%)\), with the remaining 9.2% Non-Hispanic White. The majority of the adolescents lived below the poverty line with the average household monthly income of $1,282.61 \((SD = 767.87)\). A total of 407 mothers reported that they did not have a high school diploma \((43.9\%)\), while 520 mothers reported that they had an education beyond high
Figure 1. Impact that fathering and individual as well as family risk and protective factors have on an adolescent’s propensity to engage in early sexual debut.
Table 1. Mean, standard deviation, and range for outcome variables

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Sexual Debut</td>
<td>928</td>
<td>0.38</td>
<td>0.48</td>
<td>0.00-1.00</td>
</tr>
<tr>
<td>Age of First Sexual Intercourse</td>
<td>351</td>
<td>13.56</td>
<td>1.48</td>
<td>8.00-20.00</td>
</tr>
<tr>
<td>Male</td>
<td>202</td>
<td>14.25</td>
<td>2.01</td>
<td>8.00-20.00</td>
</tr>
<tr>
<td>Female</td>
<td>149</td>
<td>15.09</td>
<td>1.90</td>
<td>8.00-20.00</td>
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</table>

Table 2. Mean, standard deviation, and range for protective and risk factors

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fathering</td>
<td>928</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duration of Father Absence (in years)</td>
<td>928</td>
<td>7.77</td>
<td>4.82</td>
<td>0-15</td>
</tr>
<tr>
<td>Risk Factors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adolescent School Problems</td>
<td>928</td>
<td>-0.17</td>
<td>0.53</td>
<td>-0.83 - 1.52</td>
</tr>
<tr>
<td>Adolescent Drug and Alcohol Use</td>
<td>928</td>
<td>-0.08</td>
<td>0.32</td>
<td>-0.19 - 2.09</td>
</tr>
<tr>
<td>Protective Factors</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive Father-Adolescent Relationship</td>
<td>928</td>
<td>3.51</td>
<td>0.85</td>
<td>1.00-5.00</td>
</tr>
<tr>
<td>Parental Monitoring</td>
<td>928</td>
<td>0.81</td>
<td>0.12</td>
<td>0.37-1.00</td>
</tr>
<tr>
<td>Adolescent Academic Achievement</td>
<td>928</td>
<td>3.70</td>
<td>0.87</td>
<td>1.00-5.00</td>
</tr>
</tbody>
</table>

school (56.1%). Approximately 190 of the adolescents (20.5%) were born to teenage mothers (e.g., under 18). Table 4 displays the correlations amongst sexual debut and the risk and protective variables, while Table 5 shows the correlations between the risk and protective variables. Duration of father absence is shown to be significantly correlates with family income, positive father-adolescent relationship and parental monitoring (see Table 5).
Table 3. Mean, standard deviation, and range for covariates

<table>
<thead>
<tr>
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<th>N</th>
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<th>SD</th>
<th>Range</th>
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</thead>
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<tr>
<td>Gender(^{a})</td>
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<td>Male = 1</td>
<td>453</td>
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<tr>
<td></td>
<td></td>
<td>Female = 0</td>
<td>474</td>
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</tr>
<tr>
<td>Adolescent Race(^{a})</td>
<td>928</td>
<td>African American</td>
<td>389</td>
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<tr>
<td></td>
<td></td>
<td>Hispanic</td>
<td>443</td>
<td>0.48</td>
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<tr>
<td></td>
<td></td>
<td>White</td>
<td>95</td>
<td>0.10</td>
</tr>
<tr>
<td>Monthly Family Income</td>
<td>928</td>
<td></td>
<td>1281.44</td>
<td>767.46</td>
</tr>
<tr>
<td>Maternal Education(^{a})</td>
<td>928</td>
<td>Less than High School Education</td>
<td>407</td>
<td>0.44</td>
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<tr>
<td></td>
<td></td>
<td>High School Diploma or Above</td>
<td>520</td>
<td>0.56</td>
</tr>
<tr>
<td>Teenage Motherhood(^{a})</td>
<td>190</td>
<td></td>
<td>20.50</td>
<td></td>
</tr>
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</table>

\(^{a}\) Frequencies are reported for categorical variables.

Table 4. Correlations among study variables

<table>
<thead>
<tr>
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<th>Early Sexual Debut Wave 3</th>
</tr>
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<tbody>
<tr>
<td>Fathering</td>
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</tr>
<tr>
<td>Duration of Father Absence</td>
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</tr>
<tr>
<td>Covariates</td>
<td></td>
</tr>
<tr>
<td>Family Income</td>
<td>0.05</td>
</tr>
<tr>
<td>Risk Factors</td>
<td></td>
</tr>
<tr>
<td>Adolescent School Problems</td>
<td>0.13**</td>
</tr>
<tr>
<td>Adolescent Drug &amp; Alcohol Use</td>
<td>0.13**</td>
</tr>
<tr>
<td>Protective Factors</td>
<td></td>
</tr>
<tr>
<td>Positive Father-Adolescent Relationship</td>
<td>-0.04</td>
</tr>
<tr>
<td>Parental Monitoring</td>
<td>-0.13**</td>
</tr>
<tr>
<td>Adolescent Academic Achievement</td>
<td>-0.06</td>
</tr>
</tbody>
</table>

KEY: \(*p < .05, **p < .01.\)

NOTE: All predictors are from Wave 1.
Table 5. Correlations for risk factors

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<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
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<td><strong>Fathering</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Duration of</td>
<td>1.00</td>
<td>0.08*</td>
<td>0.06</td>
<td>0.01</td>
<td>0.05</td>
<td>0.07*</td>
<td>0.04</td>
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<tr>
<td>Father Absence</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Risk Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Adolescent</td>
<td>0.08*</td>
<td>1.00</td>
<td>0.36**</td>
<td>0.01</td>
<td>0.20**</td>
<td>0.39**</td>
<td>0.25**</td>
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<tr>
<td>School Problems</td>
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</tr>
<tr>
<td>3. Adolescent</td>
<td>0.06</td>
<td>0.36**</td>
<td>1.00</td>
<td>0.05</td>
<td>0.18**</td>
<td>0.32**</td>
<td>0.10**</td>
</tr>
<tr>
<td>Drug &amp; Alcohol Use</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Family Income</td>
<td>-0.11**</td>
<td>0.01</td>
<td>-0.05</td>
<td>1.00</td>
<td>0.03</td>
<td>-0.02</td>
<td>-0.03</td>
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<td><strong>Protective Factors</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Positive Father</td>
<td>-0.18**</td>
<td>-0.02</td>
<td>-0.18**</td>
<td>0.03</td>
<td>1.00</td>
<td>0.24**</td>
<td>0.08*</td>
</tr>
<tr>
<td>Adolescent Relationship</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Parental Monitoring</td>
<td>-0.08*</td>
<td>-0.39</td>
<td>-0.32**</td>
<td>-0.02</td>
<td>0.24**</td>
<td>1.00</td>
<td>0.11**</td>
</tr>
<tr>
<td>7. Academic</td>
<td>-0.04</td>
<td>-0.25</td>
<td>-0.10**</td>
<td>-0.03</td>
<td>0.08*</td>
<td>0.11**</td>
<td>1.00</td>
</tr>
<tr>
<td>Achievement</td>
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<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

KEY: *p < .05. **p < .01.

Hypotheses

The results of the logistic regressions are presented in Table 6. All logistic regressions controlled for gender, ethnicity, family income, maternal education level, and whether or not the adolescent was born to a teenage mother. Step 1 and 2 tested the first hypothesis, while Step 3 and 4, tested the 2\textsuperscript{nd} and 3\textsuperscript{rd} hypotheses, respectively.

**Hypothesis 1: Duration of father absence from the household would increase the probability of early sexual debut of both males and female adolescents.**

In Step 1, duration of father absence did not significantly predict early sexual debut for both males and females. However, it was shown that the odds of having early sexual debut are 1.74 times higher for males than for females. In addition, no other covariates (e.g., race, family income, maternal education, or born to a teenage mother) were found to be significant. To test if father absence had differential effects for males and females, an
Table 6. Multiple logistic regressions for Early Sexual Debut

<table>
<thead>
<tr>
<th>Variable</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Exp(B)</td>
<td>Exp(B)</td>
<td>Exp(B)</td>
<td>Exp(B)</td>
</tr>
<tr>
<td><strong>Fathering</strong></td>
<td></td>
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</tr>
<tr>
<td>Duration of Father Absence</td>
<td>1.01</td>
<td>1.05</td>
<td>1.04</td>
<td>1.04</td>
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<tr>
<td><strong>Covariates</strong></td>
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<td></td>
</tr>
<tr>
<td>Male&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male<strong>b</strong></td>
<td>1.74***</td>
<td>2.78***</td>
<td>2.98***</td>
<td>3.03***</td>
</tr>
<tr>
<td>Race&lt;sup&gt;c&lt;/sup&gt;</td>
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<tr>
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<td>0.92</td>
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<td>0.75</td>
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<td>1.16</td>
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<tr>
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<td>0.94*</td>
<td>0.93*</td>
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<td>Adolescent School Problems</td>
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<td>Adolescent School Problems</td>
<td>1.46**</td>
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<td>Adolescent Drug &amp; Alcohol Use</td>
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<tr>
<td>Adolescent Drug &amp; Alcohol Use</td>
<td>1.97**</td>
<td>1.76*</td>
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<td><strong>Protective Factors</strong></td>
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<tr>
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<tr>
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</tbody>
</table>

NOTE: (a) *p<.05, **p<.01, ***p<.001; (b) Females Omitted; and (c) Hispanics Omitted. All predictors are from Wave 1.

interaction term was added in Step 2. Indeed, a significant gender*duration of father absence interaction was found. To extrapolate the significant interactions, sexual debut was plotted for male and female adolescents by duration of father absence. From this result it was found that the longer the father was absent from the home, the greater the odds of early sexual debut for girls. To test the simple slopes, the logistic regression in Step 1 was tested again. Two variables were added for father absence: father absence for girls and father absence for
boys. This logistic regression revealed that the simple effect of father absence for girls was significant ($\beta=.045, p <.05$), while the simple slope of father absence for boys was not statistically significant ($\beta=.47, p >.05$). The results of the simple effects test shows that for nearly every five years a father was absent from the home (e.g., one standard deviation = 4.82 years), it raises the probability for girls’ early sexual debut by 4.5%

**Hypothesis 2:** The individual risk factor of delinquency, as assessed by school problems as well as alcohol and drug use, would increase the probability of early sexual debut of both males and female adolescents.

The individual risk factors of adolescent school problems as well as adolescent’s drug and alcohol use were added in Step 3. Both were found to be highly predictive of early sexual debut. With each one standard deviation increase in school problems or drug and alcohol use, the odds of having early sexual debut increased by 46% and 97% respectively. The significant interaction between duration of father absence and gender remained, even after controlling for these risk factors.

**Hypothesis 3:** Individual and family protective factors would decrease the probability of early sexual debut of both males and female adolescents. Specific factors included positive father-adolescent relationships, parental monitoring, and academic achievement.

Finally, in Step 4, we added the protective factors of positive father-adolescent relationship as well as parental monitoring, and adolescent academic achievement. None of these factors were statistically significant in the model. However, once again, the significant interaction between duration of father absence and gender remained as well as the effect of adolescent drug and alcohol use.
CHAPTER 5. DISCUSSION

The purpose of this study was to extend the work of Lohman and Billings (2008) on understanding the risk and protective factors of adolescent early sexual debut by considering both males and females simultaneously. This study extends the literature by addressing the importance of fathers for sexual debut, particularly by addressing the duration of father absence and the quality of the relationship between the father and the child. Moreover, this work contributes to the current body of literature regarding early sexual debut by simultaneously examining several individual and family risk and protective factors of an understudied population - a sample of high-risk low-income early adolescent boys and girls. In this sample, it was revealed that 44.5% of adolescent boys in the Three-City Study were engaging in sexual intercourse by age 15 while 31.4% of adolescent girls had an early sexual debut. The results are framed by Bronfenbrenner’s bioecological theory and a risk and resiliency perspective that shows that environmental systems, particularly factors related to adolescent early sexual debut.

How Do These Rates of Sexual Experiences Compare to Previous Research?

Previous studies have addressed the impact of father absence towards girls’ sexual debut, but very few studies have addressed the impact of father absence on boys’ sexual debut (Cavanagh, 2004; Pearson, 2012). When run together, gender was found to be a very strong predictor for early sexual debut and showed that adolescent boys have a median age of 13.39 years while females reported to have a median age of 13.78 years when they first had sex. The average age of the adolescent in this data reported to be substantially lower than the average age of first sexual intercourse in the United States in general. The Kaiser Family
Foundation (2005) reported that the median age of first sexual intercourse for adolescent boys is 16.9 years old while for adolescent girls is 17.4 years. The lower ages in the Three-City Study could be explained by the sample which was representative of adolescents with different ethnicities (predominantly Hispanic followed by African American) from low-income families in low-income neighborhoods in Boston, Chicago, and San Antonio. This is consistent with previous literature that suggests urban minority youth tend to have earlier age of sexual debut (O’Donnell, O’Donell & Stueve, 2001).

**Importance of fathers**

Despite controlling for positive father-adolescent relationships, it was revealed that the duration of father absence significantly predicted early sexual debut, differentially by adolescent’s gender. In this study, it was shown that for adolescent females, the longer the father was gone from the house, the more likely she was to engage in early sexual debut. This finding has been supported by the literatures (Belsky, 2011; Ellis, 2004). Specifically, it has been found that when a father was absent from the home for nearly every five years, it raised the probability for girls’ early sexual debut by 4.5%. In this study, even after controlling for the quality of the father-adolescent relationship, girls whose fathers are absent are more likely to engage in early sexual debut compared to those girls who have their fathers at home. Having a positive relationship with the father, even after he was gone, does not act as a buffer against early sexual debut. It is also found that father absence significantly correlate with positive father-adolescent relationship. It is possible, but it is harder to maintain a good relationship particularly if the father is not in the household.
However, duration of father absence was not statistically significant for males. These differential effects of father absence on males and females could potentially be explained by a variety of factors. First, as suggested by Ellis (2004), adolescent girls who were exposed to prolonged distress (i.e. father absence) had significantly earlier ages of menarche than girls who were not exposed to strong traumatic events, such as father absence. These girls may then engage in early sexual intercourse, as supported by a body of literature that shows that adolescent girls who have early menarche tend to experience early sexual debut than do later maturing girls (Belsky, 2011; Crockett, 1994; Deardorff, Gonzales, Christopher, Roosa, & Millsap, 2011; Ellis, 2004; Magnusson, 1988; Savolainen, Mason, Hughes, Ebeling, Hurtig, & Taanila, 2012). Thus, timing of menarche may be a mediating factor for early sexual debut, which is possibly why father absence affects adolescent girls more than boys.

A second plausible explanation based on an evolutionary perspective is that adolescent girls’ behavior tends to be more influenced by the family, while boys’ behavior tends to be more influenced by peers (Belsky et al., 1991, 2012; James, Ellis, Schlomer, & Judy, 2012). According to an evolutionary perspective, girls’ reproductive development (including menarche) is heavily influenced by fathers (Belsky, 2011; Ellis, 2004), but to date there is no evidence that has supported the same influence on boys’ pubertal development. On the other hand, boys are more influenced by peers, which might be a result from the adolescent looking for a father figure who is absent from his life. This can be supported by Beaty (1995) who suggested that males whose fathers were absent tend to be more dependent on peers. Future work needs to explore the relationship between father absence and sexual debut for boys and girls by assessing the potentially differentiating effects of the mediating factors of pubertal time and peer socialization for males and females separately.
This study contributes to the current body of literature that assesses father absence and early sexual debut in several important ways. First, a large body of literature has addressed father absence but few studies have addressed the duration of father absence and its impact on early sexual debut. Second, the literature has primarily assessed the impact of father absence on adolescent girls’ sexual debut but very few studies have examined the impact of father absence on adolescent boys’ sexual debut. Third, this study also went beyond assessing fathering by a marker of father absences only by including measurements of a positive father-adolescent relationship quality. However, this aspect of fathering was not found to be significant. In other words, the relationship quality between the father and adolescent did not lessen the probability of engaging in early sexual debut, beyond father absence. To explore this relationship further, this study tested if the relationship between father absence and early sexual debut was moderated by the quality of the father-child relationship; however no significant interaction was found.

Fourth, the reports that were utilized to assess father as well as risk and protective factors, were from both the mother and the child rather than just one reporter (e.g., parent or child) which decreases concerns regarding shared-method variance. Fifth, the data from this study comes from a significantly large, longitudinal and multi-methodological random sample of low-income urban families. Finally, this study examines the influence of the duration of father absence on early sexual debut for adolescent boys and girls while investigating several risk and protective factors simultaneously; this is unique as very few studies have combined these multiple risk and protective factors together in one study, especially for a sample of urban, low-income, and high risk adolescents.
Understanding the Risk and Protective Processes

Applying the bioecological theory and a risk and resiliency perspective, several risk and protective factors were examined. First, it was found that neither adolescent academic achievement nor parental monitoring protect against sexual debut as reported in previous literature. Parental monitoring as measured by spending time monitoring their adolescents, providing organization and structure through family routines, and that parents are likely to know where their teenagers are, has been shown to decrease early sexual debut as parents are likely to limit situations where their child can engage in early sexual debut (Buhi & Goodson, 2007; Sieverding et al., 2005; Timm et al., 2011). However, parental monitoring did trend in the right direction (p < .10) for this sample but was not statistically significant. One of the possible explanations to this is that the maternal monitoring might be difficult in a sample of lower income households. For example, mothers might be struggling to earn an income and another caregiver might be the one who monitors the child (e.g., grandparents, neighbors); or there might be no one monitoring at all. Hispanics, especially, tend to be more dependent on extended family as part of their collectivist culture; and, therefore, monitoring might be from other people. In this study, the adolescent was asked whether or not the mother monitor them instead of if there is someone else monitors them. Future research should examine the effect of monitoring from different caregivers if not the parent. Other literature suggested that if the adolescent him/herself is not willing to share the information, parent’s efforts to monitor cannot be effective (Weintraub & Gold, 1991). O’Neill (2002) suggested that single mother generally have problem interacting with their children, which may result them to not want to disclose their whereabouts. It is also possible that the adolescent does not disclose on their
whereabouts as a result of worrying that they might adding burden to their single mother, or because their mother is not around (because of job, etc.).

Previous research has shown that academic achievement decreases early sexual debut (Schofield et al., 2008, Schvaneveldt et al., 2001); however, this relationship was not found in the current study. A possible explanation to this situation may be that previous research might be from white middle-class individuals whereas this study’s population was predominantly Hispanic and African-American. Previous findings have revealed that African-Americans followed by Hispanics tend to have earlier onset age of sex (Furstenberg, Morgan, Moore & Peterson, 1987; Upchurch, Levy-Storms, Sucoff, & Aneshensel, 1998); regardless of higher academic achievement, they will still tend to have an earlier onset age of sex. Another factor that should be considered is that the sample used in the current research was comprised of lower income families. The inability to meet everyday material and financial needs may cause adolescents to have a lower academic aspirations since they might prefer to have a job that will bring them money rather than pursuing college, which may affect their academic achievement. If adolescents do not worry about getting good grades so they can go to college, they might not worry so much about engaging in risky behaviors such as having sex at an earlier age. Future research should examine the effect of lower income status using academic aspiration as a mediator on probability of early sexual debut.

The results regarding the impact of early delinquent behaviors on early sexual debut are parallel to the previous literature which revealed a positive relationship between the two. Delinquency, in general, has been linked with adolescent sexuality by previous researchers (Cleveland, 2003; Looze et al., 2012). Adolescents who are engaged in delinquent behaviors, especially under the influence of alcohol (Fatusi & Blum, 2008) and drugs (Cleveland, 2003),
have difficulties with impulse control and judgment which carries over to making decisions regarding sexual behaviors. Indeed, alcohol and drug use impairs judgment and lowers inhibitions and, thus, make it more difficult for adolescents to make a wise decision regarding sexuality, particularly at what age to engage in sex. These factors must be considered in sexual education programs to decrease the rates of early sexual debut for males and females.

Moore, Miller, Sugland, Morrison, Glei, and Blumenthal (1995) suggested that unconventional psychosocial attitudes and behaviors as reflected by adolescent school problem are associated with early sexual debut. Another study by O’Neill (2002) suggested that school problems including truancy as well as being expelled from school are common among adolescent who were brought up in a single-parent house. Future research should test if school problem is a mediator for early sexual debut in a fatherless home.

**Limitations and Direction for Future Research**

Despite the strengths noted previously, there are also a few limitations that can be addressed in future research. For example, communication about sexual behaviors and expectations between the parent and child has been consistently linked with later adolescent sexual debut (Hutchinson, 2002); however, the data for this study did not include that as part of the questionnaire. Moreover, self-esteem and peer attitudes about sex (Longmore, Manning, Giordano & Rudolph, 2004; Rostosky, Regnerus, & Comer-Wright, 2003) have been shown to be related to early sexual debut, but once again neither of these were assessed in the *Three-City Study*. These could have impacted the findings, especially for boys since literature suggested that boys are more likely to be influenced by their peers (Belsky et al.,
Finally, this sample excluded middle and upper-class families which extends the literature on adolescent early sexual debut, which may have affected the results of this study as adolescents living in poverty in high-risk neighborhoods might be more likely to engage in early sexual intercourse when compared to adolescents from other income levels in low risk neighborhoods or rural areas due to increased environmental risk factors. Future research needs to address if the impact of father absence on sexual debut varies by urbanicity, neighborhood, or by socioeconomic variations.

**Implications for Practice**

Early sexual debut has been documented to increase the level of risky sexual behaviors including having more number of partners as well as not using contraceptives in future sexual experiences (Center for Disease Control and Prevention, 2011) which can ultimately lead to teen pregnancy (Miller, 2002) and sexually transmitted infections (Babalola, 2004; Klavs et al., 2006; Wisnieski et al 2013). Therefore, there is a critical need to address this problem and to understand the early warning signs as well as protective factors associated with early sexual debut so that rates of early sexual debut decrease and ultimately the health of the adolescent improves. A multifaceted program to prevent early sexual debut is needed for adolescents, especially in low income, high risk neighborhood. Based from the result of this study, there is a need to consider family factors, such as the impact of father absence can have on sexual debut, especially for girls. This study confirms that the father being out of the household for a longer period of time may be a critical factor in the persistence of earlier age of sexual debut, particularly for adolescent girls. The importance of father absence and engagement in early delinquent behaviors are critical
influences on early sexual debut and must be addressed not only in future research but in policy and practices that are aimed at reducing early sexual debut in the United States.

Findings from this study should be used to implore programs for single-parent family to take a more comprehensive approach. These programs should consider the aftermath of divorce which often results in a lack of monitoring from both parents due to financial and emotional stress. Services should be introduced, especially those that promote father involvement as well as design plans to strengthen family cohesion for a single-parent household. The family plays an important role in helping adolescents in their transition to becoming responsible adults.
APPENDIX. INSTITUTIONAL REVIEW BOARD APPROVAL

IOWA STATE UNIVERSITY
OF SCIENCE AND TECHNOLOGY

Institutional Review Board
Office for Responsible Research
Vice President for Research
1138 Pearson Hall
Ames, Iowa 50011-2117
515-294-4566
FAX 515-294-567

Date: 9/17/2013
To: Dr. Branda Lohman
2300 Palmer, Suite 6230

From: Office for Responsible Research
Title: Welfare, Children, and Families: A Three-City Study
IRB ID: 03-805

Approval Date: 9/13/2013
Date for Continuing Review: 8/7/2014
Submission Type: Modification
Review Type: Expedited

The project referenced above has received approval from the Institutional Review Board (IRB) at Iowa State University according to the dates shown above. Please refer to the IRB ID number shown above in all correspondence regarding this study.

To ensure compliance with federal regulations (45 CFR 46 & 21 CFR 50), please be sure to:

- Use only the approved study materials in your research, including the recruitment materials and informed consent documents that have the IRB approval stamp.
- Retain signed informed consent documents for 3 years after the close of the study, when documented consent is required.
- Obtain IRB approval prior to implementing any changes to the study by submitting a Modification Form for Non-Exempt Research or Amendment for Personnel Changes form, as necessary.
- Immediately inform the IRB of (1) all serious and/or unexpected adverse experiences involving risks to subjects or others; and (2) any other unanticipated problems involving risks to subjects or others.
- Stop all research activity if IRB approval lapses, unless continuation is necessary to prevent harm to research participants. Research activity can resume once IRB approval is reestablished.
- Complete a new continuing review form at least three to four weeks prior to the date for continuing review as noted above to provide sufficient time for the IRB to review and approve continuation of the study. We will send a courtesy reminder as this date approaches.

Please be aware that IRB approval means that you have met the requirements of federal regulations and ISU policies governing human subjects research. Approval from other entities may also be needed. For example, access to data from private records (e.g., student, medical, or employment records, etc.) that are protected by FERPA, HIPAA, or other confidentiality policies requires permission from the holders of those records. Similarly, for research conducted in institutions other than ISU (e.g., schools, other colleges or universities, medical facilities, companies, etc.), investigators must obtain permission from the institution(s) as required by their policies. IRB approval in no way implies or guarantees that permission from these other entities will be granted.

Upon completion of the project, please submit a Project Closure Form to the Office for Responsible Research, 1138 Pearson Hall, to officially close the project.

Please don't hesitate to contact us if you have questions or concerns at 515-294-4566 or IRB@iastate.edu.
REFERENCES


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