

**ANALYZING THE ROLE OF SINGLE PARENTING ON AFRICAN AMERICAN  
ADOLESCENT SEXUAL ACTIVITY AND CONDOM USE BY GENDER**

A Dissertation by

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I have examined the final of this Dissertation for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy with a major in Community Psychology.

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## **DEDICATION**

I dedicate this work to my paternal grandmother, Dr. Bessie L. Stevenson Pinner (1900-1990). Having obtained her Ph.D. in the early 1920's, I am both astonished and blessed by her legacy. Because of her support of my academic pursuits throughout her lifetime, I was made to believe that I could also do it.

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## **ABSTRACT**

HIV/AIDS continues to be one of the leading causes of death for African Americans. The African-American rate of HIV/AIDS infection is six times higher than that for Caucasians (CDC, 2006). Not only has HIV/AIDS impacted African American adults, but African-American youth are also disproportionately affected by HIV/AIDS (CDC, HIV/AIDS among Youth: Fact Sheet, 2006). Compared to other youth, new infection rates for African American adolescent HIV incidence have remained steady; not resulting in a decrease despite over twenty years of prevention education and intervention. As the HIV/AIDS pandemic continues to devastate the African American community increases in sustainable community prevention interventions that address racial, cultural, age, and gender specific differences are sorely needed.

This research study of the Risk Reduction Project examined the role that single parenting plays on the HIV/AIDS sexual behaviors of African American youth residing in a Midwest community. Overall, the results from this study indicate that the theory of reasoned action was effective in predicting sexual behavior, however, gender differences existed. Despite reporting greater levels of sexual activity and condom use, male participant sexual intentions and behaviors were found to be more positively impacted by parent subjective norms than female participants. Female sexual intentions, on the other hand, were negatively impacted by parent subjective norms. For participants residing in single mother households, males were found to be significantly impacted by mother referent subjective norm while females were negatively impacted.

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# CHAPTER 1

## INTRODUCTION

The purpose of this project is to examine the role that single parenting plays on the sexual behaviors of African American youth, particularly regarding HIV/AIDS risks. HIV individual risk behaviors include early sexual initiation, multiple sex partners, inconsistent or incorrect condom use, and differences exhibited among genders regarding sex refusal and negotiation skills (Child Trends, 2006; Centers for Disease Control and Prevention (CDC): Youth Risk Behavior Surveillance – United States, 2005; Tucker-Halpern, et al., 2004; Johnson, Carey, Marsh, Levin, & Scott-Sheldon, 2003; Shoveller & Pietersma, 2002; Wingood & DiClemente, 2000; Romer, 1999; Institute of Medicine [IOM], 1997; DiClemente, Lodico, Grinstead, et al., 1996). The impact of single parenting on these issues will be explored in the context of a culturally specific adolescent HIV/AIDS prevention program.

HIV/AIDS continues to be one of the leading causes of death for African Americans. The African-American rate of HIV/AIDS infection is six times higher than that for Caucasians (CDC, 2006); 38 percent of AIDS cases reported to the U.S. Centers for Disease Control and Prevention (CDC, 2006) have been African-American (CDC, HIV/AIDS among African Americans: Fact Sheet, 2006). In 2002, HIV/AIDS was among the top three causes of death for African American men aged 25–54 years and among the top four causes of death for African American women aged 25–54 years (CDC, 2006). It was the number one cause of death for African American women aged 25–34 years (CDC, 2006).

Not only has HIV/AIDS impacted African American adults, but African-American youth are also disproportionately affected by HIV/AIDS, sexually transmitted diseases (STDs) and unintended pregnancy (CDC, HIV/AIDS among Youth: Fact Sheet, 2006). These high rates of

sexually transmitted diseases and high rates of unintended pregnancy indicate that adolescents are not using condoms. More specifically, although African Americans aged 13-19 represent only 15 percent of U.S. teens, they accounted for 61% of adolescent AIDS cases reported that year (CDC, 2006), 66% of reported new AIDS cases in 2003 (CDC, 2003), and in 2004 African Americans represented 61% of HIV/AIDS cases among 13-24 year olds (CDC, 2004). Further, for newly diagnosed young adults these individuals are likely to have contracted HIV as adolescents because the period of time between becoming infected with HIV and receiving a diagnosis of AIDS can average ten years or more (CDC, HIV/AIDS among African Americans, 2006). Compared to other youth, new infection rates for African American adolescent HIV incidence have remained steady; not resulting in a decrease despite over twenty years of prevention education and intervention. As the HIV/AIDS pandemic continues to devastate the African American community increases in sustainable community prevention interventions that address racial, cultural, age, and gender specific differences are sorely needed.

#### Risk Factors Associated with HIV/AIDS Infection among Adolescents

A risk behavior is any behavior that impedes successful adolescent development and that may compromise a sense of competency, skill development, or the acquisition of socially approved roles (Baldwin, 2000). There are a number of risk factors associated with HIV/AIDS risk among adolescents. They include: 1) early sexual activity, 2) multiple sex partners, 3) inadequate condom use, 4) peer group relationships, 5) adolescent discovery and experimentation, 6) differences among genders, 7) laws prohibiting the funding of programs that teach safer sex practices and condom use (DiClemente, Wingood, & Crosby, 2003; Miller, Levin, Whataker, & Xu, 1998), and 8) diminished parental involvement (Romer, et al., 1999; Kapunga, Holmbeck, & Paikoff, 2006; CADCA, 2007).

## Early Sexual Activity and Multiple Sex Partners

Findings from the Center for Disease Control's Youth Risk Behavioral Surveillance (2003) report show early sexual activity and multiple sex partners are risk factors for HIV specifically among African American youth. In general for all racial groups, despite tremendous decreases over time (attributed to reported decreases in sexual activity and increased contraceptive use) about a third (34%) of young women become pregnant at least once before they reach the age of 20 and approximately four million teens contract a sexually transmitted disease each year (Henshaw, 2003). However, teen pregnancy rates vary widely by racial group; African American girls age 15 to 19 have higher pregnancy rates than their Caucasian counterparts (Guttmacher Institute, 2006). As many sexually risk taking African American adolescents are HIV/AIDS negative or may not have been tested, a more accurate predictive measure of HIV/AIDS risk should include an analysis of reported adolescent sexual activity, STDs, and pregnancy rates. According to the CDC's June 2006 Youth Risk Behavioral Survey (YRBS) results, many young people begin having sexual intercourse at early ages: Nationwide 47% of high school students reported having had sexual intercourse, and 6.2% of them reported first sexual intercourse before age 13. Overall, the prevalence of having had sexual intercourse before age 13 years was higher among African American (16.5%) than Caucasian (4.0%) and Hispanic/Latino (7.3%) adolescents; higher among African American female (7.1%) than Caucasian female (2.9%) and Hispanic/Latino female (3.6%) adolescents; higher among African American male (26.8%) than Caucasian male (5.0%) and Hispanic/Latino male (11.1%) adolescents.

The prevalence of multiple sex partners was also highest among African American male and female respondents. In essence, African American adolescents engage in sexual intercourse

at an earlier age and more frequently have multiple sex partners than all other cultures. Given this disparity in early sexual activity, sexually transmitted disease, unintended pregnancy, and HIV (human immunodeficiency virus) rates among African American adolescents, effective preventive interventions are needed.

### Inadequate Condom Use

According to the Centers for Disease Control and Prevention (2007), “For people who are having sexual intercourse, condoms have been the surest way to prevent transmission of HIV and other sexually transmitted diseases” (CDC, HIV/AIDS Basic Information, 2007). Indicative of low levels of condom use, some of the highest STD rates in the country are those among adolescents, especially young people of minority races and ethnicities (CDC, Sexually Transmitted Disease Surveillance, 2004). In addition, the presence of a STD greatly increases a person’s likelihood of acquiring or transmitting HIV (Fleming & Wasserheit, 1999). When used correctly and consistently, condoms provide an effective barrier, blocking the pathway of the HIV virus during sexual activities, and are also effective in the presence of an existing STD (CDC, HIV/AIDS Basic Information, 2007).

Despite this common knowledge the risk behavior most attributed to newly diagnosed HIV/AIDS cases among young people can predominately be attributed to unprotected sexual intercourse (i.e., irregular or non-use of condoms), especially for youth of minority races and ethnicities (CDC, HIV/AIDS among Youth, 2006). Further analysis of gender and racial differences shows the prevalence of having used a condom during last sexual intercourse was higher among African American (75.5%), Caucasian (70.1%), and Hispanic/Latino males (65.3%); and higher among female African American (62.1%), Caucasian (55.6%), and Hispanic/Latino (49.8%) adolescents, respectively (CDC, YRBS, 2006). Given the above data

the discrepancy to be explored is the increase in reported condom use concurrent with an increase in sexually transmitted disease(s) for sexually active adolescents.

To better understand this conflict between reported adolescent condom use and sexually transmitted disease rates, an exploration of condom use behaviors must also include an exploration of individual intention to use condoms and factors that may contribute to inconsistent or incorrect condom use. Examples of barriers that may impact adolescent intention to use condoms at every sexual encounter include factors such as access to condoms, knowledge or a diminished view of the dangers of HIV/AIDS, alcohol and/or substance use, limited condom negotiation skills, perception of decreased pleasure, relationship trust, older aged male partner and physical force (CDC, Fact Sheet Youth, 2006). Given these additional factors adolescent self reported data alone is not sufficient to thoroughly understand the relationship of HIV/AIDS infection and adolescent condom use.

### Peer Group Relationships

While it is not easy to discern whether adolescents adopt risk behaviors as a result of influences derived from their group affiliation (Bandura, 1973; Willis & Cleary, 1999) or whether adolescents simply choose friends who engage in similar types of risk behavior (Kandel, 1978), there is some evidence that friends' risk behavior may be causal. Empirical research findings suggests that adolescents that affiliate with friends who engage in risk behavior is a strong predictor of adolescents own risk behavior (Williams & Ayers, 1999; Boyer & Tschann, 1999), and that adolescents experience increased pressure to engage in behavior normative to their peer group (Brooks, Stuewig, & LeCroy, 1998). Researchers Futris and McDowell (2002) note in their research that "teens who associate with peers who use substances or are delinquent (e.g., skip school, take part in minor criminal activities such as shoplifting) are more likely to

engage in risk sexual activity” as risk taking activities “are more likely to be perceived as normal”.

Regarding the influence of sexually active peers specifically, researchers Jaccard, Blanton and Dodge (2005) found the odds of an adolescent engaging in sexual intercourse were approximately 1.65 times greater when their “closest friend had engaged in sexual intercourse” in their study of Add Health data consisting of 1,700 racially diverse peer dyads of adolescents in Grades 7 to 11 (Bearman, Jones, & Udry, 1977). Thus to the extent that friends and peers exhibit sexual behavior, adolescent sexual activity is likely to occur.

Adolescent perceived peer norms about condom use have also been found to increase HIV risk behavior. In their study of correlates and predictors of condom use among African American adolescents residing in public housing developments, DiClemente, et al., (1996) found adolescents who perceived peer norms as supportive of condom use were more than 4 times as likely to be consistent condom users. Understanding the impact of peer group relationships is therefore identified as a critical component of adolescent HIV risk behavior.

#### Adolescent Discovery and Experimentation

Whether entitled adolescent invincibility, overestimation of life expectancy, underestimation of their own risk, developmental reasoning or simply adolescent discovery and experimentation, researchers have strove to understand and ultimately define adolescent risk taking behavior. Researchers Reyna and Farley (2006) found what is known for certain is that adolescents make the risky judgments they do because they are actually, in some ways, more rational than adults. Adults tend to quickly and intuitively grasp that certain risks (e.g., unprotected sex) are just too great to be worth worrying about, so they don’t proceed down the path of actually calculating the odds. Adolescents, on the other hand, actually take the time to

weigh risk and benefits; possibly deciding that the latter outweighs the former. This understanding presents major implications for HIV prevention interventions targeting adolescents as the presentation of incidence and prevalence regarding HIV infection may present odds that pale in comparison to the immediacy of a sexual opportunity. Rather, research shows that the facilitation of clearly defined methods to avoid sexual risk behavior should be promulgated to guide adolescents toward better choices (pp. 26-29).

### Differences among Genders

Young women, especially those of minority races or ethnicities, are increasingly at risk for HIV infection through heterosexual contact. According to data from a CDC study of HIV prevalence among disadvantaged youth during the early to mid 1990s, the rate of HIV prevalence among young women aged 16-21 was 50% higher than the rate among young men in the same age group (Valleroy, MacKellar, Karon, & Janssen, 1998). African American females in this study were seven times as likely as Caucasian women and eight times as likely as Hispanic/Latino females to be HIV positive. This study of U.S. Job Corp entrants identified females to be disproportionately at risk for several reasons, including biologic vulnerability, lack of recognition of their partners' risk factors, inequality in relationships, and having sex with older men who are more likely to be infected (Valleroy, et al., 1998).

Beginning in early adolescence, gender differentiated socialization processes emerge which function to shape gender-appropriate behavior of boys and girls. Gender inequities that contribute to adolescent HIV exposure and risk, such as those noted above, are factors that contribute to existing gender disparities in HIV infection rates. Essentially individual biological factors are important factors that simply cannot be altered. Gender, however, is important given

its interaction with other risk factors which combine to increase sexual risk behavior and HIV exposure during adolescence.

### Laws Prohibit the Funding of Programs that Teach Safer Sex Practices and Condom Use

Strategies to prevent the further spread of the HIV virus among adolescents are more likely to succeed if they are founded upon the resources, knowledge and talent possessed by health providers and behavioral researchers. The expansive complexity and controversy of issues associated with adolescent sexual behavior often prohibits the drafting of adequate safer sex legislation and as a result, limits the availability of safer sex programs and program funds.

The first example of this controversy is safer sex opponents often purport condoms don't work and are less than 100% effective. Despite the fact that condom effectiveness is most often determined by how the condom is used not by the quality of the product itself and effective condom use has been shown to prevent the transmission of HIV, this knowledge alone has been insufficient towards changing an abstinence only political environment. Additionally, because condoms are less likely to be used by people who perceive them to be ineffective than by those who consider them to be highly effective, the argument undermines the goal of preventing the spread of HIV infection (Ehrhardt, 1992; Roper, Peterson, & Curran, 1993).

Other examples of controversy is the argument that condom availability encourages or condones sexual intercourse, and talking about sex leads to sex, to name a few. In the absence of United States policy that would permit an analysis of the impact of broad scale condom availability in relation to adolescent promiscuity, U.S. researchers reference a 1987 to 1991 Switzerland public health campaign targeting young adults which promoted condom use as a major means of HIV/AIDS prevention. As a result of this public health campaign, self-reported consistent condom use among persons aged 17 to 30 years increased from 8% to 52%.

Conversely, the proportion of adolescents aged 16 to 19 years who had sexual intercourse did not increase over that period (Hausser & Michaud, 1992). Studies from other western industrialized nations also show that, while young people have the same age of first intercourse elsewhere as in the United States, those nations with comprehensive services and explicit sex education have lower rates of unintended pregnancy and abortion than the United States (Jones, Forrest, & Goldman, 1985). In isolation, the above findings do not support the implementation of laws that support a broad scale distribution of condoms among the U.S. adolescent population. Albeit controversial, the findings do, however, merit the opportunity for further investigation; particularly in venues in which adolescents aggregate.

In summary, factors that place African American youth particularly at risk for HIV infection range from individual biological to behavioral to those external to the individual such as family structure and access to prevention programs and resources.

#### Parents as a Protective Factor for Adolescent Risk Behavior

A protective factor is one that decreases the odds of participating in risk behaviors; that lessens the chances of experiencing negative outcomes from participation in risk behaviors, and that buffers against being exposed to risk factors or exhibiting risky behaviors (Jessor, Turbin, & Costa, 1998). Multiple studies show that issues outside of one's individual or personal decision making increases the likelihood of engaging in risky behaviors, particularly early sexual debut and nonuse of condoms (DiClemente, Wingood & Crosby, 2003; Miller, Levin, Whitaker, and Xu, 1998). The focus of this study will address the impact of single parents and their influence on their children's sexual behavior, particularly as it relates to HIV risks.

Kirby, Lepore and Ryan (2005) found that "If family members, especially parents, express values or model behavior inconsistent with sexual risk taking or early childbearing, teens

are more likely to have unprotected sex and become pregnant (or get their partners pregnant)” (p. 8). Several ways were noted in which inconsistent parent messages can take place to include, 1) conveying permissive attitudes about premarital or teen sex, 2) voicing negative attitudes about contraception, or 3) having been a teen parent themselves (indicative of their being sexually active as a teen). These authors also note in contrast, “if parents disapprove of teens having sex, then teens are less likely to have sex... and under some circumstances this communication may lead to less sexual risk-taking” (p. 9). These authors further note that in their investigation, “this effect is most likely to occur when the teen is a daughter (as opposed to a son), when the parent is the mother (as opposed to the father), when the teens and their parents feel connected to one another, when the parents disapprove of teens having sex or support contraceptive use, and when parents can discuss sexuality in an open and comfortable manner”. Finally this study, when seeking to answer “what factors affect whether youth have sex...” intention was found to be a key factor.

In a study of the first two waves of the National Longitudinal Study of Adolescent Health (Add Health), authors found of the 2,652 sexually active adolescents aged 15 years and older completing in-school questionnaires, “To better understand the parents’ role in adolescent sexual risk behavior, multiple facets of parenting, the social contexts of parenting and adolescents’ peers, and the effects of adolescents’ behavior on these relationships should be taken into consideration” (Henrich, Brookmeyer, Shrier, & Shahar, 2005). They also found that “mother–child communication about sex contributed to decreased likelihood of sexual risk only for girls” (p. 293) however this same outcome was not addressed in boys. The researchers also noted “all constructs in this study, except gender and parent–child communication, are adolescent self-report, which can be biased on items pertaining to sensitive and illegal behavior, in spite of the

privacy precautions taken by interviewers” and “most parent respondents were mothers, so it was not possible to compare the gender differences found pertaining to mother–child communication with those of father–child communication about sex, which may be more important for boys and is another potential avenue for further research” (p. 294). Despite these limitations, Henrich, et al., (2005) found supportive parenting and supportive friendships can interact to prevent and mitigate adolescent sexual risk behavior.

In a study of early adolescents, Rose, Koo, Bhaskar, Anderson, Caucasian, & Jenkins, (2005) conducted cross-sectional, self-administered surveys with a nonrandom sample of 408 fifth graders and their caregivers enrolled in 16 Washington, DC schools selected from District wards with the highest rates of adolescent pregnancy. Children answered questions regarding sexual intercourse initiation, anticipated sexual activity in the next 12 months, and involvement in other risk behaviors, whereas, caregivers answered questions about parenting factors such as monitoring behaviors, parent-child relationship quality, and parent-child communication. Rose, et al., found parental factors that were associated with fewer risk behaviors and expected sexual behaviors included: 1) higher levels of monitoring, 2) fewer communication barriers, 3) less permissive attitudes regarding adolescent sexual behavior, 4) higher relationship quality with the child, 5) having fewer than five children in the household, 6) higher levels of education, and 7) being employed (p. 141). In addition, “significant” gender interactions were found for several risk variables. More specifically, Rose, et al., found girls less likely to have engaged in sexual activity than boys when compared at the same levels of primary caregiver(s) “relationship quality” (p. 142).

Kalmuss, Davidson, Cohall, Laraque, and Cassell (2003) in their review of the literature, found that adolescents who perceived their parents disapproval of their having sex were less

likely than others to become sexually active or to fail to use condoms, therefore the quality of the relationship with the parent (in addition to other social influences) provides a more accurate measure of adolescent intention to engage in a sexual behavior. Miller, Levin, Whitaker, and Xu, (1998) found when mothers held “frank discussions” with adolescents (both males and females), the adolescent adopted behaviors that decreased HIV risk and when mothers talked about and answered questions about condom use with their adolescents prior to sexual debut, the adolescents reported greater condom use at first intercourse and most recent intercourse, as well as greater lifetime condom use. The timing of the discussions, however, was critical noting maternal condom use discussions conducted prior to first intercourse and condom use at first intercourse promoted subsequent condom use. These findings imply that “it is of utmost importance that adolescents receive information about condoms before initiating sexual intercourse” (p. 1544).

To study the early sexual risk behavior among urban youth, researchers at the Educational Development Center: Center for Research on High Risk Behaviors (RHRB) surveyed 294 urban sixth graders (from a school population comprised of 65% Black, 30% Hispanic, 5% Asian, and less than 1% White students). Through this study a number of risk factors were identified: being male, parental approval of having a girlfriend or boyfriend, lower parental oversight of activities, having older or mixed-aged peers, and expressing peer norms supporting sexual behaviors. Researchers O’Donnell, Stueve, Wilson-Simmons, et al., (2006), identified several limitations to the RHRB study. The RHRB study, 1) was limited to assessing cross-sex interaction and did not give youth an opportunity to report on same-gender attractions, 2) did not consider the influence of other potential risk and protective factors including individual characteristics such as sensation seeking and impulse control, as well as other factors,

cultural, school or community influences, 3) did not know if youth had ever had sexual intercourse thus were not able to correlate initiation of sexual intercourse with the other behaviors studied, 4) pubertal measures were not verified by physical assessments which were beyond the scope of the study, and 5) the study focused on inner-city high-poverty youth, therefore findings about risks for early sexual behavior may not be generalizable to other populations of adolescents. However, findings of the RHRB study did highlight the importance of parenting skills, including monitoring and rule-setting, on delaying sexual debut and other heterosexual risk behaviors, in their target population (O'Donnell, et al., 2006).

Parents can play a significant role in the lives of their children particularly sexual debut and engaging in condom use. However a close examination of the role single parents may play on adolescents sexual health has been studied less systematically.

#### Single Parenting and Adolescent Sexual Risk Behavior

Authors Pergamit, Huang, and Lane (2001), in their review of National Longitudinal Survey of Youth-1979 (NLSY79) and the National Household Survey of Drug Abuse (NHSDA) found among other things, “adolescents living in intact [two-parent] families have the lowest rates of early initiation and the highest rates of late initiation for nearly all risky behaviors, especially sexual initiation”. Likewise, Dittus, Jaccard, and Gordon (1999) note that the initiation of sexual intercourse is more frequent in households where the adolescent does not live with both biological parents. These factors support the findings of early researchers of the family structure perspective, which essentially states that two-parent homes facilitate a better environment for youth' well-being compared with single-parent homes (Erel & Burman, 1995). This study suggests that adolescents and children from single-parent homes are severely disadvantaged when compared to adolescents from two parent households. Accordingly, this

perspective argues that all things being equal, the most salient effect of single-parent homes on children is the lack of the physical presence of two parents. Often the methodology employed utilized marital status or some other identifier of two parents in the home like income, as the main independent variable for predicting outcomes rather than providing an assessment of the quality of the parent/child relationship (Florsheim, Tolan, & Gorman-Smith, 1998). The limitations in these findings can have a severe impact on understanding adolescent sexual behavior and the impact of the family on sexual decision making as the variables studied do not adequately assess the quality of parent/adolescent relationship and the studies assume the mere presence of both parents alone is sufficient to reduce adolescent risk behavior. Also, the authors did not address cultural differences (such as cultural values and beliefs about pre-marital sex, differences among parent gender groups, and parent generation) that may have existed among the 195, 10-15 year old African American and Latino boys; of which 70% of the African American and 31% of the Latino participants resided in single-mother homes.

On the other hand, when controlling for income and poverty status, Smith, Brooks-Gunn, and Klebanow (1997) found no effects of single parenthood on young children's achievement and intelligence test scores in two large-scale subsets. Also using a matched mother-child sample from the NLSY79 like the researchers noted above, Carlson and Corcoran (2001) found that controlling for measures of mothers' income and parenting practices reduced the associations between living in a single-parent family and children's test scores and behavior outcomes to "insignificance". Additionally, research has shown that living in a single-parent family can have detrimental influences on White but not Black children, indicating it is important to consider racial differences in the effect of single parenting on children (Dunifon & Kowalaski-Jones, 2002).

## African American Parents and Adolescent Risk Behavior

Many studies that have contributed to the literature on African American families were focused on the Caucasian ideal of having two parents in the household. For many years African American families did not have the male figures in the home, however. Thus the literature on African American single parenting and adolescent risk behavior presents mixed results. Some results show that African American single parent households have an adverse impact on youth while other researchers have found positive outcomes (Dunifon & Kowalaski-Jones, 2002). Research findings have also shown conflicting reports on whether the father (biological or stepfather) being present in the household impact the age of sexual debut, frequency, or number of sexual partners, or reveal gender differences for African American adolescents (Leigh & Andrews, 2002). Researchers Salem, Zimmerman and Notaro (1998) found specifically for African American families that, “many fathers who did not live with their children were found to be present in their lives” and that their “results challenge the assumption that nonresident fathers are absent from their children's lives, and [also challenges the assumption] that living with single mothers adversely affects psychosocial development of African American youths” (p. 331). Emphasis should therefore be placed on identifying those factors that help to clarify African American parenting differences found.

The most common early methods of studying African American adolescents sexual risk behavior has primarily focused on the pathological or disorganizational aspects of the family. Emphasis was placed on how the African American family differed from the societies' traditional family model (Littlejohn-Blake & Darling, 1993). Various types of risk behavior were attributed to the adolescents' family type without attention to the behavior of the individual adolescent or the adolescent population as a whole. In addition to sexual risk behavior,

researchers also explored the impact of family structure on academic achievement, truancy and violent behavior in the early 80's.

Later research became more focused on culture and culturally specific studies of African American populations began to report that children from two-parent homes do better than children from single-parent homes on a variety of social indicators to include school performance, truancy, substance use and other risk behaviors (Coley, 1998; McLeod, Kruttschnitt, & Dornfield, 1994; Teachman, Day, Paasch, Carver, & Call, 1998). For instance, McLanahan (1985) found that African American children living with one parent were less likely to be in school at age 17 than their two-parent counterparts. In another study, a significant positive relationship was found between father presence and self-esteem (Alston & Williams, 1982). It was found that there was a significant relationship between father absence from the home and African American male self-concept. For the purpose of this study self-concept was defined as esteem derived from family and peer interactions, success/failure in scholastic endeavors, and a comprehensive estimate of how the self is esteemed using a self-appraisal inventory. Further, Alston and Williams (1982) found that African American youth with fathers present in the home also exhibited stronger scholastic achievement and more stable peer relations. The researchers concluded that the father—son relationship facilitated the adoption of an adequate self-concept because boys were able to model their fathers. Another study (Paschall, Ennett, & Flewelling, 1996) found that living in a single-parent home was a significant risk factor for violent behavior in African American children. Dunn and Tucker (1993) found in their study of 107 low-income African American children that children whose fathers were present had significantly higher adaptive functioning scores than did children whose fathers did not live with them). In 1998, Teachman, et al., found that African American children in two-parent

homes had significantly higher math and reading scores and lower behavioral problems than did children in single-parent homes. Given the above noted findings, single parenting and father absent households specifically, is the greatest contributor to African American adolescent risk behavior.

Conversely, some researchers highlighted the fact that not all studies show advantages for two-parent homes (Heiss, 1996; Phillips & Asbury, 1993). Also, even for the studies that do, the effect sizes may not be large enough to be socially relevant (Heiss, 1996). Many researchers also argued that the consequences of single-parent homes were mainly related to the economic deprivation of the single-parent home (McLeod, et al., 1994; Wilson, 1979), and others argued that the studies did not account for important protective aspects of family functioning or extended kin (Dancy & Handal, 1980; Logan, 1996; Long, 1986; Partridge & Kotler, 1987; Scott & Black, 1989). For instance, Boyd-Franklin (1989) argued that the strength of flexible family roles in African American families has not been taken into consideration.

Per United States census data, 1970 was the last year the number of married-couple African American households exceeded the number of female-parent only or male-parent only households (Leigh & Andrews, 2002). This demographic occurrence could present tremendous implications for African American adolescent sexual decision making. The questions, are African American adolescents residing in single-parent families more likely than their two-parent household peers to initiate sexual intercourse or engage in risky sexual behaviors, or are adolescents with fathers present in their households less likely to engage in sexual-risk behavior, must be explored. Although some of the existing research supports these hypotheses, some do not. Rather, findings instead state that these family characteristics do not influence the sexual behavior of African American adolescents. Many researchers have been interested in knowing

whether the observed effects of parental influence persisted when important socio-demographic and environmental variables, such as family income and family functioning were controlled (Demo & Acock, 1988; Patridge & Kotler, 1987). In a study of 750 inner-city African American adolescents aged 14-17, Dittus and Jaccard (2000) found that adolescent perceptions of paternal attitudes were predictive of teen sexual behavior, independent of adolescent perceptions of maternal attitudes and that the affects of live-in status on sexual behavior were mediated by adolescent perceptions of paternal attitudes. Other studies also found that teens reporting consistent parental monitoring, positive teen-parent communication, frequent familial interaction, and a satisfied relationship with parents are less likely to engage in intercourse with someone whom they know has other current sex partners (Li, et al., 2000; Hutchinson & Cooney, 1998; St. Lawrence, et al., 1994), not parentage. Given the above noted research, predicting adolescent sexual risk behavior or their propensity to engage in such behavior by analyzing parentage alone is insufficient, at best, to gain an adequate understanding.

#### African American Single Parenting and the Impact on Children

Gender and parenting communication style research has shown outcome differences between mother-daughter versus mother-son and father-daughter versus father-son sexual behavior communication (Kapunga, Holmbeck, & Paikoff, 2006). While this may or may not be true, the concept becomes poignant when analyzing the impact of single parenting on adolescent risk behavior by gender. Given the national prevalence of single parent households headed by mothers only within the African American community, parental influence and gender presents tremendous implication for HIV/AIDS prevention. Unfortunately a dearth in the literature exists when seeking to examine the role of African American parents and adolescent sexual risk taking behavior, by gender specifically. Thus what follows reflects what is known about parent

influence on adolescent sexual behavior. Pleck and O'Donnell (2004) concluded in their study of African American and Hispanic/Latino adolescents, "Interventions to reduce healthy risk behaviors in minority, urban, early adolescents may be more effective if they include greater attention to ways in which gender-related attitudes (as a family value) may play a role in health risk taking". This and other studies have found parental monitoring to be a protective factor against sexual risk behavior in males but not in females (Borawski, Ievers-Landis, Lovegreen, & Trapl, 2003), whereas Jackson and Forshee (1998) found parental responsiveness (parental warmth, lovingness, and attention to children's developmental needs) a stronger protective factor for girls, with increased parental demandingness ( setting rules for conduct, discussion and explanation of those rules, and enforcement of expected behavior) more protective for boys. Finally, Henrich, et al., (2005) in their study of 2,652 sexually active adolescents found African-American adolescents had lower risk for sexual risk behavior and that supportive friendships and parent connectedness interacted in predicting decreased likelihood of sexual risk behavior. Further, these researchers found that mother-child communication about sex contributed to decreased likelihood of sexual risk only for girls (2005). As little is known, these findings must be further analyzed in terms of culture and racial differences to better understand the family socialization processes (such as culturally based, gender specific parenting differences by household type) and their impact on gender specific risk behavior and behavioral intentions. Understanding the role of single parents on African American adolescents could present critical implications for HIV prevention intervention targeting this population.

## The Theoretical Model

### The Theory of Reasoned Action

Based on an extensive review of the literature, a theoretical model to guide our understanding of the role of parenting on African American adolescent sexual activity and condom use will be offered. A number of research studies have applied the theory of reasoned action to understand sexual behaviors of adolescents. The theory of reasoned action first introduced by Ajzen and Fishbein in 1967, is a general theory of human behavior that deals with the relationship between beliefs, attitudes, intentions, and behavior (1980). The theory posits a causal chain exists which links intentions to behavior. In this behavioral model, an individual's attitude combines with their subjective norms to form their intention to perform a given behavior (i.e., use condoms or postpone sexual activity). Subjective norms are a combination of the normative beliefs of referent others (i.e., mother, father, sex partner, friends), and the individual's motivation to comply with the beliefs of those others. The theory of reasoned action model further posits that in order for these combined beliefs to be effective in forming an attitude, the intention-behavior relationship must be context, time, and target (i.e., condom use) specific (Fishbein, 1980). The result of this combination of attitude and normative beliefs ultimately leads to behavior and can be viewed as a predictor of the intention to perform the behavior. Intention to perform a specific behavior is seen as a joint function of one's overall feelings (positive or negative) toward performing the behavior (i.e. attitude); and one's overall perception of social pressure to perform or not perform the behavior (i.e., one's subjective norm with respect to performing the behavior) (Ajzen, 1988; Fishbein, 1980). To support the case of the proposed relationship between intention and behavior Ajzen (1988) found, when examining a sample of studies, that the correlation between a person's intentions and subsequent behavior

ranged from .72 to .96. In addition, when conducting a meta-analysis of eighty-seven studies, Sheppard, Hartwick and Warshaw (1988) found evidence that supports the proposed intention-behavior link with correlations between the two variables averaging .53.

### The Impact of Referent Others Toward HIV Prevention

Perceived attitude of referent others is a critical factor to be considered in the theory of reasoned action, particularly as it relates to parental influence on adolescent behavior. The influence of the perceived referent group behavior is very important (Fisher, 1988), as are perceived norms and social supports for behavior especially for delayed sexual onset and drug use (Kim, McLeod, & Shantizis, 1989). Fisher (1988) found that referent group beliefs positively impacted risk behavior of the individual and Kim, et al., (1989) found referent groups to impact the age in which individuals began sexual and drug use activity. Subjective norms as defined in the theory of reasoned action states that the combination of an individual's belief about what referent others think they ought to do and his/her motivation to comply with those beliefs determine subjective normative beliefs. The relationship of normative beliefs to the initiation and maintenance of condom use are critical for HIV/AIDS prevention programs because it would be difficult to change risk behavior if the individual did not feel significant or referent others did not support the change (DiClemente, 1990). DiClemente, Forrest, and Mickler, et al, (1990) found that reported referent group behavior was the "only" factor to distinguish adolescents who used condoms from those that did not, while Miller (1997) found "having friends who are sexually active or who do not use condoms enhances one's own risk of these behaviors" (p. 10). Norris and Ford (1995) found that referent others who talked more often about using condoms were more likely to use condoms. More specifically, talking about condoms in the context of HIV/AIDS infection was positively related to a predisposition to use

condoms, states Norris (1995). Researchers also found support for increased condom use based on sex partners opinion regarding condoms use. Female acceptance of condom use among sexually active adolescents was found by St. Lawrence, et al., (1992) to positively impact male adolescents acceptance. Serovich and Greene (1997) and Rotheram-Borus and Koopman (1991) found “good reason to believe” that an individuals’ attitude toward engaging in high risk sex related behavior should be important given what we know about the impact of others, including peers, especially in the case of HIV/AIDS. Studies have also shown that increased communication with parents increases condom use among adolescents (CDC, 2002; Miller, 1998). Others have suggested that primary sexual partner’s condom use beliefs were the significant predictors of future condom use among sexual partners (Morrison, et al., 1995). Conversely, Richard and van der Plight (1991) examined the determinants of adolescents’ condom use on the theory of planned behavior and found that subjective norms failed to have an effect on condom use among both adolescents in and not in monogamous relationships. In a cross cultural comparison, Fishbein (1990) found subjective norm to best predict condom use among U.S. students but not among Mexican students. These mixed results suggest the need to further examine the role of subjective norms in adolescent sexual prevention behavior.

#### Summary and Statement of the Problem

The alarming HIV/AIDS incidence and prevalence rates among African American adolescents requires an urgent understanding of all sexual behavior protective factors present within this target population. Given a limited amount of culturally specific research focusing on the impact of family structure (i.e., the role of single parenting) on sexual behavior exists, this study seeks to examine the role of single parenting on sexual risk behavior for African American adolescents and whether gender differences exists.

Using the theory of reasoned action, primarily risk reduction research has shown that it is possible to modify behavior by influencing a person's intent to act in a certain way. More specifically, increasing adolescents' intention to perform a behavior may change their behaviors that put them at risk for contracting STDs, HIV, and unintentional pregnancy (such as condom use). The strength of the theory of reasoned action lies in the clear definition of the variables which impact behavioral intentions, the clear definition of relationship of the variables, the applicability of the model's premise to the target population's beliefs, and its parsimony.

### Background and Context

In the state of Kansas specifically, the number of HIV cases has increased every year and in the last ten years has doubled. At the end of 2003 a total of 1,471 persons residing in Kansas were presumed to be living with HIV infection; of these, 75.1% (1,105) had an AIDS diagnosis. Race and age group epidemiological data shows that African American non-Hispanic/Latino Kansans, though 5.9% of the overall population, comprise 29.6% of the HIV newly diagnosed cases, and 21.9% of the persons living with HIV/AIDS through 2003 (KDHE, 2004). Additional incidence data shows that 11.7% of all new HIV/AIDS diagnosed cases were among individuals 24 years of age and under; with the majority (68.5%) occurring in persons aged 25-44. In 2003, persons aged 25-44 at the time of diagnosis accounted for nearly two-thirds (65.1%) of the 152 newly diagnosed HIV disease cases. Males aged 25-55 accounted for 48% of these newly diagnosed HIV disease cases. The majority of newly diagnosed women (63.4%) were also in this age group. During this same year a slight increase among those aged 13-24 was also experienced (KDHE, 2004).

Persons most likely to become HIV infected are those who engage in high risk behaviors and reside in areas in which HIV prevalence is highest. The City of Wichita is one of the most

populous in south central Kansas boasting a metropolitan statistical area population of over one-half million residents; 11.7% of which African American (City of Wichita, 2002). Kansas Department of Health and Environment: Bureau of Epidemiology and Disease Prevention compiles epidemiological data using a region system. Region 8, which encompasses fifteen counties in south central Kansas (including the City of Wichita), reported 143 newly diagnosed HIV disease cases between 2000 and 2003 with an average rate of 6.5 per 100,000 a year. Like the State level data, seventy percent (70%) of the newly diagnosed HIV infections in Region 8 were diagnosed in persons aged 25-44. An analysis of epidemiological data for this region also shows of all newly diagnosed HIV infections 42.3% were non-Hispanic/Latino African American females and 14.5% of new infections were diagnosed among non-Hispanic/Latino African American males (KDHE, 2004). As a result of these alarming trends, a partnership was formed between the Wichita State University Psychology Department, the Center for Health and Wellness and Knox Center to target African American adolescents and curb the spread of HIV in the population.

### Hypotheses

A dearth in the literature exists regarding the impact of single parenting on delaying the onset of sexual risk initiation or condom use among African American adolescents. Based on the above review of the literature, this study seeks to answer some of the questions surrounding African American and adolescent sexual behavior. Therefore, it is hypothesized that:

- 1) There is a positive correlation between parent subjective norm and sexual intention, and sexual intention and sexual behavior at 3 months, and parent subjective norm and sexual behavior at 3 months for all participants,

- 2) The parent subjective norm to sexual intention, sexual intention to sexual behavior at 3 months, and the parent subjective norm to sexual behavior at 3 months correlations will be greater for females than males,
- 3) Females will report less sexual activity than males at baseline,
- 4) There will be a gender difference in condom use for sexually active adolescents, and
- 5) The correlations for mother referent subjective norm with sexual intention and sexual behavior at 3 months will be higher for females than males from single mother households.

## CHAPTER 2

### METHODOLOGY

#### Participants and Setting

The participants in this study were 305 African American adolescents between the ages of 12 and 19 (mean age, 14.4) recruited with the assistance of the Boys and Girls Club of South Central Kansas from the Wichita, Kansas, population 354,582 (2005 American Community Survey Data). Of the total, 115 male and 108 female participants completed questionnaires at pretest and three-month follow-up and are used in this analysis. A retention rate of 85% was maintained at three-months. Fifty-one percent of the participants were male and 49% were female. Year in school ranged from 6<sup>th</sup> grade to 12<sup>th</sup> grade with a mean grade of 8.8. To participate in the training and follow-up, adolescents were given a \$100 stipend: \$25 at the end of the five-hour intervention session, \$25 at each of the three follow-up sessions (3-month), and a free physical from the Center for Health and Wellness.

The sample reflected a larger number of unmarried versus married parent households (78.7% compared to 21.3%) with a near equitable gender distribution of participants from unmarried parents; 78.7% reporting their parents as “*not married to each other now*”, of which 38.4% male and 40.3% female. Of those reporting “*yes*” to parents being married (21.3%), 12.4% were male and 8.9% female (Table 1).

The survey instrument was designed to capture traditional as well as non-traditional living environments. When responding to the survey variable “I live with my (mother/father)...” respondents selected one of the following three categories: 1) “*All or most of the time*”, 2) “*Yes, some of the time*”, and 3) “*No, I do not live with...*”, for each parent. Thus, to further understand the distribution of participants an analysis of household structure was conducted. Over eighty-

one percent (80.1%) of the respondents reported, “*Yes, all or most of the time*” when asked if they lived with their mother, with only 12.9% reporting “*Yes, all or most of the time*” to living with their father. Additionally, 57.9% of participants reported “*No, I do not live with my father*”. Finally, 203 participants reported “no” to their parents being married now, therefore, 42 students failed to respond or responded inappropriately to this survey variable. In contrast, only 55 participants reported “yes” to their parents being married now, yet 93 reported “yes” to living with father all or most of the time. A large percentage of unmarried couples, therefore appear to be living together or have shared custody (Table 1).

Table 1.

Characteristics of Study Participants\*

	Total	Male	Female
Gender (%)	305 (100%)	154 (50.5%)	151 (49.5%)
Mean Age	14.4	14.5	14.2
Are Your Parents Married Now?			
Yes	55 (21.3%)	32 (12.4%)	23 (8.9%)
No	203 (78.7%)	99 (38.4%)	104 (40.3%)
Do you live with mother?			
Yes, all or most of the time	242 (80.1%)	117 (38.7%)	125 (41.4%)
Yes, some of the time	21 (7.0%)	10 (3.3%)	11 (3.6%)
No, I do not	39 (12.9%)	25 (8.3%)	14 (4.6%)
Do you live with your father?			
Yes, all of most of the time	93 (31.3%)	51 (17.2%)	42 (14.1%)
Yes, some of the time	32 (10.8%)	18 (6.1%)	14 (4.7%)
No, I do not	172 (57.9%)	81 (27.3%)	91 (30.6%)
Sexual Behavior			
Ever had sex			
Yes	164 (54.7%)	88 (29.3%)	76 (25.3%)
No	136 (45.3%)	61 (20.3%)	75 (25.0%)
Condom used at last sex			
Yes	92 (30.7%)	66 (22.0%)	26 (8.7%)
No	29 (9.7%)	22 (7.3%)	7 (2.3%)
Never had sex	179 (59.7%)	64 (21.3%)	115 (38.3%)

\*Numbers and percentages may vary as participants did not respond to all survey questions.

### Characteristics of the Targeted Population: Participants from Single Mother Households

A sub-sample of the participant population was also analyzed for the purpose of understanding the influence of mothers as single parents (if any) on participant sexual intentions and sexual behavior. For the purpose of this analysis, participants reporting: 1. “*No, parents are not married to each other now*”, 2. “*Yes, all or most of the time*” to the question “*Do you live with your mother?*” and 3. “*No, I do not live with my father*” were selected and combined to assess behavior of the target population; participants from single mother households. One hundred twenty-two participants were selected using the three variables noted above reflecting a 41.0% male and 59.0% female target population. Of those included, 22.3% male and 32.2% females report “yes” to the variable, “*Have you ever had sexual intercourse...*” noting a sexually active population of over half (54.5%) of the total of adolescents from single mother households (Table 2).

Unlike findings in the total population, females (32.2%) report being more sexually active than males (22.3%), however, males report significantly greater levels of condom use at last sexual intercourse ( $p = .004$ ); 17.4% compared to females 9.9%. The discrepancy between reported sexual activity also exists in this target population with 55 (45.5%) respondents reporting “No” to the variable “*Have you ever had sex..*” and 81 (66.9%) reporting “*Never had sexual intercourse*” on the condom use at last sex variable (Table 2).

Table 2.

Characteristics of Target Population: Single Mother Households\*

	Total	Male	Female
Gender (%)	122 (100%)	50 (41.0%)	72 (59.0%)
Mean Age	14.3	14.5	14.0
Sexual Behavior (%)			
Ever had sex			
Yes	66 (54.5%)	27 (22.3%)	39 (32.2%)
No	55 (45.5%)	22 (18.2%)	33 (27.3%)
Condom used at last sex			
Yes	25 (27.3%)	17 (17.4%)	8 (9.9%)
No	5 (5.8%)	2 (3.3%)	3 (2.5%)
Never	64 (66.9%)	22 (20.7%)	42 (46.3%)

\*Participants selected for this analysis responded affirmatively to the following three questions: 1) *Yes, live with mother all or most of the time*, 2) *No, I do not live with father*, and 3) *No, parents are not married to each other now*.

Procedures

This study was approved by the Institutional Review Board at Wichita State University. Upon recruitment, participants were provided an overview of the program, information regarding the incentives, and the time commitment required to participate. Parents or legal guardians completed a consent form and were informed that their child could withdraw from the project at any time. After completing the consent form participants filled out a survey. All participants were required to have a social security card at the time of enrollment in order to receive their stipend.

## Instrument

The Risk Reduction survey (Jemmott, Jemmott, and Fong, 1992) consisted of 268 questions. The survey contained the information summarized in Table 3:

Table 3.

<b>Topic/Subject Area</b>	<b>Number of Questions</b>
Demographic Information	30
Alcohol and Drug Use	30
Attitude and Beliefs regarding Substance Use	10
AIDS and STD(s) Knowledge	20
<b>Sexual Attitudes</b>	71
Self-Efficacy for Sexual Behaviors	7
<b>Sexual Behavior</b>	29
Relationships	8
Health Knowledge	26
Health Attitudes	12
Diet and Exercise	9
Self Perception	16

For the purpose of this study, questions pertaining specifically to HIV risk sexual behaviors as outlined in Table 4 were explored. The variables discussed in this manuscript (i.e., demographic characteristics, attitudes and behaviors), therefore, are derived from the students' questionnaires which was designed to capture basic demographic information, factors thought to influence adolescent sexual behavior such as parental subjective norm and adolescent motivation to comply, and other outcomes of interest. Missing values were excluded from the analysis. A positive relationship has been predicted therefore significance was set at a p value equal or less than .01.

## Methods

Table 4. Sexual Behavior Questions

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### Subjective Norm

(25) Would your mother approve/disapprove of your having sex in the next three months?\*

(26) Would your father approve/disapprove of your having sex in the next three months?\*

1-Disapprove strongly, 5-Approve strongly

\*variable score computed

(38) In general, how important to you are your mothers' opinion of what you do?\*

(39) In general, how important to you are your fathers' opinion of what you do?\*

1-Extremely unimportant, 5-Extremely important

\*variable score computed

### Intention to Have Sex

(29) I plan to have sex in the next three months.

1-Disagree Strongly, 5-Agree Strongly

### Sexual Activity

(100) Have you ever had sexual intercourse?

1-Yes, 2-No

### Sexual Behavior at three month follow-up

(109) In the past three months did you have sexual intercourse with a boy/girl?

1-Yes, 2-No

### Condom Use Behavior

(105) The last time you had sexual intercourse did you use a condom?

0-Haven't had sex, 1-No, 2-Yes

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## Planned for Analysis

Analysis of hypothesis 1: “*The correlations between parent subjective norm and intention, sexual intention and sexual behavior, and parent subjective norm and sexual behavior at 3 months will be positive for all participants,*” were examined using correlation analysis to assess the relationship(s) between the subjective norms, intention to engage in sexual activity, and sexual behavior at three months. A variable score was computed for the parent subjective norm by obtaining a product for each parents' normative belief and motivation to comply scores

and an average of the combined product for both parents was obtained. Statistical analysis of this hypothesized relationship consisted of a one-tailed directional test using Pearson's correlation coefficient.

To analyze hypothesis 2, "*The following correlations will be higher for females than males: 1) correlation between parent subjective norm and sexual intention, b) correlation between sexual intention and sexual behavior, and c) correlation parent subjective norm and sexual behavior,*" Pearson's correlation coefficient was used to evaluate this relationship as the theoretical model predicts that a relationship exists between the variables. Obtained correlation coefficients were then converted to standard z scores to test the significance of difference between the gender groups (Kirk, 2007).

Hypothesis 3 was analyzed using a chi-square test to determine gender differences, if any, in reported baseline sexual activity for all sexually active participants and sexually active participants residing in single mother households.

To address hypothesis 4, "*There will be gender differences in condom use,*" a chi-square test was performed to determine gender differences, if any, in reported baseline condom use behavior for all sexually active participants and sexually active participants residing in single parent households.

Finally for hypothesis 5, as in hypotheses 1 and 2, correlation analyses were also performed for single mother household participants to determine if correlations between, a) female mother referent subjective norm and sexual intention, b) female sexual intention and sexual behavior at 3 months, and c) female mother referent subjective norm scores and sexual behavior at 3 months, were greater than the same correlations for males. A variable score was computed for the mother referent subjective norm by obtaining an average of the product for the

mother's normative belief and motivation to comply scores. Obtained correlation coefficients were converted to standard z scores to test significance of difference between the gender groups from single mother households.

## CHAPTER 3

### RESULTS

#### Strength of the Theoretical Relationships

##### Hypothesis 1

In the first hypothesis, “There is a positive correlation between parent subjective norm and sexual intention, sexual intention and sexual behavior at 3 months, and parent subjective norm and sexual behavior at 3 months,” all participants were assessed.

A measure of referent other subjective norms for both parents was created by multiplying the normative belief question, “*Would your mother [father] approve of your having sex in the next three months?*” with its respective motivation to comply question, “*In general, how important to you are your mothers’ [fathers’] opinion of what you do?*” then averaging the product of the pairs for each individual. After obtaining a value for referent other subjective norm for both parents, a Pearson’s correlation coefficient was calculated to determine the relationship between constructs in the theory of reasoned action; parent subjective norm and intention to become sexually active among the sample population. A correlation coefficient was also calculated to determine the predictive value of sexual intentions at baseline on sexual behavior at three months. Finally, a correlation score was obtained to assess the relationship between parent subjective norm and actual sexual behavior at three months. The correlation analysis conducted reflects a comparison for all participants included in the study; cases were excluded listwise and a complete case analysis was conducted.

##### Findings

This analysis shows that the subjective norm for both parents when combined was positively correlated with sexual intentions. For all participants specifically, a statistically

significant positive correlation was found between parent subjective norms regarding sexual behavior and intention to become sexually active ( $r(208) = .36^*$ ,  $p < .01$ ) for all participants. Thus, the positive correlation of parent subjective norms to sexual intentions suggests that participant intentions to have sex were directly related to whether their parents would approve of them having sex. (Table 5; Figure 1).

A moderate positive relationship was also found between intention to become sexually active and actual sexual behavior at three months ( $r(208) = .53^*$ ,  $p < .01$ ). This finding supported the hypothesis which stated a positive theoretical relationship between baseline sexual intention and sexual behavior at 3 months would be found and suggests that participant sexual intentions were associated with their having had sex at the three month follow-up (Table 6; Figure 1).

Also as hypothesized, the relationship between baseline parent subjective norms and actual sexual behavior at the three month follow-up showed a significant positive linear relationship ( $r(208) = .27^*$ ,  $p < .01$ ). As parent subjective norms were positively correlated with sexual behavior at three months, this finding shows that parents' approval or disapproval was associated with participants' actual sexual behavior at three months (Table 7; Figure 1).

Findings for hypothesis 1 show the relationships between parent subjective norms and sexual intentions, sexual intentions and actual sexual behavior at three months, and parent subjective norms and actual sexual behavior at three months to be the significantly correlated for the total population (Tables 5, 6 and 7; Figure 1).

Table 5.

Intercorrelations between Parent Subjective Norms and Sexual Intentions for **All Participants**

	1	2
Baseline (n = 208)		
1. Would your mother/father approve of your having sex in the next three months?	-	.36*
2. In the next three months I plan to have sexual intercourse?		-

\*p<.01, (one-tailed).

Table 6.

Intercorrelations between Sexual Intentions and Sexual Behaviors for **All Participants**

	1	2
Baseline (n = 208)		
1. In the next 3 months I plan to have sexual intercourse.	-	.53*
2. In the past three months, I had sexual intercourse with a boy/girl?		-

\*p<.01, (one-tailed).

Table 7.

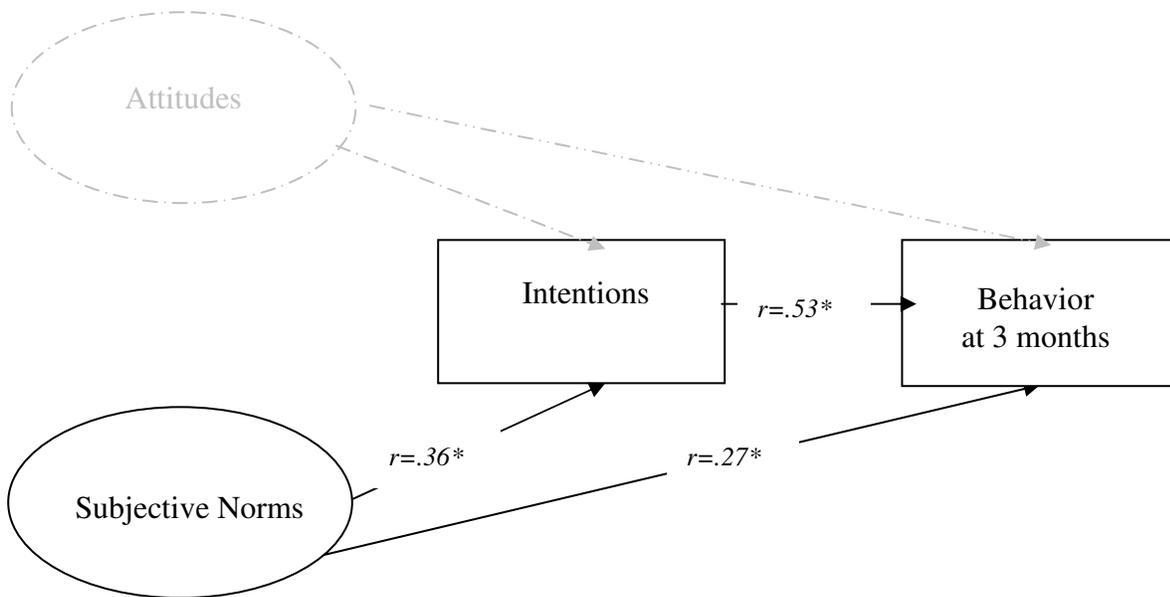
Intercorrelations between Subjective Norms and Sexual Behaviors for All Participants

	1	2
Baseline (n = 208)		
1. Would your mother/father approve of your having sex in the next three months?	-	.27*
2. In the past three months, I had sexual intercourse with a boy/girl?		-

\*p<.01, (one-tailed).

Figure 1.

Theoretical Intercorrelations for All Participants from Baseline to Three Month Follow-up



\*p<.01, (one tailed).

## Hypothesis 2

The second hypothesis was that “the correlations (between subjective norm and sexual intention, between sexual intention and sexual behavior, and between subjective norm and sexual behaviors) will be greater for females than for males”. This hypothesis was tested using the entire sample. Cases were excluded listwise and a complete case analysis was conducted. An analysis of standard z scores for each correlation shows female scores were not statistically greater than those found for males.

Specifically, there was a moderate positive correlation found for male parental subjective norm and sexual intentions ( $r(102) = .43^*$ ,  $p < .01$ ) (standard  $z = .46$ ), a positive correlation for male sexual intentions and sexual behaviors at three months ( $r(102) = .51^*$ ,  $p < .01$ ) ( $z = .56$ ), and a positive correlation between male parental subjective norms and sexual behavior at three months, ( $r(102) = .27^*$ ,  $p < .01$ ) ( $z = .28$ ) (Tables 8, 9, 10; Figure 2). All male correlations were statistically significant therefore male sexual intentions and actual sexual behavior at three months were associated with their parents’ approval and opinions to have sex, and male sexual intentions were associated with their actually having had sex at three months.

Conversely, a negative correlation was found for female parental subjective norms and sexual intentions ( $r(106) = -.03$ , NS) ( $z = -.03$ ), a positive correlation was found for female sexual intention and sexual behavior at three months ( $r(106) = .45^*$ ,  $p < .01$ ) ( $z = .49$ ), and a weak positive relationship was found for female parental subjective norms and sexual behavior at three months ( $r(106) = .09$ , NS) ( $z = .09$ ) (Tables 8, 9, 10; Figure 3). Findings in this analysis show that female sexual intentions were not associated with their parents’ approval and opinions, yet their intention to have sex was associated with their actually having sex at three month follow-up. While the actual sexual behavior of females was slightly associated with parental approval

and opinion, their sexual behaviors appear to be more related to their sexual intentions. Thus female sexual intentions may be a better indicator than what their parents think.

Results of this analysis showed that parental subjective norms had a stronger association for male sexual intentions and behaviors than for females. This finding suggests the negative correlation previously found for parent subjective norms and sexual intentions for all participants (Table 5; Figure 1) may be attributed predominately to the female participants when compared to males (Tables 8, 9, 10; Figures 2 & 3). The correlation coefficients were normalized to z scores to test the statistical significance between the genders. The results showed no statistically significant differences existed (( $z = .46$ ) – ( $z = -.03$ ) is  $< 1.96$ , NS). Findings for this analysis do show factor(s) other than parental subjective norms may be more strongly correlated with female sexual intentions. Female sexual intentions and actual sexual behavior at three months was strongly positive and this indicates that intentions were the best predictor of behavior (Tables 8, 9, 10; Figures 2 & 3).

Table 8.

Intercorrelations between Parent Subjective Norms and Sexual Intentions by Gender

	1	2
Baseline for Males (n = 102)		
1. Would your mother/father approve of your having sex in the next three months?	-	.43*
2. In the next three months I intend to have sexual intercourse?		-
Baseline for Females (n = 106)		
1. Would your mother/father approve of your having sex in the next three months?	-	-.03
2. In the next three months I intend to have sexual intercourse?	-	

\* $p < .01$ , (one-tailed).

Table 9.

Intercorrelations between Sexual Intentions and Sexual Behaviors by Gender

	1	2
Baseline for Males (n = 102)		
1. In the next 3 months I plan to have sexual intercourse.	-	.51*
2. In the past three months, I had sexual intercourse with a boy/girl?		-
Baseline for Females (n = 106)		
1. In the next 3 months I plan to have sexual intercourse.	-	.45*
2. In the past three months, I had sexual intercourse with a boy/girl?		

\*p<.01, (one-tailed).

Table 10.

Intercorrelations between Subjective Norms and Sexual Behaviors by Gender

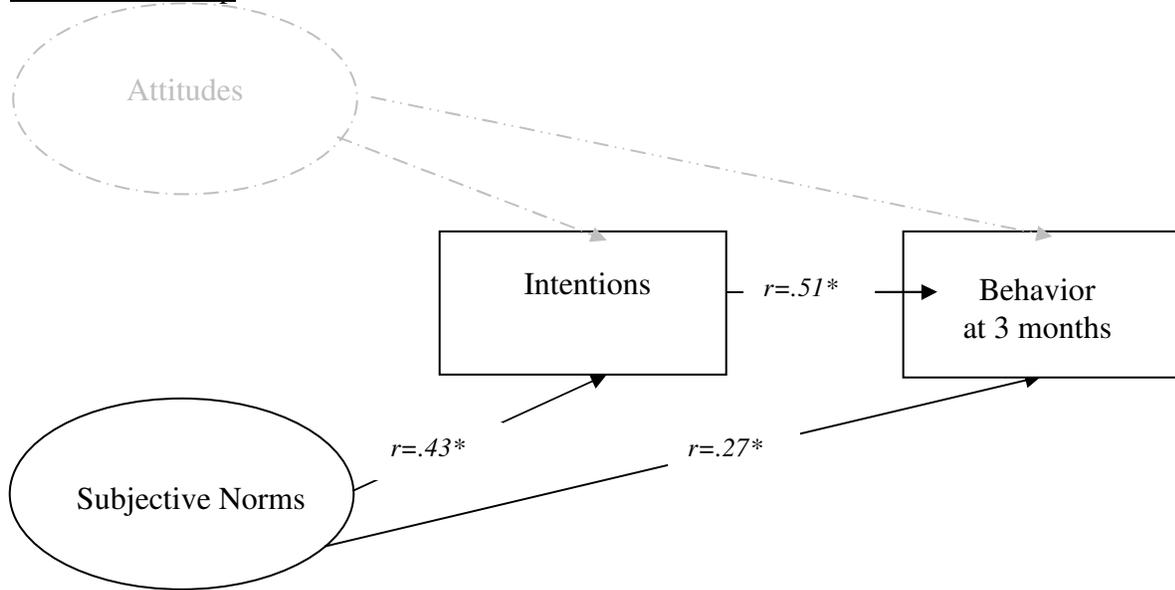
	1	2
Baseline for Males (n = 102)		
1. Would your mother/father approve of your having sex in the next three months?	-	.27*
2. In the past three months, I had sexual intercourse with a boy/girl?		-
Baseline for Females (n = 106)		
1. Would your mother/father approve of your having sex in the next three months?	-	.09
2. In the past three months, I had sexual intercourse with a boy/girl?		-

\*p<.01, (one-tailed).

Figure 2.

Theoretical Intercorrelations for Parent Subjective Norms and All Males from Baseline to Three

Month Follow-up

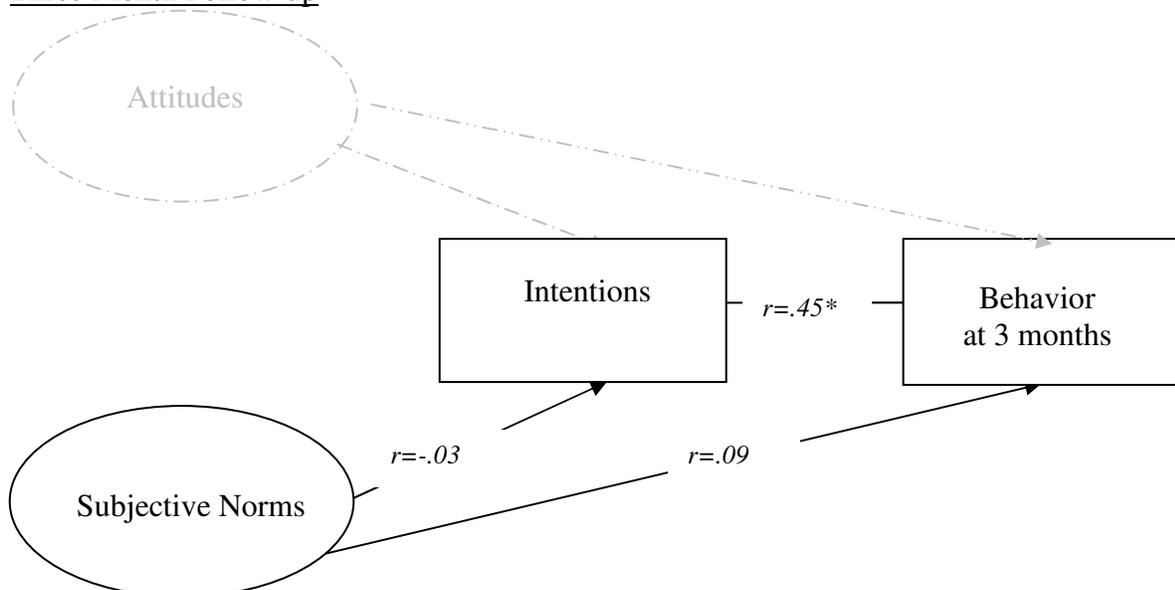


\* $p < .01$ , (one-tailed).

Figure 3.

Theoretical Intercorrelations for Parent Subjective Norms and All Females from Baseline to

Three Month Follow-up



\* $p < .01$ , (one-tailed).

## An Analysis of Gender Differences

### Hypothesis 3

This hypothesis states that females will report less sexual activity than males at baseline. What follows are the results of independent samples t-test that compares sexual behavior by gender for all participants. The variable used to answer the research question regarding sexual activity of both genders at baseline is “*have you had sexual intercourse?*” by gender for all participants. To ascertain any differences among participants from single mother households from all others, participants responding as follows were selected: 1) live with mother all or most of the time, 2) no I do not live with my father, and 3) no, my parents are not married now.

### Findings

Fifty-four percent (54.6%) of the participants reported having previously been sexually active at baseline; approximately 29.3% male and 25.3% female (Table 1). A chi-square test was conducted to compare the frequency of sexual activity for males and females. No statistically significant difference was observed (chi-square (1) = .03, NS) between males and females.

Of those reporting having previously been sexually active, approximately 40% also reported residing in single mother households. As males were found to be more sexually active in the overall population at baseline, it was expected that this pattern would remain consistent in the targeted single mother household population. At baseline, for the single mother household population, females (32.2%) reported more sexual activity than males (22.3%) (Table 2). Compared to the overall population, mean scores and standard deviations were similar among the gender groups. A chi-square test was calculated to compare the frequency of sexual activity for males and females from single parent households at baseline. No statistically significant relationship was found (chi-square (1) = .01, NS). Females from single parent households were

no more likely than males to have engaged in sexual activity at baseline, therefore this finding did not support hypothesis 3.

#### Gender Differences in Condom Use for Sexually Active Participants

##### Hypothesis 4

The hypothesis states there will be gender differences in condom use for sexually active participants. To assess this hypothesis, baseline participant responses of “yes” to “*I have had sexual intercourse*”, and “*At last intercourse a condom was used*” were selected and sorted by gender. This sample was selected to compare the gender differences for condom use behaviors of *sexually active participants* against all participants sexual activity and condom use behaviors previously presented (Table 1).

##### Findings for All Sexually Active Participants

To assess condom use differences between the genders, baseline data showed that 87 (54.5%) males and 73 (45.6%) females responded as being *sexually active*. Of that sample 160 sexually active participants, males reported more condom use with 40 (25%) reporting using a condom at last intercourse compared to 11 (6.9%) of the females. Given the sample sizes, a chi-square non-parametric test was conducted to determine the statistical significance between the genders. No statistical significant difference was found (chi-square (1) = 2.13, NS). Finding no statistically significant difference in condom use behaviors among the genders hypothesis 4 was not supported. For those participants who are sexually active both genders reported similar condom use behaviors.

### Findings for All Sexually Active Participants from Single Mother Households

To assess condom use for participants from single mother households, Table 14 below provides an in depth analysis of sexual behaviors for participants as described in Table 13. Participants responding to the following selection criteria, 1) “*live with mother all or most of the time*”, 2) “*no I do not live with my father*”, 3) “*no, my parents are not married now*”, 4) “yes” or “no” to using condoms at last intercourse, and 5) those that responded “yes” at baseline to previously having had sex, resulted in a sample of 65 participants.

A slightly larger number of sexually active males from single mother households reported using condoms 11 (16.9%) at last intercourse than females 5 (7.7%) from single mother households. These findings are similar to the overall sample. Results of the chi-square showed no statistically significant difference between gender (chi-square (1) = .00, NS). Consequently hypothesis 4 was not supported.

## Single Mother Households and the Impact of Mothers on Sexual Behavior by Gender

### Hypothesis 5

The hypothesis states that the mother referent subjective norm correlation for females from single mother households will be higher than males from single mother households.

Separate correlation analyses were conducted to ascertain gender differences in mother referent subjective norm correlations between male and female participants. Initially, a review of the association between sexual intention, sexual behavior and mother referent scores was conducted to assess the relationship, for both male and female adolescents. The association between the sexual intention, sexual behavior and mother referent scores for participants residing in single mother households was then assessed. The relationship of the mother referent scores to sexual intentions and sexual behaviors for this population of African American adolescents was also assessed using Pearson's correlation coefficient. For the purpose of this analysis participants were selected on the basis of their reporting: 1) live with mother all or most of the time, 2) no I do not live with my father, and 3) no, my parents are not married now.

### Findings

Thirty-five males and 56 females met the above noted selection criteria. Of those responding to the survey questions, "*Would your mother approve of your having sex in the next three months?*" and "*In general, how important to you is your mothers' opinion of what you do?*" intercorrelations obtained for males from single parent households reflect, mother referent subject norm and sexual intentions ( $r(35) = .53^*$ ,  $p < .01$ ) ( $z = .58$ ), sexual intentions and sexual behavior at three months ( $r(35) = .53^*$ ,  $p < .01$ ) ( $z = .58$ ), and mother referent subjective norm and sexual behavior at three months ( $r(35) = .32^*$ ,  $p < .01$ ) ( $z = .33$ ); thus all variables in an analysis of the theoretical model were significantly correlated for males from single mother households

(Tables 11, 12, 13, 14; Figure 4). All male correlations from single mother households were statistically significant. Therefore male sexual intentions and actual sexual behavior at three months were associated with their mothers' approval and opinions, and male sexual intentions were associated with their actually having had sex at three months.

For female participants from single mother households, sexual intention was correlated with sexual behavior at three months ( $r(56) = .43^*$ ,  $p < .01$ ) ( $z = .03$ ), female mother referent subjective norm correlations to sexual intentions ( $r(56) = -.03$ , NS) ( $z = .46$ ) were negative. There was no statistically significant correlation between female mother referent subjective norm correlation nor with sexual behavior at three months ( $r(56) = .11$ , NS) ( $z = .11$ ) (Tables 15, 16, 17, 18; Figure 5). In addition, unlike the male theoretical correlations, only one female correlation was significant. Findings in this analysis show that females from single mother household sexual intentions were not associated with their mothers' approval and opinions, yet their intention to have sex was associated with their actually having sex at three month follow-up. While the actual sexual behavior of females from single mother households was slightly associated with their mothers' approval and opinion, their sexual behaviors appear to be more related to their sexual intentions.

Results of the initial correlation findings appear to show that single mothers may have influence over male sexual intentions and sexual behavior more so than for adolescent females. Obtained correlation coefficients normalized to z scores to test the significance of difference between the gender groups from single mother households however showed no significant difference between the groups ( $(z = .58) - (z = .03)$ ;  $< 1.96$ , NS);  $(z = .58) - (z = .46)$ ;  $< 1.96$ , NS);  $(z = .33) - (z = .11)$ ;  $< 1.96$ , NS)). Female mother referent correlation scores were therefore

not greater than male mother referent correlation scores as predicted; hypothesis 5 was not confirmed.

Table 11.

Intercorrelations between Mother Referent Subjective Norms and Intention to engage in Sexual

Activity for <b>Males</b> from Single Mother Households	1	2
Baseline (n = 35)		
1. Mother referent Subjective Norm Score	-	.53*
2. In the next three months I plan to have sexual intercourse.	-	

\*p<.01, (two-tailed).

Table 12.

Intercorrelations between Sexual Intentions and Sexual Behavior for **Males** from Single Mother

Households	1	2
Baseline (n = 35)		
1. In the next three months I plan to have sexual Intercourse.	-	.53*
2. In the past three months I had sexual intercourse with a boy/girl.		-

\*p<.01, (two-tailed).

Table 13.

Intercorrelations between Mother Referent Subjective Norms and Sexual Behavior for **Males**

from Single Mother Households	1	2
Baseline (n = 35)		
1. Mother Referent Subjective Norm	-	.53*
2. In the past three months I had sexual intercourse with a boy/girl.		-

\*p<.01, (two-tailed).

Table 14.

Baseline Descriptive Statistics for **Males** from Single Mother Households

	<i>x</i>	<i>sd</i>	N
Mother Referent Subjective Norm	3.38	1.61	35
Sexual Intention	2.51	1.19	35
Sexual Behavior	.82	.71	35

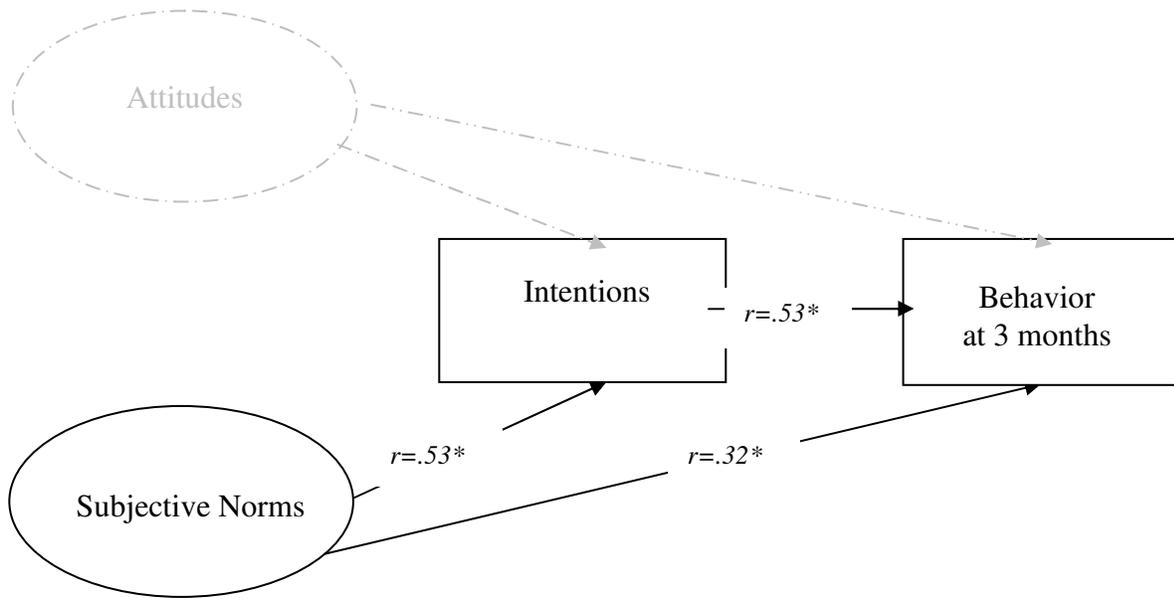
Intercorrelations for **Males** at Baseline

	1	2	3
1. Mother Referent Subjective Norm	-	.53*	.32*
2. Sexual Intention		-	.53*
3. Sexual Behavior			-

\*p<.01, (two tailed).

Figure 4.

Theoretical Intercorrelations for Mother Referent Subjective Norms and Males from Single Mother Households at Baseline to Three Month Follow-up



P<.01, (one-tailed).

Table 15.

Intercorrelations between Mother Referent Subjective Norms and Intention to engage in Sexual

<u>Activity for <b>Females</b> from Single Mother Households</u>	<u>1</u>	<u>2</u>
	Baseline (n = 56)	
1. Mother referent Subjective Norm Score	-	-.03
2. In the next three months I plan to have sexual intercourse.	-	

---

\*p<.01, (two-tailed).

Table 16.

Intercorrelations between Sexual Intentions and Sexual Behaviors for **Females** from Single

<u>Mother Households</u>	<u>1</u>	<u>2</u>
	Baseline (n = 56)	
1. In the next three months I plan to have sexual Intercourse.	-	.43*
2. In the past three months I had sexual intercourse with a boy/girl.		-

---

\*p<.01, (two-tailed).

Table 17.

Intercorrelations between Mother Referent Subjective Norms and Sexual Behaviors for **Females**

from Single Mother Households	1	2
Baseline (n = 56)		
1. Mother Referent Subject Norm Score	-	.11
2. In the past three months I had sexual intercourse with a boy/girl.		-

\*p<.01, (two-tailed).

Table 18.

Baseline Descriptive Statistics for **Females** from Single Mother Households

	<i>x</i>	<i>sd</i>	N
Mother referent Subjective Norm	2.92	1.94	56
Sexual Intention	1.67	1.06	56
Sexual Behavior	.71	.70	56

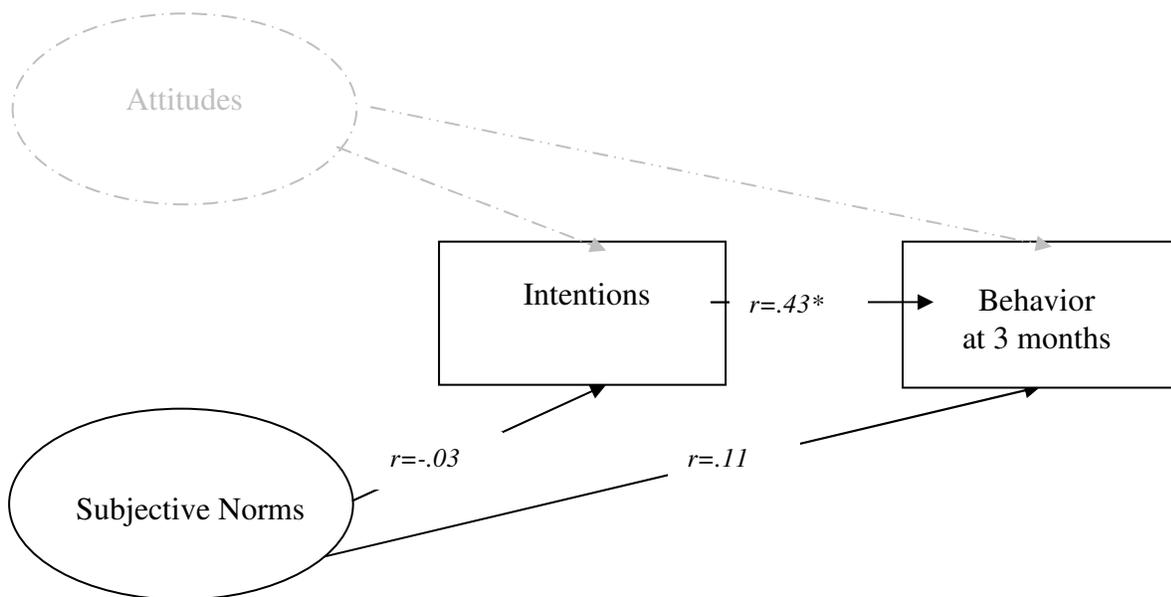
Intercorrelations for **Females** from Single Mother Households at Baseline

	1	2	3
1. Mother referent Subjective Norm	-	-.03	.11
2. Sexual Intention		-	.43*
3. Sexual Behavior			-

\* p<.01, (two tailed).

Figure 5.

Theoretical Intercorrelations for Mother Referent Subjective Norms of Females from Single Mother Households at Baseline to Three Month Follow-up



$P < .01$ , (one-tailed).

Summary of All Findings

There was only one hypothesis that was supported. There was a positive correlation between parental subjective norms, sexual intentions and sexual behavior at 3 months for all participants. Participants perceived that their parents would approve of them having sex in the next three months and youth actually did engage in sexual activity at the three months.

Hypotheses that were not supported included: 1) The correlations between parental subjective norm scores and sexual intentions, sexual intentions and sexual behavior at three months, and parental subjective norms and sexual behavior at three months were not statistically greater for females than for males; 2) For the entire sample, females reported lower levels of sexual activity than males. However females residing in single mother households reported

engaging in higher level of sexual activity. Males and females did not differ significantly (statistically) from each other regarding their perceptions of how their parents would approve of them having sex or their intention to have sex. Also, gender differences in condom use did not exist among sexually active African American adolescents. The mother referent subjective norm correlations for sexual activity were not higher for females than for males, as predicted.

Table 19.

Summary of All Findings

Hypothesis 1	There is a positive correlation between parent subjective norm and sexual intention, and sexual intention and sexual behavior at 3 months, and parent subjective norm and sexual behavior at 3 months for all participants.	Supported
Hypothesis 2	The parent subjective norm to sexual intention, sexual intention to sexual behavior at 3 months, and the parent subjective norm to sexual behavior at 3 months correlations will be greater for females than males.	Not Supported
Hypothesis 3	Females will report less sexual activity than males at baseline.	Not Supported
Hypothesis 4	There will be a gender difference in condom use for sexually active adolescents.	Not Supported
Hypothesis 5	The correlations for mother referent subjective norm with sexual intention and sexual behavior at 3 months will be higher for females than males from single mother households.	Not Supported

## CHAPTER 4

### DISCUSSION

#### Summary and Explanation of Results

The present study found that the theory of reasoned action did support the notion that parent subjective norm was associated with the sexual behavior of adolescents. In fact, subjective norms for both parents in this study were found to be strongly correlated with sexual intentions for all participants. The data also supported the theory of reasoned action as a significant correlation between intention and sexual behavior was consistently found at 3 months (Fishbein & Ajzen, 1980). Similarly the findings of Kirby, Lepore and Ryan (2005) parents in this study did positively impact adolescent sexual risk taking behavior as a whole but the influence of subjective norms for females was not as clear. Specifically in this study, males experienced a stronger correlation between parent influence and sexual intentions than did females as female sexual intentions were not associated with their parent's approval and opinion. This finding may be due to the number of female participants in the study whose parents were not married (79%); indicating that participants may not have known the subjective norm of the absent parent or that female participants may not have had clear discussions with parents about their intention to engage in sexual intercourse. What is known is that gender differences were identified and therefore were explored.

The literature has examined the role of mothers on their children's behavior, particularly sexual behavior. Conflicting findings are identified in the literature. Henrich, Brookmeyer, Shrier, & Shahar (2005) found mothers to adversely impact female sexual intentions. Rose, et al. (2005), on the other hand, found girls less likely to have engaged in sexual activity than boys with the same level of primary caregiver "relationship quality" (2005). These authors did not,

however, examine the role single parents had on the sexual behavior and condom use of participants. Perhaps different results would have emerged from their studies if an analysis of family structure would have been conducted. This study found, for participants from single mother households, there was a no association between mother referent subjective norm scores and sexual intentions for females but mother referent subjective norm to sexual intentions for males were significantly positive. In addition for single mother households, a weak correlation was found for female mother referent subject norm and sexual behavior at 3 months, yet male mother referent subjective norm and sexual behavior scores were again significantly positive for males. This finding was similar to Fishbein's later study (1990), where parent subjective norms were a better predictor of behavioral intentions for males than for females; specifically those of mothers.

Understanding how adolescents make condom use decisions is important and parents have been found to positively impact adolescent condom use (CDC, 2002; Miller, 1998). The literature also shows that inequality in relationships may contribute to the disproportionate HIV risk (particularly condom use) for females (Valleroy, et al., 1998). While inequality was not a variable analyzed in this study, this study showed that females were less likely to use condoms which might give some validity to Valleroy's (1998) assertion concerning inequality in male/female relationships. Specifically this study found reported sexual activity was higher for males as was condom use. Most alarming was the finding that females from single mother households engaged in more sexual activity but less condom use than males from single mother households, thus thoroughly understanding the impact and role of the mother in single mother households is essential to effectively decrease HIV infection rates within this population.

Contributions to the literature resulting from this research study follows. First, the finding for sexual behaviors of females residing in single mother households is central to our understanding of what might contribute to the high incidence rate of HIV among females compared to males (CDC, 2006). It is important for researchers to examine the behaviors that are adopted during adolescence in order for researchers to design effective interventions. In addition, researchers might also examine the impact mothers have on females during adolescence in order to pin point prevention components that might target that interesting dynamic. Second, interventions targeting both males and females may not be adequate to decrease the HIV rates among both genders. Third, these findings also suggest the urgent need to develop specific interventions that increase condom use behaviors specifically among African American females and help them to develop more negotiation skills. Fourth, this research study highlighted the need to include African American single mothers and include fathers for HIV prevention interventions in order to better examine the role subjective norms play among adolescents.

#### Hypothesis 1

Hypothesis one stated that there would be a positive correlation between parent subjective norm and sexual intention, sexual intention and sexual behavior, and parent subjective norm and sexual behavior for all participants. In response to the first hypothesis, a review of the relationships between the parent subjective norms and sexual intention variables for all participants showed a significant positive correlation was found. Therefore, participant intentions to have sex were directly related to whether their parents would approve of them having sex.

A positive relationship was also found between baseline sexual intention and sexual behavior at three months and between baseline parent subjective norms and actual sexual behavior at three months for all participants. As it was expected that the relationships for all

variables would be positively correlated, data from this population study fully supported this hypothesis. The hypothesis in this analysis was therefore supported; parents do play a role in the formation of sexual intentions and the actual sexual behaviors of African American adolescents, as the theory of reasoned action asserts.

### Hypothesis 2

This hypothesis was not supported. It was expected that females would have higher subjective norm, sexual intention, and sexual behavior correlations than males. Specifically, at baseline parent subjective norms were positively correlated with intention for both genders. When comparing the genders however, for females there was a negative correlation between parent subjective norms and sexual intentions.

Parent subjective norms were positively correlated with male sexual intentions and positively correlated with male sexual behaviors at three months, therefore, male sexual intentions and behaviors are associated with their parents' approval and opinions. Male sexual intentions were also positively correlated with sexual behavior at three months. These findings show that males were more likely than females to engage in sexual behaviors that align with their parents' expectations.

Results of this study, however, were not as consistent for females. A weak negative relationship between parent subjective norms and sexual intentions, a strong positive relationship between sexual intention and actual sexual behavior at three months, and a weak albeit positive relationship between parent subjective norms and sexual behavior, was found at baseline.

Findings from this study did not consistently confirm parental subjective norm to positively impact sexual intention and sexual behavior more consistently for females than males when analyzing the total population. Anecdotal information suggests that African American

mothers “raise” their daughters and “mother” their sons, thus it is assumed females are more influenced by their parents than males. The parent subjective norm finding for females contradicts this belief and highlights existing gender differences. Focusing interventions on the construct of subjective norm without improving parent/adolescent communication skills about sex may be insufficient to effectively impact female African American adolescent sexual risk behavior. Given the variables selected to measure the theoretical constructs were sufficient in this analysis, these findings have tremendous implications for the gender specific programming needed in African American adolescent sexual risk prevention programs.

#### Hypotheses 3 and 4

Hypothesis 3 posited that males would report more sexual activity than females at baseline. A review of the baseline data in this study showed that males did report slightly more sexual activity than females as predicted; however, the difference found was not statistically significant. When analyzing data for participants from single mother households, females were found to be more sexually active at baseline. Overall baseline data shows males reported engaging in more sex but residing in a single mother household appears to have contributed to these results. The difference for single parent households however, upon further analysis, was also found to not be statistically significant, therefore, females from single parent households did not report less sexual activity than males and hypothesis 3 was not supported.

Hypothesis 4 predicted that there would be gender differences in condom use for all sexually active adolescents. A review of the baseline sexual behavior and condom use responses for both genders reflects a slightly larger percentage of sexually active males (29.3%) than females (25.3%). Conversely, reported condom use for sexually active participants reflects a 9% difference in condom use for sexually active males when compared to females. Statistically

significant differences between genders for condom use did not exist among sexually active program participants, however. Therefore, no statistically significant gender differences were found for condom use and the hypothesis was not supported.

#### Hypothesis 5

Hypothesis 5 predicted that the mother referent subjective norm correlations for sexual activity would be higher for females when compared to males. Contrary to the hypothetical prediction and the anecdotal evidence of mothers having greater influence on their daughters than their sons, of all participants reporting as residing in single mother households, data consistently showed mother referent subjective norms to be significantly correlated with male sexual intentions and sexual behaviors but not females. In fact for females, mother referent subjective norm was found to be slightly negatively correlated with sexual intention, but was positively correlated with sexual behavior at 3 months. Thus whether the daughters of single mothers intended to have sex was unrelated to their mothers' approval or opinion, but mothers' approval or opinions were associated with their actual sexual behaviors at 3 months.

Unlike the male theoretical relationships, the only female correlation found to be significant was sexual intentions to sexual behavior at three months. Given this occurrence it is determined that other factor(s) may be correlated with female sexual intention and sexual behavior more strongly than mother referent subjective norm. In addition, the negative correlation between mother referent subjective norm and sexual intention may be indicative of mothers' opinions posing an adverse effect on the sexual decision making of adolescent females. This finding has tremendous implication for females residing in single mother households thus highlights the need for a concurrent mother only intervention and/or including fathers in the intervention.

In addition to the negative correlation found for mothers and the sexual intentions of females residing in single mother households, the theoretical relationship found between mother referent subject norms and actual sexual behavior was minimal. Thus this hypothesis was not supported by the data; mother referent subjective norm correlations were consistently higher for males than for females. As in hypothesis 2, there is a greater association for males and their mothers, and lacking a father in the household may impact females more than was once thought.

### Limitations

There are several limitations noted in this study. First, the length of the survey may have interfered with respondents giving truthful answers in that the survey was long and the participants may have become fatigued. Second, self-reported data may have allowed participants to give socially desirable responses. Behavioral contracts informing participants that responses would not be reported to parents were completed; therefore, social desirability may have been controlled for. Third, the participants in the project may not be representative of all African American youth residing in Wichita, KS or other geographical areas, therefore may not be generalizable to other African American adolescent populations. Fourth, participants were not stratified by age and gender prior to randomization. Although the mean age for participants was similar, maturation and how the participants were distributed across groups could have impacted results. For example, when stratifying the sample on the sexual activity and single mother household variables, low sample sizes may have impacted the statistical power of the theoretical model. Fifth, cross contamination may have occurred because a number of youth and siblings attended the informational sessions.

## Future Research

First, more research is needed to determine the role of the mother referent subjective norm correlations across age and sexual activity since the onset for sexual activity may differ across ages. Second, further analysis should be conducted to determine if participant subjective norms are consistent with their own attitudes regarding sexual activity and future condom use. Third, research might examine the impact of subjective norm at additional administration points to determine whether the subjective norm, intentions and attitudes hold over time. Fourth, it might be important in the future to stratify the participants by age and gender to ensure that gender groups are balanced therefore reducing maturation threat.

To determine the impact of the theoretical constructs for participants over time, it is further recommended that individual participant's attitudes, behaviors, beliefs, and subjective norms should be tracked for a longer period of time (i.e., one year). Finally, using a multi-theoretical approach, such as the theory of reasoned action in addition to the theory of planned behavior (Ajzen, 1991) or the stages of change theory (Prochaska & Di Clemente, 1992) may provide additional information, as well. A thorough evaluation of all constructs in the survey instrument could highlight other areas that impact gender specific sexual decision making among adolescents.

## Conclusions

As HIV infection continues to plague the African American community, studies are needed to better understand the mechanisms that impact decision making related to safer sex practices. Interventions with parents and/or guardians are shown to be promising strategies for reducing adolescent sexual risk behavior. The theory of reasoned action offers a way to examine the role intention has on behavior, however, results of this study showed that the relationship

between parental subjective norms is positively associated with sexual intention and sexual behavior for males from single parent households only. Given this finding, researchers might examine the role of gender, family structure and subjective norm more closely within other subpopulations of African Americans, rural, urban and suburban; to determine when and under what conditions subjective norm might be related to reduced sexual behavior and increased condom use. Given the disproportionate impact of HIV infection among African Americans, the dissemination of effective prevention intervention strategies is sorely needed.

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## CHAPTER 5

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