

FACTORS THAT AFFECT CONDOM USE IN AFRICAN AMERICAN
ADOLESCENT FEMALES

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I am submitting herewith a thesis written by Candace Holley entitled "Factors that Affect Condom Use in African American Adolescent Females." I have examined the final copy of this thesis for form and content and recommend that it be accepted in partial fulfillment of the requirements for the degree of Master of Science, with a major in Nursing.

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I would like to thank God for the strength and endurance to complete this huge endeavor. I also want to thank my family and friends for so much love and patience over the last few years. I would like to dedicate this project to my mother. My mother is the true foundation of all that I am and all that I will be in the future. Special thanks to my boys, Lil Drew and Austin, for letting mommy study in the evening.

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ABSTRACT

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The Centers for Disease Control (CDC) (2002) reported that African American females aged 15-19 had a gonorrhea rate 18 times greater than non-Hispanic white adolescents. These adolescents reported being more likely than white and Hispanic adolescents to use condoms. This population also has an increase in sexual risk-taking behaviors. The purpose of this study was to examine the relationship of condom knowledge and perceived risk of obtaining STD/HIV with African American adolescent females. Also examined was the relationship of sexual self-efficacy and rate of condom use. The conceptual framework used was based on Bandura's (1982) social cognitive theory.

The National Longitudinal Study of Adolescent Health dataset was utilized. The variables extracted were taken from Wave II results. The analysis revealed relationships were not statistically significant, which suggested further research was necessary on factors needed to increase condom use in hope of decreasing the STD/HIV rates in this population.

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CHAPTER 1

INTRODUCTION

According to the 2001 National Youth Risk Behavior Survey, 45.6% of students grades 9-12 nationwide had sexual intercourse during their lifetime. Black female students were 54% more likely than white female students to have sexual intercourse with 7.6% of those black females reported to have initiated sexual intercourse before age 13. In this same report, the investigators found that 42.1% of sexually active students had not used a condom at last sexual intercourse (Centers for Disease Control [CDC], 2002b). Several clinics have initiated health education programs based on addressing the adolescent perceived risk of acquiring sexually transmitted diseases (STDs) or human immunodeficiency virus (HIV). However, other researchers (Crosby et.al, 2001b; Ellen, Adler, Gurvey, Millstein, & Tschann, 2002) have noted that despite ample evidence of adolescents' high-risk behavior, including laboratory-confirmed STDs and levels of STD and HIV, worry of contracting either was low. These findings strongly suggest complacency about obtaining a sexually transmitted disease.

Even though several studies (CDC, 2002b; DiClemente et al., 1996; Royce, 1998) revealed that African American adolescents reported being more likely than White and Hispanic adolescents to use condoms, they were disproportionately affected by sexually transmitted infections. Some factors that may be related to this inconsistency were

indicated to be the adolescents' level of condom knowledge and the relationship to perceived self-efficacy with sexual encounters (Crosby et al., 2001a).

Condoms have been widely believed to be highly effective in preventing HIV and STDs if they are used consistently and correctly. Crosby and Yarber (2001) found that in adolescents the perception of knowledge about correct condom use was infrequently related to actual knowledge. In their study, Clark, Jackson, and Allen-Taylor (2001) found that adolescents have low total knowledge scores related to STDs and HIV. Since a greater number of these at-risk adolescents are African American, some fundamental determinants of health status with this population are poverty, health seeking behavior, illicit drug use, and living in communities with high prevalence of STDs (CDC, 2002a).

The National Longitudinal Study of Adolescent Health (ADD health) database is a school-based study of the health-related behaviors of adolescents in grades 7-12. This study was focused on forces that influence adolescents' behavior, in particular those residing in the various contexts of their lives including families, friendships, romantic relationships, peer groups, schools, neighborhoods, and communities. The Carolina Population Center at the University of North Carolina authorized and implemented the study. The primary funding source for the study came from the National Institute of Child Health and Human Development (NICHD). Texas Woman's University purchased the data set, and consent to use it appears in Appendix A.

The first phase, Wave I, was conducted from September 1994 through December 1995 using data from in-home interviews. The second phase, Wave II, was conducted from April 1996 through August 1996 and consisted of in-school questionnaires and

in-home interviews. The third phase, Wave III, was conducted from August 2001 through April 2002. A total core sample of 12,105 adolescents was interviewed. For the purpose of this study, Wave II data were abstracted.

Problem Statement

The problem statement was twofold: (1) Is there a relationship between condom knowledge and STD/HIV risk perception in African American adolescent females? (2) Is there a relationship between sexual self-efficacy and condom use in African American adolescent females?

Purpose

The purpose of this study was to examine the relationship of condom knowledge and the perceived risk of obtaining STDs and HIV with African American adolescent females. In addition, the relationship between sexual self-efficacy and the rate of condom use in African American adolescent females also was investigated.

Need for the Study

In 2001, African American females aged 15-to 19-years had a gonorrhea rate 18 times greater than the rate among non-Hispanic white females of similar age (CDC 2002a). While these teens have reported using condoms, their STD/HIV rates continued to rise. This population has been shown to have increased risk-taking behaviors, which are attributed to sexual knowledge, self-esteem, self-efficacy, and communication (Colon, Wiatrek, & Evans 2000).

A study looking at the relationships of some of the factors that contribute to risk-taking behaviors in African American adolescent females such as condom knowledge, risk perception, condom use and sexual self-efficacy, may help to develop risk reduction strategies that target the areas that need to be reinforced. Health care providers, teachers, and parents can use these strategies to bridge the gap between actual condom use and rate of STDs and HIV in this at risk population.

Conceptual Framework

Self-efficacy is a concept that Bandura (1986) developed as part of his social cognitive theory (SCT), which defines human behavior as a triadic, dynamic, and reciprocal interaction of personal factors, behavior, and the environment. This theory addresses a person's expectations, beliefs, self-perceptions, goals, and intentions that give shape and direction to behavior. Bandura's concept of self-efficacy looks at a person's belief that they can exert control over their own motivation, thought processes, emotional state, and patterns of behavior (DiClemente & Peterson, 1994). It is a judgment about how well one can organize and implement effective strategies in a situation that may include novel and/or stressful elements (Bandura, 1982).

Bandura (1986) noted that a belief in one's personal efficacy to exercise control over one's sexual behavior emerged as the best predictor of sexual risk-taking behavior. The lower the perceived self-efficacy, the higher the likelihood of engagement in sexual practices that carry a high risk of AIDS infection (DiClemente & Peterson, 1994). DiIorio et al. (2001) found that adolescents in their study who used condoms consistently

demonstrated higher levels of self-efficacy to put on a condom, refuse sex, and discuss sex history, and they were more likely to perceive that their friends used condoms. Thus, Bandura's (1986) SCT provided a supportive framework for the study of relationships between condom knowledge, risk perception, condom use and self-efficacy in African American adolescent females.

Assumptions

The assumptions were derived from the conceptual framework based on Bandura's (1986) social cognitive theory:

1. There is a distinction between the effects of strength of perceived self-efficacy on effort during learning and during execution of established skills.
2. A person who believes in being able to cause an event can conduct a more active and self-determined life course, which is reflective of high self-efficacy.

Therefore a sexually active adolescent who can negotiate condom use with a partner is a desired control of an event.

The following assumptions are methodological:

1. The study subjects responded truthfully and recorded their responses accurately.
2. The ADD health database was both a valid and reliable tool that can be utilized to reproduce data in a secondary data analysis and was appropriate and relevant to this study.

Hypotheses

- H₁: There is a positive relationship between African American adolescent females' condom knowledge and their STD/HIV risk perceptions.
- H₂: There is a positive relationship with high self-efficacy and condom use in sexually active African American adolescent females.

Definitions

For the purpose of this study, terms are operationally and conceptually defined as follows:

1. *Condom knowledge* includes, but is not limited to, the acquisition of knowledge and principles as they relate to condom use. This was determined by self-report on the ADD health survey (American Family Data Archives, 1998).
2. *Condom use* is the use of a latex condom with sexual intercourse as determined by self-report on the ADD health survey (American Family Data Archives, 1998).
3. *Adolescent females* are women between the ages of 13-19 years old as reported on the ADD health survey demographics sheet (American Family Data Archives, 1998).
4. *African American* is any subject of the black race as determined by self-reports on the ADD health survey demographics sheet (American Family Data Archives, 1998).

5. *STD/HIV risk perception* is the knowledge of perceived risk of acquiring a sexually transmitted disease as determined by self-reports on the ADD health survey (American Family Data Archives, 1998).
6. *High self-efficacy* is the conviction that one can successfully accomplish the behavior required to produce a particular outcome (Bandura, 1982), as determined by self-reports on the ADD health survey (American Family Data Archives, 1998).
7. *Protection of human subjects* is protecting the rights, including confidentiality, of subjects in a study. Because this was a secondary analysis of a pre-existing data set, a level I exempt review application to the Institutional Review Board was filed as it appears in Appendix B.

Limitations

Study limitations include:

1. High schools in the U.S. with an enrollment of less than 30 students and an 11th grade were excluded in the primary sampling frame of the ADD health survey (American Family Data Archives, 1998).
2. The validity of the self-reported measurement may have been compromised by possible underreporting of STDs and over reporting condom usage.
3. The limitations of variables available to the investigator set by ADD health survey may limit variables of interest to other researchers.

4. The inability of the investigator to collect and/or code the data could have influenced the evaluation of the results. Data collection mistakes can be retrieved from the codebooks for the ADD health survey (American Family Data Archives, 1998).
5. The participants in the ADD health survey were representative of adolescents throughout the U.S. and therefore findings can only be generalized to adolescents who are not high school dropouts.

Summary

African American adolescents are disproportionately affected by sexually transmitted diseases, and there is an inconsistency with the reports of condom use versus the increasing STD rates in this at-risk population. There may be a knowledge deficit or a lack of self-efficacy in this population; which is contrary to Bandura's (1986) social cognitive theory, the framework supporting this study, wherein he described high levels of self-efficacy as being necessary to carry out health promoting behaviors. By applying Bandura's theory to the relationship of condom knowledge and STD/HIV risk perceptions, it can be inferred that those adolescents with high self-efficacy learn more readily and will have increased condom knowledge, thereby having increased perceptions of STD/HIV risks. With one risk-taking behavior leading to another, this population could be at risk for alcohol abuse, illicit drug use, and pregnancy. The purpose of this study was to examine the relationship of condom knowledge and the perceived risk of obtaining STDs and HIV in this at-risk population. The investigator also looked at the

relationship of sexual self-efficacy and the rate of condom use. The results may be used to help develop a culturally-appropriate STD/HIV education program which can address these issues and be a very effective method in the prevention of STDs in this population.

CHAPTER 2

REVIEW OF LITERATURE

As the concern rises on a national level as it relates to sexually transmitted diseases (STDs) in adolescents, many studies have been conducted to try to determine the factors that may affect this population. In the United States, adolescents are more likely than adults to acquire STDs. However, the risk of STDs is not uniform among adolescents. African American adolescent females are one vulnerable subgroup at high risk for STDs (DiClemente et al., 2001). Although consistent and correct condom use has been found to prevent or reduce the rate of acquiring a STD, Grunbaum (2001) found that 42.1% of sexually active students had not used a condom at last sexual intercourse. Some of the factors that may be related to this include the adolescents' levels of condom knowledge and the relationship to perceived self-efficacy with sexual encounters (Crosby & Yarber, 2001).

African American adolescent females have been found to report that they use condoms more than their white and Hispanic counterparts, although this subgroup experience disproportionately high rates of STDs (Crosby et al., 2000). Several factors may be affecting their high STD rates including actual condom knowledge and their STD/HIV risk perception.

Sexual Habits and STD/HIV Rates

In 2002 the Centers for Disease Control (CDC, 2002b) published a school-based survey taken among students grades 9-12 nationwide, which is entitled The Youth Risk Behavior Surveillance System (YRBSS). According to the results, overall black students (60.8%) were significantly more likely than Hispanic and white students (48.4% and 43.2%, respectively) to have had sexual intercourse. Black female students (53.4%) were significantly more likely than white female students (41.3 %) to have had sexual intercourse. Nationwide, 6.6% of students surveyed had initiated sexual intercourse before age 13 years. The black female students were found to be significantly more likely than white female students to have initiated sexual intercourse before age 13 years. In their study, Stanton et al. (1994) found that of the 351 African American youths they interviewed, 35% of them had a history of sexual intercourse and 20% of virgins thought it likely that they would become sexually active in the next 6 months. Another study of adolescent sexual and reproductive behaviors found that blacks had rates of initiating sexual intercourse that were one quarter higher than those of whites or Hispanics (Hogan, Sun, & Cornwell, 2000).

Adolescents who have sexual intercourse at an earlier age put themselves at risk for acquiring a STD (American Academy of Pediatrics, 1999; McIlhaney, 2000). The CDC (2002a) published the Sexually Transmitted Disease Surveillance of 2001 which indicated that, compared to older adults, adolescents (10-19 years) and young adults (20-24 years) are at higher risk for acquiring STDs for a number of reasons, including they may be more likely to have multiple sexual partners rather than a single, long-term

relationship and they may select partners at higher risk. The CDC (2002a) also reported that while 15- to 19-year-old women had the highest rate of gonorrhea in 2001, African American women aged 15-19 years had a gonorrhea rate of 18 times greater than non-Hispanic white females of similar age. The report also showed that sexually active adolescents have high rates of chlamydial infection. Three million adolescents are infected with a STD each year, and HIV is the fifth leading cause of death in persons aged 15-24 years. While many adolescents are reporting a decrease in sexual activity and an increase in use of condoms, the rates of STDs and HIV continue to rise (Kelley, Borawski, Flocke, & Keen, 2003; McIlhaney, 2000). The CDC (2002a) also found that among African Americans older than 11 years in the study, 45.9% tested positive for Herpes simplex virus type 2. According to the CDC (2002a), the latency period between infection with HIV and the onset of AIDS is nearly 10 years so many young women who develop AIDS between the ages of 20 and 29 have unknowingly been infected during their adolescent years. Adolescents not consistently using condoms were about twice as likely to acquire an STD. This finding also was reported by Crosby, DiClemente, Wingood, Lang, and Harrington (2003) from their study of the value of consistent condom use in a group of African American adolescent females.

According to Crosby et al. (2000), the high prevalence of STDs among African American adolescent boys, combined with a tendency of African American females to select African American male sex partners--particularly those who have had two or more partners in the past year, increases the likelihood of female African Americans encountering an infected male partner, which consequently increases the females' risk of

STDs. Crosby et al. (2000) also stated that the risk of STDs for female African Americans is further magnified by low income and living in urban areas.

Another study reported that infections are more widespread in the African American population at large (Laumann & Youm, 1998). In this population, partner choice is more highly assortative meaning that peripheral African Americans are five times more likely to choose core African Americans than any other groups. The likelihood of African Americans having a STD is 1.3 times greater than it is for whites because of this factor alone (Laumann & Youm, 1998).

One other risk factor for this group acquiring STDs can be related to the selection of sexual partner's age (McIlhaney, 2000). Begley, Crosby, DiClemente, Wingood, and Rose (2003) looked at the STD prevalence among pregnant African American teens and having an older partner. They found that 65% of the adolescents interviewed reported that their male sex partners were 2 or more years older. Also these adolescents with older partners were four times more likely to test positive chlamydia.

Fortenberry, Orr, Zimet, and Blythe (1997) looked at the weekly and seasonal variation in sexual behaviors in adolescent women in which they reported that sexual intercourse was more likely during the part of the week that is associated with leisure, such as during the weekend, than other days, and sex on these days was often associated with substance use, change of sex partner, and condom use. They also found sexual activity more common during the spring and summer months when adolescents had more leisure time. In another study, Kelley, Borawski, Flocke, and Keen (2003) found that 35% of the 4,704 sexually active teens studied had more than one partner in the past 18

months, and 40% of these multiple partnerships were overlapping or concurrent in time. These teens also reported lower condom use and a higher degree of regret of having sex related to alcohol use. This activity alone puts this population significantly at risk for acquiring STDs and HIV.

Condom Use

Crosby, DiClemente, Wingood, Lang, and Harrington (2003) performed a study that addressed the association of condom use and the acquisition of STDs among African American adolescent females. They found that out of 468 subjects, 51% reported a 100% condom use with all sexual encounters. However, of those subjects who reported a 100% use of condoms, 18% tested positive for a STD during the study. Furthermore, they found those subjects made multiple errors when using condoms and adolescents not consistently using condoms were about twice as likely to acquire an STD. Based on this information, it is imperative that more education and counseling should be provided to the adolescent population. One study indicated that 80% of the adolescents ($N = 236$ ages 14-19) studied reported using condoms with last sexual encounter, but 24% tested positive for a STD (Ellen, Adler, Gurvey, Millstein, & Tschann, 2002).

Some people have thought that making these condoms available to students will encourage them to have sexual intercourse, but in one study, Blake et al. (2003) found that adolescents enrolled in condom availability schools were less likely to be sexually active or to report recent sexual intercourse. They found that it is necessary to also provide condom instruction when making condoms available to adolescents. In several

studies, researchers (Crosby et al., 2001a; Crosby & Yarber, 2001; Fitch et al., 2002) found that incorrect condom application is related to the increase risk of STDs in African American adolescents. They also reported that the perception of knowledge about correct condom use was infrequently related to actual knowledge. Crosby and Yarber (2001) found that about one-third of the subjects in their study believed that condoms work just as well with Vaseline (which weakens condoms) as with other lubricants designed specifically for that purpose. They found that adolescents have many misconceptions with the correct use of condoms.

Although condom usage is an effective way of preventing STDs, there are many adolescents who are not committed to using condoms on a consistent basis. Roye (1998) found that Hispanic and African American adolescent females who use hormonal birth control were less likely to use condoms than those who only used condoms as their method of birth control. Roye also found that while African Americans were more likely to report condom use than Hispanics, there was still an increase in STDs in that population. These data suggested that the subjects incorrectly responded to questions regarding condom use and/or practiced inconsistent and sporadic use of condoms.

Some studies have looked at the affects of the living environment of this population as a factor for condom use. In their study, DiClemente et al. (1996) found that a large proportion of African American adolescents living in public housing developments were sexually active and they reported consistent condom use over the last 6 months. They also found the frequency of sexual intercourse was inversely related to condom use and those adolescents with higher numbers of sexual episodes were less

likely to use condoms consistently. In another study, Sionean and Zimmerman (2000) found that socioeconomic status had no bearing on condom usage in African American adolescent females, which was attributed to condom negotiation with their partners and abilities to use condoms.

The Youth Risk Behavior Surveillance System (YRBSS) of 2001 (Grunbaum et al., 2002) reported that of 33.4% currently sexually active students nationwide, 57.9% reported that either they or their partner had used a condom during last sexual intercourse. They also found that African American students were significantly more likely than white and Hispanic students to use condoms, which is inversely related to their STD rates. Milhausen et al. (2003) found that 34% of the African American high school students they studied reported they had not used a condom during their last intercourse experience, which supports the increase in sexual risk taking with this population.

Risk Taking and STD Risk Perceptions

Risky sexual behavior can be defined as any sexual activity that increases the risk of contracting HIV or other sexually transmitted disease or becoming pregnant. These risky behaviors include early sexual debut, unprotected sexual activity, inconsistent use of condoms, high-risk partners, survival sex, and multiple partners (Taylor-Seehafer & Rew, 2000). One study surveyed 522 African American adolescent females and focused on the affect of having had a STD in the past on continuing risky sexual behaviors (DiClemente et al., 2002). The researchers found that a past STD diagnosis was an

indicator of current high-risk sexual activity and increased risk for two common STDs: gonorrhea and trichomoniasis. Even though some of these adolescents gained some factual knowledge from the experience of having had a STD, they were not applying that knowledge to their current sexual behaviors. These findings suggested that there is a need for more clinic-based prevention directed toward adolescents with a history of STDs, as a strategy for reducing STD-associated risk behaviors and, consequently, the likelihood of acquiring new STD infections (DiClemente et al., 2002). On the other hand, Royce (1998) reported that by having an STD was the best predictor of increased condom use among a sample of female adolescents.

Some researchers have suggested that adolescents' risk behaviors co-occur, thereby creating a constellation of risk behaviors among many adolescents. One study was designed to look at African American adolescent females who had been adjudicated (Crosby, DiClemente, Wingood, Rose, & Levine, 2003). The researchers found that these adolescents were about twice as likely to report a history of STD diagnosis and more than three times as likely to report an STD diagnosis in the past 90 days. These adjudicated adolescents were about 6.4 times more likely to report recent sex with someone whom they suspected or knew had an STD. So the risk they took to get them convicted of a crime may reasonably have made them at increased risk for acquiring a STD (Crosby, DiClemente, Wingood, Rose & Levine, 2003). In another study, binge drinking was directly related to high-risk sexual behaviors in adolescents (Dunn, Bartee, & Perko, 2003). Bachamas and associates (2002) found that African American girls who reported substance abuse also reported high rates of risky sexual behaviors. They also suggested

that an interdisciplinary model of care should be aimed at reducing risky behaviors and preventing the development of more significant health, mental health, or substance abuse disorders during the preteen years.

A big part of this population's risk-taking behavior is affected by their perceived threat or "worry" about obtaining a STD. Crosby et al. (2000) completed a study that addressed adolescents' worry of STDs/HIV in which they interviewed 522 African American adolescent females. The researchers found that even with ample evidence of adolescents' high-risk behavior, including STDs, their STD and HIV worry was low, which suggested complacency about obtaining one of these diseases. Some of the reasons the adolescent females gave for not worrying were: they trusted their partner, they did not see any evidence of a disease, and the perceived barrier the partner would have to using a condom. Along with this thought, several other researchers reported that this high-risk population became less concerned about risk of STDs as familiarity with their male partner increased. They also reported that not using a condom may be viewed as a demonstration of trust and commitment in a relationship (Crosby et al., 2000; Crosby, DiClemente, Wingood, Rose, & Lang, 2002). The Youth Risk Behavior Surveillance System (YRBSS) 2001 (Grunbaum, 2002) indicated that black female students (15.6%) were significantly more likely than Hispanic female students (9.5%) to have had four or more sexual partners. The YRBSS also indicated that black females (39.5%) were more likely to be currently sexually active than white or Hispanic females.

Findings from other studies reported that having positive parental guidance has a positive affect on reducing risk taking behaviors including substance use, risky sexual

behaviors, and alcohol use in African American adolescents. Taking that into consideration, parents should be included in the interventions used to help reduce or prevent these risk taking behaviors (Jemmott, Jemmott, & Fong, 1998; Stanton et al., 2002; Whitaker, Miller, May, & Levin, 1999).

Hutchinson (1998) reported that all sexually active women may be at some risk for STDs and HIV because the association of self-risk with perception of partner's risk, although not surprising, was cause for some concern. The women frequently underestimated their sexual partner's number of past and current sexual partners, which could make their partner a high-risk sexual partner.

Self-Efficacy and Sexual Behaviors

Davis (1994) identified the stages of adolescence and adolescents' psychosocial development. Early adolescence was considered between the ages of 12 and 14 and was characterized by a quest for independence, focus on body image, and reflection of the family system. Middle adolescence, the ages of 15 to 17, was characterized by risk-taking behavior and peer involvement/peer pressure. In late adolescence, those 18 to 20 years old become more abstract in their thought process. Along with these developmental factors there are also personal factors that contribute to risky sexual behavior, such as self-efficacy, sexual knowledge, self-esteem, and communication skills (Taylor-Seehafer & Rew, 2000).

Bandura's concept of self-efficacy looks at a person's belief that they can exert control over their own motivation, thought processes, emotional state, and patterns of

behavior (DiClemente & Peterson, 1994). Bandura noted that a belief in one's personal efficacy to exercise control over one's sexual behavior emerged as the best predictor of sexual risk-taking behavior and the lower the perceived self-efficacy, the higher the likelihood of engagement in sexual practices that carry a high risk (DiClemente & Peterson, 1994). There may also be other factors that affect the choices these adolescents make. Some are indirect and other more direct such as excessive family stress, poverty living conditions, and lack of positive peer/adult role models. For example, these choices can reduce the effectiveness of positive personal factors such as cognitive maturity and self-efficacy in the use of condoms (Taylor-Seehafer & Rew, 2000). African American adolescent females have perceptions that their boyfriends control sex and that their boyfriends control condom use, which is often directly related to self-esteem and/or self-worth (Crosby et al., 2000).

Condom use self-efficacy is one of the most important predictors of intended and actual condom use (Baele, Dusseldorp, & Maes, 2001; Fortenberry, Brizendine, Katz, & Orr, 2002; Sionean et al., 2002). One study was focused on this topic and the researchers reported that communication skills involve both emotional and operational aspects (Fortenberry et al., 2002). Image confidence, the perceived ability to deal with eventual negative impressions caused by proposing condom use, has to do with emotional motives to be accepted by the partner. More assertiveness and less image confidence tended to associate with higher condom use intention and consistency (Baele et al., 2001). On the other hand, the researchers also found that emotional control summarizes the influence of being in love, having sex unexpectedly, the emotions associated with becoming sexually

experienced, and drinking alcohol. When one is involved in strong emotions, an instrumental behavior such as using condoms might not come into one's mind. As a result in the 424 adolescents, Sionean et al. (2002) as well as other researchers found that adolescents with a stronger sense of emotional control and higher levels of assertiveness are more inclined to use condoms and use condoms more consistently (Baele et al., 2001; Fortenberry et al., 2002).

One study looked at increasing condom-use intentions among sexually active black adolescent women (Jemmott & Jemmott III, 1992). The researchers defined perceived self-efficacy to use condoms was based on responses to items concerning participants' ability to interrupt sexual arousal to use condom, confidence that they could obtain a condom, confidence they could put a condom on their partner, belief that they could get their partner to use a condom even if he did not want to, and rating of how easy it would be to use a condom. They found that intentions to use condoms increased after the participants attended a culturally sensitive program and they were found to have higher levels of self-efficacy to use condoms than prior to attending the program (Jemmott & Jemmott III, 1992). Negotiating for condom use and refusing to have sex without condoms have recently been promoted as important sexual protective strategies for women and skills that can be taught, practiced, and developed (Hutchinson, 1998).

Several studies have been done to help develop techniques that will impact the sexual self-efficacy in this at-risk population. One study involved 246 African American adolescents who were randomly assigned to an educational program or an 8-week intervention (Lawrence, Brasfield, Jefferson, Alleyne, & Bannon, 1995). The intervention

combined education with behavior skills training including correct condom use, sexual assertion, refusal, information provision, self-management, problem solving, and risk recognition. The participants who attended the skills training showed up to one year later a reduction in unprotected intercourse, an increase in condom-protected intercourse, and an increase in displayed behavioral skills to a greater extent than participants who received the information alone (Lawrence et al., 1995; Lawrence et al., 1998). Sexual-risk reduction efforts directed toward adolescent females should seek to build self-efficacy to negotiate safer sex and provide training in social competency skills that may help to reduce or eliminate partner barriers to condom use. Further sexual risk-reduction programs may be more effective if they include parents as advocates of safer sexual behaviors (Sionean et al., 2002).

Summary

The literature review highlighted some key points:

1. The use of intervention programs should aid in preventing risky sexual behavior practices (Taylor-Seehafer & Rew, 2000).
2. African American adolescent females had rates of initiating sexual intercourse that were one quarter higher than whites or Hispanics (Hogan et al., 2000).
3. According to the CDC (2002a), African American adolescent females had gonorrhea rates 18 times greater than non-Hispanic whites.
4. African American adolescent females even though reporting consistent condom usage continued to have increasing rates of STDs (Royce, 1998).

5. Adolescents were found to have many misconceptions with the correct use of condoms (Crosby & Yarber, 2001).
6. Adolescents' STD and HIV "worry"/risk perception was found to be very low, suggesting complacency about obtaining one of these diseases (Crosby et al., 2000).
7. Over one third of black female adolescents (39.5%) were more likely to be currently sexually active than white or Hispanic female adolescents (Grunbaum, 2002).
8. Having positive parental guidance has a positive effect on reducing risk-taking behaviors including substance use, risky sexual behaviors, and alcohol use in African American adolescents (Stanton et al., 2002; Whitaker et al., 1999).
9. Condom use self-efficacy is one of the most important predictors of intended and actual condom use (Baele et al., 2001).
10. Many factors affect the choices black adolescent females make. Some are indirect and others are more direct, such as excessive family stress, poverty living conditions, and lack of positive peer/adult role models (Taylor-Seehafer & Rew, 2000).

CHAPTER 3

PROCEDURE FOR COLLECTION AND TREATMENT OF DATA

The National Longitudinal Study of Adolescent Health (ADD health) database was used in this secondary analysis of a pre-existing database. The study is designed to examine the relationship of condom knowledge and the perceived risk of obtaining STDs and HIV with African American adolescent females. In addition, the relationship of sexual self-efficacy and the rate of condom use in the same population. The goals of this study were the following: (1) To identify factors that may attribute to high-risk behaviors in African American adolescent females. (2) To investigate actual condom knowledge in African American adolescent females. (3) To provide health care providers with the information necessary to develop and implement culturally sensitive programs to reduce STD/HIV rates in African American adolescent females.

History of the ADD Health Study

The ADD health study (American Family Data Archives, 1998), designed by J. Richard Udry and Peter Bearman, was primarily funded by the National Institute of Child Health and Human Development to the Carolina Population Center at the University of North Carolina. There also was additional funding for this project from several other federal agencies (American Family Data Archives, 1998). The project used a team of

trained researchers in adolescent health along with fieldwork aided by the National Opinion Research Center.

The ADD health database is a representative analysis of adolescents in grades 7 through 12 in the United States school system. The ADD health study was designed to assess the health status of adolescents and explore the causes of their health-related behaviors, with the focus on the effects of the multiple contexts or environments (both social and physical) in which they live.

The ADD health study research design was predicated on the idea that the different health of adolescents has three sources (American Family Data Archives, 1998): (1) Social environments can be conceptualized at many levels of aggregation from the family to the community. (2) Differing behaviors may be related to attributes such as intelligence, predispositions, personality, skills, and physical characteristics. (3) The same environment and/or same behavior can affect individuals differently depending on their robustness and degree of susceptibility, which can originate in differing experiences or genetic endowments. This is a longitudinal study that had three waves. Wave I consisted of data collected from September 1994 through December 1995. This wave included in-home questionnaires and in-school questionnaires; school officials and parents were provided with questionnaires as well. Wave II began in April 1996 and continued through August 1996, which included utilization of an in-home follow-up Interview. Wave III was collected from August 2001 through April 2002 and was focused on assessing the transition from adolescence and young adulthood.

The ADD health study was focused on forces that influence adolescents' behavior, in particular those residing in the various contexts of their lives, families, friendships, romantic relationships, peer groups, schools, neighborhoods, and communities (American Family Data Archives, 1998). To access this data, the public must purchase the CD-ROM developed by the Sociometric Corporation. The database is updated as acquired by the Sociometric Corporation on a timely basis. There is also access available to researchers who would like to utilize the data for further evolvement of research and investigate practice (see Appendix A).

The research design used for this study was school based involving adolescents in junior high and high school. The study examined the behaviors and possible reasons for the behaviors exemplified in this group. The questionnaires were completed by students, parents, and school officials; also involved were some in-home interviews. This was a longitudinal quasi-experimental quantitative study, which included an in-home instrument with an index of questions and variable names taken from the ADD health study Wave II database. The total number of female participants interviewed in the study was 3,356. However, the present research study only used African American adolescent females. Each participant received the same self-administered questionnaire and the variables included: (1) demographics such as race, age, and ethnicity, (2) AIDS/STD risk perceptions, (3) self-efficacy, (4) condom knowledge, (5) motivations to engage in risky behaviors, and (6) reported condom use.

The participants of the ADD health study survey Wave II were questioned about six partners: three romantic and three non-romantic. They were asked questions about romantic and sexual relationships. For the present study, the participants were considered to be sexually active if they answered yes to having ever had sexual intercourse.

Setting

The data for this study were taken from a pre-existing database, the National Longitudinal Study of Adolescent Health (ADD health study), Wave II, 1994-1996 (American Family Data Archive, 1998). Permission to use the database was obtained from the Carolina Population Center of the University of North Carolina (see Appendix A). The specific locations of the participants were not reported to protect the anonymity of the study subjects. However, the rigor with which the study was conducted and the large sample size, including over sampling of certain ethnic groups, make it representative of all U.S. adolescents.

Population and Sample

The population for this study consisted of only African American adolescent females. The primary sampling for the ADD health study database came from a sample of 80 high schools. A high school was defined eligible if it included an 11th grade and had an enrollment of more than 30 students. Incorporating systematic sampling methods and implicit stratification in the ADD health study design ensured that this sample is representative of U.S. schools with respect to region of country, degree of urbanicity, school type, ethnicity, and school size. Once a high school was selected, the feeder junior

high schools were included for the sample. There was a total of 132 schools in the core study and a total of 14,738 adolescents who completed the questionnaire.

Participants for this study were selected from the ADD health study database. They were African American females between the ages of 13 and 19, who reported being sexually active. Of the 14,738 adolescents completing Wave II of the ADD health study, data from 3,356 subjects were first extracted, based on gender. This number was further reduced to only include those female participants who reported to be African American. For hypothesis 1, 613 participants met the criteria: 13-19 year old African American female. For hypothesis 2, there were 305 participants who met the criteria: 13-19 year old African American female who reported to ever have had sexual intercourse.

Protection of Human Subjects

Research subjects who participated in the ADD health study were protected by a certificate of confidentiality issued by the Department of Health and Human Services (see Appendix A). The research team conducting the ADD health study, Wave II survey, assured the protection of human subjects, and participation in the study was voluntary. The participants were provided with written and verbal assurance that confidentiality would be maintained. Parents were given notification in advance of when the questionnaire would be administered. For the current study, data were obtained from a pre-existing database in which all participants were anonymous to the researcher. Texas Woman's University and all individuals accessing the data must first sign a consent form, stating compliance with the AFDA and the Public Health Services Act guidelines (see

Appendix A). This study was reviewed as a Level I exempt application for research by the Institutional Review Board (IRB) of Texas Woman's University, and permission was granted by the IRB to conduct the study on December 12, 2003 (see Appendix B).

Instrument

The ADD health study questionnaire had 5,800 variables. These variables ranged from topics demographic in nature to those related to dietary habits, relationships, and various behavioral tendencies including sexual behavior.

Wave II data were collected from April 1996 through August 1996. Several pilot studies were conducted to assess and evaluate the reliability and validity of the instrument. Some of the items were amended and omitted as needed. The National Opinion Research Center at the University of Chicago trained 500 interviewers to carry out the interviews for the ADD health study survey across the U.S. (American Family Data Archives, 1998). The question types included in the instrument were open-ended, true/false, and multiple-choice questions. Likert scales also were used as a response to many of the topics. Various instructional tools and additional information concerning the actual collecting of the ADD health study data can be located in the codebooks that can be obtained from the Sociometric Corporation.

For purposes of this study, variables were chosen from the original ADD health study instrument in order to examine the relationship of condom knowledge and the perceived risk of obtaining STDs and HIV with African American adolescent females. In

addition, the study examined the relationship of sexual self-efficacy and the rate of condom use in the same population.

The questions used to test the hypothesis for this study are as follows:

1. Condom knowledge- (see Knowledge Quiz Appendix C)
2. Perceived risk to STDs/HIV- (see Perceived Risk questions Appendix C)
3. Sexual self-efficacy-
 - If you wanted to use birth control, how sure are you that you could stop yourself and use birth control once you were highly aroused or turned on?
 - How sure are you that you could plan ahead to have some form of birth control available?
 - How sure are you that you could resist sexual intercourse if your partner did not want to use some form of birth control?
 - Compared with other people your age, how intelligent are you?
4. Condom use-

In the past year, how often have you used a condom?

Data Collection

This study is a secondary analysis of a pre-existing database, ADD health study (American Family Data Archives, 1998) that includes a sampling across the U.S., which considered rural/urban cultures, ethnic groups, and different regions. Texas Woman's University has purchased access to the database and use agreement for the National Longitudinal Survey of Adolescent Health (ADD Health). Permission for secondary analysis of the ADD health study data was as outlined in the Texas Woman's University Institutional Review Board guidelines. Considering the population for this study is generally the underserved and the under represented, generalizations can be made from

this database. The database consists of a self-administered questionnaire and culturally sensitive video as well as an in-home interview (American Family Data Archives, 1998). Of the sample available for use in this study, the following were isolated: A total of 613 participants met the criteria of 13-19 year old African American female for H₁. For H₂, 305 participants met the criteria of 13-19 year old African American female who reported to ever have had sexual intercourse.

Data included, but was not limited to, age, sex, grade, race, location, condom use, and history of STD's/HIV. Other important data available for use in this study or for further investigation on the topic may include age of first coitus, number of sex partners in lifetime, and history of drug/alcohol use.

Treatment of Data

The sample to be extracted from the ADD health study database was comprised of only African American female subjects. The sample was described by use of frequencies and percentages, with means and standard deviations where applicable, for the variables of age, grade, living environment (if available from database), and any other demographic variables that may be used for the purpose of this study.

Two research hypotheses were formulated for this study:

H₁: There is a positive relationship between African American adolescent females condom knowledge and their STD/HIV risk perceptions.

H₂: There is a positive relationship with high self-efficacy and condom use in sexually active African American adolescent females.

The Pearson's correlation coefficient was used to test both hypotheses. This test summarizes the magnitude and direction of a relationship between two variables (Polit & Hungler, 1999). The variables extracted to address the first hypothesis were: African American, female, their condom knowledge and their risk perception to STD/HIV. The variables extracted to address the second hypothesis were: African American, female, sexually active and their sexual self-efficacy

Summary

This study is the secondary analysis of the pre-existing database, National Longitudinal Survey of Adolescent Health (ADD health study). This chapter described the history of the database, setting, population and sample participants in the study, protection of human subjects, and the instrument. Data collection procedures for the ADD health study were discussed along with a review of the questions extracted from the original instrument for the purpose of this study. The treatment of data and the variables used to test the hypotheses for this study also were identified.

CHAPTER 4

ANALYSIS OF DATA

The data for this study examines the relationship of African American adolescent females' condom knowledge and the perceived risk of obtaining STDs and HIV as well as the relationship of sexual self-efficacy as it relates to the rate of condom use in the same population. The data were obtained from a pre-existing dataset, ADD health study survey (American Family Archives, 1998). The results of the analysis from the extracted data set are presented in verbal and tabular format. This chapter begins with a description of the sample of adolescent females extracted for this study and includes the findings as well as a summary of findings.

Description of Sample

To test H_1 a sample of African American females, ages 13-21 who answered the condom knowledge questions as well as the questions covering STD/HIV risk perceptions, was extracted from the total sample of the ADD health study database (American Family Data Archives, 1998). Of the 613 respondents, the mean age and standard deviation was 16.01 ± 1.63 years. A frequency distribution showing the number and percentage of subjects in each age group is presented in Table 1. To identify race, the subjects were asked, "What is your race?" They could mark more than one race but later were required to declare what their primary ethnic identity was.

Table 1

Frequency and Percentage of Age of Sample for H_1 ($N=613$) of African American Adolescent Females from ADD Health Dataset

Age	Frequency	Percentage
13	37	6.0
14	89	14.5
15	112	18.3
16	135	22.0
17	115	18.8
18	94	15.3
19	23	3.8
20	6	1.0
21	2	0.3
Total	613	100.0

The STD/HIV risk perception total score was assessed by the subjects answering three questions such as “What do you think is your chance of getting AIDS? The frequency and percentage of answers given by the extracted subjects are shown in Table 2. Responses were totaled to give a risk perception score, with 3 as the highest level through 15 as the lowest level of risk perception. The mean score and standard deviation of the STD/HIV risk perception score were 10.6 ± 2.23 .

Table 2

Frequency and Percentage of Age of Sample for H₂ (N=305) of Sexually Active African American Adolescent Females Extracted from ADD Health Dataset

Age	Frequency	Percentage
13	6	2.0
14	22	7.2
15	42	13.8
16	70	23.0
17	71	23.3
18	71	23.3
19	16	5.2
20	6	2.0
21	1	0.3
Total	305	100.0

Level of condom knowledge was determined by responses from five true/false questions, such as “ When using a condom, the man should pull out of the woman right after he has ejaculated.” The frequency and percentage of responses are outlined in Table 3. Responses were totaled to give a total knowledge score in which 0 means the subject got none of the answers correct through 5 which means the subject got all questions correct. The mean and standard deviation for condom knowledge were 3.6 ± 1.22 .

Subjects under the age of 15 years were allowed to skip the condom knowledge questions and are represented as missing.

Table 3

Risk Perception Total Score Frequency and Percentage, with 3 = Highest HIV/STD Risk Perception and 15 = Lowest HIV/STD Risk Perception

Risk Score	Frequency	Percentage
3	1	0.2
4	4	0.7
5	6	1.0
6	6	1.0
7	29	4.7
8	30	4.9
9	56	9.1
10	75	12.2
11	107	17.5
12	69	11.3
13	52	8.5
14	28	4.6
15	15	2.4
Total	478	78.0
Missing	135	22.0
Total	613	100.0

A sample ($N = 305$) of African American sexually active adolescent females was extracted from the ADD Health Dataset for the purpose of testing H_2 (American Family Data Archives, 1998). The age range was between 13-21 years with the majority of the students between 16-18 years of age and a mean age and standard deviation of 16.61 ± 1.50 years (Table 4).

Table 4

Condom Knowledge Quiz Frequency and Percentage Results ($N = 613$)--Data Analyzed from ADD Health Dataset Wave II, with African American Adolescents

Condom Knowledge Score	Frequency	Percentage
All Wrong	8	1.3
20% Right	25	4.1
40% Right	50	8.2
60% Right	102	16.6
80% Right	165	26.9
100% Right	127	20.7
Total	477	77.8
Missing	136	22.2
Total	613	100.0

The subjects were considered sexually active if they answered “yes” to the question, “Have you ever had sexual intercourse?” To test H_2 , self-efficacy was identified by the responses to three questions that addressed the use of birth control if aroused in

which the frequency and percentages of responses are outlined in Table 5. The responses to the questions were totaled to give a self-efficacy score in which 3 was the highest level of sexual self-efficacy and 18 was the lowest level of sexual self-efficacy. The mean score and standard deviation of the self-efficacy total score were 32 ± 2.50 . Condom use was determined by the response to the question "In the past year how often have you used a condom?" The answers ranged from "all the time" to "none of the time". The frequency and percentages are outlined in Table 6.

Findings

The statistical analysis utilized for this study came from the SPSS (Statistical Package for the Social Sciences) Workshop Pack version 10.0 for Windows computer software displaying a variety of descriptive statistics. A *p* value of 0.01 was determined as the evaluation criteria of level of significance for statistical analysis in the study.

The first hypothesis of this study was: There is a positive relationship between African American adolescents females condom knowledge and their STD/HIV risk perceptions. A knowledge quiz was administered to assess knowledge related to condom use.

The knowledge questions were in the form of true-false questions, with the additional choice of "Don't Know." Those who selected "don't know" were coded as incorrect. Out of the 613 respondents, 136 were missing due to not having to answer the questions. Those African American adolescent females less than 15 years of age were excluded from this group because they did not have to participate in taking the

Table 5

Sexual Self-Efficacy Total Score Frequency and Percentages, 3 = Highest Level of Sexual Self-Efficacy and 16 = Lowest Level of Sexual Self-Efficacy with Sexually Active African American Adolescent Females, Data Extracted from ADD Health Dataset, Wave II

Sexual Self-Efficacy Score	Frequency	Percentage
3	138	45.2
4	39	12.8
5	28	9.2
6	14	4.6
7	21	6.9
8	10	3.3
9	9	3.0
10	3	1.0
11	3	1.0
12	1	0.3
13	4	1.3
15	2	0.7
16	1	0.3
Total	273	89.5
Missing	32	10.5
Total	305	100.0

Table 6

Frequency and Percentage of Condom Use Over the Past Year from Sexually Active African American Adolescent Females, Extracted from ADD Health Dataset, Wave II

Responses	Frequency	Percentage
None of the time	16	5.2
Some of the time	41	13.4
Half of the time	18	5.9
Most of the time	44	14.4
All of the time	114	37.4
Total	233	76.4
Refused	1	0.3
Skip	69	22.6
System	2	0.7
Total	72	23.6
Total	305	100.0

knowledge quiz. A remainder of 477 respondents answered the knowledge quiz. The knowledge quiz contained questions such as “Vaseline can be used with condoms?” The STD/HIV risk perception was assessed by the responses to questions such as “What are your chances of getting AIDS?” Out of the 613 respondents, again 135 were missing due to not having to answering the questions due to under age 15, which left 478

respondents who answered the STD/AIDS risk perception questions. To test this hypothesis, the Pearson's correlation coefficient (one tailed test), which is used in testing the relationships between two variables (Polit & Hungler, 1999). In testing the first hypothesis, a very weak positive relationship ($r = -0.115$; $p = 0.006$, not statistically significant) was determined between the subjects' condom knowledge and STD/HIV risk perceptions. The statistical analysis excluded the data from the missing subjects as stated in Table 7. Thus H_1 was not supported by these findings.

Table 7

H₁ Correlation Results with Knowledge Score and Risk Score

		Knowledge Score	Risk Score
Knowledge score	Pearson Correlation	1	-0.115
	Sig. (1-tailed)	-	0.006
	N	477	470
Risk score	Pearson Correlation	-0.115	1
	Sig. (1-tailed)	0.006	-
	N	470	478

*Correlation is significant at the 0.01 level (1-tailed)

The second hypothesis of this study was: There is a positive relationship with high self-efficacy and condom use in sexually active African American adolescent females. Self-efficacy was assessed with questions such as "How sure are you that you could resist sexual intercourse if your partner did not want to use some form of birth control?" Out of 305 respondents, 50 were missing because of legitimate skip due to not

answering the questions. Condom use was identified as the respondents answering the question “Over the last year how many times have you used a condom with sexual intercourse?” To test the second hypothesis, Pearson’s correlation coefficient (one-tailed test) was used to test the relationships between the two variables (Polit & Hungler, 1999). In testing the second hypothesis, a very weak positive relationship ($r = -0.217$; $p = 0.001$, not statistically significant) was determined between high self-efficacy and condom use in this sample. The statistical analysis did not include the data that was reported as missing as stated in Table 8. Therefore, H₂ was not supported in this study.

Table 8

H₂ Correlation Results with Self-Efficacy Score and Condom Use

		Self-Efficacy Score	H2CO11 Past Year- How Often Use Condom
Self-Efficacy Score	Pearson Correlation	1	-0.217
	Sig. (1-tailed)	-	0.001
	N	273	210
H2CO11 Past Year-How Often Use Condom	Pearson Correlation	-0.217	1
	Sig. (1-tailed)	0.001	-
	N	210	233

*Correlation is significant at the 0.01 level (1-tailed)

Summary of Findings

In African American adolescent females there was a very weak positive relationship between increased condom knowledge and having an increased risk

perception to STD/HIV. Having adequate knowledge of correct usage of condoms had no relationship to this sample having an increased STD/HIV risk perception, according to this study. It was also discovered that in this sample of sexually active African American adolescents extracted from the ADD health study database there was a very weak positive relationship with high self-efficacy and increase in condom use.

The most troublesome finding in the study was that 37.4% of the sexually active respondents reported using a condom 100% of the time with sexual intercourse during the past year. Use of a condom 100% of the time apparently does not have to do with lack of condom knowledge since more than 50% of the respondents who answered the condom use knowledge quiz got 70% or more of the questions correct. This finding also may indicate a need to focus on increasing STD/HIV risk perceptions in this population since only 1 subject reported having the highest level of STD/HIV risk perception. One finding that was promising was that 50 % of the subjects reported having the highest level of self-efficacy available from the totaling of the 3 questions. This finding would suggest that even having high self-efficacy in this population is not carrying over to actual condom use. This finding would suggest a stronger focus on including condom use with reinforcing sexual self-efficacy with African American adolescent females.

CHAPTER 5

SUMMARY OF THE STUDY

This study was designed to examine the relationship of condom knowledge and the perceived risk of obtaining STDs and HIV with African American adolescent females. In addition, this study also examined the relationship of sexual self-efficacy and the rate of condom use in African American adolescent females. A summary of this study is presented along with a discussion of the findings. Conclusions and nursing practice implications related to the findings of this study also are present. In addition, recommendations for future research are discussed.

Summary

A statistical analysis was utilized to test the two hypothesis investigated in this study. The first hypothesis tested was that there is a positive relationship between African American adolescent females condom knowledge and their STD/HIV risk perceptions. The second hypothesis was that there is a positive relationship with high self-efficacy and condom use in sexually active African American adolescent females. These hypotheses were assessed based on data derived from the National Longitudinal Study of Adolescent Health (ADD health) (American Family Data Archives, 1998).

The ADD health study (American Family Data Archives, 1998) database was used for this study due to the multitude of information that could be investigated as it

relates to the sexual behaviors of adolescents in the U.S. The secondary analysis of the data extracted from the dataset provided a great insight into the issues related to female adolescent sexual health practices. The results from the ADD health study are generalized for the U.S. adolescent population. However, the data extracted for this study only applied to one ethnic group--African Americans.

The conceptual framework utilized for this study was the self-efficacy theory that Bandura (1986) developed as part of the social cognitive theory. This theory addresses a person's expectations, beliefs, self-perceptions, goals, and intentions that give shape and direction to behavior. Bandura found that a belief in one's personal efficacy to exercise control over one's sexual behavior emerged as the best predictor of sexual risk-taking behavior (DiClemente & Peterson, 1994). When applying this theory to condom use with African American adolescent females, it can be postulated that those with higher self-efficacy would be more likely to use condoms than those with low self-efficacy.

Discussion of Findings

The findings of this study indicated that African American adolescent females with increased condom knowledge do not have an increase in their STD/HIV risk perceptions. The sample for the study consisted of 613 African American adolescent females between the ages of 13-21 who were interviewed during Wave II of the ADD health study (American Family Data Archives, 1998). The average age for this sample was 16.01 years old. Although it was hypothesized that African American adolescent females with increased condom knowledge have a higher perception of STD/HIV risks,

the findings indicated this not to be the case. Even though other researchers (Crosby et al., 2001; Crosby & Yarber, 2001; Fitch et al., 2002) found that incorrect condom application is related to the increase risk of STDs to African American adolescents, they also found that adolescents have many misconceptions with the correct use of condoms. However this study found that more than 50% of the subjects passed the condom knowledge quiz and more than 50% of them were found to have a low perceived risk to acquiring STDs/HIV. Crosby and Yarber found that about one-third of the subjects in their study believed that condoms work just as well with Vaseline, but this study's findings indicated that 56% of subjects answered the question regarding the use of Vaseline and condom use correctly. Crosby and Yarber found that adolescents have many misconceptions with the correct use of condoms.

This study hypothesized that in sexually active African American adolescent females having high sexual self-efficacy is related to increase in condom use. The sample for the study consisted of 305 sexually active African American adolescent females between the ages of 13-21 who were interviewed during Wave II of the ADD health study (American Family Data Archives, 1998). The average age for this sample was 16.01 years old. This study found that there was a very weak relationship between high sexual self-efficacy and an increase use of condoms in this population. Crosby, DiClemente, Wingood, Lang, and Harrington (2003) performed a study that addressed the association of condom use and the acquisition of STDs among African American adolescent females. They found that out of 468 subjects 51% reported a 100% condom

use with all sexual encounters. But of this study found less than 50% of the subjects reported that in the last year they used a condom 100% of the time.

One study looked at increasing condom-use intentions among sexually active black adolescent women (Jemmott & Jemmott III, 1992). These investigators found that intentions to use condoms increased after the participants attended a culturally sensitive program and participants were found to have higher levels of self-efficacy to use condoms than prior to attending the program (Jemmott & Jemmott III, 1992). However this study's findings indicated that while 50% of the subjects were found to have high sexual self-efficacy, less reported using condoms 100% of the time during the last year. The findings of this study do not support the findings of other researchers presented in the literature review; however, these findings do highlight the lack of condom use in this population. Some of the possible reasons for the contradictory findings in this study may be sampling methods, sample size, research techniques, and honesty of the respondents.

The theoretical basis for this study was Bandura's (1986) self-efficacy theory in which condom use self-efficacy is one of the most important predictors of intended and actual condom use. One study focused on this topic reported that communication skills involve both emotional and operational aspects. Image confidence, the perceived ability to deal with eventual negative impressions caused by proposing condom use, has to do with emotional motives to be accepted by the partner. Researchers found that adolescents with a stronger sense of emotional control and higher levels of assertiveness are more inclined to use condoms and use condoms more consistently (Baele, Dusseldorp, & Maes, 2001; Fortenberry, Brizendine, Katz, & Orr, 2002; Sionean et al., 2002). This

information does not support the findings of this study. However, it has been found in the literature that high self-efficacy is a significant variable in summarizing frequency of condom usage.

Conclusions and Implications

The findings of this study have implications for public health interventions designed to prevent STDs and HIV in adolescents in the U.S. It is clear that interventions have to include activities that affect self-efficacy. Interventions have to be focused on adolescents at high risk for STDs and health care providers must struggle to find effective strategies to increase adolescents' perceptions of risk for STDs and HIV. The role of the health care provider is an important role and is primarily responsible for the management and treatment of the African American female. This role includes encouraging abstinence, providing safe sex and STD counseling, and promoting and fostering good health care practice (Lovings, 2002). Many health care providers have to focus on the entire needs of the patient and their current health state. Many factors have to be considered in dealing with this special population, such as families, friendships, peers, romantic relationships and neighborhoods.

Due to the increasing numbers of STDs in this population, it is apparent based on the findings of this study that health care workers have to continue with further health education and open communication if there is any hope in reaching this population. Emphasizing that condom use is a normative behavior may be helpful in the teaching

process so that condom usage among the sexually active will become more consistent (Lovings, 2002).

Helping African American adolescent females needs to have encouragement and support to increase self-efficacy in order to increase negotiating skills with getting partners to use condoms consistently. With recognizing the risk with acquiring STD/HIV, further counseling and culturally sensitive interventions need to be employed for sexually active adolescents to actualize the risk to them and their partners.

The counseling and programs tailored for this population must be centered around gender, race, environment, and learning ability. Health care workers have to try and understand the motivations that lead adolescents to engage in risk-taking behavior and what would be the motivations to engage in good health practices in order to be successful in increasing sexual risk perceptions.

Even though several of the studies have shown that African American adolescent females have reported being more likely to use condoms, their STD/HIV rates continue to be higher than any other race in the same age range. This would indicate that there is a breakdown in communication or that they are not being truthful about their condom use.

The findings from this study also can be used to aid health care providers, teachers, counselors, and parents identify the special needs necessary to reduce STD/HIV in African American adolescent females.

Recommendations for Further Study

The results of this study have revealed that more research should be conducted in the area of adolescent sexuality with emphasis on African American females. The following recommendations for further research include:

1. Investigating the factors that can increase condom use as well as increasing sexual self-efficacy in African American adolescent females because self-efficacy to assert condom use has been found to be a key determinant of consistent condom use.
2. Investigating the use of abstinence education in the school health programs through comparing a sample of adolescents who attend the abstinence education verses those who do not to see if there is a chance in reducing the early initiation of sexual activity. Several studies have found that delaying the onset of sexual activity markedly decreases the average number of lifetime sexual partners.
3. Investigating the perceived needs of adolescents and safer sex practices because little research has been conducted in the area of adolescent need perception. A qualitative study may be useful in studying this point. There is a possibility that a significant difference exists in the perceived needs of the adolescents and what has been taught to them if they are disinterested in the information and unwilling to apply it.
4. Investigating the factors affecting condom use verses STD/HIV risk perception in African American adolescent males. In one study of this population, it was found that after going through an educational intervention covering condom use there

was an immediate impact on condom use attitudes, self-efficacy, and intentions, which continued for a 6-month period.

5. Investigating the role of parental involvement in human sexuality education starting with parental education and increasing parental involvement in problem resolution, self-efficacy enhancement, and parental support.
6. Investigating African American adolescent females realistic versus perceived condom application skills. Reducing sexual risk behaviors may require more than enhancing adolescent females' condom application skills and may require addressing other relational skills as well.
7. Investigating further the African American adolescent female's role in the decision-making process on sexual health decision making by designing and conducting a study that examines the different factors influencing the decision to engage or not to engage in sexual intercourse and then what contributes to use of the various contraceptive methods.
8. Investigating effects of child-parent communication with early onset of sexuality and assessing for the development of adolescent risk-reduction interventions that can specifically include parents.
9. Investigating the effects of a culturally sensitive cognitive-behavioral intervention that stresses abstinence or condom use, which can reduce HIV risk-associated sexual behavior among African American adolescents.
10. Investigating the effectiveness of a theory-based intervention with abstinence versus safer-sex strategies. This may suggest that if the goal is reduction of

unprotected sexual intercourse, the safer-sex theory may hold the most promise, particularly for those adolescents who are already sexually active.

11. This study was based on self-reports of condom use. Further studies should include objective assessments of condom use such as the occurrence of sexually transmitted disease in African American adolescent females. This study may need to be longitudinal to assess the sample over time.

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APPENDIX A
PERMISSION TO USE DATABASE

Agreement for the Use of Sensitive Data from The National Longitudinal Study of Adolescent Health

I. Definitions

- A. "The National Longitudinal Study of Adolescent Health" is the program project undertaken by the Carolina Population Center of the University of North Carolina at Chapel Hill (hereafter referred to as UNC-CH) under Grant No. P01 HD31921 from the National Institute of Child Health and Human Development. It is hereafter referred to as the "Add Health Project."
- B. "Investigator" is the person primarily responsible for analysis and other use of sensitive data obtained through this agreement.
- C. "Research staff" are all persons, excluding the investigator, who will have access to sensitive data obtained through this agreement.
- D. "Receiving institution" is the university or research institution at which the investigator will conduct research using sensitive data obtained through this agreement.
- E. "Representative of the receiving institution" is a person authorized to enter into contractual agreement on behalf of the receiving institution.
- F. "Sensitive data" includes any data from the Add Health Project that might compromise the anonymity or privacy of respondents to that study. Because of the school-based study design, Add Health respondents (adolescents, parents, and schools) are at increased risk of deductive disclosure compared with randomly-sampled individuals. Therefore, all data collected from the Add Health Project are considered to be sensitive.
- G. "Data file" includes any form of data, whether on paper or electronic media.
- H. "Funding agency" is a federal office or institute which provided funding for the Add Health Project. Funding agencies are only the offices or institutes providing the funding; other divisions or institutes within the larger organization are not considered funding agencies.

II. Requirements of Investigators

Investigators must meet the following criteria:

- A. have a PhD or other terminal degree,
- B. hold a faculty appointment or research position at the receiving institution.

III. Requirements of a Receiving Institution

Receiving institutions must meet the following criteria:

- A. be an institution of higher education, a research organization, or a government agency,
- B. have a demonstrated record of using sensitive data according to commonly-accepted standards of research ethics.

IV. Obligations of the Add Health Project

Sections V(I), the Add Health Project agrees to:

- A. Submit for review by the appropriate officials of UNC-CH the two originals of this agreement within ten working days of receipt of the two originals properly signed by the investigator and a representative of the receiving institution.
- B. Return one fully-signed original to the investigator by first-class mail within ten working days of receipt of the signed originals from appropriate UNC-CH officials.
- C. Provide the data files requested by the investigator in the Data File Order within ten working days of execution of this contract by appropriate officials of UNC-CH and send the requested data files to the investigator on CD ROM by FED EX or UPS. All data will be compressed and password protected.
- D. Provide electronic documentation of the origins, form, and general content of the data files sent to the investigator, in the same time period and manner as the data files.
- E. Provide up to four hours of telephone consultation to the investigator and/or research staff as to the origins, form, and general content of the data files sent, and as to required and preferred techniques for data management of those files. Further consultation is available for an additional fee.

V. Obligations of the Investigator, Research Staff, and Receiving Institution

Data provided under this agreement shall be held by the investigator, research staff, and receiving institution in strictest confidence and can only be disclosed in compliance with the terms of this agreement.

In consideration of the promises in Section IV of this agreement, and for use of data files from the Add Health Project, the investigator, research staff, and receiving institution agree:

- A. That the data will be used solely for statistical analyses, and that no attempt will be made to identify specific individuals, families, households, schools, or institutions; nor will any listing of data at the individual or family level be published or otherwise distributed.
- B. That, if the identity of any person, family, household, school, or institution should be discovered inadvertently, then (1) no use will be made of this knowledge; (2) the Principal Investigator of the Add Health Project will be advised of the incident; (3) the information that would identify the person, family, household, school, or institution will be safeguarded or destroyed as requested by the Add Health Project; and (4) no one else will be informed of the discovered identity.

To avoid inadvertent disclosure of persons, families, or households by using the following guidelines in the release of statistics derived from the dataset.

1. In no table should all cases in any row or column be found in a single cell.
2. In no case should the total figure for a row or column of a cross-tabulation be fewer than three.
3. In no case should a quantity figure be based upon fewer than three cases.
4. In no case should a quantity figure be published if one case contributes more than 60 percent of the amount.
5. In no case should data on an identifiable case, nor any of the kinds of data listed in preceding items 1-3, be derivable through subtraction or other calculation from the combination of tables released.
6. Data released should never permit disclosure when used in combination with other known data.

That no persons other than those identified in this agreement, or in subsequent amendments to this agreement, as investigator or research staff, be permitted access to the contents of sensitive data files or any files derived from sensitive data files.

To comply fully with the Sensitive Data Security Plan, which is included as part of this agreement.

To respond fully and in writing within ten working days after receipt of any written inquiry from the Add Health Project regarding compliance with this contract or the expected date of completion of work with the sensitive data and any data derived therefrom.

To make available for inspection, at reasonable hours, by the Add Health Project the physical housing and handling of all data files and any other information, written or electronic, relating to this agreement.

To supply the Add Health Project with:

1. a completed application form,
2. two copies of this entire agreement with original Institutional Signatures page,
3. a Sensitive Data Security Plan,
4. a completed Data File Order specifying which files are requested, with explanatory statements for constructed datasets (if requested),
5. a completed and signed Supplemental Agreement with Research Staff for Use of Sensitive Data,
6. Security Pledges for the investigator and all research staff identified in the Supplemental Agreement with Research Staff for Use of Sensitive Data with original signatures,
7. a copy of the document, signed by the receiving institution's Institutional Review Board (IRB), approving the research project and acknowledging the increased risk of Add Health respondents to deductive disclosure that require special procedures for the handling and storage of Add Health data.

To provide to UNC-CH a non-refundable fee in the amount of \$500, in the form of a check made payable to "University of North Carolina at Chapel Hill," to cover the expenses of producing and shipping data

2. a listing of public presentations at professional meetings using results based on these data,
 3. a listing of papers accepted for publication using these data, with complete citations,
 4. a listing of graduate students using the Add Health data for dissertations or theses, the titles of these papers, and the date of completion.
- N. That the investigator and the receiving institution hereby acknowledge that any breach of the confidentiality provisions herein will result in irreparable harm to The University of North Carolina at Chapel Hill, not adequately compensable by money damages. The investigator and the receiving institution hereby agree to the imposition of injunctive relief in the event of breach, in addition to money damages.

VI. Certificate of Confidentiality

Research subjects who participated in the Add Health Project are protected by a certificate of confidentiality issued by the Department of Health and Human Services in accordance with the provisions of section 301(d) of the Public Health Service Act (42 U.S. C., 241(d)). Under the terms of the Confidentiality Certificate, the receiving institution is considered to be a contractor or cooperating agency of UNC-CH under the terms of the Confidentiality Certificate; as such, the receiving institution, the investigator, and research staff are authorized to protect the privacy of the individuals who are the subjects of the Add Health Project by withholding their identifying characteristics from all persons not connected with the conduct of the study. "Identifying characteristics" are considered to include those data defined as sensitive under the terms of this contract.

VII. Incorporation by Reference

The parties agree that the following documents are incorporated into this agreement by reference:

- A. A copy of the IRB approval of the research project, taking into special consideration deductive disclosure risks.
- B. The Sensitive Data Security Plan proposed by the investigator and approved by the Add Health Project staff.

VIII. Attachments

- A. Guidelines for Sensitive Data Security Plan for the Use of Sensitive Data from The National Longitudinal Study of Adolescent Health
- B. Data File Order for the Use of Sensitive Data from The National Longitudinal Study of Adolescent Health
- C. Supplemental Agreement with Research Staff for the Use of Sensitive Data from The National Longitudinal Study of Adolescent Health
- D. Sample Security Pledge for the Use of Sensitive Data from The National Longitudinal Study of Adolescent Health
- E. List of Funding Agencies for The National Longitudinal Study of Adolescent Health

files and documentation, of consulting, and of administering this agreement.

An exemption to the non-refundable fee may be made if the request for data is from an investigator at one of the funding offices or institutes. To request a waiver of the non-refundable fee, a letter from the head of the agency requesting the deposit be waived and acknowledging the increased risk of deductive disclosure of respondents' identities inherent in the Add Health data should be submitted with the application. This letter will be incorporated into this agreement.

- J. To include in each written report or other publication based on analysis of sensitive data from the Add Health Project, the following statement:

This research is based on data from the Add Health project, a program project designed by J. Richard Udry (PI) and Peter Bearman, and funded by grant P01-HD31921 from the National Institute of Child Health and Human Development to the Carolina Population Center, University of North Carolina at Chapel Hill, with cooperative funding participation by the National Cancer Institute; the National Institute of Alcohol Abuse and Alcoholism; the National Institute on Deafness and Other Communication Disorders; the National Institute on Drug Abuse; the National Institute of General Medical Sciences; the National Institute of Mental Health; the National Institute of Nursing Research; the Office of AIDS Research, NIH; the Office of Behavior and Social Science Research, NIH; the Office of the Director, NIH; the Office of Research on Women's Health, NIH; the Office of Population Affairs, DHHS; the National Center for Health Statistics, Centers for Disease Control and Prevention, DHHS; the Office of Minority Health, Centers for Disease Control and Prevention, DHHS; the Office of Minority Health, Office of Public Health and Science, DHHS; the Office of the Assistant Secretary for Planning and Evaluation, DHHS; and the National Science Foundation. Persons interested in obtaining data files from The National Longitudinal Study of Adolescent Health should contact Add Health Project, Carolina Population Center, 123 West Franklin Street, Chapel Hill, NC 27516-3997 (email: addhealth@unc.edu).

- K. To destroy all the electronic and paper files, at the agreed upon date specified in the Application for Obtaining Sensitive Data. Add Health Project staff shall be able to visit within a year of this date, to confirm the data have been destroyed.
- L. If in the event the investigator changes institutional affiliation during the period covered by this contract, the investigator will take the following actions:
1. Inform the Add Health Project staff six weeks prior to the date of relocation.
 2. Resubmit a security plan for the new institution and obtain approval from Add Health Project staff prior to moving any electronic or paper files, from the originally-approved site to the new location.
 3. Destroy all electronic and paper files at the originally-approved site prior to the date of relocation.
 4. If the investigator is unable to establish and gain approval for the new location, all electronic and paper files, will be returned to the Add Health Project at the Carolina Population Center for storage. Upon approval of the new security plan, these stored files will be sent to the investigator. The investigator will assume all costs associated with the shipping and storage of these files. Although the data files will be stored in a secure location, Add Health staff assume no responsibility for the data files.
 5. Within three months of the effective date of the relocation, submit two copies of the "Institutional Signatures" page with original signatures on each and a copy of the IRB review and approval letter from the new institution.
- M. To provide annual reports to the Add Health Project staff which include:
1. a copy of the annual IRB approval for the research project,

F. Department of Health & Human Services Confidentiality Certificate

(Not available electronically. A copy will be included with each fully executed contract.)

G. Description of Deductive Disclosure Risk from The National Longitudinal Study of Adolescent Health



Institute for Women's Health
1130 John Freeman Blvd., Houston, TX 77030-2897
713-794-2482 Fax 713-794-2488

November 18, 2003

Dr. William Hanten, Chair
IRB, TWU-Houston

Dear Dr. Hanten:

I am writing to confirm that Candace Holley, a nursing graduate student working under the direction of Dr. Sandy Cesario, is an authorized user of the National Longitudinal Study of Adolescent Health (Add Health) data set. Ms. Holley signed a pledge agreeing to comply fully with the Sensitive Data Security Plan, which prohibits divulging of confidential information.

Please feel free to notify me if you need additional information or documentation.

Regards,

Kathryn E. Peek, Ph.D.
Director, Houston Office of Research and Institute for Women's Health

.c: Dr. Sandy Cesario

Attachment D
Sample Security Pledge
for the Use of Sensitive Data from
The National Longitudinal Study of Adolescent Health

Pledge of Confidentiality

I, Candace Holley, through my involvement with and work on the {name of research project} will have access to data collected by The National Longitudinal Study of Adolescent Health (Add Health Project). By virtue of my affiliation with this project, I have access to confidential information and use of data about respondents generally perceived as personal and private. I understand that access to this confidential information and data carries with it responsibility to guard against unauthorized use and to abide by the Sensitive Data Security Plan. To treat information as confidential means not to divulge it to anyone who is not a project member, or to cause it to be accessible to anyone who is not a project member. Anything not specifically named as "public information" is considered confidential.

Each person using data collected by The National Longitudinal Study of Adolescent Health is reminded that disclosing confidential information directly or allowing non-authorized access to such information may subject that individual to criminal prosecution and/or civil recovery and may violate the code of research ethics of the {research institution}.

I agree to fulfill my responsibilities on this project in accordance with the following guidelines:

1. I agree to not permit non-project personnel access to these sensitive data, either electronically or hard copy.
2. I agree to not attempt to identify individuals, families, households, schools, or institutions.
3. I agree that in the event an identity of an individual, family, household, school or institution is discovered inadvertently, I will (a) make no use of this knowledge, (b) advise the investigator of the incident who will report it to J. Richard Udry, (c) safeguard or destroy the information as directed by the investigator after consultation with J. Richard Udry, and (d) not inform any other person of the discovered identity.

Candace Holley
Name

Candace Holley
Signature

11-18-03
Date

APPENDIX B
EXEMPT REVIEW OF IRB APPROVAL

**EXEMPT REVIEW
APPLICATION TO THE INSTITUTIONAL REVIEW BOARD**

This form must be completed if the research committee (for student research) or the department coordinator (for faculty research) decides that the proposed research is exempt from Full Review or Expedited Review by the IRB. A proposal may be eligible for _____ if any of the following conditions is met:

- 1) only minimal risk to subjects, as described in the **Human Subjects in Research: Institutional Review Board Policies and Procedures**, pp. 11-12;

and/or

- 2) the project will be completed at another institution or in collaboration with investigators at another institution, and that institution's IRB has provided written approval for the proposal as described. **To be eligible for this exemption a signed copy of the institution's current IRB approval form must be attached to this application. If applicable, attach a memo indicating the student's role in the approved study;**

and/or

- 3) the project involves other types of exempt research as stated under _____

For _____ by the TWU Institutional Review Board, submit three copies of this form, any relevant Informed Consent Forms, surveys, questionnaires, and (if applicable) the collaborating institution's signed IRB approval form. Approval is required prior to the initiation of the research project. The investigator will be notified if the Institutional Review Board requires additional information.

To complete this form electronically, type information into the blanks provided. If your typing fills the blank, text will wrap automatically. Print out, secure appropriate signatures, and submit three copies (along with accompanying documents) to the Office of Research, MJG 913. Paper clip each of the copies—no staples, please.

Principal Investigator(s) Candace Holley SS# _____
 _____ SS# _____
 Faculty Advisor (if applicable) Dr. Sandra Cesario Dept. College of Nursing
 Title of Study Condom Knowledge Among African American Adolescent Females: The Relationship to STD/AIDS Risk Perceptions.
 Justification for _____ status Secondary analysis of a pre-existing data set
 Estimated beginning date of the study December 2003
 Estimated duration of the study Six Months, ending in May 2004

Research being conducted for (place an X in the appropriate box):

- | | | |
|---|--|--------------------------------------|
| <input type="checkbox"/> Professional Paper | <input type="checkbox"/> Dissertation | <input type="checkbox"/> Pilot Study |
| <input checked="" type="checkbox"/> Thesis | <input type="checkbox"/> Class Project | <input type="checkbox"/> Faculty |

Is this research being conducted for a non-university sponsor?

- ☐ Yes; Name of Sponsor
☒ No

If you are using an electronic form, fill in the blanks provided below. Text will wrap automatically. If you are completing a hardcopy form, attach additional typed page(s) as needed. If your application has been approved by another IRB, attach a copy of the entire application and the signed approval letter. You do not have to respond to questions 1 and 2.

1. Give a brief description of the study.

First, describe the subjects, i.e., # of subjects, age, gender, race/ethnicity, institutional affiliation, how they will be recruited, exclusion criteria.

Secondly, describe the procedures that relate to their participation, i.e., What will the subjects do? What will be done to them? Where will the study be conducted? What is the time involvement?

The ADD Health Data Base is a national longitudinal investigation and research instrument that explores adolescent behavior. Information from approximately 613 African American female study participants, age 13-19 from 80 high schools and 52 middle schools in the United States comprise the sample for this study. A secondary analysis of data obtained through interviews, questionnaires, and surveys collected during Wave 2 (April 1996- August 1996) of the ADD Health Data Base will be used to address the following hypotheses:

H1 There is a positive relationship between condom knowledge and STD/AIDS risk perceptions in African American adolescent females.

H2 There is a positive relationship between self-efficacy and condom use in African American adolescent females.

Because this is a secondary analysis of an existing data set, there will be no further time or other commitment of study participants.

2. What are the potential risks to the human subjects involved in this research or investigation?

Loss of anonymity is a potential risk, but is unlikely as the researcher does not have access to the identification of the actual study participants nor the specific locations of the randomly selected schools participating in the ADD Health Study.

SIGNATURE REQUIREMENTS

I attest that this is an accurate description of the proposed research protocol.

Signed


(Principal Investigator)

12-03-03
(Date)

1. For students

The research protocol and the IRB application have been read and approved by the members of the student's research committee:

<u>Names of Committee Members</u>	<u>Signatures</u>	<u>Date</u>
<u>Sandra Cesario</u>	<u>Sandra Cesario</u>	<u>12-3-03</u>
<u>CHRIS HAWKINS</u>	<u>Chris Hawkins</u>	<u>12-3-03</u>
_____	_____	_____

2. For faculty

The research protocol and the IRB application have been read and approved by the academic administrator:

<u>Name of Academic Administrator</u>	<u>Signatures</u>	<u>Date</u>
_____	_____	_____

Approved by IRB Chair _____ Date _____

TEXAS WOMAN'S UNIVERSITY

DENTON DALLAS HOUSTON

INSTITUTIONAL REVIEW BOARD

1130 John Freeman Blvd., Houston, Texas 77030 713/794-2074

MEMORANDUM

TO: Sandra Cesario
Candice Holley

FROM: IRB

DATE: December 12, 2003

SUBJECT: IRB Exempt Application

TITLE: Condom knowledge among African American adolescent females: the
relationship to STD/AIDS risk perceptions

This application is approved.

William P. Hanten

William P. Hanten
Chairperson

APPENDIX C
INSTRUMENT PACKAGE

INSTRUMENT PACKAGE

KNOWLEDGE QUIZ

For each statement the respondents were to answer true or false,

1. When using a condom, the man should pull out of the woman right after he has ejaculated (come).
2. Natural skin or lamb skin condoms provide better protection against the AIDS virus than latex condoms.
3. Vaseline can be used with condoms, and they will work just as well.
4. When putting on a condom, it is important to have it fit tightly, leaving no space at the tip.
5. As long as the condom fits over the tip of the penis, it doesn't matter how far down it is unrolled.

STD/HIV RISK PERCEPTION

1) What do you think your chances are of getting AIDS?

- a. Very high
- b. High
- c. Low
- d. Very low
- e. None

2.) What do you think your chances are of getting another sexually transmitted disease, such as gonorrhea or genital herpes?

- a. Very high
- b. High
- c. Low
- d. Very low
- e. None

3.) Suppose that sometime soon you had sexual intercourse for a whole month, as often as you wanted to, without using any protection. What is the chance that you would get the AIDS virus?

- a. Almost certain
- b. Good chance
- c. 50-50 chance
- d. Some chance
- e. Almost no chance

SELF- EFFICACY QUIZ

All the choices for the following questions were: Very sure, Moderately sure, Neither sure nor unsure, Moderately unsure, Very unsure and I never want to use birth control.

- 1.) If you wanted to use birth control, how sure are you that you could stop yourself and use birth control once you were highly aroused or turned on?
- 2.) How sure are you that you could plan ahead to have some form of birth control available?
- 3.) How sure are you that you could resist sexual intercourse if your partner did not want to use some form of birth control?

CONDOM USE

1.) Thinking of all the times you have had sexual intercourse since (MOLI), about what proportion of the time (HAVE YOU/HAS A PARTNER OF YOURS) used a condom?

- a. None of the time
- b. Some of the time
- c. Half of the time
- d. Most of the time
- e. All of the time

2.) Have you ever had sexual intercourse?

- a. Yes
- b. No