

# Chapter One

## INTRODUCTION

### *Human Immunodeficiency Virus (HIV): Statement of the Problem Among the College Student Population*

The traditional college student is a member of an age group that is at high risk for HIV infection. The Center for Disease Control reported in June, 1995 that nearly half a million (476,899) people in the U.S. have been diagnosed with AIDS. In 1990, the CDC and the American College Health Association estimated that one of every 500 college students is infected with HIV, based on a blind HIV-seroprevalence survey conducted at 19 U.S. universities (Gayle and Keeling, 1990). The CDC reported that as of the end of 1993, almost 42% of all AIDS cases had occurred in people between the ages of 20-34 (CDC, 1994a). HIV infection acquired by college age individuals does not appear right away due to the long latency period of eight to ten years.

Many young adults at risk for HIV infection do not yet recognize their susceptibility, do not perceive the seriousness of the AIDS threat, and are not motivated to alter risky behavior. In a survey of 5,514 college students, MacDonald et al., (1990) found that only 15.6% of sexually active women and 25% of sexually active men reported always using condoms. Similarly, Butcher, Manning, and O'Neal (1991) found that 61% of college students reported never or only infrequently using condoms during sexual intercourse. These statistics show a need for further research of college students' condom use as related to HIV/AIDS and the social factors that may affect their preventive sexual behavior.

This research seeks to identify variables associated with safer-sex practices. Using the Health Belief Model (HBM), I will look at college students' health beliefs related to HIV/AIDS. The components of the HBM include perceived susceptibility, perceived severity, perceived barriers and perceived benefits of a health action. The HBM components are appropriate because feelings of perceived susceptibility and perceived severity of HIV/AIDS may serve to motivate the individual in areas of safer sex behavior. An individual's perceived barriers to condom use and perceived benefits to condom use both directly affect the individual's use of condoms. This research will also look at self-efficacy with respect to condom use which addresses the individual's sense of personal effectiveness as well as communication between partners about condom use. This study attempts to assess the link between health beliefs, levels of self-efficacy and safer-sex behavior in the form of condom use. Given the increasing numbers of HIV/AIDS cases reported among this age group and the severity of this disease, research of this nature is very valuable (Sikkema, Winett, and Lombard, 1995)

### ***Medical Sociology***

Medical sociology developed as one of the earliest of the social science subfields to target the study of health, illness and disease as well as the operations and use of medical systems and human social activity (Bloom, 1986). Modern medicine and the industrial health care systems are often referred to as systems "in crisis." Modern medicine is generally based on a social contract between the physician, the state and the public. As Brown (1979) and others have argued, our medicinal machine is embedded within an industrial society and often falters in its attempt to address population health and illness problems. Originally sociology addressed larger medical and social issues which can be

seen, for example, in Durkheim's (1951) *Suicide*. Sociology has looked at health issues with a desire to link political, economic and the community systems. Over the history of medical sociology one can see a shift in emphasis from the biological (e.g. diagnosis and treatment) to one of extended social forces for example Hollingshead and Redlich's *Social Class and Mental Illness* (1958) and Parsons' *The Social System* (1951) which address such concepts as the "sick role."

A few dominant theoretical models seemed to emerge in the late 1960's. The Health Belief Model (HBM) which was developed by Rosenstock (1966) and the Socio-Behavioral Model (SBM) which was developed by Andersen (1968) both emphasized differentially the same set of factors. The HBM originally took on a strict psychological approach (Rosenstock, 1966) but was further developed by Marshall Becker (Becker, 1974) to focus on social psychological elements. This model focuses on perceptions, beliefs and other social psychological characteristics that influence whether the individual feels at risk for a certain health problem and whether they position themselves to change health behaviors and/or to utilize health care services. The SBM, tended to lump social-psychological factors and socio-cultural characteristics into the label of "predisposing" characteristics (Andersen 1968; Andersen and Newman 1973). The empirical examination of these models has pushed forward the development of appropriate survey design.

Issues of life and death strike at the heart of every society. Marx, Durheim and Weber all focused at one time or another on issues of health and illness, death and disease. Recently the role of William Darrow paved the way for understanding the AIDS virus by highlighting the power of seeing disease processes as rooted in social interaction and social networks (Valdiserri et al, 1992). The field of sociology is seen working side by

side with such institutions as the Association for Health Services Research, the American Public Health Association and the Center for Disease Control in an effort to recognize societies medical needs and concerns. Health issues such as HIV and AIDS are appropriate to the sociological community because they not only effect the individuals personal health but are also influenced by social perceptions, religious beliefs, economic factors, availability of resources and technology and because they are often subject to social transmission which also addresses educational tools and social awareness. They are all topics at the forefront of sociological research and this particular research will address HIV/AIDS in the college community, the social perceptions of this disease, social psychological factors which affect the individual and their use of medical precautions. This research will also inquiry about safer-sex behavior in the form of condom use, touch on personal relationships and levels of self-efficacy.

## **Chapter Two**

### **THEORY AND REVIEW OF LITERATURE**

This research will look specifically at what influences condom use that protects individuals from the risk of STDs and life-threatening diseases such as AIDS. Prior to looking into factors which might lead to safer sex practices, I will briefly review the importance of this issue by looking at the magnitude of the problem.

#### ***HIV/AIDS Statistics***

Sexual behaviors begin at a very early age. A 1992 Center for Disease Control (CDC, 1992) survey showed that 55% of U.S. teenagers are sexually experienced by age sixteen. Among these sexually experienced teenagers, less than half report that they always use a condom. This behavior continues into young adulthood.

According to the CDC, 28,178 people 20-29 years of age were diagnosed with HIV within the twenty-seven states with confidential HIV infection reporting (CDC, 1995). This age group of 20-29 year olds represent 39% of all HIV cases within these 27 states (CDC, 1995). It is important to note that approximately half of the fifty states are represented in these statistics which implies that the actual number of infected individuals in this age group is in fact much larger than the available statistics suggest.

The CDC Advisory Committee recommends a shift in emphasis to "front-end monitoring" of high risk groups. A front-end approach includes education and prevention techniques such as abstinence and condom use; it is focused on individual-level, pro-

active, behavior-change interventions for those at highest risk. An example of "front-end monitoring" is the Prevention Marketing Initiative which markets condoms via television and magazines. These ads are directed at young people ages 18-25, who are an age group at highest risk for contracting the disease (CDC, 1994b). The goal of front-end monitoring is to prevent the possibility of infection by decreasing high-risk behavior and increasing safer sex practices.

The 18-25 age group includes college students who tend to engage in behavior which may compromise their ability to make sound decisions concerning condom use. Illicit drug use and alcohol abuse may increase the potential for indiscriminate sexual behavior which, in turn, can increase the risk of acquiring STDs and HIV (Ragon et al., 1995). Also, the lack of immediate signs and symptoms with HIV infection can cause many college students to mistakenly believe that they are immune to the disease.

Research conducted in the college student population has examined STD and HIV transmission from many perspectives. Studies have examined risk behavior such as number of sexual partners and alcohol use (Abler and Sedlacek, 1989; Baffi et al., 1989), while others have looked at knowledge of STD and AIDS transmission (DiClemente et al., 1990; Fisher and Misorich, 1990). These studies indicate that students exhibit a high level of HIV/AIDS related knowledge, although a significant number of risk-related behaviors were reported. Risk-related behaviors include irregular or no condom use, multiple partners, previous sexually transmitted diseases (STDs), and substance abuse. The research shows no relationship between knowledge of HIV transmission and safer-sex behaviors (Baldwin and Baldwin, 1988; National Research Council, 1989; Caron et al., 1992; Edgar, Freimuth and Hammond, 1988). This implies that other variables such as

attitudes, beliefs, and partner communication need to be explored to better understand why people do not engage in safer sex practices. This research will specifically look at two variables: health beliefs about HIV/AIDS and self-efficacy as related to condom-use.

### ***The Health Belief Model***

The Health Belief Model is a theoretical model developed for understanding why individuals do or do not engage in health-related behaviors. Health behavior as defined by Kasl and Cobb is "any activity undertaken by a person who believes himself to be healthy, for the purpose of preventing disease or detecting disease in an asymptomatic stage" (Kasl and Cobb, 1966, p. 534-541). The HBM relates theories of decision making to an individual's decision about health behaviors.

The HBM components are derived from a well-established body of psychological and behavioral theory whose various models hypothesize that behavior depends mainly upon two variables: (1) the value an individual places on a particular goal; and (2) the individual's estimate of the likelihood that a given action will achieve that goal (Maiman and Becker, 1974 in Janz and Becker, 1984). In the context of health-related behaviors this would mean that the individual would (1) desire to avoid illness (or if ill, to get well) and (2) believe that a particular health action would prevent illness (Janz and Becker, 1984).

The HBM proposes that in order for an individual to take action to avoid a disease, he/she would first need to believe that he/she was *susceptible* to the disease. The implications of this disease would have to be perceived as *severe*, and taking action would have to be perceived as *beneficial*. People weigh actions against any perceived *barriers* to

action such as cost, convenience, pain, embarrassment, etc. A stimulus, labeled the "cue to action," may be needed to trigger the appropriate health behavior (Maiman and Becker, 1974). This means that individuals must recognize a problem before they will change their attitudes and behaviors. This model assumes that individuals want to stay healthy. The HBM asserts that it is possible to modify the perceived threat of disease, which is a combination of perceived susceptibility and severity, as well as the perceived effect of intervention, in order to change health behavior.

Numerous researchers have attempted to address why people engage in behaviors that put their health at risk, such as smoking, lack of prenatal care, and unprotected sex, to name a few. Substantial empirical evidence supports the dimensions of the HBM as predictors of individual health-related behavior. The Health Belief Model (HBM) is designed to explain how individuals assess and interpret information about their health, what importance they attribute to this information, and which factors influence their preventive action. Specifically, the dimensions of the HBM are:

- 1) *perceived susceptibility* - subjective perception of the risk of contracting a condition.
  
- 2) *perceived severity* - feelings concerning the seriousness of contracting an illness both medical and social.
  
- 3) *perceived benefits* - acceptance of the recommended health action as a feasible and efficacious option.



4) *perceived barriers* - the individual's psychological, financial or other perceived expense, danger, unpleasantness, inconvenience, etc.

Perceived susceptibility and severity motivate an individual to act, while the perceived barriers stand in the individual's way of achieving the perceived benefit. Perceived barriers to condom use have consistently been identified in the college student population. Examples of barriers that influence safer sex behavior include the following: the belief that condoms reduce pleasurable sensation, the perception that condoms are primarily a birth control method rather than protection against STDs/HIV, a preference for oral contraceptives, a perception of invulnerability to HIV and STDs, the use of alcohol and/or drugs during sex, embarrassment about purchasing condoms, and the feeling that condoms compromise the spontaneity of sex (Siegel and Gibson, 1988; Strader and Beaman, 1989).

In the HBM, individuals' feelings are affected by social factors such as their perceived benefit of positive social approval, and perceived barriers of negative economic factors (high cost of health care). This study specifically addresses social approval. While undertaking a socially-approved behavior would be a benefit, having to perform a socially disapproved act may be a barrier (Janz and Becker, 1984). Social approval is an important component of this research as can be seen in this disturbing statistic from the Center for AIDS Prevention Studies (CAPS): "Adolescent girls asking for help buying condoms, in a 1988 survey of Washington DC drugstores, encountered resistance or condemnation from store clerks 40% of the time" (Center for Population Options Teen Council, 1988). This example shows a potential "barrier" to condoms use and reinforces the relevance of this dimension in research on high-risk sexual behavior.

Perceived susceptibility and perceived severity of HIV/AIDS is also an issue among the college student population. Despite knowledge of STD and HIV transmission many individuals do not feel personally vulnerable to contracting a disease from their partners (Kegeles, Adler and Irwin, 1988). "Generally, college students have a belief in personal immortality; consequently, behaviors which later in life may lead to disease and disability are viewed with skepticism" (Ragon et al., 1995).

The research published during the past decade provides substantial support for the usefulness of the HBM as a framework for understanding individuals' health-related decision-making. Janz and Beckers' (1984) meta-analysis of HBM studies, found that in 89% of the studies perceived barriers were statistically significant, followed by susceptibility (81%), benefits (78%), and severity (65%). Specifically, looking at Preventive Health Behavior or front-end studies, the strongest predictors were the barriers dimension (93%) followed by susceptibility (86%), benefits (74%), and severity (50%). Examples of dependent variables for the Preventive Health Behavior studies include: inoculation, breast self-examination, regular medical and dental checkups, diet and exercise, smoking behavior, weight maintenance, drinking and driving habits, clinic appointment keeping, and compliance with medication regimens. Overall, perceived barriers proved to be the most powerful of the HBM dimensions and this finding was consistently significant regardless of study design (Janz and Becker, 1984). The many perceived barriers to condom use identified in the college student population, combined with the large number of significant findings in the research, reinforces the appropriateness of the Health Belief Model to this study.

The HBM has previously been used to assess health beliefs about AIDS and safer sex practices among adolescents and college students (Manning et al., 1989; Mahoney, 1995 and Mahoney et al., 1995). The findings are mixed in regard to perceived susceptibility (Mahoney et al., 1995). Some studies find that high rates of perceived susceptibility to STDs or HIV/AIDS result in safer sex practices (Abler and Sedlacek, 1989; Baldwin and Baldwin, 1988; Carroll, 1988; Gray and Saracino, 1989), whereas others find that perceived susceptibility is not related to behavior change (Bruce et al., 1990; Manning et al., 1989). Manning et al., (1989) found that college students with little knowledge about AIDS perceived greater barriers to practicing safe sex than did students with high knowledge of AIDS (Manning et al., 1989). This suggests that while knowledge alone may not affect behavior, lack of knowledge may be associated with increased perceived barriers and subsequently an increase in high risk behavior. These reports suggest the HBM may be useful in understanding sexual practices among college students, while concluding that more research needs to be done.

### *Self-Efficacy*

Another variable which affects safer sex behavior is self-efficacy. Self-efficacy is defined by Bandura as "the conviction that one can successfully execute the behavior required to produce the outcome" (Bandura, 1977). Self-efficacy refers to an individual's perceived power to produce an effect or carry out a given action. The concept of self-efficacy has developed around the issues of human agency and mastery (Gecas, 1989). The self-attributions individuals make with regard to personal control over events that affect them have a wide range of behavioral consequences (Gecas and Burke, 1995). Self-efficacy has become an important variable within social psychological research, especially

in the areas of physical and mental health (Gecas, 1989). Research has consistently found high self-efficacy to be beneficial for individual well-being (Gecas and Burke, 1995).

Bandura (1977, 1990) distinguishes between "efficacy expectations" and "outcome expectations." Efficacy expectation is the belief that one can successfully perform a particular action (personal efficacy). An outcome expectation is the assumption that a given action will lead to a certain outcome (Bandura, 1977). This implies a certain "trust" in the existing environment or "system responsiveness" (Gurin and Brim, 1984). The importance of this distinction lies in the perception of self versus self in relation to the social environment. Personal efficacy requires the development of competencies and expectations of personal effectiveness (internal). By contrast, outcome expectations require the individual to make certain assumptions of the prevailing environment (external). For example, while a student may experience personal efficacy as related to the mechanics of using a condom, he or she may have low outcome expectations because they are worried that their partner will not be willing to use a condom. In this situation, if the partner does resist using a condom the student may not feel confident to follow through with the safer-sex behavior.

The literature on smoking shows that the strength of a person's belief in his/her ability to maintain cessation (self-efficacy) is directly related to quitting (Conditte and Lichtenstein, 1981). Similarly, this variable may be viewed as a particular aspect of the health belief model's perceived barriers; i.e., a smoker who has repeatedly tried to quit and failed would be likely to develop feelings of low self-efficacy in this area, and would, therefore, interpret his or her previous failures as a barrier to trying to quit again (Janz and Becker, 1984). It is noteworthy that the self efficacy examples fall within the barriers

category, which have been found to be the most powerful dimension of the HBM (Janz and Becker, 1984). Some research suggests that the self-efficacy component of social learning theory should actually be incorporated into the Health Belief Model (Lott, 1987; Michener et al., 1986) based on the idea that those individuals with low self-efficacy feel they have less control over their lives and may be more likely to yield to high risk behavior in the face of opposition. For the purpose of this study I will look at measures of self-efficacy and dimensions of the HBM separately. While I acknowledge the potential overlap of the self-efficacy measures and perceived barriers dimension I feel that the self-efficacy and HBM variables are distinct overall. Both of these variables contain other components which are exclusive and unique for example the HBM dimensions perceived susceptibility and perceived severity. Therefore, for this research they will be addressed separately.

There has been much research on the relationship between self-efficacy and health related behaviors: phobias and anxieties (Bandura et al., 1980, 1982); alcohol and drug abuse (Seeman and Anderson, 1983; Newcomb and Harlow, 1986); eating disorders (Schneider and Agras, 1985); overcoming smoking addiction (DiClemente, 1985); and increasing pain tolerance (Neufeld and Thomas, 1977) (Gecas, 1989). The accumulating evidence suggests that self-efficacy makes a distinct difference in matters of health.

### ***Self-efficacy and Condom Use***

Bandura (1990) has addressed the potential link between self-efficacy and condom use by suggesting that exercising personal control in sexual situations that carry a risk of infection requires individuals to possess self-efficacy as well as skills in communicating

about sexuality and safe-sex practices, and negotiating their use. Brafford and Beck (1991) goes on to say:

problems arise in following safer sex practices because self-protection often conflicts with interpersonal pressures and sentiments. In these interpersonal situations the sway of coercive power, allurements, desire for social acceptance, fear of rejection and personal embarrassment can override the influence of the best informed consent. The weaker the perceived self-efficacy, the more such social and affective factors can increase the likelihood of risky sexual behavior (Brafford and Beck, 1991).

By looking at how self-efficacy affects sexual decision making, we may find some clue as to what motivates or discourages condom use. Brafford and Beck (1991) developed the Condom Use Self-Efficacy Scale (CUSES) and found condom use self-efficacy to be multidimensional. These dimensions include:

- 1) One's confidence to carry out the mechanics of using a condom,
- 2) One's confidence to deal with partner disapproval about condom use,
- 3) One's perceived ability to be assertive about the use of condoms,
- 4) One's confidence to use a condom under the influence of intoxicants

These dimensions are directly relevant to the college student population. One possible reason college students do not practice safe sex is that they lack the necessary skills (Brafford and Beck, 1991). These skills include self-efficacy pertaining to the mechanics of actually using a condom, as well as high levels of self-efficacy pertaining to "assertiveness" skills to insist on this form of protection. The high number of students

who engage in intercourse while under the influence of intoxicants is well documented in the literature. This suggests that an individual needs to possess a high level of self-efficacy in order to use a condom under the influence of intoxicants.

In conclusion, a high degree of self-efficacy has been found to be associated with the performance of low risk sexual-behaviors as well as a reduction in high risk sexual-behaviors (Cantania et al., 1990). Thus, for behavioral change to occur, people must believe in their own abilities to reduce high risk and increase low risk sexual behaviors (Cantania et al., 1990). The current literature (Cantania et al., 1990; Bandura, 1977; Brafford and Beck, 1991) suggests research in the area of self-efficacy is potentially useful in understanding safer-sex behavior, particularly condom use.

### *Objectives*

This research attempts to assess how health beliefs about HIV/AIDS and self-efficacy are related to condom use as a safer sex behavior using the Health Belief Model and the Condom Use Self-Efficacy Scale. The purpose of this study is to identify some of the predictors of condom use among college students.

**Hypothesis I:** High levels of self-efficacy are positively associated with condom use.

**Hypothesis II:** Feelings of perceived susceptibility to HIV/AIDS will be positively associated with condom use.

**Hypothesis III:** Feelings of perceived severity of HIV/AIDS will be positively associated with condom use.

**Hypothesis IV:** Feelings of perceived benefits of safer-sex behavior will be positively associated with condom use.

**Hypothesis V:** Perceived barriers to safer-sex behavior will be negatively associated with condom use.

**Hypothesis VI:** Knowledge of HIV/AIDS transmission will have no effect on condom use.



## **Chapter Three**

### **METHODOLOGY**

The purpose of this study is to explore condom use among college students by looking at four components of the HBM and the levels of self-efficacy. For this study, self-efficacy was measured by questions taken from the Condom Use Self-Efficacy Scale (CUSES) developed by Brafford and Beck (1991) and questions taken from the Self-Efficacy for Condom Use scale used in the Lux and Petosa (1994/95) study. Health beliefs concerning HIV/AIDS were measured by questions developed by Lux and Petosa (1994/95) and were modified to measure perceived susceptibility, perceived severity, perceived benefits, and perceived barriers. Questions assessing general knowledge of how HIV/AIDS transmitted were also included.

#### ***Description of Sample***

The sample for this study is women and men, of all sexual orientations, between the ages of 18-24. A sample of 337 undergraduate students was drawn from a variety of sociology classes at Virginia Polytechnic Institute and State University during the 1996-97 academic year. Respondents were informed of the voluntary nature of this study and responses were anonymous, see page 51 (Appendix A). Human subjects approval has been received from the Institutional Review Board of Virginia Tech. For this study, data on the following variables were collected by a self administered questionnaire.

## ***Measurement of Variables***

### ***Survey Instrument***

The survey instrument is a sixty-six item questionnaire composed of original questions and questions taken from previous research studies. The questionnaire consists of closed-ended questions and takes approximately twenty minutes to complete. The questionnaire can be found on page 52 (Appendix B). These were Likert scale questions ranging from: Definitely True (1), Probably True (2), Don't Know (3), Probably False (4), Definitely False (5), Not Applicable (6).

### ***Dependent Variable***

The dependent variable for this study is condom use and is defined as the consistent use of a latex condom during all sexual activity with all sexual partners. The dependent variable is question number sixteen on the questionnaire and can be seen on page 54. "I always use condoms during sexual activity." The dependent variable was recoded in the analysis so that a higher scale score indicates a higher occurrence of condom use.

### ***Independent Variables:***

#### ***Health Belief Model***

In order to evaluate the students' health beliefs respondents were asked to answer a series of questions concerning HIV infection and condom use. These questions measure the four Health Belief Model dimensions. In order to evaluate the students' feelings of perceived susceptibility to this disease, they were asked five questions regarding perceived susceptibility to HIV/AIDS. Questions about perceived susceptibility can be found on page 56, numbers 42-46. In order to evaluate the students' feelings of perceived severity

to this disease, they were asked three questions regarding perceived severity of the HIV/AIDS virus. Questions about perceived severity can be found on page 57, numbers 47-49. In order to evaluate the students' feelings of perceived benefit from safer sex precautions, they were asked two questions regarding perceived benefits from condom use and abstinence. Questions about perceived benefit can be found on page 57, numbers 57-58. In order to evaluate the students' perceived barriers to condom use, they were asked six questions regarding perceived barriers to abstinence, monogamy and condom use. Questions about perceived barriers can be found on page 57, numbers 50-52 and 54-56.

### ***Self-efficacy***

Respondents were asked to answer a series of questions regarding condom use self-efficacy. These questions addressed the following issues: 1) confidence to carry out the mechanics of using a condom; 2) confidence to deal with partner disapproval about condom use; 3) perceived ability to be assertive about the use of condoms, and 4) confidence to use a condom under the influence of intoxicants. Questions about self-efficacy can be found on pages 54-57, numbers 17-41 and 53.

### ***Knowledge of HIV/AIDS Transmission***

In order to evaluate the students' knowledge of HIV/AIDS, respondents were asked to answer questions 1-15 regarding the HIV virus and its modes of transmission, see pages 53-54. The knowledge questions were Likert scale questions ranging from: Definitely True (1), Probably True (2), Don't Know (3), Probably False (4), Definitely False (5).

## **Chapter Four**

### **DATA ANALYSIS**

#### *Descriptive Statistics*

Means, standard deviations and zero order correlations for all variables in the analysis are shown in Table 1 on page 49. The sample is composed of 337 undergraduate students enrolled in a variety of sociology classes. Forty percent of the sample were males (N=134) and 59% were females (N=198). The mean age of the sample was 20, and the sample was fairly evenly distributed among academic levels; 27% were seniors (N=91), followed by 25% juniors (N=84), 25% sophomores (N=83) and 20% freshman (N=66). Eighty-five percent of the respondents are single (N=287). Twenty-five percent of the respondents had a lifetime total of 2-3 sex partners (N=85), 19% had 4-6 sex partners (N=63), 16% had one sex partner (N=54), 14% never had a sex partner (N=48) and 14% had 10+ sex partners (N=46). There were no reported gays or lesbians and there were three reported bisexuals; all others reported being heterosexual. Sixty-six percent of the respondents reported never attending an AIDS meeting (N=224). Only 19% reported attending one AIDS meeting (N=65).

The dependent variable of concern is condom use. Slightly more than 58% of the sample reported "definitely true" and "probably true" when asked if they always use condom during sexual activity. The full breakdown of the dependent variable is as follows: when asked if they always used a condom during sexual activity, 35% of the respondents answered "probably true" (N=119), 23% responded "definitely true" (N=79), 14% responded "probably false" (N=46) and 13% responded "definitely false" (N=44). The dependent variable "I always use condoms during sexual activity" can be found on

page 54, number sixteen. The remaining analysis excludes all cases with incomplete data and consists of the 215 respondents with complete data.

### ***Scale Construction***

All variables used to construct the scales had Likert-type response choices ranging from "definitely true" to "definitely false" with values of 1-5 respectively. The Self-Efficacy and HBM variables also contained a "Not Applicable (6)" response option. Scales were created to measure knowledge, self-efficacy and elements of the Health Belief Model.

#### ***A. The Self-Efficacy Scales***

A factor analysis was done to determine if the items measuring self-efficacy formed a unidimensional index. The factor analysis for the self-efficacy questions produced four factors. Consequently four additive scales were created that made theoretical sense with sufficiently high reliability. The first scale consists of questionnaire items 21, 26 and 34, which are a series of statements about using condoms correctly, see pages 54-56. This scale has an alpha of .87. The second scale consists of questionnaire items 17, 33, and 35, which are a series of statements about discussing condom use with one's partner, see pages 54 & 56. This scale has an alpha of .64. The third scale consists of questionnaire items 37, 38, 39 and 40 which are a series of statements about discussing past sexual and IV drug use experiences with one's partner, see page 56. This scale has an alpha of .79. The fourth scale consists of questionnaire items 18 and 22, see page 54, both questions address ability to purchase condoms. This scale has an alpha of .90. All items were coded so that a higher scale score indicates a higher sense of self-efficacy.

### ***B. The Health Belief Model Scale***

The factor analysis for the Health Belief Model responses produced four factors. Four additive scales were created that made theoretical sense with sufficient high reliability. The first scale consists of questionnaire items 50-52 and 55, which are a series of statements about the individual's perceived barriers to condom use, see page 57. This scale has an alpha of .78. All items were coded so that a higher scale score indicates a higher sense of perceived barriers to condom use. The second scale consists of questionnaire items 47 and 48, which are two statements about the perceived severity of HIV/AIDS, see page 57. This scale has an alpha of .53. All items were coded so that a higher scale score indicates a higher sense of perceived severity of HIV/AIDS. The third scale consists of questionnaire items 42-43 and 46, which are a series of statements about perceived susceptibility to HIV/AIDS, see page 56. This scale has an alpha of .52. A higher score on susceptibility indicates a higher perceived susceptibility to HIV/AIDS. The fourth scale consisted of questionnaire items 57 and 58, see page 57, which are statements about the perceived benefits of condom use and/or abstinence. This scale produced an alpha of .37 and because these items were too low to combine they were not used in the analysis.

### ***C. The Knowledge Scales***

A factor analysis for the knowledge of HIV/AIDS transmission responses produced two factors. Two additive scales were created that made theoretical sense with sufficient high reliability. The first scale consists of questionnaire items 13-15, see page 54, which are a series of statements about knowledge of specific sexual transmission such as HIV can be transmitted by having unprotected anal and vaginal sex. The second scale consists of questionnaire items 6-7, which are statements about knowledge of general

sexual transmission through unprotected sex as well as other forms of transmission such as IV drug use, see page 53. The first scale has an alpha of .89. The second scale has an alpha of .90. Items were coded so that a higher scale score indicates a higher knowledge of HIV/AIDS transmission.

### ***Bivariate Results***

The first hypothesis stated that high levels of self-efficacy will be positively associated with condom use. This hypothesis was tested using four different self-efficacy scales. Surprisingly, only two of the four scales were significantly associated with condom use. Contrary to my hypothesis, the scales measuring self-efficacy about the correct use of condoms ( $r=.02$ ,  $p>.05$ ) and discussing past sexual and IV drug use experiences with one's partner ( $r=-.03$ ,  $p>.05$ ) were not significantly related to condom use. Self-efficacy about the correct use of condoms included: "I'm confident that I can put a condom on myself or my partner", "I'm confident that I could use a condom correctly" and "I'm confident that I could use a condom successfully." These questions address human agency and mastery but were not found to be significantly related to condom use. Self-efficacy in discussing past sexual and IV drug use experiences with one's partner included questions such as: "I can ask my sex partner how many people they have had sex with before me," "I can ask my sex partner if they have ever used IV drugs" and "I can ask my sex partner if they have ever had anal sex." These questions address interaction and risk assessment between partners but were not found to be significantly related to condom use.

The other two self-efficacy scales, which measures discussing condom use with one's partner ( $r=.44$ ,  $p<.001$ ) and the ability to purchase condoms ( $r=.18$ ,  $p<.01$ ), were significantly and positively related to condom use. Questions regarding self-efficacy to

discuss condom use with one's partner include: "If my partner didn't want to use a condom during intercourse, I could easily convince him or her that it was necessary to do so" and "I'm confident that I would stop to put a condom on myself or my partner even in the heat of passion." Self-efficacy in partner discussion is important because it addresses a more external self-efficacy. The example given before showed that a student may experience personal efficacy as related to the mechanics of using a condom but must also experience a more external self-efficacy in dealing with partner disapproval or lack of cooperation by the partner.

In looking at the Health Belief Model variables, the findings were mixed. The second hypothesis stated that feeling of perceived susceptibility to HIV/AIDS will be positively associated with condom use. Questions of perceived susceptibility include: "I am at low-risk for HIV infection," "People like me do not get HIV infection" and "I am not worried that I might get an HIV infection." Contrary to this hypothesis, the scale which measured perceived susceptibility to HIV/AIDS was significantly and negatively related to condom use ( $r=-.25$ ,  $p<.001$ ) indicating that feelings of susceptibility to HIV/AIDS were negatively related to condom use.

The third hypothesis stated that feelings of perceived severity of HIV/AIDS will be positively associated with condom use. Questions of perceived severity include: "People would avoid me if I had an HIV infection" and "If I had an HIV infection, my family relationships would be strained." Contrary to this hypothesis perceived severity was not significantly related to condom use ( $r=-.08$ ,  $p>.05$ ).



The fourth hypothesis stated that feelings of perceived benefits of safer-sex behavior will be positively associated with condom use. Perceived benefits of safer-sex behavior was address in the following questions: "When I use a condom when having sex, I worry less about getting an HIV infection" and "I worry less about getting an HIV infection when I am abstinent." Contrary to this hypothesis perceived benefits of condom use and/or abstinence did not produce a usable alpha scale and were not included in the analysis.

The fifth hypothesis stated that perceived barriers to safer-sex behavior will be negatively associated with condom use. Questions regarding perceived barriers included: "Condoms decrease pleasure" and "Using condoms during sex is a hassle." The scale measuring barriers to condom use was significantly and negatively related to condom use ( $r = -.37, p < .001$ ). The HBM contends that people weigh actions against any perceived barriers to action such as cost, convenience, pain, embarrassment, etc. This research looked at specific barriers to condom use such as: a decrease in pleasure, a hassle to use during sex, alternate preferable birth control methods, expense and embarrassment to purchase condoms. Specifically looking at Preventive Health Behaviors such as condom use, the literature indicates that the strongest HBM predictor is the barriers dimension (Janz and Becker, 1984). The more barriers to condom use, the lower the level of condom use; this supports the fifth hypothesis.

The sixth hypothesis stated that knowledge of HIV/AIDS transmission would have no effect on condom use. Previous research that looked at knowledge of HIV/AIDS trnasmission and its relationship to condom use reported similiar findings (DiClemente et al., 1990; Fisher and Misorich, 1990). These studies indicate that students exhibit a high

level of HIV/AIDS related knowledge, although a significant number of risk-related behaviors were reported. Risk-related behaviors include irregular or no condom use, multiple partners, previous sexually transmitted diseases (STDs), and substance abuse. My findings were consistent with the literature showing no relationship between knowledge of HIV transmission and safer-sex behaviors (Baldwin and Baldwin, 1988; National Research Council, 1989; Caron et al., 1992; Edgar, Freimuth and Hammond, 1988). Knowledge of HIV/AIDS transmission included: "HIV can be transmitted by an infected man having vaginal sex without a condom with a woman", "HIV can be transmitted by an infected man having anal sex without a condom with another man", "Having unprotected sex is a risk factor for HIV infection" and "Sharing intravenous needles is a risk factor for HIV infection." As predicted, the scales measuring knowledge of sexual transmission ( $r=-.03$ ,  $p>.05$ ) and knowledge of alternate forms of transmission ( $r=.10$ ,  $p>.05$ ) were not significantly related to condom use.

### ***Multivariate Results***

The results of the multiple regression of condom use on all scales and control variables are shown in Table 2 on page 50. First, I would like to address each of the findings and follow up with a discussion of possible explanations for these findings.

#### ***A. Model I***

Model I shows the relationship of all scales to the dependent variable - condom use. In Model I, 30% of the variation in condom use was explained by the independent variables. The multivariate results in Model I show a total of four tested variables to be significant. Looking at the knowledge variables the results were as predicted - there is no significant relationship between knowledge of HIV transmission and condom use.

Looking at the self-efficacy variables, two of the four variables were significant. Self-efficacy to discuss condom use with your partner was significantly related to condom use ( $b = .38, p \leq .001$ ). Self-efficacy to ask your partner about past sexual conduct was significant and negatively related to condom use ( $b = -.17, p \leq .01$ ). This negative relationship could be a result of partner response. If partner A asked partner B about past sexual experiences and partner B responded that he/she had no past sexual experiences then partner A may choose to go without condom protection based on this response. Partner response to questions about past experiences could be more influential to condom use than was previously thought. The results of these two self-efficacy variables indicate that communication between partners about HIV/AIDS and condom related issues is directly related to condom use. Self-efficacy to purchase condoms and self-efficacy in the actual use of condoms were not found to be significantly related to condom use.

The HBM model variable, perceived barriers to condom use, was significantly and negatively related to condom use ( $b = -.18, p \leq .01$ ). Perceived barriers to condom use identified in the college student population include the belief that condoms reduce sensation, embarrassment about purchasing condoms and the feeling that condoms compromise the spontaneity of sex. This finding is consistent with previous research (Siegel and Gibson, 1988; Strader and Beaman, 1989) and support the proposed hypothesis.

Perceived susceptibility to HIV/AIDS was significantly but negatively related to condom use ( $b = -.17, p \leq .01$ ). Feelings of perceived severity of HIV/AIDS and perceived benefits of condom use had no significant effect on condom use. The HBM dimensions,

perceived susceptibility, perceived severity and perceived benefits have not be consistent in research pertaining to colleges. Some studies report high rates of perceived susceptibility to STDs or HIV/AIDS to result in safer-sex practices (Abler and Sedlacek, 1989; Gray and Saracino, 1989), where others found that perceived susceptibility is not related to behavior change (Bruce et al., 1990; Manning et al., 1989).

As mentioned before perceived susceptibility, perceived severity and perceived benefits are particularly unique in the college student. Despite knowledge of HIV transmission many college students simply do not feel vulnerable to contracting this disease (Kegeles, Adler and Irwin, 1988). College students generally have a belief in personal immortality and consequently behaviors which later in life may lead to disease are viewed with skepticism (Ragon et al., 1995). We should also consider the long latency period of HIV and know that most college students have not know someone their age with the HIV virus; maybe they have not know anyone of any age who has the disease. All of these factors combine to show a student profile as someone who does not feel susceptible to HIV, does not understand the severity of this disease and therefore can not identify the benefits of consistent condom use. These findings are consistent with some of the literature reviewed in chapter two but were in the opposite direction of what was hypothesized.

### ***B. Model II***

Model II shows all scales and control variables and their relationship to condom use and the results are substantively unchanged. Control variables are added for a demographic profile as well as to examine the effects of the control variables on the dependent variable. The students academic level and ethnic orientation did not have a

significant effect on condom use. The average student age was twenty and all but three students reported their sexual orientation as heterosexual so, as can be seen in the table age and sexual orientation were not significantly related to condom use. The number of AIDS meetings attended was also not significantly related to condom use.

Current relationship status, number of sex partners and gender were significantly related to condom use. Current relationship status was coded "0" Single, "1" Other. Eighty-five percent of the respondents are single and the rate of condom use was shown to decrease for those married, divorced or separated ( $b = -.19, p \leq .001$ ). These findings makes sense since as condom use is less likely to occur within a marriage or given a long term monogamous relationship. Total number of sexual partners was coded "0" 0-3, "1" 4-10+ so the higher total number of sex partners reported the less likely they were to report using condoms ( $b = -.12, p \leq .05$ ). Gender was coded "0" Male, "1" Female, and males were more likely to report using condoms than women ( $b = -.20, p \leq .01$ ). Forty-six percent of the variation in condom use was explained in Model II with the inclusion of these control variables.

Some surprising differences were found when comparing the multivariate analysis and the correlations. In the multivariate analysis the scales which measured the self-efficacy in the actual use of condoms ( $b = -.08, p > .05$ ) and self-efficacy to purchase condoms ( $b = .09, p > .05$ ) were not significantly related to condom use. The scale which measured the ability to purchase condoms was significantly related at the bivariate level ( $r = .18, p \leq .01$ ). The scale which measured ability to ask one's partner about past sexual and IV drug use experiences had a significant relationship to condom use ( $b = -.17, p \leq .01$ ),

although it had no relationship at the bivariate level. In addition, self-efficacy in asking one's partner about past sexual conduct ( $b=-.17, p\leq.01$ ) is negatively related to condom use, which is the opposite of the hypothesized direction. Discussing condom use with one's partner was significantly and positively related to condom use ( $b=.38, p\leq.001$ ). This indicates that self-efficacy to discuss condom use with one's partner, for example convincing one's partner to use a condom in the heat of passion, has a positive effect on condom use. This result is congruent with that found in the correlational analysis ( $r=.44, p\leq.05$ ). Self-efficacy to discuss condom use with one's partner had the overall strongest relationship in the multiple regression ( $b=.38, p\leq.001$ ).

The results of the multiple regression are consistent with what was learned at the bivariate level for the variables from the Health Belief Model. Perceived severity of HIV/AIDS ( $b=-.01, p>.05$ ) and perceived benefits of condom use ( $b=.04, p>.05$ ) had no significant effect on condom use. Perceived susceptibility to HIV/AIDS, was significantly but negatively related to condom use ( $b=-.17, p\leq.001$ ). Again, this relationship is in the opposite direction of what was expected. Perceived barriers to condom use, was significantly and negatively related to condom use ( $b=-.18, p\leq.01$ ). As hypothesized, the multiple regression indicates that perceived barriers to condom use are negatively associated with condom use.

As predicted, knowledge of sexual transmission ( $b=-.01, p>.05$ ) and knowledge of other forms of transmission such as contaminated needles ( $b=.02, p>.05$ ) were not significantly related to condom use at the bivariate or multivariate level.

## **Chapter Five**

### **CONCLUSIONS AND DISCUSSION**

#### ***Introduction***

As was indicated in the review of the literature in chapter two, there have been many studies attempting to determine what influences condom use among college students. Current researchers are attempting to discover what would influence college students to use condoms to reduce their risk of HIV/AIDS. This study attempted to expand on the current research by looking at the effect of the Health Belief Model and self-efficacy on condom use.

#### ***Summary of Findings***

Using a sample of 337 undergraduate students enrolled in a variety of sociology courses at Virginia Polytechnic Institute and State University, this research explored the influence of variables derived from the Health Belief Model and levels of self-efficacy on condom use. The hypotheses tested were that high levels of self-efficacy will be positively associated with condom use, that feelings of susceptibility to HIV/AIDS, perceived severity of the disease and perceived benefits of safer-sex behavior will be positively associated with condom use, that perceived barriers to safer-sex behavior will be negatively associated with condom use, and that knowledge of HIV/AIDS transmission would have no effect on condom use.

First, let's look at the Self-efficacy variables. Bandura (1990) addressed the potential link between self-efficacy and condom use by suggesting that exercising personal control in sexual situations required a high level of self-efficacy as well as skills in

communicating about sexuality, safe-sex practices and negotiating the appropriate health action. In these situations the desire for social acceptance, fear of rejection and personal embarrassment can override the best informed consent (Brafford and Beck, 1991). Using items from Brafford and Beck's, Condom Use Self-Efficacy Scale (1991) and items from Lux and Petosas's Self-Efficacy for Condom Use questions (1994/95) the effects of self-efficacy on condom use in this study were mixed.

The first hypothesis stated that high levels of self-efficacy will be positively associated with condom use. Only two of the four self-efficacy scales were significantly related to condom use. Self-efficacy in the actual use of condoms, was not significantly related to condom use. While many students indicated that they felt confident to put a condom on themselves or their partner; confident to use a condom correctly and confident to use a condom successfully there was no significant relationship between the self-efficacy to actually use condoms and the dependent variable "I always use condoms during sexual activity." These results suggest that while students feel confident using condoms they do not always use them. These results are consistent with those of knowledge of HIV/AIDS transmission which we will discuss further.

Self-efficacy to purchase condoms was not significantly related to condom use. Those that indicated they were not embarrassed to purchase condoms did not indicate that they always use condoms during sexual activity. Self-efficacy to discuss condom use with a partner was significantly related to condom use. Students that indicated they were confident to use a condom even in the heat of passion also indicated that they always use condoms during sexual activity. Self-efficacy to ask a partner about past sexual experiences such as total number of sex partners and previous incidents of anal sex was



significantly and negatively related to condom use. These results were in the opposite direction predicted and as said before this may be a result of partner response. If partner A asked partner B about past sexual experiences and partner B gave the desired, low-risk response then partner A may not feel condom use is necessary and therefore would not insist on condom use during all sexual activity. I think the pattern we see emerging among the self-efficacy variables is one that places emphasis on a more external self-efficacy. Preventive health action may be more heavily influenced by relationship dynamics and partner communication. Relationship dynamics and partner communication may win out over personal self-efficacy in areas of STD's, HIV/AIDS and condom use.

The Health Belief Model posits that behavior depends mainly upon two variables: (1) the desire to avoid illness and (2) the belief that a specific health action will prevent illness. The HBM proposes that individuals would engage in risk reducing behavior if they perceive themselves to be susceptible to the disease; if the implications of this disease are perceived as severe, if the recommended health action(s) are perceived as beneficial. Individuals would also weigh the recommended health action against any perceived barriers to such action.

The Health Belief Model variables produced mixed results as well. Perceived barriers to condom use, such as, the belief that condoms reduce pleasure, the belief that using condoms is a hassle or that condoms are expensive and embarrassing to buy, have consistently been identified in the college student population as reasons for not using condoms (Siegel and Gibson, 1988; Strader and Breaman, 1989). As expected, perceived barriers to condom use were found to be negatively associated with condom use. This finding is consistent with Janz and Beckers (1984) meta-analysis, of HBM studies which

found, overall, perceived barriers to be consistently significant and negatively related to risk reducing behaviors.

It was hypothesized that feelings of perceived susceptibility to HIV/AIDS would be positively related to condom use. Instead perceived susceptibility was found to be negatively related to condom use. As the literature review in chapter two noted, college students often have a belief in personal immortality that can cause them to mistakenly feel immune to HIV/AIDS (Ragon et al., 1995). This is further seen in feelings of perceived severity of the disease and feelings of perceived benefits to condom use. Neither perceived severity nor perceived benefits were significantly related to condom use. If the student does not feel susceptible to HIV and does not perceive the disease to be severe then they will not see the benefit of condom use.

Generally college students have a belief in personal immortality that can cause them to mistakenly feel immune to HIV/AIDS (Ragon et al., 1995). The lack of immediate symptoms with HIV infection can cause many to disregard the severity of this disease. It is also possible that the negative relationship of perceived susceptibility to HIV/AIDS is due to active condom use which would eliminate feelings of susceptibility to the disease. The students reported perceived benefits of condom use such as worrying less about HIV infection but this was not found to be significantly related to actual condom use.

Previous studies looking at knowledge of STD and AIDS transmission indicate that students exhibit a high level of STD and HIV/AIDS related knowledge, despite this fact a significant number of risk-related behaviors were reported (DiClemente et al., 1990;

Fisher and Misorich, 1990). Risk-related behaviors include irregular or no condom use. The research shows no relationship between knowledge of HIV transmission and safer-sex behavior (Baldwin and Baldwin, 1988; National Research Council, 1989; Coron et al., 1992; Edgar, Freimuth and Hammond, 1988). As hypothesized in this research, knowledge of HIV/AIDs transmission showed no relationship to condom use.

Looking at all of the variables that were not significantly related to condom use there seems to be one common thread. Students indicated awareness of modes of transmission and self-efficacy in using and purchasing condoms both indicating that they are informed and self-efficacious. They also indicated that their feelings of perceived severity and perceived benefits were not significantly related to condom use. Their feelings of perceived susceptibility was negatively related to condom use. All of these findings indicate that the individuals personal self-efficacy and health beliefs are not always directly reflected in their actions. An individual can know about transmission and be informed of preventive behavior but still choose to engage in high-risk behavior.

### ***Limitations of This Study***

The generalizability of the findings of this study is limited both by the nature of the sample and by the research design. My sample was a convenience sample, based on which professor would allow me to survey his/her class and who chose to attend class that day. Another limitation is that I used self-report measures of behavioral intentions and past behavior. There is always a danger in relying upon the accuracy of self-reports, especially in areas of sexual behavior, although the questionnaire was anonymous in an attempt to protect against this danger. The sample itself was limited in that it was largely

heterosexual and, thus, did not represent the homosexual population. With respect to this research, self-efficacy to use condoms under the influence of intoxicants was not measurable. Over 30% responded "not applicable" to the questions "I use condoms even after I have been drinking" and 65% responded "not applicable" to the question "I use condoms even when I am high." Some scales used consisted of only a few items and also had low reliability.

The greatest limitation of this study was a result of data collection by close-ended questionnaire. The findings made us wonder about partner discussion and negotiation concerning condom use. Without a qualitative, interview approach with both partners we were not able to capture the dialogue between partners about past experiences and negotiations of current condom use.

### ***Suggestions for Further Research***

As was reported in this study and prior research, dimensions of the HBM and some types of self-efficacy have been found to be related to condom use. Both are viable factors for study when evaluating condom use as related to the risk of HIV/AIDS infection. The items which make up the HBM scale and Condom Use Self-Efficacy Scale may not be all inclusive. These scales contain items which may not be applicable to all students, as was indicated by several of the comments made by respondents on the last page of their questionnaire. There were also a number of relationship situations which were not represented on the questionnaire. For example one student wrote:

"I am in a monogamous relationship and have been for the past three years. We do not use condoms because I have been tested before and was negative and I am the only partner he has had. And I believe him to remain monogamous. If I were to be with a new partner, a condom would

definitely be used. But we do not see it as necessary in our three year long, faithful relationship."

Another student commented on situations where negative HIV test results were obtained:

"Some of these questions about condom use don't apply too much if you and your partner have both been tested for HIV and you are monogamous - obviously you're not going to be too worried about getting HIV, you're going to be more worried about pregnancy in which case birth control pills would do just fine."

These respondents indicate that they do not use condoms due to the length and monogamous nature of their relationship as well as negative HIV test results. Again, without a qualitative, interview approach with both partners we were not able to capture, their dialogue which might include negotiations - who is going to purchase the condoms or at what point do the partners declare their relationship monogamous and no longer feel the need to use condoms. Questions could be added to better define the relationship and capture partner communication. Asking about previous HIV testing may shed some light on the "ideal" response phenomenon previous addressed in the self-efficacy to discuss condom use with one's partner. If partner A reports a negative HIV test then partner B may not feel that condoms are necessary from that point on.

In conclusion, this study's findings indicate that certain dimensions of the HBM and self-efficacy are useful in explaining condom use as related to HIV/AIDS among the college student population. Future research on this topic could re-examine the individual dimensions of the HBM and self-efficacy to develop or customize these models specifically for condom use and HIV/AIDS research. Topics of a sensitive nature such as sexual orientation, number of partners and specific questions regarding sexual acts are often difficult to assess using a questionnaire research technique. For example, in this

research none of the respondents identified themselves as lesbian or gay with three self-reported bisexuals. As previously suggested, personal interviews, a longitudinal study or a study with a larger sample could better evaluate the relationship between the HBM, self-efficacy and condom use. Further research in the area of partner communication, negotiation and length of relationship coupled with HIV test results might help bring us closer to understanding college student condom use. These remaining questions indicate there is much more research to be done.

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**Survey Group  
Participant Consent**

**Appendix A.**

1. I hereby acknowledge my voluntary participation in the HIV/AIDS Awareness Health Project, conducted by Sabrene' Blevins, Sociology Graduate student at Virginia Tech. I understand that I will be asked to fill out a series of self-report measures of risk knowledge, risk behavior, and social norm perceptions concerning AIDS, sexually transmitted diseases, and safer sexual practices. I understand that this information is of a sexually explicit nature. I realize that I may skip any question on the self-report questionnaire or decide to withdraw from the study at any point without penalty to me.

2. I have had the study described to me and have completely read the description of the project on the previous page. I have had all my questions answered, realizing the purpose of this project.

3. The potential effects of my participation in this project have been explained to me. No guarantee of benefit has been made to me by anyone to induce me to participate.

4. The information accumulated by this research may be used for research and educational purposes. Information relating to my responses may be presented at scientific meetings and/or published and republished in professional journals or books or used for any other purpose which Virginia Tech's Department of Sociology considers proper in the interest of education, knowledge, or research. However, it is specifically understood that in any such use or publication, I shall not be identified by name but will remain completely anonymous.

I have read and understand the Informed Consent and conditions of this project. I have had all my questions answered. I hereby acknowledge the above and give my voluntary consent for participation in this project.

If I participate, I may withdraw at any time without penalty. I agree to abide by the rules of this project.

\_\_\_\_\_  
Participant's Signature

\_\_\_\_\_  
Date

Should I have any questions about this research or its conduct, I may contact:

Sabrene' R. Blevins

(540) 951-7637

Investigator

Phone

Carol Bailey

(540) 231-8976 / 231-7534

Faculty Advisor

Phone

H.T. Hurd

(540) 231-5013

Director, IRB Research Division

Phone

**Dear Student,**

**On the following pages are questions about aspects of your personal relationships and sexual practices. While some of these questions may address topics that you feel are personal, it is very important that you provide honest responses. Please remember that all of your responses are anonymous. Your name will never be linked to the answers you provide. We ask that you read each question carefully and provide the response which is most true for you.**

**Thank you for taking the time to participate in this survey.**

**Sabrene' Blevins**

**These questions ask about the transmission of HIV/AIDS. Please respond even if you are not sexually active. Please answer each question by filling in the corresponding number on the scantron sheet:**

	<b>Definitely True 1.</b>	<b>Probably True 2.</b>	<b>Don't Know 3.</b>	<b>Probably False 4.</b>	<b>Definitely False 5.</b>
1. A person can have HIV and still test negative for HIV antibodies.	1.	2.	3.	4.	5.
2. It can take more than a year for a person infected with HIV to develop antibodies.	1.	2.	3.	4.	5.
3. It usually takes 2-6 weeks for symptoms of AIDS to occur once a person is infected with HIV.	1.	2.	3.	4.	5.
4. A person can be infected with HIV and not have symptoms of AIDS.	1.	2.	3.	4.	5.
5. AIDS can be cured if treated early.	1.	2.	3.	4.	5.
6. Having unprotected sex is a risk factor for HIV infection.	1.	2.	3.	4.	5.
7. Sharing intravenous needles is a risk factor for HIV infection.	1.	2.	3.	4.	5.
8. Romantic kissing is a risk factor for HIV infection.	1.	2.	3.	4.	5.
9. Living with a person with AIDS is a risk factor for HIV infection.	1.	2.	3.	4.	5.
10. A person can get HIV by donating blood.	1.	2.	3.	4.	5.
11. An experienced person can look at someone and tell if he or she is infected with the HIV virus.	1.	2.	3.	4.	5.
12. AIDS presents little danger to heterosexuals.	1.	2.	3.	4.	5.



13. HIV can be transmitted by an infected man having anal sex without a condom with another man. 1. 2. 3. 4. 5.
14. HIV can be transmitted by an infected man having vaginal sex without a condom with a woman. 1. 2. 3. 4. 5.
15. HIV can be transmitted by an infected man having anal sex without a condom with a woman. 1. 2. 3. 4. 5.

**These questions ask about your feelings about using condoms and discussing condom use with your partner. Please respond even if you are not sexually active or have never used (or had a partner who used) condoms. In such cases, indicate how you think you would feel in such a situation.**

- |  | Definitely<br>True<br>1. | Probably<br>True<br>2. | Don't<br>Know<br>3. | Probably<br>False<br>4. | Definitely<br>False<br>5. | Not<br>Applicable<br>6. |
|--|--------------------------|------------------------|---------------------|-------------------------|---------------------------|-------------------------|
| 16. I always use condoms during sexual activity.                   | 1.                       | 2.                     | 3.                  | 4.                      | 5.                        | 6.                      |
| 17. Condoms are easy to use.                                       | 1.                       | 2.                     | 3.                  | 4.                      | 5.                        | 6.                      |
| 18. I feel confident buying condoms.                               | 1.                       | 2.                     | 3.                  | 4.                      | 5.                        | 6.                      |
| 19. I know how to use a condom when I have sex with someone.       | 1.                       | 2.                     | 3.                  | 4.                      | 5.                        | 6.                      |
| 20. I am capable of using a condom with a new sex partner.         | 1.                       | 2.                     | 3.                  | 4.                      | 5.                        | 6.                      |
| 21. I'm confident that I can put a condom on myself or my partner. | 1.                       | 2.                     | 3.                  | 4.                      | 5.                        | 6.                      |
| 22. I can purchase condoms without feeling embarrassed.            | 1.                       | 2.                     | 3.                  | 4.                      | 5.                        | 6.                      |
| 23. I'm confident I could discuss condom use with a new partner.   | 1.                       | 2.                     | 3.                  | 4.                      | 5.                        | 6.                      |

24. I'm confident I could suggest using a condom without making my partner feel uncomfortable. 1. 2. 3. 4. 5. 6.
25. I am willing to suggest using a condom to a partner even if he/she would reject me. 1. 2. 3. 4. 5. 6.
26. I'm confident I can use a condom correctly. 1. 2. 3. 4. 5. 6.
27. I can persuade my partner to use a condom when we have intercourse. 1. 2. 3. 4. 5. 6.
28. If my partner and I tried to use a condom and did not succeed, I would feel too embarrassed to try to use one again (i.e. unrolling a condom, or putting it on incorrectly). 1. 2. 3. 4. 5. 6.
29. I would be afraid to suggest using condoms with a new partner because he or she might think I have a sexually transmitted disease. 1. 2. 3. 4. 5. 6.
30. I'm confident that I could use a condom with my partner without "breaking the mood." 1. 2. 3. 4. 5. 6.
31. I use condoms even after I have been drinking. 1. 2. 3. 4. 5. 6.

**Please continue with the next set of questions. Read each question carefully and provide the response which is most true for you and remember that your responses are anonymous.**

- |  | Definitely<br>True<br>1. | Probably<br>True<br>2. | Don't<br>Know<br>3. | Probably<br>False<br>4. | Definitely<br>False<br>5. | Not<br>Applicable<br>6. |
|--|--------------------------|------------------------|---------------------|-------------------------|---------------------------|-------------------------|
| 32. I use condoms even when I am high. | 1.                       | 2.                     | 3.                  | 4.                      | 5.                        | 6.                      |

33. If my partner didn't want to use a condom during intercourse, I could easily convince him or her that it was necessary to do so. 1. 2. 3. 4. 5. 6.
34. I'm confident that I could use a condom successfully. 1. 2. 3. 4. 5. 6.
35. I'm confident that I would stop to put a condom on myself or my partner even in the heat of passion. 1. 2. 3. 4. 5. 6.
36. It is hard to ask a sex partner about other people they have had sex with. 1. 2. 3. 4. 5. 6.
37. I can ask my sex partner how many people they have had sex with before me. 1. 2. 3. 4. 5. 6.
38. I can ask my sex partner if they have ever had anal sex. 1. 2. 3. 4. 5. 6.
39. I can ask my sex partner if they have ever used IV drugs. 1. 2. 3. 4. 5. 6.
40. I can ask my sex partner if they have ever had sex with another man. 1. 2. 3. 4. 5. 6.
41. I can tell my sex partner how many people I have had sex with before him or her. 1. 2. 3. 4. 5. 6.
42. I am at low-risk for HIV infection. 1. 2. 3. 4. 5. 6.
43. People like me do not get HIV infections. 1. 2. 3. 4. 5. 6.
44. I am very healthy, so my body could fight off an HIV infection. 1. 2. 3. 4. 5. 6.
45. I'm too young to get an HIV infection. 1. 2. 3. 4. 5. 6.
46. I am not worried that I might get an HIV infection. 1. 2. 3. 4. 5. 6.

47. If I had an HIV infection, my family relationships would be strained. 1. 2. 3. 4. 5. 6.
48. People would avoid me if I had an HIV infection. 1. 2. 3. 4. 5. 6.
49. If I got AIDS, I would eventually die from it. 1. 2. 3. 4. 5. 6.
50. Condoms decrease pleasure during sex. 1. 2. 3. 4. 5. 6.
51. Using condoms during sex is a hassle. 1. 2. 3. 4. 5. 6.
52. I would rather use some other kind of birth control than condoms. 1. 2. 3. 4. 5. 6.
53. I know where to get condoms. 1. 2. 3. 4. 5. 6.
54. Condoms are expensive. 1. 2. 3. 4. 5. 6.
55. Condoms are inconvenient. 1. 2. 3. 4. 5. 6.
56. Buying condoms is embarrassing. 1. 2. 3. 4. 5. 6.
57. When I use a condom when having sex, I worry less about getting an HIV infection. 1. 2. 3. 4. 5. 6.
58. I worry less about getting an HIV infection when I am abstinent. 1. 2. 3. 4. 5. 6.
59. What is your total number of sex partners (sex partners are any individual in which you have had anal, oral or vaginal intercourse)?
- |    |            |
|----|------------|
| 1. | <b>0</b>   |
| 2. | <b>1</b>   |
| 3. | <b>2-3</b> |
| 4. | <b>4-6</b> |
| 5. | <b>7-9</b> |
| 6. | <b>10+</b> |
60. Please mark the category which best describes your sexual orientation.
- |    |                     |
|----|---------------------|
| 1. | <b>Heterosexual</b> |
| 2. | <b>Bisexual</b>     |
| 3. | <b>Gay</b>          |
| 4. | <b>Lesbian</b>      |

**Finally, in this section, we'd like to get background information about you. Please remember that your responses are anonymous and will not be seen by anyone present in the room today. Please answer each question by filling in the corresponding number on the scantron sheet:**

61. What is your gender?
1. **Male**
  2. **Female**
62. What is your current age?
1. **18**
  2. **19**
  3. **20**
  4. **21**
  5. **22**
  6. **23 or older**
63. What is your relationship status?
1. **Single**
  2. **Married**
  3. **Divorced/Separated**
  4. **Widowed**
  6. **Other (please specify) \_\_\_\_\_**
64. Which of the following best describes your ethnic background or ethnic identity?  
(Please mark only one)
1. **White**
  2. **Black**
  3. **Latina/o Hispanic**
  4. **Asian**
  5. **Native American**
  6. **Other (please specify) \_\_\_\_\_**
65. How many HIV/AIDS awareness meetings have you attended on this campus?
1. **0**
  2. **1**
  3. **2-3**
  4. **4 or more**
66. What is your academic level?
1. **Freshman**
  2. **Sophomore**
  3. **Junior**
  4. **Senior**

Please add any additional questions or comments here:

## **Sabrene' Rene' Blevins**

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Blacksburg, VA 24060  
(540) 951-7637/(540) 231-2557  
sblev@vt.edu

### **EDUCATION:**

8/95-5/97

**Blacksburg, Virginia**

**Masters Degree in Sociology**

**Virginia Polytechnic Institute and State University -**

8/88-6/93

**B.S. Radford University - Radford, Virginia**

Major: Sociology Minor: Psychology

Sociology/Anthropology Concentration

### **PROFESSIONAL MEMBERSHIPS/ACTIVITIES:**

- Director Roanoke AIDS Benefit 1993-94
- Member of the American Sociological Association
- Member of the Society for the Study of Social Problems
- Member of the Alpha Kappa Delta International Sociology Honor Society
- Secretary of the AKD International Sociology Honor Society 1996-97
- Member of the Sociology Curriculum Committee - Virginia Tech 1995-97

### **EXPERIENCE:**

#### **Studies**

8/96-Present

Blacksburg, Virginia

#### **Academic Advisor/Coordinator for Interdisciplinary**

Center for Interdisciplinary Studies, Virginia Tech -

- Academic advising for fifty to seventy-five undergraduate students
- Training and supervision of graduate assistants
- Supervision of the IDST internship program
- Develop and maintain promotional materials and direct new student orientation
- Institute programs for specialized advising populations
- Design and publish the semesterly IDST newsletter

- 9/95-5/96  
Virginia
- Survey Interviewer**  
Center for Survey Research, Virginia Tech - Blacksburg,
- Conduct telephone surveys
- 2/94-8/95
- Marketing Secretary**  
Trigon Blue Cross Blue Shield - Roanoke, VA
- Secretary to Marketing Dept. and Director of Individual Markets
  - Phones, invoices, department budget, general secretarial duties
- 8/93-2/94
- Customer Service/Benefits Processing Analyst**  
Trigon Blue Cross Blue Shield - Roanoke, VA
- Training in the areas of: customer relations, telephone courtesy
  - Temporary assignments in the following areas:
    - Executive Secretary - Student Accounts
    - Training and Risk Management support
- 1/90-12/90
- Customer Service Representative**  
Systems Center Inc., Reston, Virginia
- Computer software problem solving techniques, expirations and renewals

**Technical Skills**

Experienced with the following software applications:

- Windows'95 Environment
- PC and Macintosh Environments
- Microsoft Works 3.0/ Microsoft Word 7.0
- WordPerfect 6.0
- Harvard Graphics 3.0/ Powerpoint 7.0
- Lotus 1-2-3 5.2/ Excel 7.0
- Foxpro
- SPSS/SAS
- Concord
- VTVM1/VTVMS - IMSP

