GENDER DIFFERENCES IN ATTITUDES AND BEHAVIORS TOWARD CONDOM PURCHASE AND USE AMONG ADOLESCENTS AND YOUNG ADULTS

by

Patricia Ann Campbell

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Gender Differences in Attitudes and Behaviors Toward Condom Purchase and Use Among Adolescents and Young Adults

by

Patricia Ann Campbell
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Abstract

Aside from abstinence condom use is seen as one of the primary methods for the prevention of HIV transmission. This research surveyed 102 sexually active heterosexual college students to assess gender differences in attitudes and behaviors toward condom use and purchase. The Attitude Toward Condoms Scale, various questions from published instruments and experimental questions were utilized. The results of this study describe a more androgenous attitude toward condom use within this population, with males and females indicating a neutral attitude toward condoms. Supporting previous research, this population demonstrates high risk behaviors, practicing unprotected sex with multiple partners. On the factor of embarrassment, however, females were found to be significantly less embarrassed in condom use and purchase than males. In comparison to males, females reported more assertive behaviors regarding condom use. Females indicated that they found males who did not leave contraceptive responsibility up to the female to be sexier.
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Introduction

This study assesses gender differences and similarities in attitudes and behaviors toward condom use in a heterosexual adolescent and young adult population. Further, this study assesses an antecedent to condom use, condom purchase, exploring gender differences and similarities in attitudes and behaviors toward condom purchase in this targeted population. This study does not propose to explain the reasons for attitude and behavior differences and similarities toward condom purchase and use, but only to identify possible differences.

In the last ten years, there has been considerable research on attitudes and behaviors toward condom use in the homosexual, IV drug users and adult heterosexual populations. The literature reflects only one study, however, in condom purchase among adolescents and/or young adults (females only) (Rickert, Jay, Gottlieb, & Bridges, 1989) and no research has been published addressing gender differences in condom purchase in sexually-active, heterosexual adolescents and young adults. A review of the literature on adolescent and young adult sexual attitudes and behaviors documents that this population is at risk for acquiring HIV and merits further research.

Acquired Immunodeficiency Syndrome (AIDS) is a fatal disease that knows no boundaries. With the estimate of 1.5
million people in the United States infected with the AIDS virus (Surgeon General and the Centers for Disease Control, 1986), this pandemic can no longer be characterized as a disease unique to homosexuals, drug addicts, victims of blood transfusions and adults. "By the end of 1991, an estimated 270,000 cases of AIDS will have occurred with 179,000 deaths within the decade since the disease was first recognized" (Surgeon General and the Centers for Disease Control, 1986). It can no longer be a concern of any one segment of society; it must be a concern for all.

Because of the statistic showing an increase in adolescent sexual activity from 1970 to 1980 (Pratt & Hendershott, 1984; Zelnich & Kantner, 1980), the Institute of Medicine and National Academy of Sciences (IOM/NAS, 1986) identified adolescents as a segment of the population for whom prevention of HIV infection is critical (IOM/NAS, 1986; Maticka-Tyndale, 1991). In the United States, the median age for adolescents to have sexual intercourse for the first time is approximately 16 years of age. In an analysis of AIDS cases in New York City (of which adolescents account for one-fifth of all AIDS cases), heterosexual transmission was more common among adolescents than adults (Brooks-Gunn & Furstenberg, 1990). AIDS may not be "exploding" into the general population but there is a projection that the number of AIDS cases in the heterosexual population doubles every 14 to 16 months (Haverkos &
Edellman, 1988). Hernandez and Smith (1990) report that the majority of those with AIDS are young adults. Statistics for spring 1989 showed more than 18,000 people aged 20-29 were diagnosed with AIDS (CDC, 1989). With the new, more inclusive definition of the AIDS disease adopted by the federal Centers for Disease Control and Prevention, the number of new AIDS cases is expected to double in 1993 to at least 90,000. The old definition, in use for five years, did not include symptoms unique to women who tested HIV-positive (Duffy, 1993).

**Adolescent and Young Adult Risk-Taking**

A direct indication of the HIV risk for the adolescent and young adult population can be inferred from the prevalence of sexually transmitted diseases (STD) within this group. It is estimated that 2.5 million teens are infected with a sexually transmitted disease each year. In other words, every 13 seconds a teen in the United States is infected with an STD. An indirect indication of the HIV risk facing the adolescent and young adult population is reflected in the statistic showing 1,000,000 teen-age pregnancies (unprotected sex) occurring annually (Petosa & Wessinger, 1990). It has been reported that a significant proportion of young and never married individuals describe having five or more partners within the last 12 months: 10.2% men and 2.2% of women aged 18-29 (Richwald, Friedland, & Morisky, 1989). Additionally, Catania et al.
(1989) found little distinction between primary and secondary partners during adolescence and that adolescents practice "serial monogamy" varying in duration (a week to several years). Because teenagers and young adults demonstrate high risk sexual behavior due to unprotected intercourse, multiple-partners and the practice of serial monogamy, this group should be recognized as a population where seropositivity is likely to increase.

Presently, only 1% of the AIDS cases reported are of people younger than 20 years of age (Nader, Wexler, Patterson, McKuski, & Coates, 1989). However, it must be remembered that a person can be infected with the HIV virus for up to 10 years before showing physical symptoms (Curran et al., 1988; Stall, Coates & Hoff, 1988). It can therefore be reasoned that a significant number of these people would have been infected during adolescence (CDC, 1989; Richwald et al., 1989).

Research has demonstrated that adolescents have the ability to perceive risk as accurately as adults (Melton, 1988). However, of the 55% of 16-19 year olds who are sexually active, only 7% believe that they are at risk for contracting AIDS (Strunin & Hingson, 1987). Because of the long incubation period of AIDS and because AIDS is characterized by severe uncertainty, Prohaska, Albrecht, Levy, Sugrué, & Kim (1990) defined perceived risk for AIDS ". . . by assuming that risk is the probability of some
future event in which the certainty of a given outcome is unknown" (Prohaska et al., 1990, p. 385). Differences in self-perceived risk appear to have more to do with one knowing someone with AIDS than actual knowledge of HIV transmission, in that there is a greater impact on perceived risk when an individual knows someone with AIDS (Prohaska et al., 1990). Coupled with the fact that the symptoms are, in effect, invisible and that there is a rather long incubation period, adolescents and young adults are highly unlikely to know anyone their age with AIDS. Second, the chance of contracting AIDS seems quite remote to any adolescent and therefore teenagers show a tendency to underestimate their risk for this life-threatening disease (Melton, 1988). Third, although adolescents, through sex education/information classes, understand how one becomes infected with the virus, understand the risk of engaging in multiple-partnered sex and are knowledgeable about the barrier methods (condoms, abstinence) necessary in reducing the risk of infection, few employ this knowledge and alter their sexual behavior (Brooks-Gunn et al., 1990, Calabrese, Harris, Easley, & Proffitt, 1986; Joseph et al., 1987). Hansen, Hahn, & Wolkenstein (1990), Stall et al. (1988) and Steinberg and Levine (1991) suggest that it is possible for one to believe that a person who engages in behaviors defined as risky (i.e., smoking) are at risk but at the same time, will deny one's own risk when engaged
in similar behaviors. Results from Hansen's study (1990) were alarming. Adolescents who practiced abstinence and those having multiple sex partners and not using condoms saw their own chances of getting AIDS to be the same.

An analysis explaining a possible rationale for high risk taking among adolescents is Berger's theory of the "invincibility fable." Berger (1988) describes an example of adolescent egocentrism, invincibility fable, wherein many adolescents feel that they are invulnerable, immortal and engage in risky behaviors with the belief that they will never be ill, get caught, or die. Elkind (1967) suggests that adolescents will sometimes construct a "personal fable" wherein they imagine themselves to be immune to harm. It is therefore not surprising that only 20% of the teenagers report using "safe-sex" techniques, i.e., condoms, as a barrier method to the prevention of HIV infection (Hansen et al., 1990). The same high-risk sexual activities causing teens to contract a sexually transmitted disease every 13 seconds demonstrates poignantly a major health crisis and the need for further research on adolescents, young adults and AIDS.

Condom Use

A shockingly significant proportion of heterosexual students report that during the last year, 37% never used condoms and approximately two-thirds use condoms less than half the time they engage in sexual intercourse
(DiClemente, Forrest, & Mickler, 1990). Condoms are reported, however, as the overwhelming method of choice among males and females for those who use birth control during first intercourse (Sonnenstein, Pleck & Ku, 1989). Why then are so many adolescents and young adults engaging in unprotected intercourse? One possible answer to this question may be that condoms have historically retained a poor public image. Murphy (1990) listed the most common reasons given for not using a condom:

1. Insensitivity (the barrier inhibits the sense of feel for both partners).
2. Inconvenience and interference with sexual pleasure (condoms need to be kept handy, put on during lovemaking, and disposed of).
3. Embarrassment (the interruption of lovemaking causes unsettling moments).
4. Poor image wherein condoms have long been associated with adolescent escapades and/or venereal disease.

A study by Sheeran, Abraham, Abrams, Spears, & Marks (1990) adds to the list the perception that condoms are considered ineffective. Subjects of Sheeran's study indicated that condoms were rather offensive and unattractive, with women considering condoms more offensive than men. To increase the attractiveness of condoms, DeJong (1989) states that the present markets should focus on condom use by promoting two aspects of a more positive image: freedom from worries and prolongation of intercourse.
Demb (1990) conducted a rap group and clinical interviews with teenage females exploring the attitudes toward condoms. She reports common themes of, "I don't like the way they feel or look. It feels all slimy. They might break or come off. They're unnatural and downright disgusting" (Demb, 1990, p. 402). When asked why they would not protect themselves from STDs (including AIDS) by using a condom, the most common reply was that they perceived their partner as safe, "He's clean. He's always in the shower." The girls reaffirmed previous research by making it clear that they felt that condoms belonged within the male domain. Additionally, these teenagers felt that they were safe (no condom use) because their relationships were monogamous. It was demonstrated in this study that teenagers are governed by their feelings and intuitions and not information. Demb (1990) further believes that teenage boys are less resistant to using condoms because of concern about damage to the genitals (rather than fear of death from AIDS).

The lack of condom use among adolescents and young adults can further be explained from a study by Burger and Inderbitzen (1985) on predicting contraceptive behavior among college students. The findings revealed that effective contraception requires planning. In a study conducted by Paikoff and Brooks-Gunn (1990, as cited in Brooks-Gunn & Furstenberg), one of the most frequently cited reasons for
not using birth control (condoms) during first intercourse was that adolescents did not anticipate having intercourse. Melton (1988) proposes that an inhibiting factor to condom use is the cultural belief that intercourse should not be planned. In a health survey of Philadelphia adolescents during 1989, approximately two-thirds of the girls said that their first intercourse "just happened" (Brooks-Gunn, 1990).

Irregular contraceptive practices among adolescents may be explained when considering the fact that social norms for adolescent contraceptive use have not been positively sanctioned (Tanner & Pollack, 1988). As Reiss and Leik (1989) point out, public statements advising adolescents to limit the number of sexual partners in order to reduce the risk of sexually transmitted diseases, especially AIDS, is more frequently heard than is the encouragement of condom use. As previously stated, Catania et al. (1989) determined that adolescents practice "serial monogamy"; therefore, as Reiss (1989) suggests, encouraging young, sexually active people to limit the number of partners is a "potentially futile strategy" (Reiss, 1989, p. 432). Using a video tape depicting a female persuading her boyfriend to use a condom, Solomon and DeJong (1989) effectively demonstrated that after clients at an STD clinic viewed the videotape, they were more tolerant about condoms because the video encouraged positive attitudes of condoms
and therefore their perception about social acceptance of condoms increased.

Finally, research offers a possible explanation to the puzzle that, despite the AIDS epidemic, adolescents continue to demonstrate high risk sexual behavior. Studies of adolescent contraceptive responsibility found that condom use decreased in the closest relationship category, (i.e., going steady) (Moore & Barling, 1990; Pleck, Sonenstein, & Swain, 1988). On the surface, monogamy, as a form of safe sex behavior, would appear acceptable. But in a closer analysis of adolescent behavior, it must be remembered that there is little distinction between primary and secondary partners during this developmental stage (Catania et al., 1989). Herbert, Bernard, Demann, and Farrar (1988) found that adolescents who reported having multiple partners were more likely to use condoms and used them because condoms were perceived as convenient and secure. The results of these studies emphasize the attitudes held by most adolescents, that is, if one is in a steady relationship, safe sex practices are unnecessary. And yet, primary relationships during adolescence take the form of serial monogamy, lasting from one week to several years (Catania et al., 1989). And so the logic comes full circle.

Statistics show that an adolescent who contracts HIV through heterosexual contact is more likely to be female
than male (Gayle, Rogers, Manoff, & Starcher, 1988; Goldsmith, 1986; Juran, 1989) and girls express significantly greater fear toward AIDS than boys (King & Gullone, 1990; Rickert, et al., 1989). Catania et al. (1989) established that a greater use of condoms by sexually-active adolescent females was correlated with an increased willingness to assert their preference to use condoms. In light of these statistics, however, it is interesting to note that adolescent males relinquish responsibility for contraception to the female as a couple becomes more sexually experienced and yet, 83% of sexually-active adolescent females practice intercourse without condoms (Catania et al., 1989). In a study of condom use among French-Canadian University students, however, Herbert et al. (1988) found that gender was not a significant factor in condom use.

**Condom Purchase**

In understanding the antecedents of condom use, it is meaningful to examine gender differences in adolescent and young adult attitudes and behaviors associated with condom purchasing. One male participant in a study by Kallen (1980) on contraceptive purchases by college students disclosed that "buying them is the worst part of using them." Severn (1990) in a study on college students and condoms found, however, that males were less embarrassed to buy condoms (males 39.1% vs. females 59.7%). The use of
condoms, moreover the purchase of condoms, requires the challenge of overcoming the anticipation of negative reactions from the druggist, and the dread of being perceived as "easy" because of the perception of preparation (Melton, 1988).

In a study examining female's attitudes and behaviors toward condom purchase, Rickert (1989) reports that although 90% of the sample stated that they would ask their partner to use a condom, only 17% had purchased a condom. The study further revealed that condom purchase was not related to socioeconomic status, age, embarrassment or knowledge of AIDS. Rickert found, however, that a difference in race was a significant factor, with approximately 39% of black females reporting that their partners had purchased a condom in comparison to 14% of white females' partners. The study did not indicate whether the female requested that her partner purchase a condom. In brief, data for Rickert's study supported the widely-held belief that male partners were more likely than females to purchase a condom. Another barrier to condom purchasing is the lack of marketing strategies to entice purchase. DeJong (1989) identifies marketing strategies that promote product image aimed at male consumers. For example, in Jamaica, condoms were presented under the "Panther" brand name--symbolizing a "Macho" undertone. It is interesting to note, however, that in Japan, after marketing research
disclosed that half of the condoms sold in pharmacies were purchased by women, Japanese stores began to stock condoms next to feminine hygiene products and "condom ladies" began selling condoms door-to-door to housewives. It has been documented that in some cities in the United States, women purchase approximately 40% of the condoms sold.

Faced with an increase in incidence of gonorrhea among the young, Swedish Association for Sex Education generated a large-scale marketing campaign to promote condom purchase and use (DeJong, 1989). They utilized a two-track marketing campaign emphasizing a positive product image and fostering condoms as one method of avoiding sexually transmitted disease. Additionally a marketing/promotion effort was created to make purchasing condoms less embarrassing—maybe even fashionable. This campaign resulted in a 50 percent increase in condom sales after two years with a 20 percent decrease in gonorrhea incidence among the young. Wellings (1986) believes that marketing techniques in the United States for personal items such as over-the-counter drugs, hygiene products and cigarettes have received more attention than condoms.

In discussing the resurgence of condom use in 1984, DeJong (1989) cited a company that increased condom purchases by 15 percent. The company wanted to "correct the feeling of many people that the condom would decrease their enjoyment of sex because it would decrease sensitivity to
the act itself" (DeJong, 1989, p. 7). The company launched a campaign that utilized brand names and slogans to evoke images of sexual pleasure: "Sensitol: The male contraceptive that lets you forget you're being careful." The company also wanted to emphasize romance and pleasure: "Trojans: For that certain feeling." Packaging appealed to both men and women. In media (television) advertising by the Ansell Manufacturers (condom manufacturer), an attempt was made to relay the message of HIV transmission and hopefully, a concomitant increase in purchase (Murphy, 1990). They featured a television ad in which a woman stated, "I'll do a lot for love, but I'm not ready to die for it." This ad reportedly offended many people but it did what it was supposed to do: it caught people's attention. The advertisement was abandoned. Placing condom purchase back in the male domain, Ansell has since taken a softer approach, running a television ad that features a father giving advice to his son at college. The ad stated, "Very often the best contraceptive for a woman is the one for a man." This ad never addressed the issue of STDs but only reinforced the belief that condoms remain a "contraception device" for males (Murphy, 1990).

Melton (1988) highlights the issue of condom distribution as a barrier to condom purchase and use. He asserts that the inaccessibility of condoms (sometimes behind counters), the poor marketing techniques (they should be
advertised as romantic and as a socially responsible behavior) and the lack of distribution in "unforbidden centers" (i.e., vending machines in public restrooms) frustrate the motivation to purchase and use condoms.

Condoms have been purchased in a variety of outlets. Traditionally, condoms were sold in pharmacies and kept strictly under the counter (Murphy, 1990). Murphy notes however that condoms have now moved from under the counter to up front near the register, next to the ChapStick, combs and other impulse items. Condoms, once perceived as a man's item are now competing fiercely for peg-board space in the "family planning" section or displayed with female personal products. A large number of teenagers (40:60 male-to-female ratio), however, are purchasing condoms at convenience stores. This may be due in part to the extended hours (before 8:00 a.m. or after 10:00 p.m.) (Murphy, 1990).

Lewitt, Coate, & Grossman (1981) found that increases in cigarette tax had the effect of decreasing adolescent smoking. This finding can be applied to condom sales in that it has been suggested that dissemination of condoms should be subsidized to reduce the cost and make them more readily available to adolescents, thereby encouraging purchase. DeJong (1989), although, suggests that the price of condoms requires market testing because if the price is too high, it is beyond the grasp of the needy. However, if
it is priced too low, consumers may equate price with poor quality and integrity of the product (Murphy, 1990). Murphy further states that because condoms are often purchased on impulse, consumers rarely seek bargain prices.

This research not only aids in tailoring prevention/education programs to the needs of adolescents and young adults but also offers valuable information to condom manufacturers in developing advertising and marketing campaigns in targeting a population at risk for HIV infection.

**Hypotheses**

The preceding analysis of the literature leads to the following predictions:

1. It is hypothesized that females will have a more negative attitude toward condoms than males. Attitudes toward condoms will be measured by comparing males to females on the total score of the Attitudes Toward Condoms Scale (Appendix A).

2. It is hypothesized that males will be more receptive than females to a partner's suggestion to use condoms. Receptivity to the suggestion of condom use will be measured by comparing males to females on Question #39 of Part I of the questionnaire, on the Attitudes Toward Condoms Scale (Appendix A).

3. It is hypothesized that females are less likely than males to assert their contraceptive requests. The behavior of asserting contraceptive requests will be measured by comparing males to females on Question #14 of Part III of the questionnaire and Question #9 of Part III of the questionnaire (Appendix A).

4. It is hypothesized that serial monogamy is perceived as monogamous behavior among an adolescent and young adult population. The perception of monogamy by this population will be measured
by comparing Question #1 of Part III of the questionnaire to Question #4 of Part III of the questionnaire. A further analysis of this hypothesis will be measured by a one-way frequency analysis of observed to expected on the "yes" responses (Appendix A).

5. It is hypothesized that both males and females will be less apt to use condoms the more they perceive their relationship to be monogamous. Condom use by monogamous individuals will be measured by comparing Question #1 of Part III of the questionnaire and Question #19c of Part III of the questionnaire. A further analysis of this hypothesis will be measured by comparing Question #4 of Part III of the questionnaire by Question #19c of Part III of the questionnaire (Appendix A).

6. It is hypothesized that males will be less embarrassed than females to purchase condoms and will purchase condoms more often than females. The difference in responses to embarrassment with purchasing condoms will be measured by comparing males to females on Question #43 of Part I of the questionnaire (Appendix A).

7. It is hypothesized that a) both males and females will be persuaded to purchase a particular brand of condoms depending on the color and style of the packaging, and that b) females would be persuaded by color and style more than males. The difference in responses to the influence of packaging on condom purchase behavior will be measured by comparing males to females on Question #12 of Part III of the questionnaire (Appendix A).

8. It is hypothesized that both males and females will not report a gender preference of a cashier when purchasing condoms. Consumer preference of a cashier when purchasing condoms will be measured by comparing males to females on Question #22 of Part III of the questionnaire (Appendix A).
Method

Secondary Analysis

Several aspects of the original survey used in the Wieand study (in press) were highlighted in the secondary analysis, namely, gender differences in attitudes and behaviors toward condoms. For this purpose, the Attitude Toward Condoms Scale (ATC) was analyzed in its entirety for gender differences. Additionally, 4 questions from Part III, a self-reported sexual behavior assessment (Catania et al., 1991), 14 experimental questions on purchasing behavior and 4 demographic questions were correlated with specific questions on the ATC Scale and again, analyzed in terms of gender differences.

Subjects

Subjects from a Northern California university campus were recruited through residence hall directors. The testing site and time was announced through the media (local radio, flyers and campus newspaper) and made available for all those living in residence halls.

Of the 1330 resident hall students, 657 were men and 673 were females. From this population, 180 residents filled out the questionnaire for the primary study (Wieand, in press). One hundred, two (102) subject samples indicated that they were sexually active, heterosexuals and therefore were selected from this population for the
present study. The subject samples were between the ages of 18 and 24 years (M = 19.5). Figure 1 illustrates an almost equal number of males to females (N = 59 females, N = 41 males).

With respect to the ethnic/racial identification, 83 reported they were white, 3 were Black, 10 were Hispanic, 3 were Native American, 1 was Asian and 2 people did not identify their ethnicity (see Figure 2). Breakdown by ethnicity was not available on the total resident hall population.

**Measures**

Two instruments were used in this study. The primary instrument was The Attitude Toward Condoms Scale (Brown, 1984) (Appendix A). Several specific questions in Part III of the survey, taken from an experimental measure used in the first national survey (Catania, Kegeles, & Coates, 1991) assessing AIDS risk-taking behaviors, were analyzed (Appendix A). Fourteen additional experimental questions were used to assess attitudes and behaviors toward condom purchase and four additional questions were administered to access demographic information required for this study (Appendix A).

The Attitude Toward Condoms Scale, developed by Brown (1984) contains 40 Likert-type items. It employs a 5-point response scale, ranging from strongly agree to strongly
Figure 1. Gender Distribution of Subjects.

Figure 2. Ethnic Distribution of Subjects.
disagree. A total score for both genders for the instrument is obtained by adding each of the individual item scores. The range of possible scores is 40 to 200. In this scale, a positive attitude toward condoms is operationally defined as a high score on the scale. A low score is defined as a negative attitude towards condoms. Brown originally administered the scale to 80 male and 107 female undergraduate college students. Brown reports item-total correlations ranging from .18 to .76 for males and from .10 to .76 for females. The average inter-item correlation is .24.

In a study on factors influencing heterosexual male college students' condom use, Baffi, Schroeder, Redican, & McCluskey (1989) used the Attitude Toward Condoms Scale and results indicate that the instrument is internally consistent (alpha coefficient = .91). From this study, the ATC Scale appeared to demonstrate a high internal consistency. Brown's study reported the mean distribution score for males to be 132.9 and the mean distribution score for females is 130.3. There are no data available with respect to sexual activity. Although there are no subtests or separate scores within the ATC Scale, it incorporates five major factors, accounting for 45% of the total variance: satisfaction with the safety and reliability of condoms; comfort; embarrassment; sexual arousal/excitement; and interruption of sexual activity. This measure has been
used in five published studies (Baffi et al., 1989; Brown, 1984; Keyes, 1990; Tanner & Pollack, 1988).

Because research demonstrates that condom purchase can be a barrier to condom use (Kallen & Stephensen, 1980; Rickert et al., 1989), the current survey included 14 experimental questions designed to assess attitudes and behaviors toward condom purchase among adolescents and young adults (Appendix A). A review of the literature revealed a limited number of measures examining condom use; however, none were discovered addressing condom purchase. The experimental questions were included in an attempt to incorporate items that addressed not only attitudes toward purchasing a condom but also the behavior. Three questions were used to evaluate purchase behavior and subsequent condom use. One question addressed the issue of embarrassment surrounding condom purchase, and another addressed condom packaging influence. Further, one question addressed the consumer's outlet preference for purchasing of condoms (i.e., drugstores, vending machine, etc.) and a final question compared the comfort issue in purchasing condoms and gender of the cashier. A true/false and a multiple choice format was utilized for all purchase questions.

Procedures

Testing was administered on five different days. Students were recruited to participate in the study of
gender differences and similarities in attitudes and behaviors toward condom purchase and use. Those wishing to participate were able to obtain a questionnaire. Adjacent to the mailboxes was a large room with tables and chairs where participants were allowed to complete the questionnaire. A member of the research team was on hand at all times for clarification of any question on the questionnaire. When finished completing the questionnaire, each student received a free condom for their participation.

Confidentiality

Prior to administering the questionnaire, this study was approved by the Humboldt State University Human Subjects Committee. On the day of testing, the participants were informed about the nature of the project and given a verbal warning stating that the material contained in the questionnaire was sexually explicit and therefore may be uncomfortable for some people. The verbal warning further emphasized that all questionnaires were to remain anonymous and if at any time the questionnaire became disturbing, they could discontinue participation (Appendix B).

Additionally, each student was required to read a disclaimer which stated first, that all information in the survey would remain confidential and, therefore, students were asked not to write his or her name anywhere on the answer sheet. Further, that although the results of the study may be published, the anonymity of the subjects would
be preserved. Second, each student was at liberty to withdraw from the project and discontinue participation at any time. Third, if any student had questions regarding the survey, a telephone number was given of a person in the Psychology Department who would be able to answer such questions (Appendix A).

**Statistics**

T-tests to determine gender differences were utilized when results were reported as interval variable data, such as individual items and on the total score of the Attitude Toward Condoms Scale. To compare gender differences when results were reported as nominal variable data, chi-squares were employed. Descriptive statistics were calculated and represented in the form of pie and bar graphs to illustrate the demographic characteristics of ethnicity and gender distribution of the sample.
Results

The overall results of the primary research have been tabulated and are reported in another study (Wieand, in press). The results of this secondary analysis will be divided into eight parts, each addressing an individual hypothesis.

**Hypothesis One**

It was hypothesized that females would have a more negative attitude toward condoms than males. A $t$-test was performed comparing males to females on the total score of the Attitude Toward Condoms Scale (Brown, 1984). The results revealed no significant difference between males ($M = 121.97$) and females ($M = 121.53$) on attitudes toward condoms.

The average item ratings for males and females were 3.0. Brown (1984) also found no appreciable sex differences in attitudes toward condoms (males, $M = 131.9$; females, $M = 130.3$). However, the average item ratings in Brown's study for males and females were 3.3. A $t$-test analysis reveals a significant difference between the means for males and females in the present and in Brown's (1984) study, males, $t(116) = 3.43$, $p < .01$; females, $t(154) = 3.01$, $p < .01$. The present study reflects a population with significantly different attitudes toward condoms, in
that they report a more neutral or indifferent attitude. Therefore, Hypothesis One was not supported.

**Hypothesis Two**

It was hypothesized that males would be more receptive than females to a partner’s suggestion to use condoms. A t-test was performed on the item score in Question #39 of Part I of the questionnaire (Appendix A), "I would have no objection if my partner suggested that we use a condom," comparing males to females. The results revealed no significant difference between males and females on this item. Males (M = 4.59, N = 42) and females (M = 4.74, N = 59) strongly agree that they would have no objection to a partner suggesting condom use. Therefore, Hypothesis 2 was not supported.

**Hypothesis Three**

It was hypothesized that females would be less likely than males to assert their contraceptive requests. A chi-square analysis of the difference in response between males and females to Question #14 of Part III of the questionnaire, "I have told a partner that I would not have intercourse without a condom" was performed. There was a significant difference between the two groups but in the opposite direction from the predicted hypothesis, chi-square (1, 100) = 10.75, p < .001. Females (69.5%, N = 41) were significantly more likely than males (36.69%, N = 15) to assert their contraceptive requests. In a further
analysis of Hypothesis Three, a chi-square was performed on Question #9 of Part III of the questionnaire, "Have you ever asked a partner to purchase a condom to be used for sexual intercourse?" The results again indicated a significant difference in answer to this question between males and females. It appears that females (88.1%, N = 52) are significantly more likely to request that a partner purchase a condom for sexual intercourse than are males (36.6%, N = 15), chi-square (1, 100) = 30.00, p < .001. Although Hypothesis Three was not supported, the gender difference was very significant in the opposite direction.

**Hypothesis Four**

It was hypothesized that serial monogamy is perceived as monogamous behavior among an adolescent and young adult population.

The results of Question #1 of Part III of the questionnaire, "... would you define your relationship as monogamous?" was compared to Question #4 of Part III of the questionnaire, "How many partners have you had sexual relationships with in the past year (12 months)?"

A two-way chi-square test for monogamy by number of partners in the past year (one versus two or more) showed a significant relationship between these variables, chi-square (1, N = 93) = 18.74, p < .001. While 41% of the population correctly identified themselves as monogamous and 23% correctly identified themselves as nonmonogamous,
37% of the sample (N = 93) reported to be monogamous but indicated two or more partners within the last 12 months (see Table 1).

A one-way frequency analysis of observed (N = 38) to expected (N = 72) was computed on the "yes" responses. Thirty-eight (38) correctly identified themselves as monogamous. Thirty-four (34), however, reported to be monogamous while indicating more than one partner within the last 12 months (serial monogamy). The results of this test analysis reveals a significantly greater proportion of respondents with more than one sex partner classifying themselves as "monogamous" than would be expected if subjects were correctly identifying themselves as nonmonogamous, chi-square (1, N = 72) = 16.06, p < .001 (see Table 2). Therefore, Hypothesis Four was supported.

**Hypothesis Five**

It was hypothesized that adolescents and young adults would be less apt to use condoms the more they perceived their relationship to be monogamous. Question #1 of Part III of the questionnaire, "... would you define your relationship as monogamous?" and Question #9c of Part III of the questionnaire, "I use condoms" were analyzed.

A two-way chi-square test for monogamy by condom use indicated significantly lower proportions of condom users
Table 1.

**Chi-square analysis for a comparison between reported monogamy and the number of partners within the past 12 months.**

<table>
<thead>
<tr>
<th>MONOGAMOUS</th>
<th>YES</th>
<th>NO</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>ONE PARTNER</td>
<td>38</td>
<td>0</td>
<td>38</td>
</tr>
<tr>
<td></td>
<td>29.42</td>
<td>8.58</td>
<td></td>
</tr>
<tr>
<td></td>
<td>41%</td>
<td>0%</td>
<td>41%</td>
</tr>
<tr>
<td>TWO OR MORE PARTNERS</td>
<td>34</td>
<td>21</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>42.58</td>
<td>12.42</td>
<td></td>
</tr>
<tr>
<td></td>
<td>37%</td>
<td>23%</td>
<td>59%</td>
</tr>
<tr>
<td></td>
<td>72</td>
<td>21</td>
<td>93</td>
</tr>
<tr>
<td></td>
<td>77%</td>
<td>23%</td>
<td></td>
</tr>
</tbody>
</table>

Chi-Square: 18.741  
d.f.: 1  
N: 93  
p < .001

Table 2.

**One-way classification chi-square analysis of observed to expected frequencies computed on correctly identified versus serial monogamous behavior.**

<table>
<thead>
<tr>
<th>CORRECTLY IDENTIFIED</th>
<th>SERIAL MONOGOMOUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>MONOGAMOUS YES</td>
<td></td>
</tr>
<tr>
<td>72</td>
<td>0</td>
</tr>
<tr>
<td>36</td>
<td>34</td>
</tr>
</tbody>
</table>

Chi-Square: 16.06  
d.f.: 1  
N: 72  
p < .001
among the group identifying themselves as monogamous (N = 69) than among those identifying themselves as non-monogamous, chi-square (1, N = 90) = 4.54, p < .05. While 55% of the monogamous respondents report condom use, 81% of the nonmonogamous identified respondents do. Also note that 19% of the respondents are at serous risk, in that they are sexually active, not monogamous, and not using condoms (see Table 3).

A two-way chi-square test for number of partners by condom use found no significantly higher proportions of condom use among those reporting two or more partners than those reporting one partner, chi-square (1, N = 90) = 3.12, p < .05. It should be noted, however, that 31% of the population with two or more partners is at serious risk, in that they are sexually active, not monogamous and not using condoms (see Table 4). Therefore, Hypothesis Five was supported.

Hypothesis Six

It was hypothesized that: a) males would be less embarrassed than females to purchase condoms and that, b) males would purchase condoms more often than females. A t-test analysis of the difference in response between males and females to Question #43 of Part I of the questionnaire, "It is embarrassing to buy condoms in a store" revealed a significant difference but in the opposite direction of the prediction for this hypothesis. Females (N = 58, M = 2.4)
Table 3.

Chi-square analysis for a comparison between reported monogamy and condom use.

<table>
<thead>
<tr>
<th>CONDOM USE</th>
<th>YES</th>
<th>NO</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>NO</td>
<td>31</td>
<td>4</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>26.83</td>
<td>8.17</td>
<td>39%</td>
</tr>
<tr>
<td></td>
<td>45%</td>
<td>19%</td>
<td></td>
</tr>
<tr>
<td>YES</td>
<td>38</td>
<td>17</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>42.17</td>
<td>12.83</td>
<td>61%</td>
</tr>
<tr>
<td></td>
<td>55%</td>
<td>81%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>69</td>
<td>21</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>77%</td>
<td>23%</td>
<td></td>
</tr>
</tbody>
</table>

Chi-Square: 4.537

d.f.: 1
N: 90
p < .05
Table 4.

Chi-square analysis for a comparison between reported condom use and number of partners.

<table>
<thead>
<tr>
<th>NUMBER OF PARTNERS</th>
<th>ONE</th>
<th>TWO OR MORE</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONDOM USE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO</td>
<td>18</td>
<td>17</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td>14.00</td>
<td>21.00</td>
<td>39%</td>
</tr>
<tr>
<td></td>
<td>50%</td>
<td>31%</td>
<td></td>
</tr>
<tr>
<td>CONDOM USE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>YES</td>
<td>18</td>
<td>37</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>22.00</td>
<td>33.00</td>
<td>61%</td>
</tr>
<tr>
<td></td>
<td>50%</td>
<td>69%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>36</td>
<td>54</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>40%</td>
<td>60%</td>
<td></td>
</tr>
</tbody>
</table>

Chi-Square: 3.117

d.f.: 1

N: 90

p < Not Significant
are less likely than males ($N = 42, M = 2.9$) to be embarrassed to purchase a condom in a store, $t(98) = -2.33$, $p < .05$. In an analysis of part two of Hypothesis Six, a chi-square was performed on Question 5 of Part III of the questionnaire, "Have you ever purchased a condom to be used for sexual intercourse?" The results demonstrated no significant difference in purchase behavior between males and females; 79.3% ($N = 46$) of all females and 80.5% ($N = 33$) of all males answering this question indicated that they had purchased a condom for sexual intercourse. Although Hypothesis Six was not supported, Hypothesis 6(a) was found to be significant in the opposite direction.

**Hypothesis Seven**

It was hypothesized that a) both males and females would be persuaded to purchase a particular brand of condoms depending on the color and style of the packaging, and that b) females would be persuaded by color and style more than males. A chi-square analysis of Question #12 of Part III of the questionnaire, "The color/style of packaging persuades me to purchase a condom," revealed a significant response difference between males and females, chi-square ($1, N = 96$) = 8.68, $p < .01$. Females (26%) were more likely than males (5%) to be persuaded to purchase a particular condom based on color and style of packaging. It was noted that the majority ($N = 79$) of students answered "no" to this question; nevertheless, a significantly lower
proportion of males were persuaded to purchase a condom based on color and style of packaging. Therefore, Hypothesis Seven (a) was not supported, but Hypothesis Seven (b) was supported.

**Hypothesis Eight**

It was hypothesized that both males and females will not report a gender preference of a cashier when purchasing condoms. A chi-square analysis on Question #22 of Part III of the questionnaire revealed that 93% (N = 52) of the females and 95% of the males (N = 37) reported that gender preference was not a consideration in the purchasing of condoms, and that there was no significant difference between males and females on this item. Therefore, Hypothesis Eight was supported.
Discussion of Results

There were eight major hypotheses investigated in the present study. The first hypothesis examined the findings of existing research which described a gender difference in attitudes toward condoms (Sheeran et al., 1990). However, in the present study young adult and adolescent males and females show no significant difference in their attitudes toward condoms.

These results mirror Brown's (1984) findings, as her study also found no appreciable sex differences in attitudes toward condoms. The present study did reflect a population with a more neutral attitude toward condoms. It must be noted, however, that this study examined heterosexual, sexually active adolescents and young adults. Brown's study did not indicate their subject's sexual identity or sexual activity. Although the present study reflects a less positive attitude toward condoms than Brown's, the author speculates that nonsexual participants may be more positive toward condoms in theory and this attitude could possibly change in practice. Brown suggested a further analysis of the factors involved in the scale. However, the results of an analysis for gender differences on the factors in this scale, revealed no significant difference.
Research indicates that males relinquish responsibility for contraception to the females (Catania et al., 1991). Therefore, it was hypothesized that males would report less of an objection to their partner's suggestion to use condoms. Additionally, Demb (1990) reaffirmed previous research that females felt that condoms belonged within the male domain. The present study, however, did not find support for Demb's conclusions. Results from an analysis of Hypothesis Two indicate that adolescents and young adults feel that neither males nor females should be uncomfortable with a partner's suggestion to use a condom and further describes a population who no longer espouses the belief that males should relinquish contraceptive responsibility to the female. Again, no significant gender difference implies a more homogeneous attitude toward condom use within this group.

An interesting adjunct to the issue of contraceptive responsibility was the very significant difference in response between males and females on the following question: "To most women, a man who uses a condom is sexier than one who leaves protection up to the woman." The males were ambivalent as to whether they felt a man who used condoms was sexier than one who left the decision of contraceptive responsibility up to the female; they remained undecided. However, the females were very strong on this question and agreed that the man would be perceived as
sexier. This seems to suggest that although women may regard men who do not leave contraceptive responsibility up to a woman to be sexier, they may not be communicating this perception to males. We may speculate further that males might be more likely to accept contraceptive responsibility rather than relinquish it to females (as research seems to indicate) if they were able to recognize the seductive benefits.

From the results of the present investigation, it is interesting to note that there are no differences in attitudes toward condoms. Both genders report neutral attitudes toward satisfaction with the safety, reliability, comfort, sexual arousal/excitement, interruption of sexual activity and embarrassment factors of condoms. However, the present study uncovers an interesting component: although there appears to be no gender differences in attitudes, various behavior differences appear. Therefore, these findings seem to suggest that attitudes are not predictive of behavior.

Hypothesis Three was formulated on previous research that 83% of sexually-active adolescent females practice intercourse without condoms (Catania et al., 1989). In further support of these findings, the present study explored the possibility that females may be demonstrating less assertive contraceptive behavior than males. However, it was found that adolescent and young adult females were
more likely than males to assert their contraceptive requests. In fact, in an analysis of condom purchase among this population, females were more likely than males to ask their partner to purchase a condom. Recent studies presenting statistics that heterosexual females are more likely than heterosexual males to contract AIDS from each other (14% vs. 7%) and King and Gullone's study (1990) wherein girls expressed significantly greater fear toward AIDS than boys may explain the reason why the present study did not substantiate earlier AIDS research. The present findings illustrate a very different profile than those previously studied: possibly a more educated, a more fearful, and definitely a more assertive female population.

Serial monogamy within this population has been validated in previous research. Young adults and adolescents demonstrate high risk behavior through the practice of serial monogamy, i.e., defining a relationship to be monogamous when, in fact, reporting more than one partner within the last 12 months.

Current research confirms that Acquired Immuno-deficiency Syndrome is not restricted to a specific segment of our society and more importantly, recent statistics show that seropositivity is on the incline in the adolescent population. The present research offers a possible explanation for an increase in diagnosed cases of HIV within this group.
Thirty-seven percent (37%) of the population surveyed are practicing serial monogamy. Several studies have suggested that the more a couple perceives their relationship to be monogamous, the less likely they will be to use condoms. In the present study, those who identified themselves to be monogamous (including those practicing serial monogamy), 45% of the population reported no condom use. The results of Hypothesis Four and Hypothesis Five substantiate earlier findings and illustrate the frightening reality that adolescents and young adults continue to practice unprotected sex and risky behavior under the guise of serial monogamy.

It should be noted that 19% of this population are at serious risk for contracting HIV, in that they are sexually active, not monogamous and not using condoms.

An antecedent to condom use is condom purchase. Earlier research cites embarrassment as one possible barrier to condom purchase. The literature revealed conflicting data on the issue of embarrassment as it relates to condom purchase. A study by Rickert (1989) reported that condom purchase was not correlated with embarrassment; whereas, Severn (1990) found that males were less embarrassed than females to purchase condoms.

Further evidence to support females becoming more assertive in their contraceptive responsibilities and a subsequent contradiction of previous research is
represented by the results of Hypothesis Six (a). It was theorized that males would be less embarrassed than females to purchase condoms. In the present investigation, it is interesting to note that females reported less embarrassment than males in condom purchase.

It has been suggested that females purchase condoms less often than males (Rickert, 1989). The present study found no meaningful difference between purchasing behaviors of males and females; both are purchasing condoms equally. The results of these two findings seem to suggest that males may be less likely to assert their contraceptive requests (as show by Hypothesis 3) because of greater embarrassment issues surrounding condoms.

Additionally, the present study demonstrates that adolescents and young adults are developing more androgynous behaviors toward condom use and purchase. More importantly, the results are encouraging; adolescents and young adults appear to be taking positive steps toward the prevention of the spread of HIV.

In an attempt to understand condom purchasing behaviors within this population, this study hypothesized that males and females would be persuaded to purchase a brand of condoms based on the color and style of the packaging. DeJong (1989) stated that marketing strategies to entice condom purchasing have always targeted the male population. In Japan, however, research showed that 40% of the condoms
were purchased by females. The results of the present study found that females, more than males were persuaded to purchase a condom based on the color and style of the packaging.

In a study conducted by Murphy (1990), it was found that a variety of outlets have now moved condoms from under the counter to up front near the register. Further, as revealed from the results of Hypothesis Eight, embarrassment in buying personal items (such as condoms) from a cashier of the opposite sex does not hinder the adolescent and young adult from purchasing these items.

Given that females are less embarrassed to purchase condoms, are more influenced by the color and style of packaging and are purchasing condoms equally, marketing strategies need to target the female population. One possible suggestion might be to move condoms next to feminine hygiene products with a design that appeals to the female consumer. Additionally, various advertising media (primarily television) should be developed—targeting again, the female consumer and condom purchase.

Limitations of the Study

In light of the AIDS epidemic and, accordingly, the immeasurable relevance of AIDS research, there is a tremendous urgency to move swiftly in discovering and understanding sexual behaviors and their antecedents that inhibit or facilitate HIV transmission. Given that AIDS research is
undervalued and underfunded (Catania, 1991) and that methods used to collect information about condom behaviors (use and purchase) are relatively nonexistent, research suffers from participation bias and measurement error obstacles. The present research is not immune from these problems. Several possible explanations can be given to account for the general limitations of this study and the statistical results demonstrating support or lack of support of the hypotheses: over- and underreporting in self-reports, subjects’ refusal to answer certain items, the social milieu at the time of testing and utilizing statistical tests of individual item questions.

Over- and underreporting of sexual behavior may lead to exaggerating the prevalence of risky sexual behavior. The supposition is that if exaggeration occurs in studies of sexual behavior, it is more likely to be underreported (Bradburn & Sudman, 1979, as cited in Catania, 1991). This theory is based on the fact that most people perceive sexual activity as private and that one should not be engaging in "bad" social behavior. However, overreporting may be developmental in that sexual behavior reports are higher by male adolescents, relative to female adolescents, as indices of their developing sexual prowess and attractiveness (Catania, 1991). Given that people tend to bias their answers about sexual behavior, respondents are more likely, however, to acknowledge a specific sexual
behavior under private conditions (such as the present survey) rather than face-to-face interviews.

Missing responses to items on this sample were very infrequent. Research reveals that nonresponders on self-administered questionnaires tend to be older, less educated and have lower reading ability (Johnson & DeLamater, 1976) than the students in this sample. In the current study, the average age of all responders was 19 years old and all were attending college. The author speculates, however, that refusal rates may be hidden in a responder’s selection of the "undecided" category wherein a neutral standing is more favorable than refusal to answer.

A few weeks prior to the administration of this survey, it was announced that the renowned basketball player Ervin "Magic" Johnson contracted HIV through heterosexual transmission. The media coverage was extensive. The social impact of an announcement by a celebrity of such magnitude, one so distinguished and idolized by adult and children alike, must be acknowledged. It may be said that this disclosure communicated powerfully the message that HIV is transmitted through heterosexual contact and that no one person is immune. Therefore, in reporting data from the present research, it must be recognized that the publication and subsequent resurgence of discussion of HIV
transmission through heterosexual contact may have had notable influence on respondents' reported sexual behaviors.

Finally, as was mentioned, the paucity of methods used to gather information about sexual behaviors as it relates to condom use and purchase resulted in the necessity to utilize statistical tests of individual-item questions to support an hypothesis. When one utilizes a single question to support an hypothesis instead of employing subscale scores, it is more likely to effect significant results. To minimize this type of error in an analysis of this topic, the present investigation limited the number of gender difference hypotheses.

In examining the individual-item questions used in this study to support several hypotheses, it should be noted that each item selected appears to possess construct validity. The author agrees, however, with Nevo (Nevo & Sfez, 1985), in that there is a shortage of available research on face validity, despite its seeming contribution to attitudes toward tests and test items. The measures used in this study are not supported by face validity tests and therefore selecting single test items to support various hypotheses is a recognized limitation of this study.

As stated above, the shortage of methods available to gather information about condom purchase behavior, as an
antecedent to use, necessitated in the use of statistical tests of individual-item experimental questions to support several hypotheses. Each question appears to possess face validity, but until further validation procedures are completed, the results of this study cannot be generalized to other college populations. The utilization of experimental questions in this study is a recognized limitation of this study.

**Implications for Future Research**

Rickert (1989) stated that purchase and use of condoms are two important behaviors that adolescents must become comfortable with to reduce the transmission of HIV and other STDs. Yet, there is a scarcity of research on gender differences in condom use and no methods available to collect information on purchasing behaviors. It is suggested that not until we have specific methods available to collect the necessary data will we be able to discover the antecedents to the transmission of HIV and other STDs. Further, without this understanding, we may never be able to adequately develop educational curriculum tailored to the gender specific needs of this population.

Finally, the results of the current study suggest that future research should focus on understanding the changing and revolutionary attitudes and behaviors of condom purchase and use by females. The outcome of such research may be the development of innovative marketing strategies
targeting the female population and attenuating the assumption that condoms belong only within the male domain.
References


APPENDIX A

THE SURVEY
Part I. Directions: The following items are intended to measure people's opinions about the use of condoms (rubbers). There are no right or wrong responses to any of these statements. 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.

Please read each of the following statements and indicate by circling the number of the response that best fits your feeling about the statement.

For example, if you agree with a certain statement, circle the 4. If you strongly disagree, circle 1 and so forth.

Strongly Disagree Disagree Undecided Agree Strongly Agree
1 2 3 4 5

1. In my opinion, condoms are too much trouble. 1 2 3 4 5
2. Condoms are unreliable. 1 2 3 4 5
3. Condoms are pleasant to use. 1 2 3 4 5
4. The neatness of condoms, for example, no wet spot on the bed, makes them attractive. 1 2 3 4 5
5. I see the use of a condom as adding to the excitement of foreplay if the female partner helps the male put it in place. 1 2 3 4 5
6. I would be willing to try a condom, even if I have never used one before. 1 2 3 4 5
7. There is no reason why a woman should be embarrassed to suggest a condom. 1 2 3 4 5
8. Women think men who use condoms show concern and caring. 1 2 3 4 5
9. I intend to try condoms. 1 2 3 4 5
10. I think proper use of a condom can enhance sexual pleasures. 1 2 3 4 5
11. Many people make use of the condom as an erotic part of foreplay. 1 2 3 4 5
12. All things considered, condoms seem safer to me than any other form of contraception except abstinence. 1 2 3 4 5
13. I just don't like the idea of using condoms. 1 2 3 4 5
15. Condoms are inconvenient.  
16. I see no reason to be embarrassed by the use of condoms.  
17. Putting a condom on an erect penis can be a real sexual turn-on.  
18. Condoms are uncomfortable.  
19. Using a condom makes sex unenjoyable.  
20. I would avoid using condoms if at all possible.  
21. I would be comfortable suggesting that my partner and I use a condom.  
22. Condoms ruin the sex act.  
23. Condoms are uncomfortable for both partners.  
24. Women think men who use condoms are jerks.  
25. The idea of using a condom doesn't appeal to me.  
26. Use of the condom is an interruption of foreplay.  
27. What to do with a condom after use is a real problem.  
28. The thought of using a condom is disgusting.  
29. Having to stop to put on a condom takes all the romance out of sex.  
30. Most women don't like for their partners to use condoms.  
31. I don't think condoms interfere with the enjoyment of sex.  
32. There is no way that using a condom can be pleasant.  
33. Using a condom requires taking time out of foreplay, which interrupts the pleasure of sex.  
34. I think condoms are an excellent means of contraception.
35. Condoms seem unreliable.

36. There is no reason why a man should be embarrassed to suggest using a condom.

37. To most women, a man who uses a condom is sexier than one who leaves protection up to the woman.

38. The condom is a highly satisfactory form of disease prevention.

39. I would have no objection if my partner suggested that we use a condom.

40. The skillful woman can make placing a condom a highly erotic experience.

41. If someone's sex partner does not want to use condoms, there is very little he or she can do about it.

42. I control what happens to me in life.

43. It is embarrassing to buy condoms in a store.

44. If a woman wants her partner to use a condom, her partner might think she was having sex with other men.

45. Using condoms is wrong (immoral).

46. There is very little a person can do to avoid being infected by the AIDS virus.

47. The number and types of condoms in a store display is overwhelming.

48. Succeeding or getting ahead in life depends on luck.

49. If a man wants to use a condom, his sexual partner might think he was having sex with other people.

50. More information about condom effectiveness should be available in the residence halls.
### Part II.

**Directions:** This is a true/false test. Please do not skip any questions. Because this is a test, some of the statements are true and accurate, while others are false and inaccurate.

|   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   | 1. Most people who transmit the AIDS virus look unhealthy. |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   | 2. Anal intercourse is high risk for transmitting the AIDS virus. |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   | 4. A person can be exposed to the AIDS virus in one sexual contact. |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   | 5. Keeping in good physical condition is the best way to prevent exposure to the AIDS virus. |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   | 6. It is unwise to touch a person with AIDS. |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   | 7. Condoms make intercourse completely safe. |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   | 8. Showering after sex greatly reduces the transmission of AIDS. |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   | 9. When people become sexually exclusive with one another, they no longer need to follow "safe-sex" guidelines. |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   | 10. Oral sex is safe if the partners "don't swallow". |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   | 11. Most people who have been exposed to the AIDS virus quickly show symptoms of serious illness. |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   | 12. By reducing the number of different sexual partners, you are effectively protected from AIDS. |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   | 13. The AIDS virus does not penetrate unbroken skin. |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   | 14. It has not been documented that a female can give AIDS to a male. |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   | 15. Sharing toothbrushes and razors can transmit the AIDS virus. |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   | 16. Pre-ejaculatory fluids carry the AIDS virus. |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   | 17. Intravenous drug users are at risk for AIDS when they share needles. |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|   |   | 18. A person must have many different sexual partners to be at risk from AIDS. |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
T  F  19.  People carrying the AIDS virus generally feel quite ill.
T  F  21.  Withdrawal immediately before orgasm makes intercourse safe.
T  F  22.  Persons who are exclusively heterosexual are not at risk from AIDS.
T  F  23.  Healthy persons in AIDS risk groups should not donate blood.
T  F  24.  Sharing kitchen utensils or a bathroom with a person with AIDS poses no risk.
T  F  25.  Intravenous drug users become exposed to the AIDS virus because the virus is often contained in heroin, amphetamines, and the injected drugs.
T  F  26.  A wholesome diet and plenty of sleep will keep a person from becoming exposed to the AIDS virus.
T  F  27.  A cure of AIDS is expected within the next two years.
T  F  28.  It is more important to take precautions against AIDS in large cities than in small cities.
T  F  29.  A negative result on the AIDS virus antibody test can occur even for people who carry the virus.
T  F  30.  A positive result on the AIDS virus antibody test can occur even for people who do not carry the virus.
T  F  31.  Coughing does not spread AIDS.
T  F  32.  Only the receiver of anal intercourse can contract AIDS.
T  F  33.  Most present cases of AIDS are due to blood transfusions that took place before 1984.
T  F  34.  Most persons exposed to the AIDS virus know they are exposed.
T  F  35.  A great deal is now known about how the AIDS virus is transmitted.
T  F  36.  Donating blood carries no AIDS risk for the donor.
T  F  37.  No cases of AIDS have ever been linked to social (dry) kissing.
T  F  38. Mutual masturbation and body rubbing are low in risk unless the partners have cuts or scratches.

T  F  39. People who become exposed to the AIDS virus through needle-sharing can transmit the virus to others during sexual activities.

T  F  40. The AIDS virus can be transmitted by mosquitoes or cockroaches.

T  F  41. You have to be eighteen years or older to purchase a condom from a drug store.

Part III. These are questions about your sexual behavior and whether or not it has been changing in the last few years. All answers are anonymous; we have no idea who answers what questions. Please answer the questions as openly and honestly as possible by circling the response that best fits you.

Yes  No  1. Do you consider yourself sexually active? That is, do you have genital sexual relationships (sexual intercourse, oral-genital sex or anal sex) with another person or persons on a regular basis?

Yes  No  2. If you answered yes to #1, would you define your relationship as monogamous?

3. If you answered yes to the first question, how often did you do the following in the past three months: (Enter approximate number of times on the line next to the question).
   a. Vaginal intercourse with a condom
   b. Vaginal intercourse without a condom
   c. Oral-genital sex with a condom
   d. Oral-genital sex without a condom
   e. Anal sex with a condom
   f. Anal sex without a condom

4. How many partners have you had sexual relationships with in the past year (12 months)?
   0  1  2  3  4  5  6  7  8  9  10  more than 10

Yes  No  5. Have you ever purchased a condom to be used for sexual intercourse with a partner?

Yes  No  6. If yes to #5, did you and your partner use the condom for its intended purpose?

Yes  No  7. Have you ever purchased a condom to be used for oral intercourse with a partner?
<table>
<thead>
<tr>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>8. If yes to 17, did you and your partner use the condom for its intended purpose?</td>
<td></td>
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<tr>
<td>9. Have you ever asked a partner to purchase a condom to be used for sexual intercourse?</td>
<td></td>
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<tr>
<td>10. Did you and your partner use the condom referred to in #9 for its intended purpose?</td>
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<tr>
<td>11. It is embarrassing for me to buy condoms.</td>
<td></td>
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<tr>
<td>12. The color/style of packaging persuades me to purchase a condom</td>
<td></td>
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<tr>
<td>13. I purchase condoms most frequently: (circle one)</td>
<td></td>
</tr>
<tr>
<td>a. At a drug store</td>
<td></td>
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<tr>
<td>b. From a vending machine</td>
<td></td>
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<tr>
<td>c. At a clinic</td>
<td></td>
</tr>
<tr>
<td>d. I don't purchase condoms</td>
<td></td>
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<tr>
<td>14. I have told a partner that I would not have intercourse without a condom.</td>
<td></td>
</tr>
<tr>
<td>15. My partner would be upset if I asked that a condom be used during intercourse.</td>
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<tr>
<td>16. I have personally been tested for HIV (the AIDS virus).</td>
<td></td>
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<tr>
<td>17. I have personally known someone who was infected with the AIDS virus.</td>
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<tr>
<td>18. Knowledge about AIDS has affected my sexual behavior.</td>
<td></td>
</tr>
<tr>
<td>19. If yes to #18, in what way has knowledge about AIDS affected your sexual behavior? (If there is more than one answer, circle each answer that is true).</td>
<td></td>
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<tr>
<td>a. I get to know a person's sexual history before having sex with them.</td>
<td></td>
</tr>
<tr>
<td>b. I no longer have sexual relations.</td>
<td></td>
</tr>
<tr>
<td>c. I use condoms.</td>
<td></td>
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<tr>
<td>d. I have less frequent casual sex.</td>
<td></td>
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<tr>
<td>e. I have become monogamous.</td>
<td></td>
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<tr>
<td>f. I have stopped having sex with men.</td>
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<tr>
<td>g. I no longer engage in risky sexual behaviors (anal sex or oral sex with ejaculation).</td>
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<tr>
<td>h. I have been working harder on maintaining or improving the relationship that I'm in.</td>
<td></td>
</tr>
<tr>
<td>i. I no longer engage in casual sex.</td>
<td></td>
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<tr>
<td>j. I avoid vaginal intercourse.</td>
<td></td>
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<tr>
<td>k. Other (please explain)  ________________</td>
<td></td>
</tr>
</tbody>
</table>
20. I have asked my partner(s) about the number of sexual partners he/she had before having sex with me.
   a. With all partners
   b. With some partners
   c. Did not discuss it

21. I have discussed with my partner(s) about the number of past sexual partners I have had.
   a. With all of them
   b. With some of them
   c. Did not discuss it

22. I will not purchase a condom if the cashier is:
   a. my same gender
   b. the opposite gender
   c. gender of the salesperson makes no difference

Thank you for participating in this study. If you would like a summary of the group results, they should be available by the end of spring semester. Please call Dr. Wieand in the psychology department at x5263 and leave your mailbox number and we will send you a copy. As a final thank you for your interest, please collect your free condom as you leave the room.
APPENDIX B

DISCLAIMER
This questionnaire contains material that is sexually explicit, and therefore may be uncomfortable for some people. You will answer it anonymously, and unless you give us permission to do so later on, we will make no attempt to gather your name and other identifying responses. All questionnaires will be kept in a locked file in the Psychology Department and will only be accessed by Dr. Lou Ann Wieand or a student working under her supervision.

If you feel that this questionnaire may be disturbing to you, or may become disturbing to you as you begin to fill it out, you may discontinue participation, collect your free condom and withdraw from the study without any obligation.