SELF-REPORTED HEALTH BEHAVIORS OF WOMEN ENROLLED AT TEXAS WOMAN'S UNIVERSITY IN 1993

A DISSERTATION

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To the Associate Vice President for Research and Dean of the Graduate School:

I am submitting herewith a dissertation written by Yasenka V. Timp entitled "Self-Reported Health Behaviors of Women Enrolled at Texas Woman's University in 1993." I have examined the final copy of this dissertation for form and content and recommend it be accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy, with a major in Health Education.

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Abstract

COMPLETED RESEARCH IN HEALTH SCIENCES
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The purpose of this study was to compare reported sexual behavior, alcohol use patterns, and attitudes toward alcohol of women enrolled at Texas Woman's University by race. Another purpose was to determine whether or not a correlation existed between reported alcohol and other drug use before sexual behavior and high risk sexual behavior among women enrolled at Texas Woman's University. A total of 177 female students completed the questionnaire. One hundred and seventeen (66.1%) were Caucasian and 60 (32.7%) belonged to a racial/ethnic minority group. The Health Risk Survey was used to collect the data and was distributed to students for four days during the Spring semester, 1993. No significant differences in sexual behavior, alcohol attitude, and alcohol use behavior were found between Caucasian and racial/ethnic minority women at the .05 level of significance. Little, if any, correlations were found

between condom use and alcohol and other drug use before sexual behavior. Low correlations were found between alcohol and other drug use before sexual behavior and high risk sexual behavior. The results of this study indicate that the Caucasian women and racial/ethnic minority women were similar and very little correlation existed between alcohol and other drug use and sexual behavior and high risk sexual behavior.

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CHAPTER 1

INTRODUCTION

The human immunodeficiency virus (HIV), HIV-related diseases, and acquired immune deficiency syndrome (AIDS) have become a modern plague. Initially this plague was thought to be almost exclusively a problem for men, particularly gay men and injecting drug users. Women were considered to be at extremely low risk for becoming infected with the virus (Chin, 1989).

Within the past several years however, public health authorities have documented a rapid increase in the rate of HIV infection among women, especially among racial/ethnic minority women. The total number of women infected with HIV is still lower than the number of HIV infected men. However, the rate of infection is increasing much faster among females than among men (Anderson, 1991; Centers for Disease Control [CDC], 1990).

Alcohol consumption and other drug use increase the risk of HIV infection. Alcohol is the most commonly used drug among college students. Concern about the interaction between HIV infection and alcohol use is growing (Butcher, Manning, & O'Neal, 1991).

Statement of Problem

In view of the evidence that women are at increased risk of contracting HIV through selected behavior patterns, there was a need to determine whether or not alcohol attitudes and behavior patterns among female students at TWU are related to their sexual behavior.

Purposes of the Study

The primary purpose of this study was to compare the reported sexual behavior, alcohol use behavior patterns, and attitudes toward alcohol of women enrolled at Texas Woman's University by race. A second purpose was to determine whether or not a correlation existed between reported alcohol and drug use before engaging in sexual behavior and reported high risk sexual behavior among women enrolled at Texas Woman's University. A third purpose was to determine whether or not a correlation existed between reported alcohol and drug use before engaging in sexual behavior and reported condom use among women enrolled at Texas Woman's University.

Hypotheses

The following null hypotheses were tested at the .05 level of significance:

1. There is no significant difference between the reported sexual behavior of Caucasian women and the reported sexual behavior of racial/ethnic minority women enrolled at Texas Woman's University.

2. There is no significant difference in reported alcohol use behavior patterns of Caucasian women and reported alcohol use behavior patterns of racial/ethnic minority women enrolled at Texas Woman's University.

3. There is no significant difference in reported alcohol attitudes of Caucasian women and reported alcohol attitudes of racial/ethnic minority women at Texas Woman's University.

4. There is no significant relationship between reported alcohol use before engaging in sexual behavior and reported sexual behavior of women enrolled at Texas Woman's University.

5. There is no significant relationship between reported alcohol use before engaging in sexual behavior and reported condom use of women enrolled at Texas Woman's University.

6. There is no significant relationship between reported drug use before engaging in sexual behavior and

reported sexual behavior of women enrolled at Texas Woman's University.

7. There is no significant relationship between reported drug use before engaging in sexual behavior and reported condom use of women enrolled at Texas Woman's University.

Definition of Terms

The following terms are defined for the purpose of this study:

1. Acquired Immune Deficiency Syndrome (AIDS). AIDS is an array of diseases caused by HIV. The HIV attacks and progressively weakens the immune system, leaving the body vulnerable to a wide range of opportunistic infections (Sokolowski, Chavez, Hultz, Thomas, & Williams, 1993).

2. Ethnic. "Pertaining to a social group within a cultural and social system that claims or is accorded special status on the basis of complex, often variable traits including religious, linguistic, ancestral, or physical characteristics" (Spector, 1991, p. 51).

3. Ethnicity. "The condition of belonging to a particular ethnic group" (Spector, 1991, p. 52).

4. Human Immunodeficiency Virus (HIV). A virus which has been documented as a cause of AIDS in humans (Hopp & Rogers, 1989).

5. Injecting drug users. People who use drugs which are injected into the body.

6. Racial/ethnic minority. African Americans, Hispanics, Native Americans, and Asians.

7. Risk behaviors. Behaviors which put a person at risk or/and increase the chances of a person contracting the HIV. These behaviors are anal sex, vaginal/penile sex without a condom, the use of illicit injecting drugs, oral sex without a condom or/and dental dam, alcohol and drug use, and multiple sex partners.

8. Sexual behavior. Any sexual behaviors that can be considered high risk for HIV infection.

9. Alcohol use behavior patterns. The frequency with which a person drinks when accompanied by one person, same sex; the frequency with which a person drinks when accompanied by one person, opposite sex; and the amount of alcoholic beverages a person consumes usually in a given period of time.

10. Alcohol attitudes. How often a person drinks in order to get along better on dates.

Limitations

This study was subject to the following limitations:

1. The researcher was working with a previously developed instrument for which validity and reliability were not established.

2. The study was limited to students who accessed the testing sites.

3. The study was limited to students' interpretation of any act expressing sexuality.

4. Participation in the study was voluntary.

Delimitations

The study was delimited to the following:

1. The study was restricted to women who were 18 years and older.

2. The women selected as subjects in the study were restricted to those enrolled at Texas Woman's University at the time of the test administration.

Assumptions

The following conditions were assumed:

1. Participants (subjects) answered the questionnaire honestly.

2. The questionnaire is valid.

Background

At the time HIV was first identified in 1983 and 1984, the groups at highest risk for HIV infection were gay men and injectable drug users (Hopp & Rogers, 1989). At that time, women were considered to be at extremely low risk for HIV infection. However, the latest data suggest that HIV infection is increasing steadily among women, especially among the racial/ethnic minority women. As of December 31, 1990, 12 percent of all adult cases in the United States were women (Anderson, 1991; Centers for Disease Control, 1990). Almost 75 percent of all women with AIDS in the United States were African American or Hispanic. More than half of the women with AIDS were African American, about one fourth were Caucasian, and about one fifth Hispanic (Ellerbrock, Bush, Chamberland, & Oxtoby, 1991; Smeltzer & Whipple, 1991).

The increase in the proportion of women infected with HIV has been primarily due to heterosexual sexual contact with an infected partner (Anderson, 1991). Many factors can increase women's risk of becoming infected with the HIV through sexual contact. Some of the factors identified in the literature are (a) receptive anal intercourse, (b) multiple sex partners, (c) frequent exposure to an infected partner, (d) genital ulcerative sexually transmitted disease

(STD), (e) use of intrauterine device (IUD) in women who have inflammatory reaction, (f) sexual contact with injecting drug users, g) sexual contact with bisexual men, (h) crack cocaine addiction, and i) alcohol and other drug use and abuse (Anderson, 1991).

A survey, examining TWU women's sexual and alcohol use behavior patterns, was used to determine whether or not these two factors are related. The survey also compared Caucasian and racial/ethnic minority women' sexual and alcohol use behavior patterns and alcohol attitude to determine if a difference in these factors could account for the faster increase of HIV infection among racial/ethnic minority women.

CHAPTER 2

REVIEW OF LITERATURE

This chapter will review literature on HIV/AIDS, sexual behavior among female college students, and the relationship between alcohol and other drug use and high risk sexual behavior. The information developed through this review is presented below.

HIV/AIDS

AIDS is the new deadly disease of the 1980s and 1990s. Scientists have documented that the most dominant cause of AIDS is the human immunodeficiency virus (HIV). The origin of HIV is unknown even though many speculate that the virus originated in Africa (Hopp & Rogers, 1989). The World Health Assembly stated in 1987 that "the HIV is a naturally occurring retrovirus of undetermined geographical origin" (Hopp & Rogers, 1989, p. 9). Researchers know that the virus has been around for some time. HIV has been found in tissues of a human who died of an unknown reason in 1959 (Hopp & Rogers, 1989; Cowly, 1993). According to the CDC, 245,146 cases of AIDS had been reported in the United States by October 1992 (Cox, 1992). No cure has been discovered for AIDS and HIV infection, leaving prevention as the only

method of choice when dealing with AIDS and HIV infection.

HIV belongs to the lentivirus subfamily of retrovirus. Diseases caused by retroviruses are characterized by long incubation periods, persistent infections, and impairment of the immune system (Hopp & Rogers, 1989). Scientists originally had given different names to HIV: Human T-Lymphotropic Virus type III (HTLV-III), and Lymphadenopathy Associated Virus (LAV) (United States Department of Health and Human Services [USDHHS], 1987). Subsequently, the commonly accepted name of the virus is HIV.

The Centers for Disease Control and Prevention presently defines a diagnosis of AIDS as the presence of opportunistic infections and malignancies, dementia and wasting syndrome, and a CD4+ T-lymphocytes/uL count less than 200 or a CD4+ T-lymphocyte percentage of total lymphocytes of less than 14 (Institute of Medicine and National Academy of Sciences, 1988; Morbidity and Mortality Weekly Report, 1993).

Modes of Transmission

HIV has three modes of transmission: (a) by exchange of contaminated blood, (b) from mother to infant, and (3) through sexual contact with an infected individual. In the past, HIV had been transmitted through blood transfusion

when contaminated blood was used. It was not until 1985 that a method for screening donated blood for HIV was developed and used. Presently blood is screened for the HIV and not accepted from individuals at high risk for HIV infection. The chance of becoming infected with HIV through blood transfusion is minimal in the United States. The chances of becoming infected with HIV through blood transfusion in the United States is estimated to be 1/60,000 (Cox, 1992; Dallas County Medical Society and Dallas Academy of Medicine [DCMS and DAM], 1987).

The most common means of blood contamination is by sharing drug needles and syringes among injecting drug users. When the needles and/or syringes are shared with an infected individual, the chance of HIV infection is great (DCMS and DAM, 1987). A high level of HIV infections has been documented among drug users (Perucci, Davoli, Rapiti, Abeni, & Forastiere, 1991).

Another route of transmission is from an infected mother to an infant. An infected woman can pass the virus to her unborn child during pregnancy, birth, and/or through breast-feeding. The chance of transmission of HIV from a mother to a fetus or infant is estimated to be between 20 and 60 percent, depending on the mother's health status (Heyman, 1990; Pape & Johnson, 1989; Porcher, 1992).

Sexual intercourse (anal, vaginal, and theoretically oral) with an infected partner is the third mode of transmission. The virus can be transmitted from male to female, male to male, and female to female. The chances of transmission from male to female are greater than the chances of transmission from female to male. There is no agreement yet on the reason for this difference (DCMS and DAM, 1987; Padian, Shiboski, & Jewell, 1991). A possible explanation is that women are the receptive partner during intercourse (Guinan, 1992).

Since 1981, more women than men have become infected with HIV through heterosexual contact (Guinan, 1992). The proportion of women infected with HIV through heterosexual contact has been increasing. As of December 31, 1990, 12 percent of all adult AIDS cases were women (Anderson, 1991; Ehrhardt, 1992; Porcher, 1992). Factors which can increase women's risk of becoming infected with the HIV through sexual contact are: (a) receptive anal intercourse, (b) multiple sex partners, (c) frequent exposure to an infected partner, (d) genital ulcerative sexually transmitted diseases, (e) use of intrauterine device (IUD) in women who have inflammatory reaction, (f) sexual contact with injecting drug users, (g) sexual contact with bisexual men, (h) crack cocaine addiction, and

i) alcohol consumption and other drug use before and/or during sexual contact (Anderson, 1991).

Incubation and Communicability Period

The incubation period for AIDS varies among people depending on their age, health status, and possibly the strain of HIV. The incubation period from the time of HIV infection to the development of AIDS varies from one to ten years. For infants, the onset of AIDS occurs sooner than in adults. Some research also indicates that pregnancy might accelerate the progression of the disease (Chin, 1989; Hopp & Rogers, 1989; Porcher, 1992).

The time period for incubation and communicability of HIV overlaps. People infected with HIV can transmit the virus within three to four weeks of infection. Once a person is infected with the virus, he/she will remain infectious for the rest of his/her life (Hopp & Rogers, 1989).

Demographics

Gender. The AIDS incidence rate is still higher among males, even though it has leveled off in the last couple of years. However, AIDS cases among females is increasing at a faster rate than among any other group including gay men,

injecting drug users, and males. The annual incidence of AIDS for females increased by 14 percent for 1990 and 1991 while the incidence rate for males remained more or less constant. The rate of increase was from 18 to 20 percent (CDC, 1992). Of all reported AIDS cases, males accounted for 214,315 and women accounted for 27,831 as of October, 1992 (Cox, 1992).

Age. HIV infection is most prevalent among sexually active people and injecting drug users (similar to the prevalence of AIDS). HIV prevalence becomes appreciable in the mid to late teens. HIV infection rates increase rapidly among individuals in their late 20s and peak in the early 30s. The infection prevalence declines among individuals who are in their 40s and 50s (CDC, 1987; Cox, 1992). As of December 31, 1990, the mean and median ages for women diagnosed with AIDS were 36 and 34 years, respectively. The mean and median age for men were 38 and 36 years (Ellerbrock et al., 1991).

As of October 1992, 46,476 (19%) of reported AIDS cases were among people 20-29 years of age, 110,849 (46%) were among people between the ages of 30-39, and 55,038 (23%) among people between the ages of 40-49 (Cox, 1992).

Race/ethnicity. The incidence of AIDS is higher among African Americans and Hispanics than among Caucasians. More

than half of the women with AIDS are African American, about one fourth were Caucasian, and about one fifth Hispanic, while African Americans only constitute 12 percent of the population and Hispanics a little more than 7 percent (Ellerbrock et al., 1991; The Office of Disease Prevention and Health Promotion, 1988).

The incidence of HIV infection among Hispanics increased from 18 to 22 percent between 1986 and 1990, while it decreased from 28 to 25 percent for Caucasians (Ellerbrock et al., 1991).

Geographic Distribution. AIDS cases have been reported in all 50 states, the District of Columbia, and the four United States territories. New York and California account for 39 percent of all reported AIDS cases (males and females) (Cox, 1992). The distribution of AIDS cases varies from .6 case per 100,000 people to 38.9 cases per 100,000 people. The 10 states and U.S. possessions with the highest cumulative incidence rates per 100,000 women were: Puerto Rico, District of Columbia, Connecticut, New Jersey, Florida, Maryland, Massachusetts, Delaware, Rhode Island, and New York. These 10 states accounted for almost three fourths of all AIDS cases in women. The geographic distribution for heterosexual men was similar to that of women (CDC, 1989; Ellerbrock et al., 1991).

Sexual Behaviors among Women

Young adults have always experimented with sex. In the past 20 years, there has been an increase in premarital sex and an increase in the number of sexual partners and relationships. A national survey of the adult household population of the United States in 1989 indicated that 31.2 percent of the people sampled had five or more sexual partners since turning 18 (Smith, 1989). Ninety-seven percent of Americans 18 years or older are sexually experienced (Ehrhardt, 1992; Smith, 1991). Eighty-nine percent of women reported having had sexual intercourse at some time in their lives (Darroch-Forrest & Singh, 1990). The average number of sexual partners reported by individuals younger than 30 years is 6.1, 8.4 is the average reported by individuals between the ages 30 and 39, and 9.7 by individuals 40 to 49 years old (Smith, 1991). As a result of an increase in sexual behavior and sexual partners, STDs, including HIV infection, have been on the rise (Cochran & Peplau, 1991).

Women are potentially at high risk for HIV infection and AIDS. As mentioned before, women have outnumbered men in the category of heterosexual transmission of HIV since 1981 (Guinan, 1992). Of the women infected, 85 percent are between the ages of 15 and 44 (Anderson, 1991), which are

the reproductive ages of a woman's life. The overwhelming majority of college women are between these ages. Research studies indicate that knowledge does not necessarily translate into behavior. A high level of knowledge about AIDS has been documented among this population and 40 percent or more claimed to have changed their sexual behavior as a result of their concern for contracting the disease. However, some studies have not found correlations between actual sexual behavior change and knowledge (Carrol, 1991; Thurman & Franklin, 1990). Rotheram-Borus and Koopman (1991) also found that although the level of HIV/AIDS knowledge was high among sexually active runaways, they still practice high risk sexual behaviors.

Relationships with members of the opposite sex has also changed. Dunn, Knight, and Glasscoff (1992) found that the proportion of college men and women participating in short term relationships has increased. They also suggested that college women are engaging in sexual intercourse more frequently in both short and long term relationships. This suggests that college women are having more sexual partners than before which increases their chance of becoming infected with HIV.

Leigh (1989) listed the reasons most commonly reported in the National Survey of Family Growth by women for having

sex. The main reason reported by women for engaging in intercourse was to achieve emotional closeness to a partner while the main reason selected by men for engaging in intercourse was pure pleasure. A conclusion that might be drawn is that women put themselves at risk many times as a gesture of love.

Alcohol and Other Drug Use

Alcohol is one of the most used and abused drugs on college campuses in the United States. Alcohol use is also more common among college students than among the general population. Alcohol consumption among women has increased in the last years (Newman, Crawford, & Nelis, 1991). Alcohol consumption among students has been related to poor school performance, missed classes, and regretted sexual behaviors (Berkowitz & Perkins, 1986; Hurlbut & Sher, 1992; Newman et al., 1991; Tryon, 1992).

Strunin and Hingson (1992) reported an increased likelihood of sexual behavior after drinking or other drug use. Butcher, Manning, & O'Neal (1991) found that 57 percent of women said they had intercourse one to five times because of intoxication, eight percent had engaged in intercourse 6 to 10 times because of intoxication, and 15 percent had engaged in intercourse 10 or more times because

of intoxication. Leigh (1990) reported a relationship between alcohol and other drug use and high risk sexual behaviors. Leigh also reported that risky sexual behavior was highly correlated with total frequency of sexual behavior. People, who engaged in sexual behavior more frequently, reported engaging in high risk sexual behavior more often than others. As a consequence, one must be cautious when making the assumption that people engage in high risk sexual behavior because of alcohol consumption and/or other drug use alone. Leigh (1990) also reported that, in some cases, the partner's alcohol consumption and other drug use was a more powerful predictor of risky sexual behavior than the woman's sexual behavior.

A decrease in condom use has been associated with alcohol use (Butcher et al., 1991; Robertson & Plant, 1988). Reasons for a decrease in condom use when drinking or under the influence might be an impairment in judgement and decision making (Leigh, 1990; Ray & Ksir, 1987), a perceived decrease in enjoyment of sexual activity (Geringer, Marks, Allen, & Armstrong, 1993), embarrassment (Butcher et al., 1991; Hughes & Torre, 1987), or fear of insulting the partner (Kane, 1990).

Temple and Leigh (1990) found no significant association between the consumption of alcohol and sexual

behavior or condom use. An explanation for the difference in results of this study and other studies which did document correlations was that some of the other studies sampled adolescents. Temple and Leigh (1990) suggest that young people believe more in the power of drinking to lower sexual inhibition. Leigh (1990) also suggested that despite all the information on HIV/AIDS, some people still do not feel personally threatened by the disease and continue to engage in high risk behaviors.

In a study by Tryon (1992) the majority of students reported that drinking and getting drunk was an acceptable behavior as long as it didn't interfere with school work and other responsibilities. College students report several reasons for drinking: sociability, celebration of a special occasion, enjoyment of taste, and getting drunk (Klein, 1992; Tryon, 1992). Regardless of the reason for drinking, alcohol and other drug use seem to put individuals at an increased risk for HIV infection.

Summary

The rapid increase in HIV infection among women suggests that this population is at special risk for HIV infection. One of the most prevalent mode of transmission among this population is heterosexual contact (sexual

behavior). Sexual behavior among women is changing with patterns of increase in both short and long term relationships. An increase in sexual behavior combined with alcohol and/or other drug use could increase the chances of a women becoming HIV infected.

CHAPTER 3

METHODOLOGY

The methodology employed for this study will be presented in the following order: subjects and sampling procedures, instrumentation, data collection procedures, and data analysis.

Subjects and Sampling

Questionnaires were distributed to students who chose to participate in the study by the researcher and fellow graduate students. The questionnaires were distributed in the Student Center, the Classrooms and Faculty Offices (CFO) Building, and Multipurpose Classroom Laboratory (MCL) Building. Only women enrolled at Texas Woman's University (TWU), 18 years or older, who accessed these sites during the questionnaire distribution dates and times were included in the study. These locations are areas in which a high volume of prospective subjects, both commuters and dormitory residents reside in dormitories, pass between classes and other student oriented activities. Also, a fair number of students commonly spent time between classes lounging and/or checking class notes in chairs and couches that had been placed in these locations for students' convenience. These

locations were selected on the basis that subjects selected for the study would be highly representative of the student body at TWU and that students would be most receptive to the invitation to participate at these locations. A target sample size of 200 survey participants was set initially.

Description of the Instrument

The questionnaire used to collect the data was the "Health Risk Survey" (see appendix A). This instrument was an expanded version of a questionnaire used in 1987 to collect data on alcohol use on the TWU Denton campus. Questions on other drug use and sexual behaviors related to HIV/AIDS were added to the questionnaire used in this present study.

The "Health Risk Survey" consists of 85 questions. Fifteen questions from this instrument were selected for use in this study. The questions used were:

1. Question 62, "Do you engage in any sexual behaviors that can be considered to be high risk for HIV infection?". This question was used as the measurement of sexual behavior of the participants.

2. Three questions were selected for measuring alcohol use behavior patterns of participants. Among these questions were: question 6, "Indicate on your answer sheet

the frequency with which you drink when accompanied by each of the following groups. One person, same sex.", question 7, "Indicate on your answer sheet the frequency with which you drink when accompanied by each of the following groups. One person, opposite sex.", and question 32, "How much do you usually consume when drinking alcoholic beverages (in a given period such as at a party, relaxing with friends, etc.)?"

3. Question 20, "How often do you drink for the following reasons? To get along better on dates," was used as measurement of alcohol attitude among participants.

4. Question 53, "If sexually active, do you drink before engaging in sexual behavior?"

5. Question 54, "If sexually active, do you use drugs before engaging in sexual behavior?"

6. Question 63, "Describe your condom use:".

Responses to question 63 were correlated to responses to question 53 to determine the correlation between alcohol consumption before sexual behavior and condom use. Responses to question 63 were correlated to responses to question 54 to determine the correlation between drug use before sexual behavior and condom use.

Responses to question 62 were compared to responses to question 53 to determine the correlation between sexual

behavior and alcohol use. Responses to question 62 were also correlated to responses to question 54 to determine the correlation between sexual behavior and drug use.

Responses to questions 73, 75, 80, 81, 82, 83, and 84 provided the researcher with participants' demographic information: year in college, level of enrollment, gender (only data from female respondents were used for this study), age, sexual orientation, racial/ethnic background, and relationship status.

Data Collection Procedures

The data were collected by the researcher and graduate students at TWU. The researcher explained the questionnaire, procedures for data collection, and the purpose of the study to each graduate student who helped collect data. Everyone collecting data practiced answering the questionnaire themselves prior to collecting data so that they would become intimately familiar with the characteristics of the questionnaire.

Tables were set up at the testing sites as follows: in the MCL building on April 21, 1993, in the CFO building on April 22, 1993, and in the Student Union on April 26 and 27, 1993, from 9:00 AM to 1:30 PM. Questionnaires, scantron sheets, and pencils were distributed to students who

volunteered to participate in the study. Once students completed the questionnaire, the scantron sheets were returned to a sealed box at the testing sites.

Self-addressed and stamped envelopes were also distributed with questionnaires to students who wanted to complete the questionnaire at a different time and return it by mail. Students were encouraged to complete the questionnaire at the time of distribution.

Treatment of Data

Descriptive statistics were used to analyze the demographic information. The researcher selected the .05 level of significance for all statistical analyses in this study. The chi square statistic was calculated to measure the relationship between the sexual behavior of Caucasian women and the sexual behavior of racial/ethnic minority women. The chi square statistic was calculated to measure the relationship between the alcohol use behavior patterns of Caucasian women and the alcohol use behavior patterns of racial/ethnic minority women. The chi square statistic was calculated to measure the relationship between the attitudes of Caucasian women about alcohol to the attitudes of racial/ethnic minority women about alcohol. The chi square statistic was chosen because the data were nominal.

The contingency coefficient correlation was calculated to determine whether or not a correlation existed between alcohol use before engaging in sexual behavior and sexual behavior. The contingency coefficient correlation was calculated to determine whether or not a correlation exists between drug use before engaging in sexual behavior and sexual behavior. The contingency coefficient correlations were also calculated to determine whether or not a correlations existed between alcohol use before engaging in sexual behavior and condom use and drug use before engaging in sexual behavior and condom use. The contingency coefficient correlation was used because the level of measurement was on nominal scale (Hinkle, Wiersma, & Jurs, 1982).

Cronbach alpha was used to determine the internal consistency of the several content areas (students' alcohol use behavior patterns and attitude, and students' sexual behavior) of the instrument. Question 1 through question 34 were selected as questions which measure students' alcohol use behavior patterns and attitudes. Question 53 through question 63 were selected as sexual behavior questions. Cronbach alpha reliability test was used to determine the reliability of both content areas of the instrument.

Cronbach alpha was chosen because the data were nominal and only one administration of the questionnaire to one group was required (Sarvela & McDermott, 1993).

CHAPTER 4

FINDINGS

Analysis of the data collected for the purposes of this study are presented in this chapter. Descriptive statistics used to describe the sample and statistical analysis are reported.

Descriptive Characteristics of Entire Sample

A total of 177 female students participated in the survey. The sample was comprised of 117 (66.1%) Caucasians, 29 (16.4%) African Americans, three (1.7%) Native Americans, 16 (9%) Mexican Americans/Hispanics, 10 (5.6%) identified themselves as others, and two (1.1%) did not complete this question. For the purpose of this study, subjects were divided into two groups, Caucasians (117, or 66.1%) and racial/ethnic minorities (58, or 32.8%). (See Table 1).

Forty (22.6%) of the participants were between 18 and 20 years of age; 92 (52%) of the participants reported being between 21 and 28 years of age; 22 (12.4%) reported being between 29 and 35 years of age; and 23 (13.0%) reported being 36 years or older. (See Table 2).

Table 1

Reported Racial/ethnic Background (N = 177)

Ethnicity/race	Frequency	Percent
Caucasian	117	66.1
African American	29	16.4
Native American	3	1.7
Hispanic	16	9.0
Other	10	5.6

Note. Two participants did not complete this question.

Table 2

Age Distribution of Participants (N = 177)

Age	Frequency	Percent
18-20	40	22.6
21-28	92	52.0
29-35	22	12.4
36-older	23	13.0

The majority (92, or 52%) of the participants were single, never married; 49 (27.7%) reported being married at the time of the survey; 11 (6.2%) were separated, divorced, or widowed; 18 (10.2%) reported living with their partner; and 7 (4%) answered that they had some other type of relationship. (See Table 3).

Table 3

Relationship Status of Participants (N = 177)

Relationship status	Frequency	Percent
Single, never married	92	52.0
Married	49	27.7
Separated/divorced/widowed	11	6.2
Live in partner	18	10.2
Other	7	4.0

Note. Percentage do not total 100% due to rounding.

The vast majority (160, or 90.4%) of the participants reported being heterosexual; 11 (6.2%) reported being lesbian/gay; three (1.7%) reported being bisexual; and three

participants were not sure of their sexual preference. (See Table 4).

Table five depicts subjects' year in college. Seventeen (9.6%) students identified themselves as freshman; 28 (15.8%) reported being sophomores; 52 (29.4%) were juniors; 59 (33.3%) were seniors; 19 (10.7%) reported being graduate students; and two participants did not complete the question. (See Table 5).

Table 4

Subjects' Sexual Orientation (N = 177)

Sexual orientation	Frequency	Percent
Heterosexual	160	90.4
Lesbian/gay	11	6.2
Bisexual	3	1.7
Unsure	3	1.7

Table 5

Year in College (N = 177)

Year	Frequency	Percent
Freshman	17	9.6
Sophomore	28	15.8
Junior	52	29.4
Senior	59	33.3
Graduate	19	10.7

Note. Two students did not complete this question.

Sixty-six students (37.3%) reported being enrolled for 13 to 15 credit hours; 45 (25.4%) reported taking 10 to 12 credit hours; 30 (16.9%) were enrolled for six to nine credit hours; 28 (15.8%) reported taking 16 credit hours or more; six (3.4%) were enrolled for less than six credit hours; and two students did not answer the question. (See Table 6).

Table 6

Distribution of Subjects' Credit Hours Enrolled (N = 177)

Credit hours	Frequency	Percent
1- 6	6	3.4
6- 9	30	16.9
10-12	45	25.4
13-15	66	37.3
16 or more	28	15.8

Note. Two participants did not complete this question.

Descriptive Characteristics of Caucasian Women

One hundred and seventeen Caucasian women participated in the study. The majority (60, or 51.3%) of the Caucasian women were between 21 and 28 years of age; 23 (19.7%) reported being between 18 and 20 years of age; 16 (13.7%) were between 29 and 35 years of age; and 18 (15.4%) were 36 years or older.

Fifty-four (46.2%) Caucasian women reported being single, never married; 40 (34.2%) were married at the time the study was conducted; 11 (9.4%) reported living with a partner; seven (6.0%) reported having different living

arrangements than the ones presented in the questionnaire; and five (4.3%) reported being separated, divorced, or widowed.

The vast majority (109, or 93.2%) reported being heterosexual; five (4.3%) were lesbians; two (1.8%) reported being bisexual; and one person was not sure of her sexual orientation.

Forty-one (35%) of the Caucasian women were seniors; 37 (31.6%) reported they were juniors; 14 (12%) were graduate students; 13 (11.1%) were freshmen; and one answer is missing.

The majority (49, or 41.9%) were enrolled for 13 to 15 credit hours; 26 (22.2%) were enrolled for 10 to 12 hours; 19 (16.2%) reported being enrolled between six and nine hours; 17 (14.5%) were taking over 15 credit hours; four were enrolled for less than six hours; and two did not answer.

Descriptive Characteristics of Racial/ethnic Minority Women

All the participants who reported belonging to any race or ethnic group other than Caucasian were classified together as racial/ethnic minority. Sixty participants reported belonging to a racial/ethnic minority group. The majority (34, or 53.3%) of the racial/ethnic minority

participants were between the ages of 21 and 28; 17 (28.3% reported being between the ages of 18 and 20 years of age; six (10%) were between 29 and 35 years of age; and five (8.3%) were 36 years of age or older.

Thirty-eight (63.3%) women were single, never married; nine (15%) were married; seven (11.7%) lived with a partner; and six (10%) were separated, divorced, or widowed.

The vast majority (51, or 85%) of the racial/ethnic minority participants were heterosexuals; six (10%) were lesbians; 1 (1.7%) considered herself to be bisexual; and two (3.3%) were not sure of their sexual orientation.

Thirty percent (18) of the racial/ethnic minority women were seniors; 15 (25%) were juniors; six (10%) reported being freshmen; five (8.3%) were graduate students; and one (1.7%) answer was missing.

Nineteen (31.7%) were enrolled in 10 to 12 credit hours; 17 (28.3%) in 13 and 15 credit hours; 11 in one to nine credit hours; 11 (18.3%) were also enrolled in more than 15 credit hours; and two (3.3%) were enrolled in less than six credit hours.

Findings of the Study

In this section, the data analysis is reported as they relate to each of the null hypotheses.

Hypothesis 1. There is no significant difference between the reported sexual behavior of Caucasian women and the reported sexual behavior of racial/ethnic minority women in 1993. The data related to this hypothesis were analyzed using the chi square test to determine if a significant difference existed between these two groups. No significant difference in reported sexual behavior was found between Caucasian women and racial/ethnic minority women. The chi square value was 6.23, df = 4 at a significance level of .183. The standard expected frequency of at least five cases per cell was violated in five (50%) cells. However, Hopkins and Glass (1978) stated the chi square statistic has been shown to work well even when the average expected frequency is as low as two. The average expected frequency was 17.60, so the minimum average expected frequency of two was met. (See Table 7).

Table 7

Crosstabulation and Chi Square Frequency Table of Sexual Behavior by Race[a]

Race	Sexual behavior practices				
	Always	Frequently	Seldom	Never	N/A
Caucasian					
Observed frequency	0.0	4.0	15.0	95.0	3.0
Expected frequency	0.7	6.0	14.6	91.1	4.7
Racial/ethnic minority					
Observed frequency	1.0	5.0	7.0	42.0	4.0
Expected frequency	0.3	3.0	7.4	45.9	2.3

Note. Five cells had expected frequencies of less than five.

[a] $\chi^2 = 6.23$, $df = 4$, $p = .183$

Hypothesis 2. There is no significant difference in reported alcohol attitude of Caucasian women and in reported alcohol attitude of racial/ethnic minority women in 1993. The chi square test was used to analyze the data associated with this hypothesis. No significant difference was found between the reported alcohol attitudes of Caucasian and racial/ethnic minority women. A chi square value of 7.19, df = 3, with a critical value of 7.815, was found. Three cells had an expected frequency of less than five. (See Table 8).

Table 8

Crosstabulation and Chi Square Frequency Table of Alcohol Attitude by Race[a]

Race	Alcohol attitude			
	Always	Frequently	Seldom	Never
Caucasian				
Observed frequency	0.0	7.0	16.0	91.0
Expected frequency	1.3	5.9	13.1	93.7
Racial/ethnic minority				
Observed frequency	2.0	2.0	4.0	52.0
Expected frequency	0.7	3.1	6.9	49.3

Note. Three cells had expected frequencies of less than five.

[a]$\chi^2 = 7.82$, $df = 3$, $p > .05$

Hypothesis 3. There is no significant difference in reported alcohol use behavior patterns of Caucasian women and reported alcohol use behavior patterns of racial/ethnic minority women. Three questions (six, seven, and 32) were selected to address this hypothesis. The chi square test was used to analyze the data associated with this hypothesis. No significant differences in reported alcohol use behavior patterns were found between Caucasian and racial/ethnic minority women. The chi square value for

question six was 3.7, df = 3, at .294 level of significance, 7.43, df = 3, at .059 level of significance for question seven, and 1.45, df = 3, at .69 level of significance for question 32. None of the results were statistically significant. Questions six and seven had one cell with expected frequencies less than five. The average expected frequency for question six was 21.75 and for seven it was 20.625. The standard expected frequency of at least five cases per cell was met for question 32. (See Table 9, 10, 11).

Table 9

Crosstabulation and Chi Square Frequency Table of Alcohol Behavior (Q6) by Race[a]

	Alcohol behavior			
Race	Always	Frequently	Seldom	Never
Caucasian				
Observed frequency	12.0	28.0	40.0	34.0
Expected frequency	9.2	26.2	41.9	36.7
Racial/ethnic minority				
Observed frequency	2.0	12.0	24.0	22.0
Expected frequency	4.8	13.8	22.1	19.3

Note. One cell had expected frequencies of less than five.

[a] $\chi^2 = 3.7$, df = 3, $p = .294$

Table 10

Crosstabulation and Chi Square Frequency Table of Alcohol Behavior (Q7) by Race[a]

Race	Alcohol behavior			
	Always	Frequently	Seldom	Never
Caucasian				
Observed frequency	38.0	54.0	14.0	6.0
Expected frequency	40.7	52.9	12.2	6.1
Racial/ethnic minority				
Observed frequency	22.0	24.0	4.0	3.0
Expected frequency	19.3	25.1	5.8	2.9

Note. One cell had expected frequencies of less than five.

[a]$\chi^2 = 7.43$, $df = 3$, $p = .059$

Table 11

Crosstabulation and Chi Square Frequency Table of Alcohol Behavior (Q32) by Race[a]

Race	Alcohol behavior			
	Always	Frequently	Seldom	Never
Caucasian				
Observed frequency	16.0	28.0	41.0	29.0
Expected frequency	12.5	25.0	40.9	35.6
Racial/ethnic minority				
Observed frequency	3.0	10.0	21.0	25.0
Expected frequency	6.5	13.0	21.1	18.4

Note. All cells had expected frequencies of five or more.

[a]$\chi^2 = 1.45$, $df = 3$, $p = .69$

Hypothesis 4. There is no significant relationship between reported alcohol use before engaging in sexual behavior and reported sexual behavior of women enrolled at Texas Woman's University. The data related to this hypothesis were analyzed using the contingency coefficient. A contingency coefficient correlation of .32 was found, indicating a low correlation (Hinkle et al., 1982). (See Table 12).

Hypothesis 5. There is no significant relationship between reported alcohol use before engaging in sexual

behavior and reported condom use of women enrolled at Texas Woman's University. The contingency coefficient correlation was used to analyze the data related to this hypothesis. This hypothesis was analyzed by eliminating the answers "Not sexually active" from both questions, since this answer would automatically yield a correlation but the correlation would not be between alcohol use before sexual behavior and condom use. The correlation would just be an indication of how many people consistently answered "Not sexually active" for both questions.

No significant correlation was found between alcohol use before engaging in sexual behavior and condom use. The correlation was .1, indicating little if any correlation (Hinkle et al., 1982). (See Table 12).

Table 12

Correlations Between Alcohol Use Before Sexual Behavior and Sexual Behavior and Condom Use

Topics	Correlation
Sexual behavior	.320
Condom use	.100

Hypothesis 6. There is no significant relationship between reported drug use before engaging in sexual behavior and reported sexual behavior of women enrolled at Texas Woman's University. The contingency coefficient correlation was used to analyze the data related to this hypothesis. A significant correlation of .423 was found between these two factors, indicating a low correlation (Hinkle et al., 1982). (See Table 13).

Hypothesis 7. There is no significant relationship between reported drug use before engaging in sexual behavior and reported condom use of women enrolled at Texas Woman's University in 1993. The contingency coefficient correlation was used to determine if a relationship existed between these two factors. This hypothesis was also analyzed by eliminating the answers "Not sexually active" from both questions, since this answer would automatically yield a correlation but the correlation would not be between drug use before sexual behavior and condom use. The correlation would then be an indication of how many people consistently answered "Not sexually active" for both questions. A correlation of .1 was found between drug use before sexual behavior and condom use, indicating little if any correlation (Hinkle et al., 1982). (See Table 13).

Table 13

Correlations Between Drug Use Before Sexual Behavior and Sexual Behavior and Condom Use

Topics	Correlation
Sexual behavior	.423
Condom use	.120

Reliability

Cronbach alpha reliability test was used to determine the post hoc reliability of two content areas of the instrument. The alpha for alcohol questions (Q5 through Q34) was .85. The alpha for sexual behavior questions (Q53 through Q63) was .796. The standard accepted alpha coefficient is .80 (Green & Lewis, 1986).

CHAPTER 5

SUMMARY, CONCLUSION, DISCUSSION, AND RECOMMENDATIONS

The final chapter contains the summary, conclusion, and discussion of the findings in this study. This chapter concludes with recommendations for further research.

Summary

Published research suggests that HIV infection is increasing rapidly among women, especially racial/ethnic minority women. The primary purpose of this study was to compare sexual behavior, alcohol consumption patterns, and alcohol attitude at Texas Woman's University (TWU) by race to determine if a difference existed which could be a possible explanation for the rapid HIV infection increase in racial/ethnic minority women in the United States. The sample included 117 Caucasian women and 60 racial/ethnic minority women. The sample was acquired by personal distribution of questionnaires, with an explanatory cover letter, to TWU students who accessed the testing sited and who chose to complete the questionnaire. Data were collected by using the Health Risk Survey (HRS). Alcohol use before sexual behavior and drug use before sexual

behavior were tested for significant correlation with high risk sexual behavior and condom use.

The composition of the two groups was similar with respect to age and year in college. Ninety-three percent of the Caucasian women and 85 percent of the racial/ethnic minority women reported being heterosexual. More racial/ethnic minority women were single, never married (63.3% compared to 45.2%) and more were separated, divorced, or widowed (10% compared to 4.3%). More Caucasian women were enrolled between 13 to 15 credit hours (41.9% compared to 28.3%).

To determine if a significant difference existed between the two groups regarding their sexual behavior, alcohol use behavior patterns, and alcohol attitude, chi square tests were conducted. To determine if significant correlations exist between alcohol use before sexual behavior and condom use and between drug use before sexual behavior and condom use, the contingency coefficient correlation was applied. The contingency coefficient correlation was also applied to determine whether a significant correlation existed between sexual behavior and alcohol use before sexual behavior and between sexual behavior and drug use before sexual behavior.

When examining the outcome of the study, no significant differences were found between the two groups. No significant correlations were found between alcohol use before sexual behavior and sexual behavior, alcohol use before sexual behavior and condom use, and drug use before sexual behavior and condom use. However, a significant correlation was found between drug use before sexual behavior and sexual behavior.

Conclusions

The following null hypotheses were tested at the .05 level of significance:

1. There is no significant difference between the reported sexual behavior of Caucasian women and the reported sexual behavior of racial/ethnic minority women enrolled at Texas Woman's University. NOT REJECTED.

2. There is no significant difference in reported alcohol use behavior patterns of Caucasian women and reported alcohol use behavior patterns of racial/ethnic minority women enrolled at Texas Woman's University. NOT REJECTED.

3. There is no significant difference in reported alcohol attitudes of Caucasian women and reported alcohol

attitudes of racial/ethnic minority women at Texas Woman's University. NOT REJECTED.

4. There is no significant relationship between reported alcohol use before engaging in sexual behavior and reported sexual behavior of women enrolled at Texas Woman's University. REJECTED.

5. There is no significant relationship between reported alcohol use before engaging in sexual behavior and reported condom use of women enrolled at Texas Woman's University. NOT REJECTED.

6. There is no significant relationship between reported drug use before engaging in sexual behavior and reported sexual behavior of women enrolled at Texas Woman's University. REJECTED.

7. There is no significant relationship between reported drug use before engaging in sexual behavior and reported condom use of women enrolled at Texas Woman's University. NOT REJECTED.

Discussion of the Findings

No significant differences were found between the Caucasian and racial/ethnic minority women. These hypotheses were tested to see if alcohol attitude and alcohol use behavior patterns, in this sample, might

influence sexual behavior patterns and be a factor in the faster increase in HIV infection among racial/ethnic minority women. Since no significant differences were found between these two groups in this survey, no inferences can be made. There may be other reasons for the rapid increase of HIV infection among racial/ethnic minority women. Guinan (1992) suggests that the rapid increase might be because a larger number of men are infected with the virus, so women have a greater chance of having a relationship with a HIV infected man than a men has to have a relationship with a HIV infected woman. Another reason for the rapid increase might also be that women contract the virus more easily from men than men from women.

When interpreting the following results, one must take into consideration that high risk is a matter of perception. Some participant might have been engaging in actual high risk behavior but did not perceive those behaviors as such. A low correlation was found between alcohol use before sexual behavior and risky sexual behavior (including condom use). These results are consistent with other research findings (Leigh, 1990; Plant, 1990; Temple & Leigh, 1992). In a survey of adults in San Francisco conducted by Leigh (1990), no significant correlation was found between risky sexual behavior and alcohol use before sexual behavior.

Some researchers (Leigh, 1990b; Temple & Leigh, 1992) suggest that both alcohol use in sexual events and the use of condoms may be related to individuals' attitude, beliefs about the effect of alcohol, and/or personal characteristics instead of being related solely to the effects of alcohol. Researchers also recognize that sexual encounters often begin in localities, such as bars, where alcohol consumption is prevalent. So alcohol consumption and sexual behavior could be more related to the localities where sexual encounters begin than to each other (McEwan, McCallum, Bhopal, & Madhok, 1992; Plant, 1990).

Other researchers (Clapper & Lipsitt, 1991; McEwan et al., 1992; Robertson & Plant, 1988) have shown that a relationship between risky sexual behavior (including condom use) and alcohol consumption does exist. McEwan et al. (1992) reported that respondents in his study associated alcohol with risky behaviors. The results of a survey of young adults in 1985, conducted by Robertson and Plant (1988), also indicated a relationship between alcohol consumption and unprotected sex. However, even when a relationship was found between alcohol and other drug use before sexual behavior and risky sexual behavior, the researchers caution readers about assuming a causal relationship (Robertson & Plant, 1988).

No significant relationship was found between drug use before sexual behavior and condom use. However, a low correlation was found between drug use before sexual behavior and high risk sexual behavior. The literature indicates that drug use is usually considered a high risk behavior for the same reasons as alcohol consumption.

Recommendations

As result of this study and a review of the literature, the researcher makes the following recommendations for further research:

1. The questionnaire used in this survey should be modified. Many respondents complained about the length of the questionnaire. A shortened questionnaire may have resulted in a greater number of participants.

2. A valid and reliable questionnaire devoted to the topic of risky behaviors related to HIV would be more appropriate. The questionnaire should include an explanation of which behaviors are considered high risk.

3. A study with a larger sample of the general population and using a random sampling procedure should be conducted. The study would yield more generalizable results.

4. More research needs to be conducted in the area of information processing to better understand why people act on certain messages and not on others.

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APPENDIX A

HEALTH RISK SURVEY

ALCOHOL
AND DRUG
AD
EC
EDUCATION
COMMITTEE

TEXAS
WOMAN'S
UNIVERSITY

Glenda Simmons, PhD
Vice President for Student Life

Don Rosen, PhD
Director, Counseling Center
Chair, Alcohol and Drug
Education Committee

Maisie Kashka, PhD, RN
College of Nursing
Alcohol & Drug Education
Committee
1991/92 Grants Subcommittee
Chair

Jean Mankoff, MS
Academic Computing
Alcohol & Drug Education
Committee
1992/93 Evaluation
Subcommittee

Jeff Huber, PhD
Library and Information Science
1993 TWU Taskforce on Aids

Yasenka Timp, MS
Department of Health Studies
Doctoral Candidate

April 1993

Dear Survey Participant:

The purpose of this study is to identify the attitudes and behaviors toward alcohol and drug use among members of the TWU community in order to document specific needs for campus drug and alcohol programs. You will be given a survey and scantron form to complete and return to a sealed collection box or a Post Office box. You will be asked questions about alcohol, drug, and sexual behaviors, knowledge about HIV/AIDS, family history, past traumatic events, and demographic information. Your return of the completed scantron indicates your informed consent to participate. This survey is voluntary and refusal to participate will involve no penalty or loss of benefits to which you are entitled.

The primary risks to those participating in this research are embarrassment should they choose to share their responses with others; anxiety resulting from (a) recall of family history of alcohol/drug abuse; and (b) recall of past traumatic events, specifically those of a sexual nature, and fear resulting from recall of instances of sexual behaviors which may place them at risk for HIV infection.

To minimize embarrassment, you are asked to read this cover letter describing the sensitive nature of the questions before completing the survey. You are to complete the survey in private. No one will be able to identify your individual scantron responses. Should you experience continued feelings of anxiety following completion of the survey, you may contact the Counseling Center at (817) 898-3801. You may call Dr. Kashka at (817) 898-2425 if you have any questions about the study, HIV testing, or community resources about safe sex practices.

Thank you for your participation!

P.O. Box 22303
Denton, TX
76204-0303
(817) 898-3801

TEXAS WOMAN'S UNIVERSITY

Health Risk Survey
1993

Your responses to this survey will assess Alcohol and Drug Education needs and services at this University. The information will be strictly anonymous. Do not put your name, social security number, class or date on the scantron sheet. Use a #2 pencil and if it is necessary to erase, be sure to erase completely. If you have any comments, please write them on the back of this questionnaire and return it with your completed scantron sheet.

Please use the scantron sheet to answer these questions. Do not place your name or any other identifying number anywhere on this questionnaire or on the scantron. Please fill in the first box of the identification section of the scantron as follows:

FACULTY = 1 STUDENT = 2 STAFF = 3

If student, please follow this by coding the next two boxes in the identification section with the number that indicates your major:

Biology	=	01	Kinesiology	=	15
Business & Economics	=	02	Library Science	=	16
Chemistry & Physics	=	03	Mass Communications	=	17
Communication Sciences & Disorders	=	04	Mathematics	=	18
Computer Science	=	05	Nursing	=	19
Dental Hygiene	=	06	Nutrition & Food Sciences	=	20
Early Childhood and Special Ed.	=	07	Occupational Therapy	=	21
Educational Leadership	=	08	Performing Arts	=	22
English, Speech & Foreign Language	=	09	Physical Therapy	=	23
Family Science	=	10	Psychology & Philosophy	=	24
Fashion & Textiles	=	11	Reading & Bilingual Ed.	=	25
Health Care Administration	=	12	Sociology & Social Work	=	26
Health Studies	=	13	Visual Arts	=	27
History & Government	=	14			

NOTE: For the purpose of this questionnaire, an alcoholic beverage is defined as one can, bottle, glass, or mug of beer; one glass of wine or small snifter of brandy; one shot (1 1/2 oz.) of distilled spirits or one mixed drink.

Thank you for your participation in this survey.

ON YOUR ANSWER SHEET MARK THE LETTER NEXT TO THE ONE STATEMENT BELOW WHICH <u>BEST</u> DESCRIBES YOUR ATTITUDE.

1. How do you feel about allowing others to drink alcoholic beverages on campus?

   A. I don't drink, and I don't think we should allow consumption of alcohol on campus.
   B. I don't drink, but I do think we should allow consumption of alcohol on campus.
   C. I drink, but I don't think we should allow consumption of alcohol on campus.
   D. I drink, and I do think we should allow consumption of ahcohol on campus.

2. Do you ever drink alcoholic beverages?
   A. Yes.
   B. No.
3. Why do you choose not to drink?
   A. Do not enjoy the taste.
   B. Religious or moral reasons.
   C. Negative physical and mental effects.
   D. Parents disapprove.
   E. Other

4. Do you feel pressured by peers to drink?
   A. Yes.
   B. No.

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PLEASE USE THE FOLLOWING SCALE WHEN ANSWERING STATEMENTS 5 THROUGH 30.

A. FREQUENTLY (once a week or more).
B. OCCASIONALLY (more than once a month but less than once a week).
C. SELDOM (less than once a month).
D. NEVER.

Indicate on your answer sheet the frequency with which you drink when accompanied by each of the following groups.

5. Family.
6. One person, same sex.
7. One person, opposite sex.
8. Small groups, same sex.
9. Small mixed groups.
10. Large mixed groups.
11. Fraternity or Sorority.
12. Church groups.
13. Special interest clubs and organizations (except fraternities and churches).

Indicate on your answer sheet the frequency of the places where you drink:

14. Own house or apartment.
15. Friend's house or apartment.
16. Residence Hall.
17. Night clubs and bars.
18. Restaurants.

How often do you drink for the following reasons?

19. To facilitate study.
20. To get along better on dates.
21. To relieve fatigue or tension.
22. For sociability.
23. For aches and pains.
24 For enjoyment of taste.
25. In order not to be shy.
26. For a sense of well-being.
27. As an aid in forgetting disappointments.
28. To get high.
28. To get drunk.
29. To celebrate.

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30. What type of alcoholic beverage do you prefer?
    A. Beer.
    B. Mixed drinks.
    C. Wine.
    D. Straight liquor.
    E. Combination of the above.

31. How often do you drink alcoholic beverages in a given week?
    A. Less than once a week.
    B. Once a week.
    C. Twice a week.
    D. Three times a week.
    E. Four times a week or more.

32. How much do you usually consume when drinking alcoholic beverages (in a given time period such as at a party, relaxing with friends, etc.)?
    A. 1 drink or less.
    B. 2 - 3 drinks.
    C. 4 - 5 drinks.
    D. 5 or more drinks.

33. How often do you drink alone?
    A. Never.
    B. Sometimes.
    C. A lot (often).

34. Have you ever worried that you might become dependent on alcoholic beverages?
    A. Frequently.
    B. Occasionally.
    C. Seldom.
    D. Never.

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PLEASE INDICATE A 'YES" RESPONSE BY MARKING "A" AND A "NO" RESPONSE BY MARKING "B".

YES = A
NO = B
NA = C

35. Do you feel you are a normal* drinker? (*By 'normal' is meant you drink less or as much as most other people.)

36. Does your significant other, a parent, or near relative or friend ever worry or complain about your drinking?

37. Do you ever feel guilty about your drinking?

38. Do your friends or relatives think you are a normal* drinker?

39. Has your drinking ever created problems between you and your significant other, a parent, relative, or friend?

PLEASE INDICATE A 'YES" RESPONSE BY MARKING "A" AND A "NO" RESPONSE BY MARKING "B".

YES = A NO = B NA = C

40. Have you ever neglected your obligations, family, work, or school because you were drinking?

41. Have you ever experienced "blackouts" after drinking?

42. Have you ever gone to anyone for help about your drinking or drug use?

43. Have you ever been involved in a treatment program specifically related to alcohol or drug use?

44. Have you used prescription drugs in a manner other than prescribed?

45. Can you get through the week without using drugs (other than those required for medical reasons)?

46. Does your significant other, a parent, or other near relative or friend ever complain about your involvement with drugs?

47. Have you ever had "blackouts" or "flashbacks" as a result of drug use?

48. Do you ever feel guilty about your drug use?

49. Has drug abuse ever created problems between you and your significant other, a parent, relative, or friend?

50. Have you ever neglected your obligation to your family or missed work or school because of your use of drugs?

51. Have you engaged in illegal activities in order to obtain drugs?

52. Have you ever experienced withdrawal symptoms as a result of heavy drug intake?

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THE FOLLOWING QUESTIONS ARE DESIGNED TO GIVE INFORMATION ABOUT DRUG AND ALCOHOL USE AS THEY RELATE TO YOUR SEXUAL ACTIVITY. PLEASE REMEMBER YOUR ANSWERS ARE CONFIDENTIAL AND NO ONE WILL BE ABLE TO IDENTIFY YOUR RESPONSES TO THESE QUESTIONS.

53. If sexually active, do you drink before engaging in sexual behavior?
    A. Frequently
    B. Occasionally
    C. Seldom
    D. Never
    E. Not sexually active.

54. If sexually active, do you use drugs before engaging in sexual behavior?
    A. Frequently
    B. Occasionally
    C. Seldom
    D. Never
    E. Not sexually active.

55. If sexually active, does your partner drink before engaging in sexual behavior?
    A. Frequently
    B. Occasionally
    C. Seldom
    D. Never
    E. Not sexually active.

56. If sexually active, does your partner use drugs before engaging in sexual behavior?
    A. Frequently
    B. Occasionally
    C. Seldom
    D. Never
    E. Not sexually active.

57. Do you or your current sexual partner use IV drugs (drugs that are injected into your blood)?
    A. I do, but my partner doesn't.
    B. I don't, but I believe or suspect that my partner does.
    C. I don't use IV drugs and I believe that my partner doesn't either.
    D. Both my partner and I use IV drugs.
    E. I am not sexually active.

58. Do you ever worry about contracting the HIV (AIDS) virus?
    A. Yes
    B. No

59. Do you consider yourself at risk of being exposed to HIV?
    A. No, not at risk at all
    B. Yes, at low risk
    C. Yes but at moderate risk
    D. Yes, at high risk

60. Have you been tested or have you considered being tested for HIV?
    A. I have been tested
    B. I have considered but not been tested
    C. I do not consider myself at risk and will not be tested
    D. Never thought about being tested

61. Do you engage in any sexual behavior with a partner whose HIV status you do not know?
    A. Frequently
    B. Occasionally
    C. Seldom
    D. Never
    E. Not sexually active.

62. Do you engage in any sexual behaviors that can be considered to be high risk for HIV infections?
    A. Frequently
    B. Occasionally
    C. Seldom
    D. Never
    E. Do not know which behaviors are high risk.

63. Describe your condom use:
    A. Always
    B. Sometimes
    C. Never
    D. I don't use condoms because I belong to a low risk group
    E. I'm not sexually active

64. Have you ever been sexually assaulted or raped?
    A. Yes
    B. No

65. If you have been sexually assaulted or raped, had you been drinking or using drugs just prior to the incident?
    A. Yes, I had been drinking.
    B. Yes, I had been using drugs.
    C. Yes, I had been both drinking and using drugs.
    D. I had not been drinking or using drugs prior to the incident.
    E, Not applicable --- I have never been sexually assaulted or raped.

66. If you have been sexually assaulted or raped, had the perpetrator been drinking or using drugs prior to the attack?
    A. Yes, the perpetrator had been drinking.
    B. Yes, the perpetrator had been using drugs.
    C. Yes, the perpetrator had been drinking and using drugs.
    D. I don't know if the perpetrator had been drinking or using drugs.
    E. Not applicable --- I have never been sexually assaulted or raped.

67. If you have been sexually assaulted, at what age did that occur?
    A. less than 12 years of age.
    B. 13 - 18 years of age.
    C. 19 - 25 years of age.
    D. 26 years or older.
    E. Not applicable, I have never been sexually assaulted.

68. Did anyone in the familty in which you grew up have a problem with alcohol or drugs?
    A. Yes
    B. No
    C. Unsure

69. Which of the following campus programs/activities have you attended:
    A. Drug awareness
    B. Alcohol awareness
    C. Aids or HIV awareness
    D. None

70. Do you believe that activities or services exist at TWU to help students, faculty, or staff who may have alcohol or drug problems?
    A. Yes
    B. No
    C. Uncertain

71. How would you rate the present drug and alcohol education program at TWU?
    A. Excellent
    B. Good
    C. Fair
    D. Poor
    E. I am unfamiliar with the Alcohol and Drug Education Program.

72. If you have or have had an alcohol/drug question, do you feel comfortable about seeking help on campus?
    A. Comfortable
    B. Uncomfortable
    C. Not sure

TO ASSIST US IN COMPARING THE ANSWERS GIVEN BY STUDENTS FROM DIFFERENT BACKGROUNDS AND LIVING ENVIRONMENTS, PLEASE ANSWER THESE LAST FEW QUESTIONS.

73. Are you a:
    A. Freshman
    B. Sophomore
    C. Junior
    D. Senior
    E. Graduate Student

74. Are you presently attending the:
    A. Denton Campus
    B. Dallas/Parkland Center
    C. Dallas/Presbyterian Campus
    D. Houston Center

75. How many semester credit hours are you currently taking?
    A. Under 6
    B. 6 - 9
    C. 10 - 12
    D. 13 - 15
    E. Over 15

76. Approximately how many hours per week are you employed during the semester?
    A. None or only occasional jobs
    B. One to 15 hours per week
    C. 15 to 20 hours per week
    D. 21 to 39 hours per week
    E. I am employed full-time, 40 hours per week.

77. Do you commute to campus?
    A. Yes
    B. No

78. If yes, how far?
    A. Under 20 miles
    B. 20 to 49 miles
    C. 50 - 90 miles
    D. Over 90 miles

79. Which situation best describes your living accommodations:
    A. University residence hall or campus apartment
    B. Rented house, mobile home, room or apartment off campus
    C. Parents' or relatives' home
    D. My own house or mobile home.
    E. Other

80. Are you:
    A. Female
    B. Male

81. What is your present age?
    A. 18 - 20
    B. 21 - 28
    C. 29 - 35
    D. 36 years or older

82. Do you consider yourself to be:
    A. Heterosexual
    B. Lesbian/Gay
    C. Bisexual
    D. Unsure

83. What is your ethnic background?
    A. White/European American
    B. Black/African American
    C. Native American
    D. Mexican American/Hispanic
    E. Other

84. What is your current relationship status?
    A. Single, never married
    B. Married
    C. Separated/divorced/widowed
    D. Live in partner
    E. Other

85. How many children presently live with you at your current residence?
    A. None
    B. One
    C. Two
    D. Three
    E. Four or more