**Health Consequences of Sexual Assault and Violence as Reported by Male and Female College Students**

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**Presenter Disclosures**

Gale A. Spencer

(1) The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

“No relationships to disclose”

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**Background for the Study**

- Decades of research have established violence as a threat to physical and mental health.
- The American College Health Association (ACHA) recognizes sexual violence as a serious campus and public health issue.
- Despite campus violence prevention programs and the immediate and long term mental and physical health outcomes associated with violence, only a minority of victims report seeking help from formal sources such as healthcare or mental health services (Tjaden & Thennes, 2006; D'Avolio, et. al., 2001; Yam, 2000).

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**Purpose of the Study**

- The purpose of the study is to examine the health behaviors associated with sexual assault as reported by a sample of college men and women at three different universities.
- To discuss plans for prevention.

- 1980 students participated in the study:
  - College 1 = North East Private College
    - 1100 students participated
  - College 2 = North East Public University
    - 439 students participated
  - College 3 = Southern Historically Black University
    - 431 students participated

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**Methodology**

- This study uses a descriptive correlational design to examine the health behaviors related to sexual assault in a sample of college students.
- The sample was gathered from three different colleges/universities (n=1980).
  - Two of the colleges/universities collected the data using an on-line questionnaire service supported by the college/university.
  - One college/university collected data by paper and pencil method.
Instruments Used in the Study

- A demographic questionnaire was developed to gather background data from each subject that included questions on age, gender, racial/ethnic background, parental income, social status, and type of student (undergraduate/graduate).
- Sexual Experiences Survey (SES) Victimization and Perpetration Version—measures 4 types of sexual victimization and sexual perpetration. It is widely used to assess victimization and perpetration of unwanted sexual acts including rape.
  - A question on the encouragement or pressure of consuming alcohol with the intention of having sex was added to elicit more data on the association with alcohol use and rape among college students.
  - Reliability for the SES Victimization Version was determined using an internal consistency of 0.74 and a test-retest approach, which reported a correlation of 0.93.

Human Subjects Protection

- All three colleges/universities submitted the protocol to their IRB/Human Subject Research Committee for approval.

Student Demographics

- Gender: 69% were female, 31% were male
- Age ranged from: 17-28 years for females, 18-43 years for males
- Undergraduate vs. Graduate students: 86% were undergraduate students, 14% were graduate students
- Race/Ethnicity: 60% Caucasian, 25% African American, 6% Asian, 4% Multiracial, 3% Hispanic, 2% indicated other

Sexual Assault and Violence

- For this presentation sexual assault and violence was determined by answering yes to two questions:
  1. Have you ever been raped?
     - 5.7% for all
     - 5.9% of females
     - 5.2% of males
     - No significant differences found among schools
  2. Have you had sexual intercourse when you did not want to because someone gave you alcohol or drugs?
     - 6.7% for all
     - 7% of females answered
     - 6.1% of males answered
     - A significant difference was found among schools for
       \( X^2 = 7.365, p = 0.025 \)

Health Behaviors

- The questions related to health behaviors were measured by the following questions:
  1. How would you rate your current physical health?
  2. Do you smoke cigarettes?
  3. Alcohol Audit C questions
  4. Have you been diagnosed with a sexual transmitted infection?
  5. Do you have trouble concentrating?
  6. Do you have trouble falling asleep?
  7. Do reminders of it cause you to have physical reactions (such as sweating, trouble breathing, nausea, or a pounding heart)?

Questions Posed in the Study

1. What is the relationship between sexual violence and perceived health status of male and female college students?
2. What is the relationship between sexual violence and smoking habits of male and female college students?
3. What is the relationship between sexual violence and drinking behaviors of male and female college students?
4. What is the relationship between sexual violence and being diagnosed with a sexually transmitted disease in male and female college students?
5. What is the relationship between sexual violence and physical reactions in male and female college students?
Question 1

What is the relationship between sexual violence and perceived health status of male and female college students?
- No significant relationships were found between male and female students who experienced sexual violence and their perceived health status.
- The majority of male and female students surveyed identified their health status as average (whether or not they had experienced sexual violence).

Question 3

What is the relationship between sexual violence and smoking habits of male and female college students?
- Only 5.7% of the total population smoke. While a greater percentage of both males and females who had experienced sexual violence stated that they smoked (7.7% vs. 5.9% for females and 6.2% vs. 4.8% for males).
- No significant relationships were found between male and female students who experienced sexual violence and their smoking status when compared to other students in the study.

Question 4

What is the relationship between sexual violence and drinking behaviors of male and female college students?
- There was no significant relationship found between sexual violence (rape) and drinking behavior for male and female college students.
- However, in both males and females an increasing trend was identified. As the amount of drinking increased the incidence of rape increased.
  - Males: 10.5%; 15.8%; 73.7%
  - Females: 0%; 42.6%; 57.4%

Question 5

What is the relationship between sexual violence and being diagnosed with a sexually transmitted disease in male and female college students?
- A significant relationship was found between sexual violence (rape) and being diagnosed with a sexually transmitted disease in male and female college students. (X² = 23.985, p=0.00).
- No significant relationship was found between sexual violence (unwanted sexual intercourse due to the student being given alcohol or drugs) and being diagnosed with a sexually transmitted disease for both male and female students.

Question 2

What is the relationship between sexual violence and smoking habits of male and female college students?
- While a greater percentage of both males and females who had experienced sexual violence stated that they smoked (7.7% vs. 5.9% for females and 6.2% vs. 4.8% for males).
- No significant relationships were found between male and female students who experienced sexual violence and their smoking status when compared to other students in the study.

Question 3 (cont.)

What is the relationship between sexual violence and drinking behaviors of male and female college students?
- There was no significant relationship found in the case of alcohol use for both male and female students when sexual intercourse occurred due to the student being given alcohol or drugs.
- As the amount of alcohol consumed increased from not drinking to alcohol misuse, the agreement with the question increased. While this was true for both males and females, a significant relationship was not found.
  - Males: 0%; 17.4%; 82.6%
  - Females: 1.4%; 36.6%; 62%
- However, a significant relationship was found for the total group who answered yes to this question with the misuse of alcohol (X² = 6.869, p=0.032).

Question 5

What is the relationship between sexual violence (rape) and physical reactions in male and female college students?
- A significant relationship was found between sexual violence (rape) and the ability to concentrate for both male (X² = 25.764, p=0.00) and female students (X² = 33.418, p=0.00).
- A significant relationship was found between sexual violence (rape) and being able to fall asleep for both male (X² = 18.130, p=0.00) and female students (X² = 14.917, p=0.00).
- A significant relationship was found between sexual violence (rape) and physical reactions for both male (X² = 27.739, p=0.00) and female students (X² = 34.066, p=0.00).
Question 5

What is the relationship between sexual violence (unwanted sex due to alcohol and drugs) and physical reactions in male and female college students?

- A significant relationship was found between sexual violence (unwanted sex due to alcohol and drugs) and not being able to concentrate for males ($X^2 = 5.858, p=0.03$).
- A significant relationship was found between sexual violence (unwanted sex due to alcohol and drugs) and not being able to fall asleep for female students ($X^2 = 12.170, p=0.006$).
- A significant relationship was found between sexual violence (unwanted sex due to alcohol and drugs) and physical reactions (such as sweating, trouble breathing, nausea, or a pounding heart) for both male ($X^2 = 12.959, p=0.005$) and female students ($X^2 = 15.269, p=0.004$).

Summary of Findings

Two health behaviors were not found to be significantly related to sexual violence in this study, they are:
- smoking
- perception of health status

Three health behaviors were found to be significantly related to sexual violence in this study, they are:
- drinking behaviors
- sexually transmitted infections
- physical reactions: (concentration, sleeping, & physical responses)

Conclusions

- Alcohol misuse was found to be a significant health problem on all three campuses.
  - 69% of females and 59% of males drink at alcohol misuse levels.
  - Alcohol misuse must be addressed by college campuses with high risk groups (e.g. freshman, fraternities, sororities, athletes etc.).
  - Programs on the increased risk of unwanted sexual intercourse due to alcohol and other drugs and students misuse of alcohol should be presented in orientation programs and reinforced by RA’s in dormitory programs.
- Sexually transmitted disease was found to be significantly related to rape.
  - Students need to be encouraged and supported to go to their university health services to be checked for sexually transmitted disease.
  - Programs regarding “no means no” need to be targeted to high risk groups - freshman, fraternities, sororities, athletes etc.

Conclusions

- Physical Symptoms
  - While no significant relationship was found between perceived health status and sexual violence, physical symptoms after sexual violence were all found to be significant.
  - Health Service personnel must be prepared to make the connections between physical symptoms (poor concentration, sleep problems, and physical symptoms related to anxiety) and sexual violence.
- Health Centers need to provide a safe inclusive environment that is perceived as welcoming to students.