DOCUMENT RESUME

ED 388 662 SP 036 310

AUTHOR Smith, Cheri; And Others
TITLE Assessing College Students' Attitudes, Knowledge and Behavior Towards HIV/AIDS.
PUB DATE 9 Nov 94
NOTE 26p.; Paper presented at the Annual Meeting of the Mid-South Educational Research Association (Nashville, TN, November 9, 1995).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Acquired Immune Deficiency Syndrome; Behavior Patterns; Beliefs; *College Students; Communicable Diseases; Health Education; Higher Education; Knowledge Level; Sex Differences; *Student Attitudes; Student Behavior; Surveys

ABSTRACT

The purpose of this ongoing study was to assess attitudes, knowledge and behaviors in college students toward Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS). The researchers wanted to asses students' knowledge, attitudes, and behavior for utilization in educational and skill building programs for college students. Assessment of attitudes, knowledge, and behaviors was obtained from a sample of 53 males and 121 female college students in health wellness classes. An 81-item survey, constructed for the study, was administered during the first part of the semester. Results included the following: (1) 88.6 percent reported belief that the disease was going to spread rapidly in the heterosexual population; (2) 41 percent were too embarrassed to di cuss the use of condoms with their partner; (3) 87 percent believed those who with HIV/AIDS do not deserve it; (4) individuals who were most denying about HIV/AIDS were also most punishing towards infected individuals; (5) subjects reporting the most concern reported the least embarrassment; (6) among males there was a significant positive correlation between being concerned and being more punishing; (7) for males also, the more embarrassed they were, the more concerned they were; and (8) males were more concerned than females about contracting HIV/AIDS. Contains 15 references and the survey instrument. (JB)

Assessing College Student's Attitudes, Knowledge and Behavior Toward HIV/AIDS

Cheri Smith
Carolyn Miller
John Burling
University of Montevallo
Montevallo, Alabama

Presented at the
Mid-South Educational Research Association Meeting
November 9, 1994
Nashville, Tennessee

Abstract

The purpose of this ongoing study was to assess attitudes, knowledge and behaviors in college students toward Human Immunodeficiency Virus (HIV) and Acquired Immunodeficiency Syndrome (AIDS). The researchers wanted to assess knowledge, attitudes, and behavior for utilization in educational and skill building programs for college students. Assessment of attitudes, knowledge and behaviors was obtained from a sample of 53 males and 121 female college students in health wellness classes. An 81 item survey, constructed by the University researchers, was administered during the first part of the semester.

Various analyses including frequency counts, correlational analyses, and T-tests were conducted. Preliminary analyses have revealed differences among males and females, as well as intriguing patterns of attitudes and knowledge. Implications for future research are discussed.

Assessing College Students' Attitudes, Knowledge and Behaviors Toward HIV/AIDS

Acquired Immunodeficiency Syndrome (AIDS) was initially described in 1981 (Catalan, 1988). Since then there have been many state and national conferences that focus on AIDS and the Human Immunodeficiency Virus (HIV) . College students who are now eighteen years of age, were eleven years old when many of the HIV/AIDS conferences began. Throughout most of their sexual development HIV/AIDS has been a part of their worldview. However, the depth to which this population possesses knowledge about HIV/AIDS is not always certain and the level of knowledge is uneven. In a study done by Goodwin & Roscoe (1988) the results indicate college students have a moderate knowledge concerning AIDS. Many students may be able to identify methods of transmission yet still be uncertain about casual contact as it relates to HIV/AIDS (DiClemente, Forrest & Micklu, 1990). Furthermore, knowledge is not sufficient for behavior change (Bellingham & Gillies, 1993).

College students do not always perceive how susceptible they are and many do not recognize the seriousness of the HIV/AIDS epidemic (Chng & Moore, 1994). Frequently, they do not know anyone who is infected with the virus (Shea, 1994). Many college students may contract HIV during

college yet they may not become sympotomatic until they have left college (Walters,1992). Since many HIV-inflected individuals may remain healthy and asymptomatic students may know someone who is inflected and not realize it. The infected individuals can still spread the virus (Keeling,1986) . While students are in college they may not be aware of the risks that go along with certain behaviors, however, as the level of perceived personal risk increases so does the level of education (Schoenborn, Marsh & Hardy, 1992).

College students' awareness of personal risk is not always reflected in their behavior. During the past two years, the total number of teens and young adults (ages 13-24) diagnosed with AIDS increased by 77.5% (CDC, 1993). The role of education should be one of emphasizing the personal risk of HIV/AIDS infection (Chng & Moore, 1994). Furthermore, without a cure or vaccine for HIV/AIDS (Schoenborn et al., 1992) education is a means of changing knowledge, attitudes, and risky behavior (Weinstrin, Rosen & Atwood, 1991). Therefore, research that assesses the knowledge, attitudes and behaviors of college students is important with regard to the role of education.

Education programs that were utilized in the beginning of the HIV/AIDS epidemic, such as small speakers' programs, have evolved in the

90s into HIV/AIDS information events (Biemiller, 1994). In order to keep up with the challenge of the HIV/AIDS epidemic it is imperative that multiple strategies be utilized by educators (Allensworth & Symons, 1989). Educators need to employ methods that will help to motivate individuals to adopt behaviors that prevent the spread of the HIV/AIDS virus (Dommeyer, Marquard, Gibson & Taylor, 1989). Therefore, to help determine the best ways to approach educational programming, the focus of the present study is to assess college students' behaviors, attitudes and level of knowledge regarding HIV/AIDS.

Method

Subjects

The subjects in this study were fifty-three males and one hundred twenty-one female undergraduate students in Health Wellness classes at the University of Montevallo. Subjects participated voluntarily as part of their course activities during the academic year 1993-94.

Materials

The instrument used for this study was a committee-generated, eighty-one item questionnaire. It was closely patterned after a questionnaire designed and distributed by the University of Alabama in

Birmingham (Gentry & Wallace, 1993). The instrument was designed to assess knowledge, attitudes and self-reported behaviors about HIV/AIDS. Items such as: "People with HIV/AIDS should not be permitted in public", " I have changed my sexual behavior because of concern about HIV/AIDS", "I'm not worried about getting HIV/AIDS", "In my opinion, HIV/AIDS is not going to spread very rapidly within the heterosexual population","Those who have HIV/AIDS deserve it" and " Do you believe the use of condoms (rubbers) detract from the love and intimacy of a relationship" are used to assess the desired information. Subjects were required to choose either a true/false , don't know, agree/ disagree, neutral or doesn't apply. (See Appendix A).

Procedures

Forms were administered to all sections of Health Wellness classes during a one-week period. The investigator informed the subjects that their responses were anonymous and participation was voluntary. The subjects were asked to respond to the questionaire. Anonymity was insured by not asking for the student's name and by distributing the surveys in folders. These folders were then placed in a circulated box after completion.

Results

Frequency distributions, correlational analyses, and pairwise T-test (male vs. female) were conducted on all dependent measures. The analyses yielded several intriguing findings.

When response frequencies on all items were assessed, several interesting finding emerged. For example, the subjects reported concern about HIV/AIDS with 88.6% of the students acknowledging they believe HIV/AIDS is going to spread very rapidly within the heterosexual population, 41% of the students are too embarrassed to discuss the use of condoms with their partner, 24.7% never use condoms, 87% believe those who have HIV do not deserve it, 72% agreed more AIDS education needs to be available and 61% said they would like to learn more about AIDS and how it is transmitted.

Correlational analysis were also conducted on all dependent measures. In the analysis using all subjects, some intriguing relationships emerged. The researchers constructed several sub-scales, using clearly related items. These subscales included: denial about HIV/AIDS, punishment towards those individuals infected with HIV/AIDS and the belief that they should suffer and pay a price for their condition, embarassment about discussing issues that relate to HIV/AIDS such as

condoms, concern regarding HIV/AIDS and infected individuals, knowledge about HIV/AIDS and attitude toward the virus and infected individuals. For the denial subscale items like "I doubt that anyone I know personally will ever get HIV/AIDS ". The subscale for punishment included items like " People with HIV/AIDS should not be permitted in public ". The subscale for embarassment included items like " I would hesitate to ask for information about HIV/AIDS because people might draw conclusions about my sexual behavior ". The subscale for concern included items like, "People are more concerned about HIV/AIDS than is really necessary". The subscale for knowledge included over twenty-eight items. These statements included "Women can transmit the HIV/AIDS virus to female sex partners" or " Most people who get HIV die within five years". The attitude subscale included items like, "There is too much information about HIV/AIDS. I don't want to hear any more". The subscales of punishment and denial significantly and positively correlated for all subjects with $r=.275$,$p<.0002$. Those most denying were also most punishing. Embarassment and concern were significantly and negatively correlated, $r=-.4168$, $p<.0001$. Subjects reporting the most concern tended to report the least embarrassment. Furthermore, for all subjects, those most willing to grapple with the HIV/AIDS issue were less embarrassed,

r=-.246, p<.0012.

Additionally, correlational analyses were conducted on all measures for males and females separately. Among females it was found that the individuals who were most denying were most punishing, r=.3107, p <.0005. Also, the more denying females were, then the more embarrassed they were, r=.192, p <.035. Among males, it was found that there was a significant positive correlation between being concerned and being more punishing , r= .407, p<.0024. This was found only for the male subjects. Additionally, the more embarrassed they were, the more concerned they were, r= .432, p <.0014.

Finally, pairwise T-tests comparing males and females were conducted on all subscales. The general knowledge subscale, when analyzed with a pairwise t-test, demonstrated that males and females were not significantly different, $t(171)$=-1.1117, p<.267 ns. With regard to willingness to confront the HIV/AIDS issue there was no significant difference , $t(168)$=1.1804 ,p< .2417 ns. However, males were more concerned than females about contracting HIV/AIDS, $t(170)$=3.181, p< .0017. Although it was not significant, the results did indicate a trend in which males were less embarrassed than females, $t(170)$=1.87,p <.06 ns. There was a highly significant difference with regard to punishment. The

analysis indicated that females were more punishing than males, $t(172)=2.31$, $p<.024$. Analysis of the denial sub-scale yielded no significant differences between males and females, N $t(172)=-.043$, $p<.96$ ns. (See Appendix B).

Discussion

Based upon the findings, there are some differences in the ways males and females think about and respond to the HIV/AIDS epidemic, methods for preventing the spread of the disease and people living with HIV/AIDS. Even though there are high percentages that say they are willing to struggle with the HIV/AIDS issue, there are many who still cannot cope with the epidemic. The way that students think about the HIV/AIDS issue may determine whether or not they have a future. Since education is our only current means for preventing the spread of the virus at this time, any form of denial or lack of communication is literally life-threatening. The students' knowledge, attitudes and behaviors will be reflected in the choices that are made. Educators who are aware of the knowledge base and behaviors of students on college campuses are better equipped to help their students grapple with this complex and pervasive socio-cultural and biomedical event.

While this study looks at the student's knowledge, attitudes, and

behaviors before any educational intervention. It will be helpful to look at any changes that may take place after any HIV/AIDS education. Studies will be conducted to look at pre and post test comparisons after HIV/AIDS education programs. Future studies will assess not only the effectiveness of the educational intervention, but also the value of the information provided for students.

Bibliography

Allensworth, D. & Symore, C. (1989). A theoretical approach to school-based HIV prevention. Journal of School Health, 59(2), 59-65.

Bellingham, K. & Gillies, P. (1993). Evaluation of an AIDS education program for young people. Journal of Epidemiology and Community Health, 47,134-138.

Biemiller, L. (1994, October 19). A streetcar ride from ground zero. The Chronicle of Higher Education, pp. A10-A12.

Catalan,J. (1988). Psychosocial and neuropsychiatric aspects of HIV infection: review of their extend and implications for psychiatry. Journal of Psychosomatic Research, 32(3), 237-248.

Centers for Disease Control. (1993). HIV/AIDS Surveillance Report.

Chng,C. & Moore, A. (1994). AIDS: its effects on sexual practices among homosexual and heterosexual college students. Journal of Health Education, 25(3), 154-160.

DiClemente, R., Forrest, K., & Micklu, S. (1990). College students' knowledge and attitudes about AIDS and changes in HIV prevention behaviors. AIDS Education and Prevention, 2(3), 202-212.

Dommeyer, C., Marquard, J., Gibson, J., & Taylor, R. (1989). The effectiveness of an AIDS education campaign on a college campus. Journal of American Community Health, 38,131-135.

Gentry, K. & Wallace, W. (1993, April). A study of college students' knowledge, attitudes, and behavior regarding acquired immune deficiency syndrome. Paper presented at the meeting of the Southeastern Undergraduate Psychology Research Conference, Huntsville, AL.

Goodwin, M. & Roscoe, B. (1988). AIDS: students' knowlege and attitudes at a midwestern university. Journal of American Community Health, 36, 214-221.

Keeling, R. (Ed.).(1986). AIDS on the college campus: ACHA special report. Rockville, MD: American College Health Association.

Schoenborn, C., Marsh, S., & Hardy, A. (1992). AIDS knowledge and attitudes for 1992: data from the national health interview survey. Center for Disease Control, National Center for Health Statistics.

Shea, C. (1994, October 19). Safe sex in theory and practice. The Chronicle of Higher Education, p.A16.

Walters, A. (1992). College students' knowledge about AIDS and reported changes in sexual behavior. National Association of Student Personnel Administrators Journal,29(2),91-100.

Weinstein, E., Rosen, E., & Atwood, J. (1991). Adolescents' knowledge of AIDS and behavior change: implications for education Journal of Health Education, 22(5), 313-318.

APPENDIX A

EXPERIMENTAL MEASURES

Dear Student,

In response to the growing concern about AIDS, the University of Montevallo has formed a committee on AIDS, composed of students, faculty, and professional staff. There is unanimous agreement that educational programs dealing with AIDS are needed. To help us determine the best ways to approach these programs, it was decided to see what our students know about AIDS, what their attitudes are towards people with AIDS, and what AIDS-related behaviors might be occurring in our population.

Therefore, a questionnaire was designed, closely patterned after a questionnaire designed and distributed by UAB to six state colleges and universities, to assess knowledge, attitudes, and behaviors in our students. You will see that some of the questions are very personal and private in nature. AIDS may be transmitted in very personal and private ways, so we hope that you will understand our need to ask these questions so we can design our program.

ALL RESPONSES ARE COMPLETELY ANONYMOUS. No names, student numbers, etc. are asked, and you will place your questionnaires in folders and drop them in a box circulated among you.

It is important that you answer all the questions relevant to you. You may, of course, omit any that are not relevant or that you may not choose to answer. Please give us all the information you can.

Thank you for your support,

Dr. Cheri Smith, Ph.D. - Chair, Ad Hoc Committee on Aids
Department of Counseling and Educational Psychology

Wm. F. Wallace, Ph. D.
Department of Psychology, AIDS committee researcher

Jeanette L. Merijanian, R. N., M. P. H.
Nurse, University Health Services

Theresa Pritchett, M. Ed.
Counselor in Student Development

Linda C. Mahan, Ph. D.
Vice President for Student Affairs

Syble Brindley, Ed. D.
Chair, Department of Health, Physical Education, Recreation and Dance

DIRECTIONS: Please select the single MOST appropriate response to each question. DARKEN THE APPROPRIATE SPACE ON YOUR ANSWER SHEET.

PERSONAL INFORMATION

Check the correct response:

1. Sex: (A) Male (B) Female

2. Race: (A) White (B) Black (C) Other

3. Academic Class.
   Undergraduate Student: a. First year b. Second year c. Third year d. Fourth year or more

KNOWLEDGE AND ATTITUDES ABOUT AIDS
FOR QUESTIONS 4 THROUGH 17 SELECT ONE OF THE FOLLOWING ANSWERS, AND DARKEN THE APPROPRIATE SPACE ON YOUR ANSWER SHEET:

A. TRUE B. FALSE C. DON'T KNOW

4. Most people who have died of AIDS in the U.S. have been young adults (18-21 years of age).

5. Most people who are HIV positive in the U.S. have been young adults (18-21 years of age).

6. To check to see if a person is HIV positive, he/she can be given a specific blood test.

7. A person infected with HIV, but who has no symptoms, can infect others.

8. Women can transmit the HIV/AIDS virus to female sex partners.

9. Persons do not need to use a condom as protection against HIV/AIDS when having sex with someone they know.

10. HIV/AIDS is a sexually transmitted disease.

11. There is no cure or vaccine for HIV/AIDS.

12. You can use the same plates, spoons, forks, and bathrooms as people with HIV/AIDS and not get HIV/AIDS.

13. Only homosexuals and IV drug users can get HIV/AIDS.

14. You are likely to catch HIV/AIDS from kissing someone with the disease.

15. Most people who get AIDS die within five years.

16. 60% of Alabamians diagnosed with AIDS have died.

17. Most people who get HIV die within five years.

18. Proper use of condoms (rubbers) during sex will reduce the risk of getting HIV/AIDS.

FOR QUESTIONS 19 THROUGH 30 SELECT ONE OF THE FOLLOWING ANSWERS:

A. AGREE B. DISAGREE C. NEUTRAL D. DOESN'T APPLY

19. I'm not worried about getting HIV/AIDS.

20. I am too embarrassed to discuss the use of condoms with my partner.

21. I am concerned that I might become exposed to HIV/AIDS.

22. I would be willing to take the HIV test to determine if I have been infected.

23. I believe HIV/AIDS is going to become a much more serious public health problem in the future than it is at present.

24. There is need for more HIV/AIDS information and education at this school.

25. People are more concerned about HIV/AIDS than is really necessary.

26. I would like to learn more about HIV/AIDS and how it is transmitted.

27. I am concerned that I might have been exposed to HIV/AIDS.

28. I would hesitate to ask for information about HIV/AIDS because people might draw conclusions about my sexual behavior.

29. In my opinion, HIV/AIDS is not going to spread very rapidly within the heterosexual population.

30. No one I know personally has HIV/AIDS.

FOR QUESTIONS 31 THROUGH 43 SELECT ONE OF THE FOLLOWING ANSWERS:

A. TRUE B. FALSE C. DON'T KNOW

31. You can get HIV/AIDS by sharing IV needles, ear-piercing needles, steroid needles, or razors with someone who has HIV/AIDS.

32. Persons who have sex with several different people have a greater chance of getting HIV/AIDS than people who have a single partner.

33. HIV/AIDS is transmitted through blood and semen.

34. People can be infected by mosquitos carrying HIV/AIDS.

35. A pregnant woman with HIV/AIDS can transmit the disease to her unborn child.

36. All people infected with HIV/AIDS will have symptoms of HIV/AIDS.

37. The only way a person can become infected with HIV/AIDS is through sexual contact with another person of the same sex.

38. You can obtain a free HIV test at your public health department.

39. People who properly use condoms (rubbers) during sex will totally protect themselves against HIV/AIDS.

40. A person can become infected with HIV/AIDS by donating blood.

41. In the United States, whites are more likely to get HIV/AIDS than blacks.

42. Female partners can transmit HIV/AIDS to their male partners.

FOR QUESTIONS 43 THROUGH 59 SELECT ONE OF THE FOLLOWING ANSWERS:

A. AGREE B. DISAGREE C. NEUTRAL

43. University students should be tested for HIV infection prior to enrolling in school.

44. People who have an increased chance of getting HIV/AIDS, such as homosexuals and IV drug abusers, should not donate blood.

45. Those who have HIV/AIDS deserve it.

46. Students infected with HIV/AIDS should not be allowed to attend school.

47. People with HIV/AIDS should not be permitted in public.

48 One should stop being friends with a person who gets HIV/AIDS.

49. More help should be available to persons with HIV/AIDS.

50. I doubt that anyone I know personally will ever get HIV/AIDS.

51. I believe my current sexual behavior increases my chances of getting HIV/AIDS.

52. I do plan to change my current sexual behavior because of HIV/AIDS.

53. Changing my current sexual behavior to reduce my chance of getting HIV/AIDS will be difficult.

54. I have changed my sexual behavior because of concern about HIV/AIDS.

55. People should abstain from sex if not married in order to prevent the spread of HIV/AIDS.

56. If one of my former sex partners had a positive HIV/AIDS test, I would want to know.

57. There is too much information about HIV/AIDS. I don't want to hear any more.

58. My knowledge about HIV/AIDS has changed in the last year.

59. I need help making decisions in this area.

SOURCES OF INFORMATION

Please indicate whether each of the following would be a (A) VERY EFFECTIVE, (B) SOMEWHAT EFFECTIVE, (C) NOT EFFECTIVE source of HIV/AIDS information on the campus.

60. University health services
61. Faculty
62. Friends
63. Student organization
64. Residence hall staff
65. Campus publications
66. Radio
67. Special campus meetings
68. Classroom

69. From which of the following sources would you be willing to obtain condoms (rubbers) if you wanted to use them?

Check all that apply:

A. Drug store
B. Public bathroom
C. Campus/Residence hall bathroom
D. University health services
E. Health department

70. My high school presented HIV/AIDS information.

a. true
b. false

71. In your opinion, which would be the most effective method of presenting HIV/AIDS education in the classroom?

a. lecture
b. videotape pamphlets, hand-outs
c. discussion groups
d. HIV positive speaker

WE WOULD LIKE TO REMIND YOU AT THIS POINT THAT YOUR RESPONSES ARE VOLUNTARY, BUT THAT WE BELIEVE OUR NEED FOR THIS INFORMATION IS CRITICAL. PLEASE RESPOND IF YOU CAN. WE ARE NOT ASKING OUT OF IDLE CURIOSITY.

INTERP RSONAL RELATIONSHIPS

Darken the most appropriate answer:

72. How would you describe your sexual preference(s)?
    a. Exclusively members of the opposite sex
    b. Primarily members of the opposite sex, occasional experiences with members of the same sex
    c. Primarily members of the same sex, occasionally experiences with members of the opposite sex
    d. Exclusively members of the same sex

73. For single people, (including divorced, widowed, etc.), what is your current relationship status?

    a. never had a sexual relationship
    b. sexual relationship with one person
    c. sexual relationship with multiple people
    d. not currently dating, had sexual relationship in the past
    e. had sexual relationships in the past, but now practicing abstinence while dating.

74. For married people, what is your current relationship status?

    a. living with spouse, monogamous
    b. having extramarital relationship(s)
    c. separated, no sexual relationships
    d. separated, monogamous sexual relationship
    e. separated, multiple partners

Answer questions 75 through 81 only if you are currently sexually active.

75. What best characterizes your partner's use of illegal intravenous drugs?
    a. Never
    b. occasionally
    c. frequently

76. How often do you engage in sexual intercourse (intercourse includes both vaginal and/or anal intercourse and/or oral-genital sex)?
    a. 1-2 times per month
    b. 3-6 times per month
    c. 6-12 times per month
    d. more than 12 per month

77. In a typical month, how many different sexual partners do you have?

    a. 0
    b. 1
    c. 2-4
    d. 5-7
    e. 8 or more

78. What best characterizes your use of condoms (rubbers)?
    a. Never use them
    b. Occasionally use them
    c. almost always use them
    d. always use them

79. What best characterizes your partner's use of condoms (rubbers)?

    a. Never uses them
    b. Occasionally uses them
    c. almost always uses them
    d. always uses them
    e. Not sure when partner is with others

80. Do you believe the use of condoms (rubbers) detract from the love and intimacy or a relationship?

    a. Yes
    b. No

81. Are you assertive enough to ask your partner to use a condom (rubber)?

    a. Yes
    b. No

Thank you very much for your participation. If you have any questions or concerns at this point, you may contact the following sources of information:

University Health Service, East Main - phone 665-6275

University Counseling Service, Main Central, phone 6245

Birmingham AIDS outreach - 322-0757

Alcohol and Drug Abuse Council - 933-1213

Alabama AIDS hotline - 1-800-445-3741

Jefferson County Health dept. 933-9110 (ask for AIDS hotline)

APPENDIX B

TABLES OF CORRELATIONS AND T-TEST

CORRELATION TEST - ALL SUBJECTS

	Denial	Punish	Embarass	Concern	Knowledge	Attitude
Denial	1.000	-.276	-.082	-.105	-.082	.467
Punish		1.000	.113	-.157	-.057	.590
Embarass			1.000	-.417	-.097	-.246
Concern				1.000	-.010	.018
Knowledge					1.000	-.133
Attitude						1.000

Note: for all correlations, df=174, p<.05 two tailed when r>.19

CORRELATION TEST - FEMALE

	Denial	Punish	Embarass	Concern	Knowledge
Denial	1.000	.311	-.192	-.110	-.023
Punish		1.000	-.076	-.097	-.136
Embarass			1.000	.389	-.050
Concern				1.000	-.007
Knowledge					1.000

Note: for all correlations df=174, p<.05 two tailed when r>.19

CORRELATION TEST - MALE

	Denial	Punish	Embarass	Concern	Knowledge
Denial	1.000	.236	.135	-.078	-.181
Punish		1.000	.258	-.408	.040
Embarass			1.000	.432	-.155
Concern				1.000	.0464
Knowledge					1.000

Note: for all correlations df=174, p<.05 two tailed when r>.27
p<.05 one tailed when r>.23

T TEST BY SEX

	Male	Female	T	P Value
Concern	6.679	6.008	3.185	.0017
Punish	4.735	4.272	2.308	.0243