Exhibit

The Meharry Questionnaire: The Measurement of Attitudes Toward AIDS-Related Issues

Please circle the number which reflects the amount of your agreement or disagreement with each statement.

1. AIDS will never be a threat to the rural areas of the U.S.A.
   - 0 Strongly Disagree
   - 1
   - 2
   - 3
   - 4
   - 5 Strongly Agree

2. AIDS is the result of God’s punishment (“Divine Retribution”).
3. Most of the AIDS patients in the 1990s will have to be treated by family doctors.
4. AIDS will help the society by decreasing the number of homosexuals (gay people).
5. I have made changes in my personal habits to prevent being infected by the AIDS virus.
6. Sterilized needles should be made available to needle-using drug abusers to prevent the spread of AIDS.
7. All pregnant women should be required to have their blood tested for the AIDS virus.
8. It is easier to catch the AIDS virus than the experts are leading us to believe.
9. The AIDS epidemic is a fulfillment of biblical prophecy.
10. AIDS will help the society by decreasing the number of drug abusers.
11. People with AIDS have gotten what they deserve.
12. In the 1990s, a large increase in health care manpower will be required because of AIDS.
13. Needle-using drug abusers who get AIDS are not worthy of extensive medical attention.

*This scale follows each of the statements.

HIV/AIDS Knowledge and Attitudes Scales for Teachers

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HIV is increasing among children and adolescents in the United States, with an estimate that at least one-half of all new infections occur in people younger than 25 years of age (Centers for Disease Control and Prevention, 2007). It is predicted that, in the near future, all school professionals will have contact with at least one student who is infected or affected by the disease (Landau, Pryor, & Haefli, 1995). Education about prevention and how best to live with HIV-infected family members, friends, and co-workers, as well as how to deal with the disease if one is personally infected, is the key to disarming the devastating health effects of this disease and the stigma attached to it. Education at each school level (elementary, intermediate, and high school) has been recommended so that children can grow up knowing how to protect themselves. Yet researchers have indicated that children and adolescents continue to have many fears and questions about HIV/AIDS arising from a lack of education and from misunderstanding (Kistner et al., 1997; Steitz & Munn, 1993). Although the majority of states mandate HIV/AIDS education, and teachers indicate their support for it (Brucker & Hall, 1996), the implementation of HIV/AIDS education in the classroom is questionable (di Mauro, 1989–1990). Researchers have shown that teachers at various levels and from various backgrounds may lack basic factual knowledge of the cause, transmission, and prevalence of HIV/AIDS or lack sufficient comfort to teach about this topic (Boscarino & DiClemente, 1996; Dawson, Chunis, Smith, & Carboni, 2001).

Thus, the HIV/AIDS Knowledge and Attitudes Scales for Teachers were developed to serve as measurement instruments in determining teachers’ level of knowledge and attitudes toward HIV disease, in general, and specific educational issues. These scales can be and have been used with preservice education students, teachers in the field, and

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related professionals including school counselors (Costin, Page, Pietrzak, Kerr, & Symons, 2002; Singer, 1991). The data can be useful in designing college programs and in-service workshops to prepare more effective AIDS educators.

**Description**

The HIV/AIDS Knowledge Scale for Teachers consists of two parts. The first part, General Knowledge, includes 14 true-false items regarding the HIV disease process (e.g., cause, symptoms, diagnosis, effects, treatment) and 4 true-false items specific to classroom issues. The second part, Likelihood of Transmission, contains 17 possible modes of HIV transmission. Thus, the entire knowledge scale contains 35 items.

The HIV/AIDS Attitudes Scale for Teachers contains 25 items regarding HIV/AIDS, persons with HIV/AIDS, and educational issues. The respondent indicates her or his attitudes using a 5-point Likert-type scale.

**Response Mode and Timing**

For the General Knowledge part of the HIV/AIDS Knowledge Scale for Teachers, respondents identify the statements as (1) True, (2) False, or (3) Not Sure. For the Likelihood of Transmission part of the knowledge scale, respondents are given 17 possible modes of HIV transmission and asked if transmission through each mode is (1) Very Likely, (2) Somewhat Likely, (3) Somewhat Unlikely, (4) Very Unlikely, (5) Definitely Not Possible, or (6) Don't Know. The entire scale takes approximately 20 minutes to complete.

For the HIV/AIDS Attitudes Scale for Teachers, respondents indicate, using a Likert-type scale, if they (1) Strongly Agree, (2) Agree, (3) are Uncertain, (4) Disagree, or (5) Strongly Disagree with each of the 25 statements. This scale takes approximately 10 to 15 minutes to complete.

**Scoring**

The highest possible score on the HIV/AIDS Knowledge Scale for Teachers is 35. One point is given for every correct answer on the General Knowledge part of the knowledge scale, with the highest possible score being 18. Correct answers are as follows: Definitely True (1) for Items 3, 4, 6, 7, 9, 11, 14, 15, 17, and 18; Definitely False (2) for Items 1, 2, 5, 8, 10, 12, 13, and 16. All Unsure responses are considered incorrect.

The highest possible score for the Likelihood of Transmission part of the knowledge scale is 17, with one point given for each correct answer. The correct answers are as follows: Very Likely (1) for Items 27, 30, and 32; Very Likely or Somewhat Likely (1 or 2) for Items 20, 29, and 34; Very Unlikely for Items 21, 23, 31, 33, and 35; Definitely Not Possible for Items 19, 22, 24, 25, 26, and 28.

Scores on the HIV/AIDS Attitudes Scale for Teachers can range from 25 (most unsupportive attitudes) to 125 (most supportive attitudes). A mean score can be calculated, with a mean of 1.00 representing the most unsupportive attitudes and 5.00 indicating the most supportive attitudes toward dealing with HIV disease inside and outside of the classroom. The following items on the scale are reverse scored: 1, 5, 7, 9, 10, 13, 15, 17, 20, 21, 22, 25.

Research using these instruments involving 128 elementary education students completing their student teaching experiences indicated that they had very poor knowledge about HIV disease ($M = 18.9$), representing a 54% correct response level (Singer, 1991). These student teachers possessed uncertain to slightly positive attitudes toward dealing with HIV disease, with an average score of 87.6 ($M = 3.46$). The knowledge levels of preservice and in-service school counselors were very similar, with mean scores of 18.9 and 18.5, respectively. The preservice and in-service school counselors reported more positive attitudes, with scores of 97.39 and 97.64 ($M = 3.89$ and 3.90), respectively.

**Reliability**

Reliability for the knowledge and attitudes scales was established using two different methods (Singer, 1991). First, a test-retest of the instruments was conducted with 59 elementary education majors. Pearson product-moment correlations were established for the knowledge scale at .87 and for the attitudes scale at .89. Internal reliability for the knowledge scale, using Kuder-Richardson’s statistic, was established using a sample of 128 elementary education student teachers. The reliability for the General Knowledge section was .78 and for the Likelihood of Transmission section was .88, yielding an overall reliability for the entire scale of .89. Cronbach’s alpha coefficient was used to establish reliability for the attitude scale at .89. It is recommended that reliability be further tested with groups of education majors, student teachers, and teachers of differing content areas and levels of school (elementary, intermediate, and high school).

**Validity**

The HIV/AIDS Knowledge and Attitude Scales for Teachers were constructed adapting items and/or format from the National Health Interview Survey (Hardy, 1989), the Nurses’ Attitudes About AIDS Scale (Preston, Young, Koch, & Forti, 1995), and an instrument previously used in a study of preservice elementary education teachers (Ballard, White, & Glascoff, 1990). A panel of three experts in the area of HIV/AIDS disease and education reviewed the items and answers for relevancy and accuracy when the instruments were developed and at 5-year intervals to ensure their continued accuracy and relevancy. A pilot test for content validity was conducted with 10 elementary education majors. It is recommended that construct validity be further tested with groups of education majors, student teachers, and teachers of differing content areas and levels of school.
HIV/AIDS Knowledge and Attitudes Scales for Teachers

HIV/AIDS Knowledge Scale for Teachers

Please indicate, to the best of your knowledge, if the following statements are true (1) or false (2) by circling a number from the scale for your answer. If you are not sure of the correct answer, circle 3.

1 = True          2 = False          3 = Not Sure

1. AIDS is an infectious disease caused by a bacteria.*
2. AIDS breaks down the body’s immunity by destroying the B cells in the endocrine system.
3. AIDS can damage the brain.
4. It may be more than 5 years before an HIV-infected person develops AIDS.
5. HIV lives and functions in warm, moist environments for days outside of the body.
6. Early symptoms of HIV infection include fatigue, fever, weight loss, and swelling of the lymph nodes.
7. A person who has tested negatively on one HIV antibody blood test could still transmit HIV to a sexual partner.
8. The number of HIV-infected persons will be decreasing during the next two years.
9. Two common disorders found in persons with AIDS are pneumocystis carinii pneumonia and Kaposi’s sarcoma.
10. There is no cure for AIDS at the present time.
11. There are no cases of AIDS spread by students to their teachers or classmates through usual daily contact.
12. Less than one-half of the states have mandated that AIDS education be included in their schools’ curricula.
13. There is a vaccine available in Europe that can protect a person from getting AIDS.
14. It is possible to detect HIV antibodies in the bloodstream immediately after becoming infected.
15. There is a federal law that protects children with HIV or AIDS from educational discrimination.
16. In recent years, adolescents are among the groups with the largest increase of HIV infection.
17. There is a vaccine available in Europe that can protect a person from getting AIDS.
18. There is a federal law that protects children with HIV or AIDS from educational discrimination.
19. Working near someone with AIDS.


References


20. HIV-infected mother to baby during pregnancy/birth.
21. Kissing someone who has AIDS.
22. Eating in a restaurant where the cook has AIDS.
23. Receiving a blood transfusion.
24. Sharing plates, forks, or glasses with someone who has AIDS.
25. Living with a person who has AIDS (without sexual involvement).
27. Sharing needles for drug use with someone who has AIDS.

How likely do you think the following situations are in transmitting HIV? Please use the numbers from the scale for your answers.

1 = Very Likely 2 = Somewhat Likely 3 = Somewhat Unlikely
4 = Very Unlikely 5 = Definitely Not Possible 6 = Don’t Know

28. Mosquito bites.
29. HIV-infected mother to baby through nursing.
30. Receiving anal intercourse from an HIV-infected person without using a condom.
31. Receiving anal intercourse from an HIV-infected person with using a condom.
32. Having sexual intercourse with an HIV-infected person without using a condom.
33. Having sexual intercourse with an HIV-infected person with using a condom.
34. Performing oral sex on an HIV-infected man without using a condom.
35. Performing oral sex on an HIV-infected woman using a dental dam.

HIV/AIDS Attitudes Scale for Teachers

The following statements reflect attitudes about HIV and AIDS. Circle the number that best describes your reactions to each statement.

1 = Strongly Agree 2 = Agree 3 = Uncertain 4 = Disagree 5 = Strongly Disagree

1. I believe I have enough information about HIV/AIDS to protect myself in my social life.  
2. I worry about possible casual contact with a person with AIDS.
3. Activities that spread HIV, such as some forms of sexual behavior, should be illegal.
4. I feel uncomfortable when coming in contact with gay men because of the risk that they may have AIDS.
5. I believe I have enough information about HIV/AIDS to protect myself in my future work setting.
6. Persons with AIDS are responsible for getting their illness.
7. Civil rights laws should be enacted/enforced to protect people with AIDS from job and housing discrimination.
8. Male homosexuality is obscene and vulgar.
9. HIV antibody blood test results should be confidential to avoid discrimination against people with positive results.
10. I feel that more time should be spent teaching future teachers about HIV/AIDS in their college courses.
11. I feel disgusted when I consider the state of sinfulness of male homosexuality.
12. I would quit my job before I would work with someone who has AIDS.
13. People should not blame the homosexual community for the spread of AIDS in the U.S.
14. AIDS is a punishment for immoral behavior.
15. I feel secure that I have reduced all risks of personally contracting HIV.
16. I think all children should be tested for HIV before entering school.
17. I believe it is the regular elementary classroom teacher’s responsibility to teach AIDS education.
18. In my opinion, parents of all students in the class should be notified if there is a student with HIV or AIDS in the class.
19. I feel that all school personnel who have direct contact with a student with HIV or AIDS should be notified.
20. I think that students with HIV or AIDS should be allowed to fully participate in the day-to-day activities of the regular classroom.
21. I would support including AIDS education in the curriculum in a school where I was teaching.
22. A teacher with HIV or AIDS should be allowed to continue teaching.
23. It scares me to think that I may have a student with HIV or AIDS in my classroom.
24. I believe that teachers should have the right to refuse to have students with HIV or AIDS in their classroom.
25. I feel that I could comfortably answer students’ questions about HIV/AIDS.

*The appropriate scale of numbers follows each item in the scale.*