Attitudes of certified registered nurse anesthetists toward AIDS and AIDS patients

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This study was intended to examine and identify the nature of CRNAs' attitudes concerning acquired immune deficiency syndrome (AIDS) and patients with homosexual lifestyles. This research question has been previously addressed using sample populations of registered nurses, physicians, and medical students. This inquiry was conducted using a sample population of nurse anesthetists.

The target population was 500 CRNAs who reside in areas of high AIDS incidence—New York City, San Francisco, and Houston. The participants were equally divided among the three cities using a randomized list provided by the AANA. The design for this study was an experimental 2 x 2 factorial with two independent variables: disease of the individual, either leukemia or AIDS, and the sexual preference of the individual, either heterosexual or homosexual.

The randomly distributed questionnaire consisted of three scales: the interpersonal attraction inventory, the prejudicial evaluation scale, and the social interaction scale. Multivariate analyses of variance (MANOVA) were conducted not only on the main effects, disease and sexual preference, but also on the interaction effects of disease and sexual preference. The significant findings of the MANOVAs were subjected to factorial analysis for each scale, and then the MANOVAs were conducted again.

The statistical analysis indicated that CRNAs possess a negative attitude toward AIDS patients but not toward leukemia patients. Their attitudes are based on their perception that AIDS patients are responsible for their illness. Potential behavioral consequences were also reported by CRNAs, based on these attitudes.

The findings of the study suggest that CRNAs experience discomfort and difficulty in establishing positive, open, and nonjudgmental care relationships with homosexual AIDS patients. The findings of this study suggest the need to better prepare student nurse anesthetists and for provision of continuing educational programs to nonjudgmentally view and interact with AIDS-afflicted individuals so that understanding can help reduce the stigma and prejudice faced by these patients.

Key words: Acquired immune deficiency syndrome (AIDS), attitudes, certified registered nurse anesthetists.

Introduction
Acquired immune deficiency syndrome (AIDS) symbolizes one of the most feared and unacceptable of human conditions, death. As the number of AIDS cases increases, the fear of contagion associ-
ated with AIDS also increases. This fear stems from a lack of knowledge concerning the AIDS virus.\textsuperscript{1}

Society's moral and ethical values attach a deep symbolic meaning to AIDS, and they combine with misperceptions about transmission to create a stress response, which is labeled as the fear of contagion.\textsuperscript{1} Healthcare workers may express their fear of contagion either by refusing to care for persons with AIDS or by maximizing the physical barriers between themselves and their patients when giving care.\textsuperscript{1}

Healthcare professionals need to be knowledgeable about the AIDS virus, as well as its transmission and appropriate preventive measures. Additionally, they must be able to identify their own personal feelings and/or bias toward AIDS and the care of AIDS patients to ensure unbiased, quality care. In order to identify these feelings, the attitudes toward AIDS as well as the associated fears must be examined. Attitudes toward AIDS patients and sexual preferences should also be examined.

As a clinical nurse specialist, the CRNA provides preoperative, intraoperative, and postoperative care to a large variety of patients, including an increasing number of AIDS patients. As anesthesia providers, CRNAs also come into daily contact with saliva, blood, and various other secretions which may unknowingly expose them to the AIDS virus.

A review of the literature suggested that laypersons, medical students, physicians, and nurses all have negative attitudes toward AIDS and AIDS patients.\textsuperscript{2-5} The perception that AIDS patients are responsible for their illness underlies these negative attitudes. Because healthcare professionals are part of the general public, they are susceptible to the same stereotypes and biases as the community as a whole. It would be surprising and unrealistic to expect that healthcare professionals should be unaffected by the stigma associated with AIDS and gay lifestyles.

The finding of negative public attitudes toward AIDS and AIDS patients is primarily a social issue, while the negative attitudes of medical students, physicians, and nurses carry significant healthcare consequences.\textsuperscript{3-5} These negative attitudes may affect the quality of care rendered.

In the literature reviewed, physicians viewed AIDS patients as responsible for and deserving of their illness and less entitled to sympathy than other patients.\textsuperscript{4} This attitude can adversely influence the development of an effective physician/patient relationship.

Nurses provide daily care for AIDS patients and therefore should have knowledge of AIDS, AIDS-associated risk behaviors, and modes of AIDS transmission. The literature reviewed also revealed negative attitudes among nurses toward AIDS and AIDS patients.\textsuperscript{3} These attitudes carry significant healthcare consequences.

Health professionals' fears of contagion may be compounded by their feelings of impotence and helplessness in the face of this illness of unknown course and high mortality that affects a young, otherwise healthy population.\textsuperscript{1} Prejudice could serve to displace blame and frustration and justify the care giver's detachment from these patients. The literature reviewed was inconclusive regarding the success of attitude change interventions, and further research needs to be conducted to examine the attitudes of specific groups of healthcare professionals.

This research addressed the question: "What are the attitudes of CRNAs toward AIDS and AIDS patients?"

**Methods and materials**

The design for this study was experimental, consisting of a 2 x 2 factorial with two independent variables: disease of the individual either leukemia or AIDS—and the sexual preference of the individual, either heterosexual or homosexual. The experimental factorial design allowed the evaluation of not only the main effects, disease and sexual preference, but also the interaction effects of disease and sexual preference. The design was appropriate for this research, because the research question was best answered by an examination of how these two variables interact with respect to the dependent variables—the prejudicial evaluation scale, social interaction scale, and interpersonal attraction inventory.

Demographic data collected included the number of known AIDS patients cared for; years as a practicing CRNA; type of practice (hospital, clinic, etc.); age; sex; basic RN educational preparation; and CRNA preparation.

**Protection of human subjects**

This proposal was submitted for review by the Committee for the Protection of Human Subjects (CPHS) at the University of Texas Health Science Center, Houston.

The cover letter in the packet of materials each CRNA received explained the study. The study materials were anonymously completed and returned. The researcher was unable to identify the individual respondents from the materials returned. Consent to participate was implied by the voluntary return of completed research materials.

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Approval was received from the CPHS (HSC-SN-89-005) in February 1988.

Instrumentation

The study materials contain a written vignette and a set of three inventories on which the sample population of nurse anesthetists recorded its impressions of the person in the vignette. The participants were asked to anonymously complete and return the study material. The return rate of the questionnaire was 26%.

Independent variables

-Vignettes. The vignettes consisted of four 500-word descriptions of a college graduate named Mark. This vignette had been developed for use in several previous research studies. Mark had worked hard and advanced in management at the computer firm where he was employed. He was described as a physically active person who enjoyed many sports activities. In the second paragraph, he is afflicted by an illness characterized by fatigue, physical decline, and recurrent infection. The vignette depicted Mark's serious illness and his family's difficulty in coping with it. Mark was also portrayed as having a relationship with a romantic partner. When Mark initially learned of his illness, the knowledge drew the two closer, but as time goes on, the partner increasingly withdraws.

All four vignettes given to the participants were identical except for two aspects: Mark's illness was either AIDS or leukemia, and the name of the romantic partner was either Robert or Roberta.

Each participant read one of four possible vignettes which described either a homosexual or heterosexual male with either AIDS or leukemia. The vignettes were randomly assigned to the participants. After reading the vignette, a participant completed three scales designed to evoke responses that measured the CRNA's attitudes toward the individual portrayed in the vignette.

Dependent variables

-Prejudicial evaluation scale. This 12-item scale was designed specifically for studies concerning attitudes toward AIDS patients. Each item is rated on a 7-point Likert-type scale with bipolar ratings (1 = strongly disagree to 7 = strongly agree). It was adapted from Malmuth's research assessing harsh interpersonal judgments of victims. These 12 items assessed the prejudicial attitude toward the patient depicted in the vignette. The prejudices assessed included prejudice toward the disease (e.g., AIDS versus leukemia) and prejudice toward sexual preference (e.g., homosexual versus heterosexual).

-Social interaction scale. This 7-item scale described possible social/conversational interactions that might take place with the person described in the vignette. Each item was rated on a 7-point, Likert-type scale with bipolar ratings (1 = not at all to 7 = very much). This scale also had been developed specifically for studies concerning attitudes toward disease types (AIDS versus leukemia) and the sexual preference of the patient.

-Interpersonal attraction inventory. This scale consisted of 24 descriptive adjectives that had been previously demonstrated to be sensitive to interpersonal attraction and likability.

Analysis of data. Data collected included demographic information, an interpersonal attraction questionnaire, the prejudicial evaluation questionnaire, and the social interaction questionnaire. Descriptive statistics used in this study included frequency distributions and percentages that described the nominal level of demographic variables. Means, standard deviations, and ranges described the continuous demographic and dependent variables of each questionnaire. MANOVAs were computed for each of the questionnaires with respect to disease type, sexual preferences, and disease times sexual preference. A factor analysis was computed on all the scales. Then the factors were identified, and MANOVAs were computed using them.

Results

Analysis of the data indicated that the sample was a rather homogeneous population. The typical respondent was a female CRNA with a bachelor's degree in nursing, a graduate of a certificate program in anesthesia with 13 years' work experience, and 41 years of age.

The questionnaire was divided into three scales: the interpersonal attraction inventory, the prejudicial evaluation scale, and the social interaction scale.

In previous research there was no data available on internal consistency reliabilities (Cronbach's alpha), which were computed for each scale. The coefficient alpha was .55 for the interpersonal attraction inventory, .46 for the prejudicial evaluation scale, and .85 for the social interaction scale. The low r values for the interpersonal attraction inventory and the prejudicial evaluation scale were thought to be explained by the identification of factors within each scale indicating its multidimensional characteristics. The values for the social interaction scale indicated an acceptable reliability.
There were two independent variables: disease of the individual portrayed, which was either AIDS or leukemia, and the portrayed individual's sexual preference.

A MANOVA was conducted on each of the three scales to test for significance with respect to disease, sexual preference, and the interaction of disease and sexual preference.

The interpersonal attraction inventory demonstrated no statistical significance for disease, sexual preference, or disease times sexual preference.

The prejudicial evaluation scale demonstrated statistical significance for disease type and for the interaction of disease and sexual preference. Statements that were significant with the use of the univariate analysis score for disease type included "responsible for illness," "illness has been traumatic for him," and "dangerous to other people." The statements that were significant with the use of the univariate analysis scores for the interaction of disease and sexual preference included "responsible for illness," "deserves sympathy and understanding," and "dangerous to other people." A negative attitude toward homosexuality and the homosexual AIDS patient indicated a harsh interpersonal judgment of victims.

The social interaction scale demonstrated significance only for the interaction of disease and sexual preference. The questions that were significant with the use of the univariate analysis scores for the interaction of disease type and sexual preference included "Would you attend a party where Mark was preparing dinner?" and "Would you allow your children to visit Mark at his home?" A negative attitude was suggested toward the homosexual AIDS patient.

The statistics identified factors within the questionnaires. The identification of these factors and the statistical analysis not only revealed the presence of negative attitudes but also the source of these negative attitudes, which differed from previous research.

**Discussion, conclusions, and weaknesses**

What are the attitudes of CRNAs toward AIDS and AIDS patients? The interpersonal attraction inventory did not identify the presence of negative attitudes. The prejudicial evaluation scale indicated that negative attitudes existed toward AIDS patients and homosexual AIDS patients. The social interaction scale identified negative attitudes toward homosexual AIDS patients. A negative attitude was not found toward leukemia patients, regardless of their sexual preferences.

The findings of this study differed somewhat from previous research, but they supported the findings of negative attitudes toward the AIDS patients. Previous findings had identified the presence of negative attitudes toward the homosexual AIDS patient and the homosexual leukemia patient. These differences, although minor, may be accounted for by several factors:

1. This study was conducted in areas of high AIDS prevalence (previous research was conducted in an area of moderate AIDS prevalence).
2. Previous research was conducted 1 to 2 years earlier (AIDS and alternate lifestyle education has become more prevalent and the knowledge of AIDS is more widespread).
3. A different sample population was studied.

This study also identified the source of the negative attitude toward the AIDS patient and the homosexual AIDS patient to be that the individual portrayed was "responsible for his illness."

The findings of the study support the following conclusions:

1. Negative attitudes exist among CRNAs toward AIDS patients, particularly homosexual AIDS patients.
2. These attitudes are based on the CRNA's perception that such patients are seen as being responsible for their own illness.
3. CRNAs reported potential behavioral consequences which stem from the negative attitudes. These consequences were derived from the social interaction scale and included the questions "Would you attend a party where Mark was preparing dinner?" and "Would you allow your children to visit Mark at his home?"

The following weaknesses were identified in this study:

1. The sensitive nature of one's attitude toward AIDS may have influenced the truthful reporting of certain items in the scales based on an actual behavioral pattern.
2. The low response rate may influence the results of the study's findings.
3. This study was not conducted in a longitudinal manner.
4. This study represented a one-time sample of the population.
5. This study was based on research conducted in 1989.

The CRNAs in this study perceived the AIDS patient to be a cold, unkind, unsympathetic, inconsiderate, close-minded, inflexible, and unfair individual. These are some of the descriptive adjectives used in the interpersonal attraction inventory. The AIDS patient, regardless of his sexual preference, and the homosexual AIDS patient were both seen as being responsible for their illness.
The respondents were also unwilling to attend a party where the individual portrayed was preparing food or allow their children to visit him in his home if he was a homosexual AIDS patient.

This negative attitude may also elicit discomfort and distrust from patients, since their attitudes toward their healthcare providers are no doubt influenced by whether they perceive the professional as being sympathetic, concerned, and positive. CRNAs need to closely examine their own attitudes, sensitivities, and social skills when dealing with AIDS-afflicted persons.

Since this study was conducted, there has been further research into the areas of attitude identification, attitude change, and AIDS education.\(^9\),\(^10\)

REFERENCES


AUTHOR

Karen S. Kacir, CRNA, MSN, received a BS in Biology in 1981 and a BSN in 1984, both from Baylor University, Waco, Texas. In 1990, she earned an MSN in the Anesthesia Tract from the University of Texas Health Science Center at Houston. Recently, Ms. Kacir left employment as a staff CRNA at Citrus Memorial Hospital in Inverness, Florida, to join the anesthesia faculty at Virginia Commonwealth University, Department of Nurse Anesthesia, Medical College of Virginia Campus, Richmond, Virginia.