Mandatory HIV Testing and Occupational Therapists

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Key Words: acquired immunodeficiency syndrome • ethics, occupational therapy

Objectives. As the prevalence of human immunodeficiency virus (HIV) increases, so does the prevalence of HIV-positive health care workers. This study explored what effect this will have on occupational therapy service provision. Attitudes and policies of 118 occupational therapy administrators were examined in relation to mandatory testing for HIV, attitudes on treating HIV-positive patients, working with HIV-positive staff members and students, and use of Centers for Disease Control's guidelines on universal precautions.

Methods. A stratified sample of 200 occupational therapy administrators, drawn proportionally from all occupational therapy fieldwork centers, was sent questionnaires. The respondents (N = 118) were asked questions reflecting policy and attitude regarding HIV-positive staff members, students, and patients and mandatory testing. Descriptive statistics and chi-square analyses were computed to examine variances related to policy, ethics, and attitudes.

Results. Few occupational therapy departments have policies regarding HIV-positive health care workers or students. Those policies in place involve disability discrimination acts and using universal precautions. More than one third of the respondents support mandatory testing of all health care workers and notifying patients if their occupational therapist is HIV-positive. A large minority of respondents would either refuse to hire or train an HIV-positive therapist or student, or would restrict patient care responsibilities.

Conclusions. Although most occupational therapy administrators adhere to CDC guidelines and antidiscrimination policies, some concern and fear was expressed regarding HIV transmission through occupational therapy practice. This may result in administrative decisions regarding work and training responsibilities that are unnecessarily restrictive, such as limiting all patient care responsibilities.

The epidemic of human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS) has challenged governmental and social institutions as well as the structuring of health and social services. The disease has challenged views on society's responsibilities in regard to human rights and the importance of upholding and protecting those rights (Bayer, Lumey, & Wan, 1990).

Since the initial reporting of this illness in 1981 to the Centers for Disease Control (CDC), the epidemic has continued to grow exponentially. Currently, it is estimated that one million Americans are infected with HIV, and by the end of 1994 the number of actual AIDS cases in the United States is predicted to fall between 415,000 and 535,000 (CDC, 1992). Approximately 4.8% of HIV-infected persons are health care workers (Bell, 1991).

During the course of this epidemic, the U.S. government has entered into discussions on how to control
transmission of HIV, focusing screening and preventive measures on particular groups within our society. Within the group of health care workers, who constitute almost 6% of the total workforce (Bell, 1991), suggested measures for infection control have included mandatory testing (Bayer, 1989; Bayer et al., 1990). The case of Kimberly Bergalis, the first patient to contract the HIV virus from a health care worker, has fueled the national debate on HIV testing, the risk of infection in health care settings, and how to protect against infection (Lambert, 1991). The concerns raised have implications for occupational therapy departments.

**Stigma of HIV**

The meaning society has given to HIV and the ensuing responses to those who have it set it apart from all other modern illnesses. This meaning reflects the unique history and biology of HIV. The epidemiological course of this disease initially connected it to gay men and intravenous drug users, who were already stigmatized. This social construction led some to characterize HIV as a deserved punishment for behavior. The subsequent realization that millions of seemingly healthy persons can transmit HIV has further contributed to the public's fear of HIV and eagerness to identify and distance themselves from those who are infected (Weinz, 1991).

The view of HIV as frightening and mysterious also has found widespread public acceptance. These attitudes lead many persons to support restrictive measures against persons with HIV, and may reflect moral views more than fear of transmission. As the public attitude continues to support mandatory testing and disclosure of HIV for health care workers and patients (Gerbert, Berlin, & Coates, 1993), studies have linked support of restrictive measures with a negative attitude toward homosexuality (Stipp & Kett, 1989) and with religious fundamentalism (Johnson, 1987).

The moral problems associated with AIDS are complicated by the effects of social stigma and deviance labeling on the self-respect of people with AIDS (Douard, 1991). Social perceptions, attitudes, and prejudices are inextricably interwoven with the disease itself (Angell, 1991). There are reports of health care staff members being more concerned about "social contamination," that is, the connotations of having HIV, than about any possible physical risks in their day-to-day work. The fear of being stigmatized by the colleagues, their fear of homophobic reactions, and an unease with the sexual nature of the problem continue to affect many health care workers (Carballo & Bayer, 1990).

The medical problems associated with HIV are also adding to stigma. The current tuberculosis (TB) epidemic in the United States is being touted as a reason for mandatory testing, as public health officials estimate that 50% to 90% of recent TB cases are in HIV-infected persons. Concern has been expressed that if HIV-positive persons are considered carriers of TB, stigma surrounding them will increase. Hence, an issue such as mandatory HIV testing might emerge as an antituberculosis measure (Navarro, 1992).

**Ethical Principles Regarding HIV**

The CDC has stated that placing restrictions on HIV-infected persons is not justified in the areas of employment, education, or housing because there is no casual mode of transmission of the disease. The CDC's position regarding infected health care workers performing invasive procedures has been less clear (Gostin, 1991b). Thus, the CDC has left room for confusion over possible future hospital policies, such as screening health care workers.

Proposed screening or testing programs must meet four ethical principles (Bayer, Levine, & Wolf, 1986). These principles are derived from secular, religious, and constitutional tradition and are commonly applied to medicine, research, and public health to reach ethical conclusions within the health care community (Levine & Bayer, 1989). They are the principles of respect for others, do no harm, beneficence, and justice. The principle of respect for others requires that persons be treated autonomously and that they have the right to control their own destinies. The right to privacy and the notion of informed consent originate from this principle because people have the right to decide what will and will not happen to them (Bayer et al., 1986). The do no harm principle allows for limit-setting on a person's liberty to pursue personal goals and choices at the expense of others. Beneficence requires that people act in the interest and welfare of others. This principle applies to the actions affecting both persons and community; therefore, actions with the most favorable risk-to-benefit ratio should be used. Public health authorities derive their approaches from the harm and beneficence principles. The justice principle prohibits individual discrimination and requires that the benefits or burdens of particular actions be distributed fairly (Bayer et al., 1986).

Until recently, the only acceptable purpose for mandatory HIV screening was to stop the spread of AIDS. However, as civil libertarians have noted, HIV infection predominantly affected groups that were already at risk for social and economic discrimination. Because of this, medical tests and public health policies aimed at protecting the welfare of the uninfected (beneficence principle) can be and have been used to express social disapproval of sexual orientation or drug use (Bayer et al., 1986). Consequently, the principles of justice and respect for others are violated. Mandatory screening can only be justified on the basis of beneficence if an infectious state puts others at risk merely by casual contact, or if a therapeutic intervention is available. Because casual contact is not a mode of HIV transmission, it cannot serve as a basis
for mandatory testing. However, with the advent of therapeutic interventions, such as azidothymidine (AZT), mandatory testing may be considered (Bayer, 1991).

**CDC Guidelines**

The CDC had been pressured to develop guidelines for HIV-positive health care workers. Initially, the proposed guidelines recommended voluntary HIV testing of all health care workers engaged in exposure-prone invasive procedures (Gostin, 1991), refraining from engaging in invasive procedures if the worker is HIV-positive (Reuters, 1991), consulting with advisory panels before performing invasive procedures, and informing patients of seropositivity (Hansell, 1991). The CDC also considered erasing mandatory testing for health care workers, should be the focal point for protecting health care workers. However, with the advent of therapeutic interventions, such as AZT, the idea was rejected, as there is no objectivity to such a list (Altman, 1992). The CDC has stated that compliance with standard infection control procedures, rather than mandatory testing for HIV in patients and health care workers, should be the focal point for protecting either group from HIV infection (Altman, 1991; Rogers & Osborn, 1991).

The National Commission on AIDS also came out against mandatory HIV testing of health care workers. They opposed restrictions on the practice of HIV-positive health care workers, and opposed requiring disclosure of a health care worker's HIV status to patients. The commission, like the CDC, stressed strict adherence to infection control procedures. The recommendations put forth by either group were not mandates, but rather were offered as guidelines to assist local councils (e.g., hospitals) and states in their development of policy regarding HIV-positive health care workers (Altman, 1991).

**Federal, State, and Local Reactions**

The continuing spread of AIDS to certain risk groups (e.g., gay men, intravenous drug users, prostitutes, and the sexual partners of HIV-infected persons), has been in the American public's awareness since the 1980s (Angell, 1991). The publicity surrounding the Bergalis case has reminded people of the epidemic's ability to permeate all sectors of society (Bayer et al., 1990) and increased the public's concern about occupational exposure to health care workers.

Congress reacted to this epidemic with a series of proposed amendments. These proposals included requiring health care workers to disclose their HIV status to patients before performing invasive procedures, with noncompliance resulting in prison terms and fines (Tilke, 1991); cutting federal public funds to states that do not require AIDS testing of health care workers (Tilke, 1991); allowing physicians to test patients and health care workers for HIV without their consent (Ifill, 1991); and requiring states to adhere to the CDC's recommendations. An example of one state's response (New York) has been to call for mandatory infection control training for all health care workers, while not limiting an HIV-positive health care worker's duties (Altman, 1992; Sack, 1991).

**Occupational Exposure to HIV**

Health care workers frequently come into contact with people with HIV. Since the start of the AIDS epidemic, however, transmission from patient to health care worker has been rare, with only 37 documented cases of transmission to health care workers after occupational exposure (CDC, 1993). Clinical laboratory technicians, followed by nurses, are at greatest risk for occupational exposure.

The risk of acquiring the HIV infection from a health care worker is remote. More than 7,000 health care workers have been reported as HIV-positive (Gostin, 1991a), yet the only verified cases of HIV transmission from a health care worker to patients are from one dental practice in Florida (Laurence, 1993). Even studies of HIV-infected surgeons have shown no evidence of HIV transmission to patients (Gostin, 1991a). In fact, the chance of contracting the virus from an HIV-infected surgeon during a surgical procedure has been calculated as 1 in 83,000 per hour of surgery (Lowenfels & Wormser, 1991).

**Fear in The Health Care Arena**

The fear surrounding HIV is prevalent in the health care setting. There is a lack of confidence about the accuracy of the CDC estimate of the number of health care workers known to be infected (Taylor, Eakin, Skinner, Kelner, & Shapiro, 1990). There is also the persistent fear and anxiety of accidental occupational exposure to HIV infection that pervades many health care settings and potentially limits the way in which staff members are able to respond to patients (Eakin & Taylor, 1990). It is often assumed that fear of contagion arises from the health care worker's irrational assessment of the risk of occupational HIV infection. However, informing health care workers that the epidemiological risk of infection is low has not generally alleviated fear (Gerbert, Maguire, Badner, Altman, & Stone, 1989). Medical residents continue to express concern about acquiring AIDS from patients (Link, Feingold, Charap, Freeman, & Shelov, 1988).

Unions in the health care industry have pioneered efforts to protect their members from workplace transmission by supporting the use of the universal precautions with all patients regardless of diagnosis or HIV-antibody status (Landsbergs, Caplan, & Greenberg, 1991). However, surveys of emergency department personnel have demonstrated noncompliance with universal precautions (Henry, Collier, O'Boyle, & Campbell, 1991), and surveys of medical students demonstrated their lack of confidence in the effectiveness of prescribed infection.
control procedures as a barrier to HIV transmission (Elford & Cockcroft, 1991).

Although the risk is thought to be exceedingly low, the possibility of occupational transmission troubles health care workers, especially in hospitals with a high prevalence of patients with HIV infection (Goldsmith, 1990). Most physicians recognize a duty to treat such patients (Bresolin et al., 1990), yet this recognition does not translate into a universal willingness to do so. A substantial minority of physicians who train in primary care fields would prefer not to care for HIV-infected patients; it has been suggested that this attitude may affect some medical students’ decisions of which specialty areas to train in (Hayward & Shapiro, 1991).

The fear of infection in noninvasive medical situations adds to the current controversy in HIV-related policy decisions. The CDC, the local health departments, and professional organizations disagree on the best course of action for public protection. This disparity has added to the public’s confusion and probably to its fear. Landesman (1991) suggested that this confusion confounds the perception that the public health community is not adequately protecting the public; hence, the public at large may turn more aggressively to legislators for guidance and control.

Policy Approaches

To control the epidemic in the face of uncertainty, either the public health approach or the civil libertarian approach can be applied (Carballo & Bayer, 1990), but these approaches conflict. The public health community responds by taking action when there is a risk of uncertain magnitude. The civil libertarians’ view is that one cannot intrude on or limit the rights of the person until there is a reasonable degree of certainty as to the magnitude and probability of the risk that a person poses to the population (Landesman, 1991). The discussion revolves around patients’ rights as well as restriction of the employment rights of HIV-infected health care workers (Gostin, 1991b). For mandatory HIV testing, the issues include testing patients, testing health care workers, or both.

Testing of Patients

Faced with the risk of infection, health care workers have advocated testing patients for HIV (Lewis & Montgomery, 1990). The principal benefits of screening patients are to provide them with therapy if they are asymptomatic carriers of HIV (Brennan, 1991) and to protect the health of the public, especially if knowledge leads to lower rates of high-risk behavior (Rhame & Maki, 1989). The negative features associated with testing includes false-positive test results (Brennan, 1991) and seronegativity in early stages of HIV infection (Rogers & Osborn, 1991). Additionally, wide-scale testing is expensive and diverts mon-

ey that is needed for research (Hilts, 1991). Furthermore, any breach of confidentiality can lead to discrimination against the person tested, especially when the person is seeking insurance (Brennan, 1991). These concerns were echoed by the National Union of Hospital and Health Care Employees when they passed a resolution opposing routine screening of patients for HIV infection (Landsbergis et al., 1991).

Testing of Health Care Workers

The American Medical Association has stated that a “physician who knows that he or she has an infectious disease should not engage in any activity that creates a risk of transmission of the disease to others . . . even minimally” (Council on Ethical and Judicial Affairs, 1988, p. 1360). Other organizations also support voluntary testing and subsequent voluntary action. Even a court has ruled that a policy requiring health care workers to be tested for HIV was inappropriate, largely because the policy would have little effect in preventing the spread of HIV or in protecting their patients (Brennan, 1991). On the other hand, patients are increasingly concerned about HIV-infected health care workers, and many support mandatory testing (Gerbert et al., 1993; Marshall, O’Keefe, Fisher, Caruso, & Sardukowski, 1990). One organization has allowed the testing of health care workers, reasoning that the welfare of patients outweighed the right of workers to privacy (Brennan, 1991). Informing patients that their health care worker is infected with HIV, however, would produce a great deal of anxiety in most patients (Marshall et al., 1990), and studies suggest that patients would not want to be treated by an infected physician or dentist (Gerbert et al., 1989; Gerbert et al., 1993).

More recently, the possibility of transmission of the HIV infection from health care students in training to patients has been suggested. Although transmission from health care worker to patient is relatively low, HIV-positive students who perform invasive procedures (e.g., dental students) may pose an increased risk to their patients due to their technical inexperience. One must consider the appropriate standards of conduct that an educational institution or a teaching hospital should abide by in order to make administrative decisions, both ethically and legally (Weinstein, 1991). A concern has been raised that, in the future, medical schools may be expected to test their students (Simpson, 1992).

Discrimination

HIV-related discrimination is based both on fears of what is still popularly perceived to be a casually transmitted disease and on pre-existing punitive attitudes toward those believed to be responsible for the spread of HIV. HIV-related discrimination addresses not only the person’s right to act out prejudice but also the right to avoid
risks to life and health. HIV-related discrimination is most often directed against three groups of people: those who have AIDS, those who are assumed to have AIDS, and those who associate with people who have or are presumed to have AIDS (Tindall & Tillett, 1990). In fact, 30% of the 13,000 reported cases of discrimination were against those who cared for persons with AIDS, or those assumed to be at risk for HIV infection (Hils, 1990). The majority of cases of discrimination filed by HIV-infected health care workers did not involve invasive procedures; instead, it involved exaggerated notions of risk, the misplaced ethical judgement that no risk is acceptable, and a concern about patients in high-risk groups (Gostin, 1991b).

The American Medical Association (AMA) asserted that HIV-infected practitioners have an ethical obligation to warn their patients or stop engaging in invasive procedures. But warning patients would represent an invasion of privacy of the health care workers when there is little public health benefit. Infected health care workers lose not only their privacy, but also their career and livelihood. As a result of disclosing their HIV status, numerous physicians, nurses and other health care workers have lost their practices, have been denied employment, have been discharged, or have found their duties restricted after employers learned of their health status (Barnes, Rango, Burke, & Chiarello, 1990; Gostin, 1991b; Tilke, 1991). Unless the general public’s attitude changes, laws may not be enough to protect those who are infected with HIV from discrimination (Rogers & Osborn, 1991).

The issue of the ownership of information on the HIV-infection status of co-workers is a source of conflict without precedent in U.S. law. The AIDS lawsuits revolve around issues of confidentiality and the question of who will be allowed to obtain knowledge of the HIV-infection status of co-workers, patients, and students (Labowitz, 1989).

The U.S. Justice Department issued an opinion in 1985 that gave an employer the right to dismiss personnel with a disease if the employer feared that the disease might be harmful to the workforce (Steich, 1987). Most of the states have rejected this approach and have adopted policies prohibiting discrimination against persons with AIDS, because HIV is so difficult to transmit in the workplace. Adoption of the Tarasoff principle (Weinstein, 1991), and adherence to the Americans With Disabilities Act of 1990 (ADA) (Gostin, 1991b), are two examples protecting against undue discrimination.

Although HIV-related discrimination occurs in a variety of settings, discrimination in the provision of health care and discriminatory government policy are of particular concern (Tindall & Tillett, 1990). AIDS is considered a physical handicap under some federal and state laws; therefore, persons with AIDS are legally protected from discrimination in those jurisdictions (Brennan, 1991; Elliot & Wilson, 1987). The ADA prohibits discrimination against those with actual or perceived disabilities, including HIV-infected persons and those who care for them (Landsbergis et al., 1991). Many courts have held that asymptomatic HIV infection to be a perceived disability and this is important to ensure that asymptomatic persons are fully protected from employment discrimination (Hansell, 1991).

One persistently made argument against any restrictions on the practice of health care workers is that restrictions can only be enforced through screening. Screening is generally not legally permissible without consent (Brennan, 1991). Screening without consent or as a condition of licensure represents an invasion of a practitioner’s human rights by undermining the person’s autonomy and physical integrity (Gostin, 1991b). Many states prohibit it by statute (Field, 1990). The second line of protection against testing without the person’s approval is the common-law principle of informed consent, which requires that the person understand and approve of the procedure or test he or she is to undergo. Also, the federal constitution and many state constitutions recognize a right to privacy, and some have extended this to the results of HIV testing (Brennan, 1991). Nevertheless, some hospitals routinely screen patients, at times without their consent (Lewis & Montgomery, 1990).

Despite the lack of HIV transmission from health care workers to patients, an unfortunate suspicion has been created between health care workers and patients. Hospitals and other health care institutions need to develop specific policies on occupational transmission of HIV (Weil & Stam, 1990) in order to protect health care workers and patients not only from viral transmission, but also from potential discrimination. Because many institutions have not looked at the rights of patients and health care workers, the law, or the ethics behind policies regarding HIV infection, litigation that forces courts to produce ad hoc solutions for dealing with HIV infection may be provoked (Brennan, 1991).

HIV infection has become the paradigm case for the most difficult ethical questions now at issue in medicine (Pellegrino, 1988). These questions fall into three categories: the rights and duties of those infected with HIV, the rights of those unidentified with HIV, and the obligations of health care workers toward patients with HIV (Douard, 1990). Developing policy to deal with the concerns raised by the HIV epidemic will require an intricate application of and wider acceptance of the respect for persons, do no harm, beneficence, and justice principles (Bayer et al., 1986).

Method

The purpose of this project was to examine the broad questions that reflect administrative decisions currently being made in occupational therapy departments. These questions are...
• To what extent do occupational therapy departments adhere to CDC guidelines?
• Would the HIV status of an occupational therapist, or occupational therapy student, affect administrative decisions?
• Are administrative decisions consistent with ethical and legal principles?
• Are those decisions driven by knowledge or by fear?

Design
This descriptive study explored the implications of mandatory HIV testing for occupational therapists. Variances between answers to questions covering policy, ethics, attitudes, and fears concerning HIV-positive patients, occupational therapists, and occupational therapy students were examined.

Subjects
Two hundred directors (or their equivalents) of occupational therapy departments that host occupational therapy students were invited to participate in this study. They were selected from departments that were proportionally and systematically drawn from all occupational therapy fieldwork centers in the United States (AOTA, 1989b), stratified according to the nine census regions.

Questionnaire
A questionnaire was designed as an unlinked survey to assure anonymity and to increase the validity of the results by avoiding a self-selection bias. One section of the questionnaire consisted of 27 items that explored CDC guidelines regarding universal precautions; policies for health care workers, patients, and students of occupational therapy; occupational exposure to HIV; psychosocial issues, particularly fear of infection; attitudes toward HIV testing of patients and health care workers; discrimination; and ethics. A second section included 8 questions soliciting demographic information from subjects, plus optional questions on geographic location. Questions regarding experience working with HIV patients were also included.

Data Analysis
Analyses were done on the data in total and on data according to specialty, number of years practicing occupational therapy, and regional differences. Simple descriptive statistics including frequency distributions, proportions, ranges, means, and contingency tables were calculated. These statistics were generated for the sample as a whole and also by the categorical demographic variables of specialty, region, title, years practicing occupational therapy, and percent of the respondents' total patient population who had HIV or AIDS.

Chi-square analysis was done on questions to observe significant differences in proportions of variables. Associations between selected variables were also examined. A p value of less than .05 was used to gauge statistical significance (Knapp, 1985).

Results
Two hundred questionnaires were sent to potential subjects; 118 responses were returned and analyzed for a response rate of 60% (see Table 1).

Experience with HIV and AIDS
All (100%) of the respondents (n = 36) who work in the mental health specialty area had worked with HIV and AIDS patients, whereas only 21% of the physical disabil-

Table 1
Demographic Variables of 118 Subjects

<table>
<thead>
<tr>
<th>Variable</th>
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<tbody>
<tr>
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</tr>
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</tr>
<tr>
<td>Female</td>
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<td>24-33</td>
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<tr>
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Percentage of Subjects' Department's Patient Population That Has HIV/AIDS

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<th>Percent</th>
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<tbody>
<tr>
<td>Less than 5%</td>
<td>71</td>
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<td>6%-10%</td>
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<tr>
<td>11%-15%</td>
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<td>6.1</td>
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<td>15%-20%</td>
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*Average 37.8 years.
ities respondents (n = 16) had treated patients with HIV and AIDS. However, 77% of the total sample worked in departments that treat HIV patients. Fifty percent of the respondents said that they would volunteer to work on a ward for people with HIV or AIDS.

**CDC Guidelines**

Universal precautions were practiced in almost all departments (96%), although 15% thought that such precautions were not enough protection against HIV transmission. In fact, there was a significant relationship between questioning the effectiveness of universal precautions, with variables such as mandatory testing ($\chi^2 = 6.529, df = 1, p = 0.0106$) and fear of occupational exposure ($\chi^2 = 4.815, df = 1, p = 0.028$). Twenty percent of respondents were concerned about accidental HIV or AIDS exposure in their practice, and 37% stated that their facility used invasive procedures that might expose occupational therapists to the HIV infection. The following items were considered invasive: debridement of a burn wound (86%); changing an open wound (81%); and contact with patient’s body fluids during activities of daily living evaluation (69%). Ninety-five percent of the respondents did not believe that doing range-of-motion exercise, preparing a meal with a patient, or doing transfers were invasive procedures.

Although most respondents (96%) said that they wash their hands before and after treating an HIV-positive patient, they indicated that they would wear gloves when treating the following patients: any HIV patient (58%); any patient with visible open lesions (99%); any pediatric patient who drooled (49%); and any patient requiring a postoperative splint (50%). In addition, 16% would wear a gown and mask whenever entering the room of a patient with AIDS.

**Occupational Exposure**

Half of the respondents believed that they could be accidentally exposed to HIV through their contact with patients, despite precautions: 20% were very concerned about becoming infected with HIV accidentally while practicing occupational therapy. This finding of a concern for occupational exposure to HIV was unrelated to specialty area, title, number of years practicing occupational therapy, or the percentage of HIV or AIDS patients treated.

**Policy and HIV**

Fifty-five percent of the 118 respondents said that their facilities have policies regarding HIV testing; 45% of the total respondents have policies for patients; 27% have policies for health care workers; and 12% have policies for students. Their policies reflected the current CDC guidelines, use of universal precautions, and the disability discrimination acts. Policies that included HIV testing of occupational therapy department members were part of "pre-employment testing," "standard physical exams," "testing for new employees and students," and testing for "students that they feel may be at risk." The respondents did not specify whether "voluntary" consent for testing was expected before placement at their site; many said, however, that consent for testing is requested when either a health care worker or a patient becomes exposed to blood or other body fluid.

Although 72% of the respondents thought they should know their patients’ HIV status before treatment, 36% of respondents supported mandatory HIV testing for all patients upon admission. Similarly, 41% of the respondents stated that all patients should know the HIV status of all their health care workers before treatment; 40% agreed that patients should know the HIV status of their occupational therapist; and 34% agreed that all persons (i.e., patients, students, and health care workers) who come into the health care setting should be tested for HIV. Respondents favoring mandatory testing of HIV for their patients also supported patients’ right to know the HIV status of their occupational therapist in particular, ($\chi^2 = 30.854, df = 1, p = .0001$), and that of their health care workers in general ($\chi^2 = 27.962, df = 1, p = .0001$).

**Employment Practices**

Nineteen percent of respondents said they would not hire an HIV-positive occupational therapist. Although 92% of the respondents agreed that an occupational therapist’s HIV status would not be grounds for dismissal, 37% thought that the therapist’s status would, in fact, affect his or her responsibilities. Further exploration revealed that some respondents thought that the HIV-positive therapist needed to wear gloves more often; others thought that the therapist should not be allowed to work with infectious patients for fear that the therapist would contract an infection; and others thought that any invasive procedure (i.e., contact with body fluids and open lesions, especially in the burn unit) should be absent from the therapist’s responsibilities. Last, 76% of the respondents did not want an HIV-positive therapist working on an intensive care burn unit.

When asked to react to a situation in which a student member stated that the Level 2 fieldwork student who was being considered for placement was a member of a high-risk group for HIV, 19% of the respondents stated that they would ignore the information; 15% would ask that the student be tested for HIV before acceptance into the program; 35% would take the student on, but tell the student’s supervisor; and 40% chose the “other” response, offering explanations that emphasized educating the student in universal precautions.
Right to Refuse to Treat

Eleven percent of respondents thought that an occupational therapist has the right to refuse to treat an HIV-positive patient, even if that patient's reason for occupational therapy referral is within the therapists' current realm of competence. Every respondent would nonetheless treat an HIV-infected patient postoperatively, even if there was some bleeding at the site of the surgery. Fifty percent responded that an HIV-positive occupational therapist has an obligation to inform patients and coworkers of his or her HIV status.

Discussion

In general, the findings of our study show that most occupational therapy administrators are not considering structural or role changes within departments simply because a staff member is or might be HIV positive. Occupational therapy departments are adhering to the CDC guidelines for infection control and occupational therapists have a cautious, yet realistic, assessment of what could be considered a potentially invasive procedure. These include debridement of a burn wound, changing a dressing on an open wound, and contact with a patient's body fluids.

However, some administrators' responses indicated that they were skeptical about the protectiveness of universal precautions and concerned about working with therapists, students, and patients who might be HIV positive. Although the majority of the respondents had experience with HIV patients, and almost all (90%) stated that they had accurate information regarding the virus, one cannot assume that a person's fear or concern is lessened by knowledge (Link et al., 1988). Although some concern was expressed for accidental exposure to HIV, the respondents who specialized in physical disability expressed the greatest concern (a margin of 2.5:1). This increased anxiety may be due to the greater potential of coming in contact with bodily fluids in a physical disability setting than in a mental health setting. However, it is important to note that only one fifth of the physical disability respondents had worked with HIV-infected patients. Anxiety may be related to lack of or limited experience.

It may be helpful to view this fear in terms of perceived risk (i.e., a minute risk recognized or identified as a basis for action) versus real risk (i.e., a risk based in reality and driven by facts). Perhaps the most important reason for the persistence of fear of infection, despite reassurances that the epidemiological risk is low, is that each person will comprehend the risk more in terms of personal consequence than in terms of a real number based on population probability. Fear of HIV infection may arise more from a health care worker's perception of the gravity of the potential outcome than from the calculation of the likelihood of infection (Eakin & Taylor, 1990).

Our finding that 58% of respondents used gloves when treating an HIV-positive patient was elaborated on by some respondents who stated that they used gloves "only if there is an open lesion" or if they had "contact with patient's mucous membrane." This finding suggests that this practice is based on the CDC's proposed guidelines, and is therefore appropriate. That 16% would always wear a mask and gown when in the room of an HIV-positive patient does not reflect the CDC guidelines and shows the inappropriate use of universal precautions when engaged in noninvasive activities. Other studies have also found that when treating HIV-positive patients, many health care workers take useless precautions when performing noninvasive procedures (Storosum et al., 1991; Tindall & Tillett, 1990).

Our respondents seemed to understand what invasive procedures entail. That half would wear gloves when treating a pediatric patient who drooled or when making a postoperative splint suggests an assumptive presence of blood in saliva or in open wounds, and would justify glove use. However, a lack of knowledge or the excessiveness of fear might also have influenced a response. For example, HIV itself may be present in saliva, but it is not transmissible because there are no host cells (CDC, 1987).

The respondents who thought that AIDS could be transmitted to health care workers also thought that health care workers should know the HIV status of their patients ($\chi^2 = 3.845, df = 1, p = .0499$). This finding represents an assumption that one can lower one's own risk of acquiring HIV if one knows the HIV status of one's patients. Studies have shown that an increase in seroprevalence is related to an increased perception of personal danger; fear of HIV is therefore related to the desire of identifying and distancing oneself from those who are infected (Kohn, 1991; Ross & Hunter, 1991).

Hiring and Training Practices

Regarding attitudes toward HIV-positive occupational therapists, the majority (81%) of the respondents stated that they would hire an HIV-positive occupational therapist, and most thought invasive procedures should be absent from that therapist's duties. This attitude is consistent with other surveys that support continued patient involvement for health care workers, but only for noninvasive procedures (Bresolin et al., 1990). Of the remaining 19% who would refuse to hire an HIV-positive occupational therapist, one respondent stated: "this would be a potentially costly employee . . . it's discrimination but it's fiscally responsible . . . avoid potential future liability (with) health insurance . . . increase use of unplanned time off . . . increase in use of sick time." Employment practices for HIV-positive occupational therapists should be considered within the context of discrimination. In April 1992, the federal government set an important precedent in upholding the rights of an HIV-positive health
professional. The Department of Health and Human Services, in not tolerating job discrimination, ordered for the first time a hospital's forfeiture of substantial federal financing unless it hires an HIV-positive health care worker without placing restrictions on his or her duties (Hevesi, 1992).

When presented with a potential field work student from a high-risk group, some respondents made assumptions regarding seropositivity and would request testing prior to accepting the student for training. Some of the concerns raised may echo the assumption that inexperience may lead to greater transmission risk (Weinstein, 1991), may represent an avenue for distancing one's department from a perceived problem, or may reflect a reluctance to take on HIV-positive students in general. An indirect effect of these field work policies might be to expect academic settings to perform HIV tests on all applicants, on incoming students, and on active students.

Testing Policies: Health Care Workers, Patients, and Students

Policies regarding HIV testing for patients, health care workers and students at respondents' sites generally reflect CDC guidelines (such as following infection control procedures), and are in compliance with the ADA. However, some of the respondents' facilities had policies, such as testing for HIV and informing colleagues or supervisors of one's HIV status, that are unethical or illegal (Brennan, 1991; Field, 1990; Gostin, 1991b; Kornblau, 1992). The screening of students or employees for HIV may be disguised as part of a medical work-up, or required as a condition of employment. This practice also compromises the confidentiality of a person's medical condition, potentially subjecting that student or therapist to discrimination. When applying the ethical principles discussed earlier, there is no public benefit to screening and disclosure.

The large percentage of respondents who believed that an HIV-positive occupational therapist has an obligation to disclose his or her HIV status to patients reflects a sentiment consistent with other studies (Bresolin et al., 1990). Yet the risk of contracting HIV or AIDS from an occupational therapist is very remote and must be weighed against the disruption that would result from this disclosure. This option would be feasible only if it benefited the public, as compared to the great personal (i.e., livelihood, career, privacy) and public loss (i.e., fewer occupational therapists in the work force). The removal of HIV-positive occupational therapists may give the patient the most protection from contracting HIV, if those therapists are engaged in invasive procedures; however, it may unnecessarily subject patients to the risks of understaffing, longer waiting lists, and the unavailability of certain types of care and quality of care (Gostin, 1991b; Pollard & Ryland, 1991).

Right To Refuse To Treat

Although all of the respondents stated that they would treat an HIV-positive patient, 11% support the notion of the right to refuse to treat HIV-positive patients, a view also reflected by other surveys (Pitts, Jackson, & Wilson, 1990). This right to refuse may be in direct violation of occupational therapists' legal, professional, and ethical responsibilities (Stich, 1987). The American Occupational Therapy Association's HIV position paper stated that "the Association believes that occupational therapy practitioners have a professional and ethical responsibility to provide such services upon referral" (AOTA, 1989a, p. 804).

Implications for Occupational Therapy

Given the roles and functions of occupational therapists, we are in a very low risk group for occupational exposure to HIV and for occupational transmission of HIV from therapist to patient. Any occupational therapy procedure considered invasive, such as debridement of a burn wound, would customarily require the use of universal precautions, which are considered protective against HIV transmission. However, like many other health professionals, some occupational therapists question the protection that universal precautions offer against occupational transmission of HIV and question the accuracy of the information they have on HIV transmission; consequently, they support mandatory testing and disclosure, or act to keep HIV-positive students and therapists out of the workplace. It is the irrationality as well as the emotionality of the HIV and AIDS epidemic that has caused health care workers in general to consider unnecessarily stringent regulations for the HIV and AIDS population and those perceived to be members of the HIV and AIDS population. It is therefore important to dispel these fears before they become transformed into potentially damaging attitudes, policies, and regulations that can eventually become reflected in the patient-therapist relationship. Occupational therapists must participate in the educational process not only to increase their knowledge, but also to dispel the fears that some have in interacting with the HIV-positive population. This concept is important because as the HIV and AIDS population increases, more occupational therapists will work with HIV and AIDS patients. Our obligation as both administrators and clinicians is to seek and engage in educational programs on a continual basis.

The policies (12%) or personal positions (34%) that may allow for mandatory student testing for HIV may prove to be deleterious. Once hospitals obtain the HIV status of students, the probability of discrimination increases: student placements may be withdrawn, responsibilities may be unnecessarily restricted, and relationships with university programs may be severed. Because clini-
cal experiences are required in educational programs and for AOTA certification, the potential expectation of having students tested for HIV early and throughout their academic experience may be a further consequence of these policies and positions. This is clearly unethical and unwarranted.

Although the occupational therapist’s risk of acquiring or transmitting HIV is smaller than that for other professions, (i.e., dentistry, surgery) clinical occupational therapists and administrators should follow CDC guidelines to ensure the safety of their patients as well as themselves. This is upheld by the AOTA’s position paper on HIV (AOTA, 1989a), which calls for adherence to infectious disease control procedures.

Summary

Policies regarding the CDC recommendations for use of universal precautions for HIV do exist in occupational therapy departments, and occupational therapists do use and believe in the value of such precautions. The lack of policies regarding an HIV-positive therapist can result in administrative decisions regarding work and training responsibilities that are unnecessarily restrictive, such as limiting all patient care responsibilities.

Ethically, respondents to our survey believe in patient treatment regardless of HIV status, but they also seem to believe that patients have a right to know the HIV status of their occupational therapist and that it is the therapist’s obligation to inform them. The current trend in occupational therapy departments surveyed seems to be increased testing of patients, occupational therapists and students, though testing remains voluntary. ▲

Acknowledgment

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References


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