

Assessing Primary Care Physicians' Knowledge About HIV Transmission

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As the incidence of human immunodeficiency virus (HIV) infection continues to climb, more health care workers will be involved in the care of HIV-infected individuals. The Centers for Disease Control (CDC) predict over 270,000 Americans will have full-blown acquired immunodeficiency syndrome (AIDS) by 1992.¹ As this number continues to grow, more primary care physicians are going to be caring for HIV-infected individuals, AIDS-related complex (ARC) patients, and AIDS patients, as well as family members of such groups.

In an attempt to prevent or remedy concerns of health care workers regarding this disease, educational in-service programs on AIDS and HIV transmission must be provided. Before developing any educational program, however, a needs assessment should be undertaken to identify areas that warrant special attention. Unfortunately, health care professionals tend to rely more on the perceived needs (those needs felt to be important) than on the "real" needs (those needs identified by a database).²

A study was designed to address two areas: (1) to assess current HIV-transmission knowledge among active family practice personnel, and (2) to determine whether there are any significant differences between family physicians and nonmedical university faculty with respect to transmission knowledge. Although there is more to the AIDS epidemic than merely identifying modes of transmission, a complete understanding of how the AIDS virus is transmitted provides a critical foundation that dictates attitudes and behaviors in dealing with HIV-infected individuals.

METHODS

A 38-item written questionnaire* developed by the authors on HIV transmission was administered in person by these researchers to 89 family physicians selected from medical society memberships in northeast Ohio, including two metropolitan areas of more than 750,000. Based on state health department reports, both communities are underrepresented in reported AIDS cases. A random selection of a nearby university nonmedical faculty served as a comparison group (n = 43). Both physicians and the university nonmedical faculty were surveyed during the months of April and May of 1988. Results were tabulated and compared between the primary care physicians and the university faculty.

Respondents were asked to identify only those modes of HIV transmission that have been documented in the literature and recognized by the CDC. Cronbach's alpha for the instrument was reported at .91. Based on this number, the instrument was deemed reliable.

RESULTS

Table 1 displays the physicians' and the nonmedical university faculty responses to the HIV transmission questionnaire. Significant differences ($P < .05$) existed between the physicians and university faculty on fewer than 20% of the items.

DISCUSSION

This preliminary study was undertaken to determine what primary care physicians know about the transmission of HIV. The purpose of the study was to assist in the devel-

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*A copy of the HIV Knowledge Questionnaire is available from the authors on request.

TABLE 1. KNOWLEDGE OF TRANSMISSION OF HUMAN IMMUNODEFICIENCY VIRUS (HIV) AS REPORTED BY PHYSICIANS AND UNIVERSITY FACULTY

Mode of Transmission	Respondents Identifying Modes Correctly (%)	
	MD	PhD
Documented		
Anal intercourse ³	100.0	90.7
Male to female ⁴	98.7	93.0
Male to male ⁵	98.7	90.7
Receiving infected blood ⁶	98.7	97.7
Mother to fetus ⁷	96.2	93.0
Female to male ⁸	93.6	93.0
Fellatio ⁹	78.2	83.7
Cunnilingus ¹⁰	67.9	81.4*
Anilingus ¹¹	67.9	76.7
Female to female ¹²	53.9	79.1*
Via needlestick ¹³	55.1	41.9
Breast milk ¹⁴	39.8	51.2*
Nondocumented		
Hugging	98.1	97.7
Swimming in a pool	96.3	90.7
Being breathed upon	94.4	88.4
Tears	94.4	83.7
Sharing toilets	94.4	93.0
Medical worker to patient	90.7	72.1*
Sharing of bedding	90.7	90.7
Being sneezed upon	90.7	88.4
Lip kissing	90.7	81.4
Mosquitoes	89.7	88.4
Donating blood	88.9	86.1
Cigarettes	87.0	74.4
Sharing eating utensils	87.0	76.7
Being coughed upon	87.0	88.4
Sharing toothbrushes	81.5	62.8*
Being spit upon	75.9	81.5
Female to animal	75.9	65.2
Animal to female	75.9	65.2
Male to animal	74.0	62.8
Animal to male	74.0	67.5
Sharing of razors	68.5	65.2
Tongue kissing	66.6	60.5
Cardiopulmonary resuscitation on manikins	65.6	86.1
Cardiopulmonary resuscitation on humans	64.0	62.7
Father to fetus	64.0	37.2*
Biting	41.5	25.6*

*Significant at $P < .05$.
The questionnaire asked: "Which of the following modes of spreading HIV have been documented by the literature (and recognized by the CDC)?"

opment of educational programs to meet the needs of these physicians. The results from this survey lead to several interesting findings.

First, primary care physicians lack complete knowl-

edge about the transmission of HIV, especially specific information regarding those nondocumented modes of HIV transmission. This finding may be important when considering continuing medical education for physicians regarding HIV and AIDS. Perhaps basic education about transmission should be addressed before other, more sophisticated HIV-related topics can be discussed.

Second, the lack of significant differences between primary care physicians and the university faculty suggests that they share a common source of information. Perhaps this common source is the mass media. It is also possible that much information about AIDS and HIV infection appearing in medical journals is being released to the public. Perhaps the health care field needs to pay closer attention to the trend of information appearing before it has been sufficiently reviewed.

Third, there is the possibility that physicians are confusing the means of HIV transmission with those of various other diseases such as hepatitis, malaria, and other sexually transmitted diseases, which could account for some apparent misunderstandings. Since HIV infection is unique in its transmission, attack on the immune system, and incurability, special educational efforts must take place.

CONCLUSIONS

The public assumes that primary care physicians are up to date on the modes of HIV transmission. This study indicates that such an assumption is false. To provide effective in-service programs on HIV and its transmission, it is necessary to address those documented modes of HIV transmission that are not clearly understood as well as to discuss those nondocumented modes that are erroneously believed to spread the virus. It is hoped that the results of this preliminary study will assist those in charge of developing such in-service programs. Physicians who reside in areas where HIV is more prevalent may score differently. The purpose of this study was not to compare scores of physicians from various areas, but to assess current needs within a particular local area. Further studies are currently being conducted to determine whether such findings can be generalized to other regions of the country.

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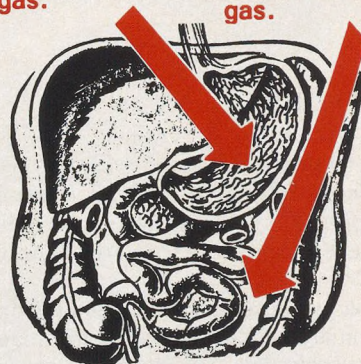
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