3 Bartholomew LG, Cain JC, Winkelmann RK, Baggenstoss AH. Chronic disease of the liver associated with systemic scleroderma. Am J Dig Dis 1964;9:43-55.

4 Tuffanelli D, Winkelmann RK. Systemic scleroderma: a clinical study of 727 cases. Arch Dermatol 1961;84:359-71.

5 D'Angelo WA, Fries JF, Masi AT, Shulman LE. Pathologic observations in systemic sclerosis (scleroderma). Am J Med 1969;46:428-40.

(Accepted 4 August 1986)

Royal Victoria Hospital, Belfast BT12 6BA

J J A McALEER, MB, MRCP, registrar, internal medicine S R CUNNINGHAM, MB, MRCP, senior house officer, general medicine W DICKEY, MB, BCH, senior house officer, general medicine D BURROWS, MD, FRCP, consultant dermatologist M E CALLENDER, MB, MRCP, consultant physician

Attitudes to and knowledge about the acquired immune deficiency syndrome: lack of a correlation

The acquired immune deficiency syndrome (AIDS) is a controversial disease about which there is much public ignorance and confusion. A recent government advertising campaign attempted to inform the general public about the disease's aetiology, epidemiology, and prognosis. Such advertising presumes that the provision of factual information will modify attitudes towards the disease. As homosexuals are a stigmatised group within society, however, it is possible that attitudes to the treatment of AIDS are not related to specific knowledge about the disease but are instead a consequence of general attitudes to homosexuality. In this study we examined attitudes among preclinical medical students, whom we may regard as a surrogate for "the educated layman" in that they have a good knowledge of biological principles and are likely to have a high awareness of and interest in ssues about AIDS but have not received any specific clinical training about or exposure to the disease and its treatment. If factual information could be effective in modifying attitudes it should be evident in this group.

Method and results

Anonymous questionnaires were distributed at lectures to medical students in their first and second preclinical years at University College London in February 1986. Attitudes were assessed on five point scales (1=strongly disagree; 5=strongly agree). Questions concerned attitudes to homosexuality (18 items modified from previous studies¹²), attitudes to AIDS (eight questions; see table), knowledge of AIDS (13 questions, with a total of 36 subitems), religious and political views, and whether the student was homosexual.

Altogether 143 questionnaires were returned, representing 69.8% of those distributed and 55.0% of the students. On the scale for knowledge of AIDS (36 items) the subjects had a mean score of 21.5 correct (SD 6.0, range 1-33). The Spearman-Brown split half reliability, which is calculated from the correlation of scores on odd and even numbered items, was 0.852. The scale for attitude to homosexuality (18 items) had a possible range of scores of 18-90, with an actual mean score of 61.4 (SD 15.7, range 18-89) and reliability of 0.950. High scores indicated a positive attitude towards homosexuals and homosexuality. Religion was scored on a seven point scale, I indicating atheists and 7 indicating Christians who attended church one or more times a week; non-Christians were excluded from subanalyses when appropriate. Political views were scored on a five point scale: 1 = National Front; 2 = Conservative; 3 = Liberal, Social Democratic party, or Alliance; 4 = Labour; and 5 - Communist or far left.

The table shows the responses of subjects to the eight statements showing attitudes to AIDS and the Pearsonian correlation of those responses with knowledge of AIDS, attitudes to homosexuality, and religious and political views. Attitudes to AIDS showed no correlation with knowledge but correlated strongly with attitudes to homosexuality. In general attitudes to AIDS did not correlate with religious or political views. Attitudes to homosexuality correlated slightly with knowledge about AIDS but strongly with politics and less so with religion.

Comment

Attitudes to AIDS and its treatment among a group of preclinical students did not correlate with knowledge about the condition but instead were related to attitudes in general concerning homosexuality. The absence of a relation of attitudes to specific knowledge is a not uncommon finding in social psychology. The implication for health education is clear: if we wish to reduce the "prejudice about AIDS [that] still abound[s]" and to increase public awareness of the problems of patients with AIDS there should be increased emphasis on general education about homosexuality rather than on the specific, factual details of the disease.

We are grateful to Dr A Furnham for his help and advice with this project.

1 Larsen K, Reed M, Hoffman S. Attitudes of heterosexuals toward homosexuality—a Likert-type scale and construct validity. *Journal of Sex Research* 1980;16:245-57.

McManus IC. Medical students: origins, selection, attitudes and culture. London: University of London, 1985. (MD thesis.)
 Ghiselli EE, Campbell JP, Zedeck S. Measurement theory for the behavioral sciences. San Francisco:

WH Freeman, 1981:252.

4 Nunnally J. Popular conceptions of mental health: their development and change. New York: Holt,

Rinchart and Winston, 1961.
5 Pinching AJ. Medicine and the media. Br Med J 1986;292:1327.

(Accepted 6 August 1986)

Department of Psychology, University College London, London WC1 A D MORTON, BSC, medical student

I C McMANUS, MD, PHD, lecturer in psychology applied to medicine

Correspondence to: Dr McManus.

Relation of eight attitudes to AIDS and its treatment with measures of knowledge about AIDS, attitudes to homosexuality, and measures of religious and political views, and inter-relation of the measures

							Correlations			
	No (%) of subjects scoring†:					Scale for	Scale for			
:	1	2	3	4	5	knowledge of AIDS	attitudes to homosexuality	Religion	Politics	
	Relation of attitudes to AIDS with other measures									
There is likely to be a cure for AIDS in the next five years	24 (17)	28 (20)	58 (41)	25 (18)	7 (5)	-0-141	0-087	0.012	-0.009	
AIDS is likely to become a relatively common heterosexual disease	10 (7)	27 (19)	43 (30)	43 (30)	19 (13)	-0.043	0.038	-0.003	0.038	
The only way to control AIDS is to make all homosexual activity illegal	87 (62)	30 (21)	10 (7)	9 (6)	4 (3)	-0.110	-0.493***	0.060	-0-305***	
AIDS patients present such a threat to society that they should be compulsorily detained in hospital as		40 (24)	10 (13)	22 (16)	16 (11)	0.033	0.444**	0.074	0.142	
soon as they are diagnosed atients who have contracted AIDS through homosexual activity do not deserve medical care	36 (25)	49 (34) 15 (11)	19 (13)	23 (16) 3 (2)	16(11)	-0·033 -0·012	-0·444*** -0·398***	0.056	-0·142 -0·057	
romosexual activity do not deserve medical care fear of infection with AIDS will reduce the quality of care given to homosexual patients	116 (81) 10 (7)	19 (13)	3 (2) 20 (14)	67 (47)	6 (4) 27 (19)	-0·012 -0·031	-0·398 -0·211*	-0·028	0.002	
overemotional response to a serious illness		23 (16)	23 (16)	37 (26)	54 (38)	-0·009	0.511***	-0.159	0.209*	
dore medical research funds should be given to developing a vaccine against AIDS	3 (2)	6 (4)	19 (13)	41 (29)	74 (52)	-0.067	0-169	-0 197*	-0.105	
	Inter-relation of other measures									
Scale for knowledge of AIDS Scale for attitudes to homosexuality	1				2,400, 10,410,	0.172	0-172	-0·256*** -0·287***	0·132 0·451***	
Religion Politics						-0·256*** 0·132	~0·287*** 0·451***	-0.188*	-0.188*	

^{†1=}Strongly disagree, 5=strongly agree. Numbers of subjects do not always total 143 as a few subjects omitted some items. *p<0.05, ***p<0.001.