

PSYCHOLOGICAL AND PSYCHIATRIC INVESTIGATIONS OF HIV INFECTION IN SINGAPORE

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ABSTRACT

A psychosocial study was carried out on 10 out of the 18 HIV positive persons who were under surveillance and receiving counselling at either Middle Road Hospital or the Communicable Disease Centre in February 1988. The results of the psychological testing and psychiatric findings are presented. All 10 were male: 9 of them were homosexual and 1 heterosexual. Only one had significant depressive symptoms at the time of study. All had fears about their infection being found out by others and of the stigma that this might bring to their families. Psychometric tests on memory function did not show any signs of visuo-verbal memory impairment but did reveal a possible indication of audio-verbal memory dysfunction.

Keywords: Psychological aspects, psychometry, HIV infection.

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INTRODUCTION

Since the first cases of Acquired Immune Deficiency Syndrome (AIDS) were reported by the Centre for Disease Control (CDC), USA, in 1981 the disease has spread to many parts of the world including Singapore, posing serious health, economic and psychosocial problems to the countries affected. It is estimated that 5 to 10 million people are infected with human immunodeficiency virus (HIV) worldwide and the number of cases of AIDS as reported by 138 countries to the World Health Organisation (WHO) up to the end of June 1988 stood at about 100,000 with the USA alone accounting for almost 66,000 (1).

There is at present no known cure for AIDS and hence the only answer to it must lie in its prevention. Unfortunately, no vaccine has yet been developed against the human immunodeficiency virus - and none is likely to become available in the near future - and until a breakthrough occurs, the control and prevention of HIV infection must lie in the use of other strategies (2,3). Psychosocial research is essential to the understanding and treatment of AIDS (4).

The aim of the study was to inquire into (1) the socio-sexual practices and personality characteristics of the HIV infected persons and (2) the extent of psychiatric morbidity.

SUBJECTS AND METHODS

Planning for the study commenced in February 1988 at which time there were 18 HIV infected persons under surveillance and receiving counselling at Middle Road Hospital and the Communicable Disease Centre. The study was intended to encompass all the 18 cases but at the start of the study in April 1988, 5 had gone overseas, 3 did not agree to participate in it, and hence only 10 could be covered by it. All the 10 subjects were seen at the Communicable Disease Centre and their case notes made available to the study team.

Each patient was interviewed by both the psychiatrists (jointly) for personal and social data not available in the case notes and also assessed for evidence of psychiatric morbidity. He was also interviewed by a psychologist and administered a battery of standard psychological tests (Raven Progressive Matrices, Eysenck Personality Inventory, Minnesota Multiphasic Personality Inventory, Benton Visual Retention Test - Revised, Kendrick Test for Dementia: Card IV, Wechsler Logical Memory Passages Test and the Cornell Index).

The personality test scores of the subjects were compared with those of a sample of sex change requestors in Singapore (5), and scores registered by the former University of Singapore (men) students (6).

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RESULTS

All ten were single males with an average age of 26.9 years (range 18 to 36 years). There were 6 Chinese, 3 Malays and one Indian. Of the 10 subjects, 9 were homosexuals and one heterosexual. With regards to their HIV status, 2 were asymptomatic (Group II), 4 had persistent generalised lymphadenopathy (Group III) and 4 had constitutional symptoms of HIV infection (AIDS Related Complex, Group IV a). The mean age at the time of diagnosis was 25.6 years while the mean duration since the time the subjects were diagnosed as seropositive for HIV was 16.7 months.

Psychological test findings

Details of the psychological test findings have been omitted; only the relevant salient points will be presented here.

Intelligence

The IQ scores of the subjects ranged from a low of 82 (Dull Normal) to a high of 130+ (Very Superior) with a mean of 102.8 and a median of 101.5. This is within the range of IQ distribution in any normal population. The findings indicate that those with high IQs in the high risk group are just as likely to acquire HIV infection as those with lower IQs.

Personality

The findings on the MMPI (Minnesota Multiphasic Personality Inventory) revealed that the HIV positive group differed significantly from the University students along 6 out of 10 clinical measures, viz. F (test confusion), Hs (Hypochondriasis), D (Depression), Mf (Masculinity-Femininity), Pa (Paranoia), and Si (Social Introversion). Interestingly, the same 6 measures significantly differentiated the University students and sex change requestors (5). When the HIV positive subjects were compared with a group of sex change requestors (all of whom were homosexual in their sexual orientation), there was a marked similarity between them in almost all the 10 clinical measures. The only significant difference was that the sex change requestors registered a very much higher degree of femininity on the MMPI than the HIV positive subject (Table I).

Memory Function

The test on memory function did not reveal any signs of visuo-verbal memory impairment but did reveal a possible indication of audio-verbal memory dysfunction.

PSYCHIATRIC FINDINGS

There was no family history of psychiatric illness in all the subjects. Their personal histories were also unremarkable. Only one had ever attempted suicide and it was not repeated. None had ever abused drugs or had any positive forensic history.

Upon confirmation of the diagnosis of HIV seropositivity all 10 subjects showed a somewhat similar pattern of adjustment reactions - shock, denial, fear and depression. Acceptances of their HIV status occurred shortly after this leading to a resolution of their emotional

crises and enabling them to continue functioning at practically their pre-diagnosis levels both in their occupations and in their relationships with people. Only one subject decided to resign from his job for a period to avoid being found out.

Table I
t Values and Levels of Significance among Groups

MMPI	HIV+ vs Students t p =	HIV+ vs Requestors t p =	Students* vs Requestors t p =
L	0.475 (ns)	0.000 (ns)	1.71 (ns)
F	2.401 (.01)	1.051 (ns)	4.22 (.001)
K	-0.950 (ns)	0.433 (ns)	1.75 (ns)
Hs	-2.099 (.03)	1.741 (ns)	5.12 (.001)
D	2.822 (.005)	-0.850 (ns)	5.25 (.001)
Hy	1.620 (ns)	1.389 (ns)	0.11 (ns)
Pd	-0.522 (ns)	-1.219 (ns)	1.30 (ns)
Mf	3.259 (.001)	-6.236 (.000)	10.46 (.001)
Pa	2.235 (.02)	0.637 (ns)	3.95 (.001)
Pt	-1.663 (ns)	-0.654 (ns)	1.88 (ns)
Sc	0.134 (ns)	-1.338 (ns)	0.67 (ns)
Ma	0.152 (ns)	0.228 (ns)	0.18 (ns)
Si	2.015 (.04)	-0.775 (ns)	3.19 (.01)

* (Long & Lee, 1974)

At the time of interview, only one subject had significant depressive symptoms, namely low mood, poor concentration, decreased appetite, insomnia, generalised aches and pains to warrant a diagnosis of reactive depression.

All had fears about their HIV status being found out either by their families, colleagues or employers and were particularly worried about the distress, stigma and shame that they might bring to their families. In only one of them was his infection known to a close family member. They were also aware of the inevitability of their health decline and that time was running out for them. Most of them however, had already come to terms with their diagnoses and seemed determined to lead as normal a life as was still possible for them. Some feared death less than the possible impact that their illness might have on their families and had conceived plans of leaving Singapore to spend their last days in the obscurity of a foreign country, if and when they develop AIDS.

Most of the subjects expressed the need for emotional support in handling their ordeal but at the same time were afraid of the emotional distress and social repercussions that disclosure of their infection might have on them or their families. One matter which greatly upset them was the indiscreet press reporting of names (including those of the families) of those who died from AIDS. They hoped that they and their families would be spared such an eventuality when they die. Counselling becomes an important source of support for them (7) and can also serve as an opportunity for advising them on responsible sexual behaviour and the necessity of alerting their sexual contacts. All the subjects were satisfied with the counselling they had received at Middle Road Hospital or Communicable Disease Centre, and had responded positively to them.

Although all the subjects were economically

independent at the time of study, some were worried that should they need to be prescribed costly medication such as AZT, they would not be able to afford the treatment. If the government could consider bearing the cost of treatment for those who cannot afford to pay, this would provide an incentive for more people to come up for voluntary HIV antibody testing.

In terms of psychiatric morbidity, all subjects experienced adjustment problems and considerable emotional distress in the immediate post-diagnosis period but only one needed referral to a psychiatrist at that point in time. Almost all came through their emotional crises relatively well; only one had significant depressive symptoms at the time of the study. None showed evidence of other psychiatric abnormality.

DISCUSSION

This is basically a small descriptive study. Some of the findings do provide useful insight into certain areas of concern both for the public health worker and the HIV infected person and are worthy of comment. They may also serve as pointers to the direction and planning of future studies or research (4).

As a group, except for their homosexual orientation, there is nothing remarkable about the HIV positive subjects in terms of their personality characteristics or socio-economic background. As a message in public health education, it emphasises the point that the HIV infected are quite ordinary young men who are economically active and productive, with no delinquent tendencies and who cannot be distinguished from their non-infected counterparts. This should also serve to drive home the point that HIV infection is now endemic in Singapore, and that there is no way in which affected individuals could be identified except through the use of HIV antibody testing.

There can be no doubt that the main aim in the prevention and control of HIV infection is the protection of the uninfected. However, in seeking to achieve this, one should not forget that those with AIDS or HIV infection need to be treated with compassion and should not be subjected to irrational or unfounded discrimination based on fear, prejudice or ignorance.

In addition to counselling, these subjects will eventually require, as their disease progresses, other forms of support as well. Resource and support groups drawn

from volunteers and HIV patients themselves could be organised within the community to help lessen their social isolation.

The low incidence of psychiatric morbidity may be associated with the satisfaction that they found in the counselling provided by the attending doctor and counsellor. The role of the psychiatrist in the routine management of the HIV infected person is a limited one. However he should be consulted if depressive symptoms become severe and persistent and the necessity for the assessment of suicidal risk arises, or when psychotic symptoms develop (8,9).

The cognitive assessment of such patients is also important. Neurological complications are a common feature of AIDS, the most common being that of a dementia referred to as the AIDS dementia complex. Uncommonly, however, HIV may also cause central nervous system dysfunction in those who have not developed AIDS as currently defined (10).

In our subjects, the psychometric tests on memory function did not show any signs of visuo-verbal memory impairment but did reveal a possible indication of audio-verbal memory dysfunction. This raises the possibility of an impairment of cognitive functioning even in those with early HIV infection. It will be interesting to see if this finding can be replicated in subsequent studies.

CONCLUSION

As the number of subjects (10) in this study is small whatever conclusions that can be drawn are at best tentative. From this small scale study, the psychological and psychiatric morbidity is found to be low. It is not certain if this in fact is the real state of affairs. However, the study does provide us with some preliminary empirical evidence with regard to the socio-sexual practices and personality characteristics of HIV infected persons.

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