

ORIGINAL PAPER

IDENTIFYING DEPRESSION AMONG THE HUMAN IMMUNODEFICIENCY VIRUS (HIV) PATIENTS IN UNIVERSITY MALAYA MEDICAL CENTRE, KUALA LUMPUR, MALAYSIA

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Abstract

Objective: The aim of this study was to identify depression among HIV-infected patients attending Infectious Disease Clinic in University Malaya Medical Centre (UMMC). **Methods:** This is a cross sectional study on HIV-infected patients attending Infectious Disease Clinic, UMMC. Those who fulfilled inclusion criteria were recruited and interviewed. Socio-demographic characteristics and clinical conditions such as mode of transmission, year of diagnosis, CD4+ counts, drug treatment and clinical stage were collected. The patients were then subjected to self-administered questionnaires, Patient Health Questionnaire, (PHQ-9) and Hospital Anxiety & Depression Scale (HADS). **Results:** 89 patients were recruited. Scores from PHQ9 showed 32% of depression rate while scores from HADS showed 19% of depression rate among the respondents. Non-self financial supporter, non-alcoholic drinkers and females were more likely to be depressed ($P < 0.05$). All clinical characteristics showed no statistical differences. **Conclusion:** The depression rate was lower compared to those from the studies in western countries. The risk factors for depression were different from those found in other studies as well. *ASEAN Journal of Psychiatry, Vol. 10(2): July – Dec 2009: XX XX*

Keywords: Depression, HIV, AIDS, Malaysia, screening tools.

Introduction

Human Immunodeficiency Virus (HIV) is a retrovirus that attacks human's immune system, disabling the body's defense system

against infections. HIV can be transmitted through unprotected sexual intercourse, vertical transmission and exchange of infected blood such as sharing infected needles among drug addicts, blood

transfusion and organ transplant. Vertical transmission means mother to child transmission during pregnancy, birth delivery or breast feeding. HIV infection cannot be cured but its progression can be slowed down with antiviral therapy [1].

Acquired Immune Deficiency Syndrome (AIDS) is the condition whereby HIV has destroyed a person's immune system, such that it is unable to defend the body from opportunistic diseases. Most of the time, HIV infected patients do not die of AIDS but opportunistic diseases such as Kaposi's Sarcoma, Pneumocystis Carinii Pneumonia (PCP) and Tuberculosis.

Despite the promising developments in the world in recent years, the global AIDS epidemic continues to grow. In Malaysia until June 2007, a cumulative total of 78,784 HIV infected individuals have been reported to the Ministry of Health, Malaysia (inclusive of AIDS) of which 13,121 were notified as AIDS cases and 9,586 have died [1].

Increased evidence shows that HIV patients are found to have suffered from psychiatric disorders concurrently.[2,3] Studies indicated a wide range of depression rates in HIV-infected patients, which varies from 4% to 58%.[2,4,5,6,7,8,9,10] However, most of the HIV-related depressed patients were often underdiagnosed and hence, undertreated.[2,11] The relationship between HIV infection and depression are generally complex and difficult to assess.[2,11] This may be due to the fact that signs and symptoms of depression listed in Diagnostic and Statistical Manual of Mental Disorders IV (DSM IV) criteria are similar to signs and symptoms of HIV infection itself. For example, weight loss, insomnia, fatigue and anorexia are associated with either depression or HIV infection.[12]

Under diagnosis of depression in HIV infections is the main issue of concern. Depression can significantly interfere with a patient's daily routine and adherence to therapy. Identifying depression among HIV patients using screening tools is important as it saves time and reduces the cost of treatment.

The aims of the study are to identify depression in HIV-infected patients attending Infectious Disease Clinic, UMMC, by using two screening tools and look into factors that may be contributing to it.

Methods

The samples were collected from the Infectious Disease Clinic, UMMC. UMMC is a teaching and referral hospital in Malaysia. It is located on the border of Kuala Lumpur and Petaling Jaya. Its catchment area is the population of Petaling Jaya which at the last count stands at 450,000. They are mainly of Chinese descent, urbanized and are in the middle income bracket.

This was a cross sectional study on HIV related patients attending Infectious Disease Clinic, UMMC from 7th December 2008 to 7th March 2008. Ethical approval was obtained from Medical Ethical Committee, UMMC. The patients were screened by the researchers. Those who fulfilled the criteria were recruited. Patients included in the study were 18 years old and above, diagnosed with HIV infection and consented. The subjects were interviewed by their physician. The clinical data such as modes of transmission, year of diagnosis, CD4+ count, drug treatment and clinical stages of the disease were collected. They were then asked to fill in a sociodemographic questionnaire and answer two self administered screening tools

(Patient Health Questionnaire, PHQ-9 and Hospital Anxiety & Depression Scale, HADS).

Data collected was analyzed using the Statistical Program for Social Sciences (SPSS) version 15.0 for Windows XP. The independent variables are age, gender, ethnicity, social history, economic status, marital status and CD4+ lymphocyte count while the dependent variables are the scores of both the depression scales. Descriptive analysis was used to analyze the principal socio-demographic characteristics. The relationship between depression scores and age, duration of illness and CD 4+ lymphocyte count was calculated by the Student's t-test with 95% confidence interval. The relationships between depression scores and gender, ethnicity, marital status, social history, economic status, clinical status of HIV infection, mode of transmission and treatment use was calculated by using the chi-square with 95% confidence interval. A p value of <0.05 was considered statistically significant. Cronbach's alpha test was used in testing the internal consistency of scores for both depression scales.

Results

Socio-demographic characteristics

A total of 89 participants were recruited in the study. Participants ranged in age from 22 to 81 (mean=39.3, SD=9.9) years. Mostly

were Chinese (76%), single (45%) and lived with family or friends (83%). Majority had completed secondary school (71%). Although 75% were employed, 65% reported monthly income of RM 3000 or less. 67% of the participants were financially self-supported (table 1); 36% of the participants were smokers and more than half of them were non-alcohol drinkers. Those who drink alcohol were mostly occasional drinkers and only 10% reported experiencing withdrawal symptoms. There was only 1% of the participants who used recreational drugs (table 1).

Clinical Characteristic

Most of the respondents had duration of HIV infection between 2 to 5 years. Nearly half were classified as AIDS. The commonest mode of transmission was through heterosexual contact and only 2% were intravenous users; 11% of the respondents were not on medication. The antiretroviral use in Malaysia was HAART, with 73% taking Efavirenz-based regime. Most of the respondents were not taking any concurrent supplements. Those who took concurrent supplements, such as vitamin C, multivitamins, vitamin E, fish oils and others were 31%. 39% of respondents had CD4+ cell counts within 200-499 cells/ μ L (table 2).

Table 1: Socio-demographic characteristics of the samples.

<i>Demographic characteristic (N=89)</i>	<i>Mean (SD)</i>
Age (years)	39.3 (9.9)
Gender	<i>n (%)</i>
Male	70 (79%)
Female	19 (21%)
Ethnicity	
Malay	10 (11%)
Chinese	68 (76%)
Indian	7 (8%)
Others	4 (5%)
Marital Status	
Single	40 (45%)
Married	33 (37%)
Cohabited	2 (2%)
Divorced	8 (9%)
Widowed	6 (7%)
Living companion	
Living alone	15 (17%)
Living with others	74 (83%)
Education	
Secondary and lower	63 (71%)
Higher than secondary	26 (29%)
Employment status	
Yes	67 (75%)
No	22 (25%)
Monthly household income	
Below RM1000	24 (27%)
RM1001 - RM3000	41 (46%)
RM3001 – RM5000	17 (19%)
Above RM5000	7 (8%)
Financial supporter	
Self	60 (67%)
Non-self	29 (33%)
<i>Social characteristic (N=89)</i>	<i>n (%)</i>
Smoking	
No	57 (64%)
Yes	32 (36%)
Pack year history of smoker (n=32)	
0-20 pack years	26 (81%)
Above 20 pack years	6 (19%)
Alcohol drinking	
No	60 (67%)
Yes	29 (33%)
Frequency of alcohol drinking (n=29)	
Everyday	0 (0%)
Occasional	29 (100%)
Withdrawal symptoms (n=29)	
No	26 (90%)
Yes	3 (10%)
Recreational drug use	
No	88 (99%)
Yes	1 (1%)

Table 2: Clinical characteristic of the samples.

<i>Clinical characteristic (N=89)</i>	<i>N (%)</i>
Duration of illness (ie. HIV infection)	
< 1 year	14 (16%)
2-5 years	54 (61%)
> 5 years	21 (23%)
Clinical stages of HIV infection	
Asymptomatic infection	34 (38%)
Symptomatic infection	16 (18%)
AIDS	39 (44%)
Mode of transmission	
Heterosexual	66 (74%)
Homosexual	13 (15%)
Intravenous drug user (IDU)	2 (2%)
Blood transfusion	1 (1%)
No information	7 (8%)
Antiretroviral use	
No	10 (11%)
Yes	79 (89%)
Efavirenz use (n=79)	
Yes	58 (73%)
No	21 (27%)
On first line regime (n=79)	
Yes	66 (84%)
No	13 (16%)
Supplement taking	
Yes	28 (31%)
No	61 (69%)
CD4+ count (cells/ μ L)	
500-1500 (normal)	25 (28%)
200-499 (below normal)	35 (39%)
0-199 (increased risk of opportunistic infection)	29 (33%)

Depression Scores of Participants

Depression scores from PHQ-9 showed 32% of depression rate (*following criteria used by Spitzer et al 1999*)[13], meanwhile, depression scores from HADS demonstrated

a much lower rate i.e. 19% (*following criteria used by Zigmond & Snaith 1983*)[14]. This study showed that PHQ-9 and HADS had good reliability with Cronbach's alpha of 0.873 and 0.697 respectively (figure 1).

