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Original Research Article

Prevalence of depression in PLHA attending ART centre of Assam medical college and hospital, Dibrugarh

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ABSTRACT

Background: Depression is a common mental health disorder encountered in people living with HIV/AIDS. Depression has a strong impact on the daily chores in the lives of those suffering from HIV/AIDS and their ability to cope with the disease and has a special role to play in adherence to antiretroviral therapy. This study was undertaken to assess the prevalence of depression in PLHA attending the ART centre of AMCH.
Methods: A cross sectional study was carried out on 54 patients attending the ART centre. They were interviewed using a predesigned and pretested proforma with prior consent. Depression was assessed using the MDI-4 scale and data was analysed using SPSSv16. Chi square test was done to see the association.
Results: Majority (85%) of the respondents were male. Prevalence of depression was found in 55.6% of the respondents. Alcoholic history was found in 54% and smoking in 24% ($p<0.05$). Most were educated below 10^{th} grade (66.6%) ($p<0.05$). Most of them (83.3%) disclosed their status to their family members.
Conclusions: The prevalence of depression is very high in PLHA. To diagnose depression and to treat at the earliest will go a long way in improving their quality of life.

Keywords: Depression, PLHA, Adherence, HIV

INTRODUCTION

Since the beginning of the human immunodeficiency virus (HIV) epidemic, more than 70 million people have been infected globally and nearly 36.9 million people are estimated living with HIV/AIDS worldwide at the end of 2014. India has the third highest number of people living with HIV. Total number of PLHIV in India is estimated to at 20.9 lakh. Majority (86%) of the HIV infections are in age group of 15-49 year. Males account for 61% of AIDS cases and females 39%.[1] Over the past decade, there has been a tremendous increase in our understanding of molecular biology and the viral structure and pathogenesis of the disease.[2] This knowledge has led to the development of a number of new antiretroviral drugs and treatment protocols resulting increase in life expectancy and HIV infection becoming a chronic condition. As with other chronic medical conditions, HIV infection is often complicated by co morbid depression.[3] Depression is a common mental disorder, characterized by sadness, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, feelings of tiredness and poor concentration.[4] Depression has adverse impacts on the quality of life and the course of illness among those living with HIV. Depressed persons with HIV frequently become non adherent with their treatment which may lead to higher HIV viral loads, higher infectiousness and poorer clinical outcomes. The effectiveness of ART relies on a strict adherence to it, failing which may lead to emergence of drug resistance and loss of future treatment options. Identifying those with adherence-related challenges that require attention and implementing appropriate strategies to enhance adherence are essential.

Depression is the most commonly observed psychiatric disorder among patients with HIV infection.[5-8] Despite its high prevalence it is commonly under diagnosed. Depression in PLHA could be triggered by various factors. Clinicians need to be aware of this possibility when evaluating new patients and observing changes in patients whom they treat. In this study our objectives were to assess the prevalence and the factors associated with depression in PLHA attending the ART centre of Assam Medical College and Hospital, Dibrugarh.

METHODS

A cross sectional study was undertaken on 54 PLHA attending the ART center of Assam medical college and hospital from September to November, 2015. Sample size was calculated using appropriate formula. Sampling was done using the consecutive sampling technique. Ethical clearance was obtained from the Institutional Ethics Committee (Human) of Assam medical college and hospital. Both male and female suffering from HIV/AIDS, 13 years of age and above and willing to participate were included in the study. Patients aged ≤12 years of age and who did not give consent to participate in the study were not included. Data was collected using predesigned and pretested questionnaire after taking informed consent. For assessment of depression, the MDI (major depression inventory scale) (Table 1**)** was used.[9] The MDI (DSM-4) scale is a ten point scale with a total scoring of 50. The first three symptoms should have been present at least "most of the time" during the past two weeks, while the other symptoms should have been present "more than half" of the period. For symptoms 4 and 5, only the highest score should be used, as the DSM-IV contains only 9 of the 10 MDI symptoms and as symptoms 4 and 5 belong to the same category in DSM-IV. For symptoms 8 and 10, only the one of the two alternatives (a or b) with the highest score is considered. As a severity measure, the MDI score ranges from 0 to 50, since each of the 10 items can be scored from 0 (at no time) to 5 (all the time). Again, for items 8 and 10, alternative a or b with the highest score is considered.

Table 1: The major depression inventory scale.

Symptoms		Frequency					
		All time	Most time	>50% time	<50% time	Some time	Never
1	Have you felt low in spirits or sad						
2	Have you lost interest in your daily activities?						
3	Have you felt lacking in energy and strength?						
4	Have you felt less self-confident?						
5	Have you had a bad conscience or feelings of guilt?						
6	Have you felt that life wasn't worth living?						
7	Have you had difficulty in concentrating, e.g. when reading the newspaper or watching television?						
8(a)	Have you felt very restless?						
8(b)	Have you felt subdued or slowed down?						
9	Have you had trouble sleeping at night?						
10(a)	Have you suffered from reduced appetite?						
10(b)	Have you suffered from increased appetite?						

A score of more than 20 was considered as having depression. Data was analyzed using SPSS v16 and appropriate statistical tests were used.

RESULTS

Majority (85.2%) of the respondents were male. Mean age of the respondents was 42.96 (±7.52) years. The most common regimen used among the respondents was a combination of Zidovudine+Lamivudine+Nevirapine (46.3%) (Table 2). Prevalence of depression was found in 55.6% of the respondents. Most of them (83.3%) disclosed their status to their family members. Majority of the respondents were educated below 10th grade (66.6%) ($p<0.05$) (Figure 1) and 24% of the respondents were unemployed ($p<0.05$).

Alcoholic history was found in 44% of the respondents. Out of those who had alcoholic history, 70% were suffering from depression and the association was found to be statistically significant ($X^2=5.704$, $p<0.05$) (Figure 2).

Smoking was prevalent in 24% of the respondents. Depression was found to be present in all the smokers (100%) and this association was found to be statistically significant ($X^2=13.698$, $p<0.05$) (Figure 3).

76% of the respondents were working people (Figure 4). Out of those who had depression, 36.7% were not employed in any kind of work and this relationship was found to be statistically significant ($X^2=3.859$, $p<0.05$). (Figure 5).

Table 2: Distribution according to type of ART regimen.

Type of regimen	Frequency	Percentage (%)
Tenofovir+Lamivudine	4	7.4
Tenofovir+Lamivudin+Efavirenz	12	22.2
Zidovudine+Lamivudine+Efavirenz	13	24.1
Zidovudine+Lamivudine+Nevirapine	25	46.3
Total	54	100

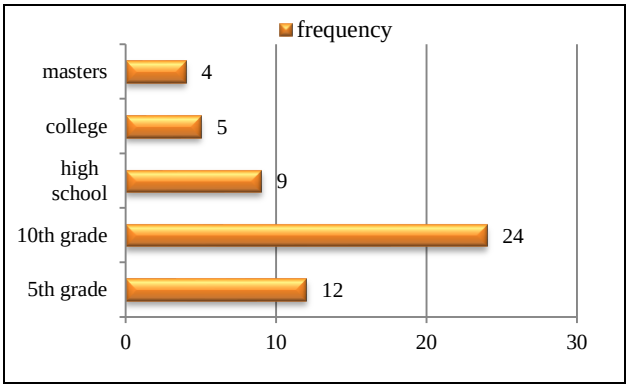

Figure 1: Distribution of the respondents according to literacy status.

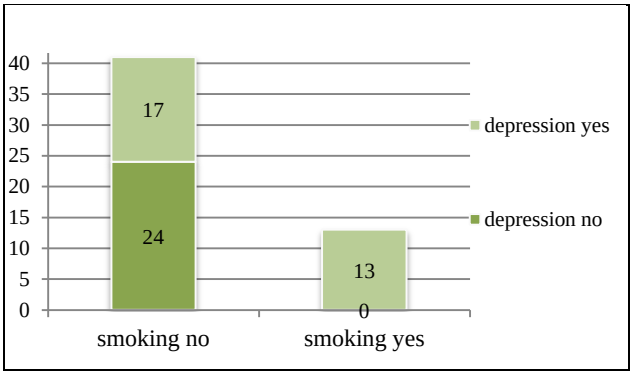

Figure 3: Association of smoking and depression.

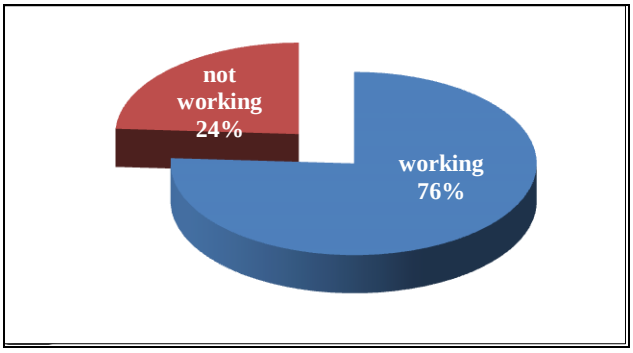

Figure 4: Distribution according to work.

Disclosure of the HIV status to family members and friends did not have any statistically significant relationship with the presence of depression among the respondents (p>0.05) (Figure 6).

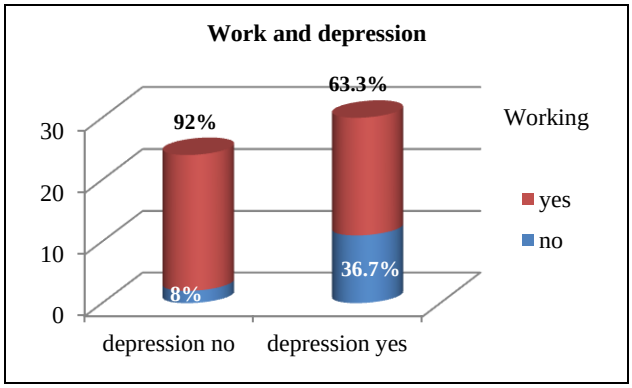

Figure 5: Association of work and depression.

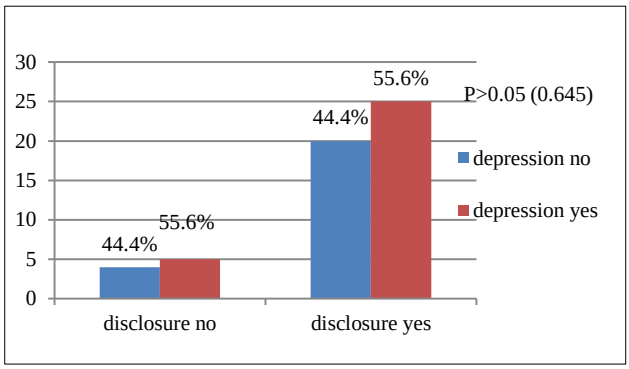

Figure 6: Association of disclosure of HIV status and depression.

DISCUSSION

In this study the prevalence of depression was found to be 55.6% which is comparable to the study by Bhatia et al, where prevalence was found to be 58.75%.[10] Prevalence of depression was found to be higher in respondents who were unemployed which was also found in a study by Knowlton et al.[11] Illiteracy was another factor associated with depression. Findings confirm that stigma is associated with psychological adjustment and adherence difficulties and is experienced more commonly among people who disclose their HIV status to a broad range of social contacts but our study did not show any statistically significant relationship between the disclosure status and the presence of depression among the respondents.[12] In a study done by Sarna et al, in India, patients with severe depression were 4 times more likely to report lower adherence than patients with minimal depression.[13] A study done by Yi et al showed that greater health worries,

less comfort with the fact that how one contracted HIV, more HIV-related symptoms, less social support and lower spiritual wellbeing was associated with significant depressive symptoms.[14] In a meta-analysis by Ciesla et al, people with HIV were twice as likely to be diagnosed with major depressive disorder than those with HIV seronegativity.[15] Depression can produce cognitive impairment, as depressed subjects have been found to have impaired attention, concentration and memory. In severe cases, they may have a dementia-like syndrome. The consequence is that depressed patients with HIV/AIDS may be more likely to forget using their pills leading to poor medication adherence.[16] Given the chronic and episodic nature of depression, the full burden of this condition over time is likely greater than is demonstrated by the estimates of current depression. The high burden of depression among HIV-infected persons is more apparent when compared with that among the general population. The prevalence of current major depression among HIV-infected persons receiving outpatient care was over three times that seen in a general population.[3]

CONCLUSION

The present study shows a high prevalence of depression among the PLHA. Depression was significantly associated with alcohol intake, smoking, illiteracy and unemployment. Depression is an important factor in the adherence to ART. Early detection and effective treatment of depression in PLHA can go a long way in improving the ART adherence and thus the quality of life. Early and prompt detection of psychological conditions such as depression with measures to address it is of utmost importance. It is seen that a high proportion of PLHIV suffer from depression which has a deterrent effect in maintaining optimum adherence. Health providers specially the counselors and medical personnel engaged in providing ART care must be trained for early diagnosis and management of depression.

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Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Department of AIDS control, National AIDS control Organisation, Ministry of Health and Family Welfare, Government of India, ART guidelines for HIV-Infected Adults and Adolescents; 2013: 1-2.
2. Bangsberg D, Hecht F, Charlebois E, Zolopa A, Holodniy M, Sheiner L, et al. Adherence to protease inhibitors, HIV-1 viral load, and development of drug resistance in an indigent population. AIDS. 2000;14(4):357-66.
3. Do A, Rosenberg E, Sullivan P, Beer L, Strine T, Schulden J, et al. Excess Burden of Depression among HIV-Infected Persons Receiving Medical Care in the United States: Data from the Medical Monitoring Project and the Behavioral Risk Factor Surveillance System. PLoS One. 2014;9(3):e92842.
4. HIV clinical guidelines for the primary care practitioner. Mental Health Care for people with HIV infection. Published by the AIDS Institute, New York State Department of Health; 2000: 2.
5. Depression. Available at: http://www.euro.who.int/en/health-topics/noncommunicable-diseases/pages/news/news/2012/10/depression-in-europe/depression-definition. Accessed on 3 August 2017.
6. Elliot AJ, Roy Byrne PP. Major depressive disorder and HIV-1 infection. Semin Clin Neuropsychiatry. 1998;3:137-50.
7. Olley BO, Gxamza F, Seedat S, Reuter H, Stein DJ. Psychiatric morbidity in recently diagnosed HIV patients South Africa. S Afr Medical Research Council Publication; AIDS Bulletin. 2003;12(1):12-6.
8. Boardman J, Petrushkin H, Ovuga E. Psychiatric disorders in HIV positive individuals in urban Uganda. Br J Psychiatry. 2005;29:455-8.
9. Oslen LR, Jensen DV, Noerholm V, Martiny K, Bech P. The internal and the external validity of the Major Depression Inventory in measuring severity of depressive states. Psychol Med. 2003;33:351-6.
10. Bhatia M, Munjal S.Prevalence of Depression in people living with HIV/AIDS undergoing ART and factors associated with it. J Clin Diagn Res. 2014;8(10):1-4.
11. Knowlton AR, Yang C, Bohnert A, Wissow L, Chander G, Arnsten AJ. Informal Care and Reciprocity of Support are Associated with HAART Adherence among Men in Baltimore, MD, USA. AIDS and behavior. 2011;15(7):1429-36.
12. Vanable P, Carey M, Blair D, Littlewood R. Impact of HIV-Related Stigma on Health Behaviors and Psychological Adjustment Among HIV-Positive Men and Women. AIDS Behav. 2006;10(5):473-82.
13. Sarna A, Pujari S, Sengar AK, Garg R, Gupta I and Dam J. Adherence to antiretroviral therapy & its determinants amongst HIV patients in India. Indian J Med Res. 2008;127:28-36.
14. Yi M, Mrus J, Wade T, Ho M, Hornung R, Cotton S et al. Religion, spirituality, and depressive symptoms in patients with HIV/AIDS. J Gen Intern Med. 2006;21(S5):21-7.
15. Ciesla J, Roberts J. Meta-Analysis of the Relationship Between HIV Infection and Risk for Depressive Disorders. Am J Psychiatry. 2001;158(5):725-30.
16. Olisah V, Baiyewu O, Sheikh T. Adherence to highly active antiretroviral therapy in depressed patients with HIV/AIDS attending a Nigerian university teaching hospital clinic. Afr J Psych. 2010;13(4):275-9.

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