

## Original Research Article

# Prevalence and patterns of psychiatric morbidity in people living with HIV

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## ABSTRACT

**Background:** Diagnosis of HIV infection creates an overwhelming stress and leads to symptoms like guilt, fear, anxiety, sad mood, grief and suicidal ideation. Though the rate of suicide has decreased after the introduction of highly active anti-retroviral therapy (HAART), it still remains high. Indian studies assessing suicidal ideation in people living with HIV (PLHIV) are scarce. Psychiatric evaluation and treatment improves the quality of life in PLHIV. Aim of the study was to assess the prevalence and patterns of psychiatric morbidity including suicidal ideation in PLHIV attending Integrated Counselling and Testing Centre (ICTC), prior to initiation of ART.

**Methods:** A cross sectional study design was used. 11476 persons attending ICTC of IRT Perundurai Medical College, Erode, Tamil Nadu, India were tested for their HIV status over a period of two years. 211 persons were found to be positive, 143 persons gave consent and met inclusion criteria. Every patient underwent a semi-structured clinical interview and their psychiatric morbidity was assessed based on ICD 10. Current suicidal behavior, hopelessness and depression were measured by appropriate rating scales. Data was analyzed by using the SPSS 16.

**Results:** Psychiatric diagnosis was present in 36.4% of the sample. Depression was the commonest diagnosis followed by adjustment disorder, alcohol related problems and anxiety disorder. 26 persons (18.2%) had current suicidal ideation. 3 out of 143 persons had attempted suicide within 6 months following notification of their HIV status.

**Conclusions:** Nearly 1/3<sup>rd</sup> of PLHIV require psychiatric referral and 1/5<sup>th</sup> of PLHIV have suicidal ideation. It will be highly beneficial to integrate psychiatric services into daily care of PLHIV.

**Keywords:** PLHIV, Psychiatric morbidity, Suicidal ideation

## INTRODUCTION

Human Immuno Deficiency Virus infection is a stigmatizing illness and its diagnosis in any individual creates an overwhelming stress and leads to major catastrophic changes in many ways in their life thereafter. Though signs and symptoms are present in a subtle degree in every people living with HIV (PLHIV), some individuals become more severe and disabling to warrant an independent psychiatric diagnosis. A number of

studies have assessed the prevalence of psychiatric disorders in PLHIV.<sup>1-6</sup> Depression is the commonest psychiatric diagnosis reported in many studies among HIV infected individuals. Indian studies assessing suicidal ideation in PLHIV are scarce. Though the rate of suicide has decreased after the introduction of highly active anti-retroviral therapy (HAART), it still remains high compared to general population. Suicide, attempted suicide and suicidal ideation are complex issues associated with life threatening conditions like HIV

infection, Kelly.<sup>7</sup> Many suicidal individuals may not spontaneously express suicidal thoughts or plans and majority of those at risk may never be asked about suicidal behavior during clinical assessments. The paucity of information about suicidal behavior in PLHIV can impair evidence guided interventions.<sup>8</sup> The psychiatric evaluation and treatment of psychiatric problems may improve adherence to drug regimens and the quality of life in PLHIV. This study documents psychiatric morbidity including suicidal behavior in present study population.

### Aim

This study aims to assess the prevalence and patterns of psychiatric morbidity including suicidal ideation in PLHIV attending Integrated Counselling and Testing Centre (ICTC) of a rural medical college prior to initiation of highly active anti-retroviral therapy (HAART).

## METHODS

### Inclusion criteria

Age more than 18 years, confirmation of diagnosis of HIV as per WHO guidelines, those who were willing for giving consent for the study.

### Exclusion criteria

Patients with severe mental illness or physical illness of such severity so as to preclude the interview, those who were unwilling for giving consent for the study, PLHIV who were on anti retroviral therapy.

A cross sectional study design was used. 11476 persons attending ICTC of IRT- Perundurai Medical College Hospital, Erode, Tamil Nadu, India were tested for their HIV status over a period of two years from 01 June 2013 to 31 May 2015. Among 211 patients who were found to be positive, 143 persons gave consent and met inclusion criteria of this study. Every patient underwent a semi-structured clinical interview and psychiatric morbidity was assessed based on ICD (International Classification of Diseases)- 10 clinical and diagnostic criteria. Current suicidal ideation was measured by Beck scale for suicide ideation (BSSI) and suicide intent for the most recent suicidal attempt was assessed by Beck suicidal intent scale (BSIS). Current hopelessness and depression were also measured by Beck hopelessness scale (BHS) and the Beck depression inventory (BDI) respectively. Perception of HIV status was measured by a 5 point Likert scale. Data was analyzed by using the Statistical Package for the Social Sciences (SPSS) 16.

## RESULTS

The study population included 143 persons reactive for HIV, among them 45% (62/143) were either single or

widowed. 60% (84/143) of the PLHIV enrolled were either illiterates or having completed primary education. 79% (113/143) of the group felt that HIV was a stigmatizing illness.

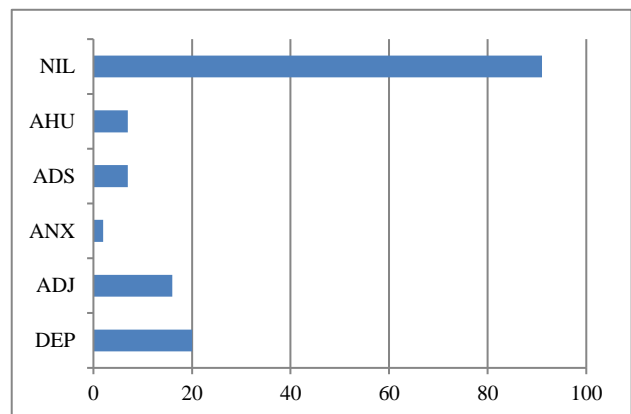
**Table 1: ANOVA- CPD (current psychiatric diagnosis), CS (current suicidal ideation).**

CPD (current psychiatric diagnosis)	Sum of squares	DF	Mean square	F	Sig.
Between groups	9.946	1	9.946	60.588	0.000
Within groups	23.145	141	164.00		
Total	33.091	142			

Psychiatric diagnosis based on ICD-10 criteria was present in 36.4% (52/143). Depression, 14% (20/143) was the commonest diagnosis followed by adjustment disorders, 11.2% (16/143), alcohol related problems, 9.8% (14/143) and anxiety disorders, 1.4% (2/143). (Figure 1). 43 persons expressed mild depressive symptoms as per BDI (Beck depression inventory). Mean score of BDI was 7.18. Among depression, 10 persons had moderate depression and 10 persons had severe depression.

**Table 2: CS (current suicidal ideation).**

CS (current suicidal ideation)				
CPD (current psychiatric diagnosis)	Absent	Present	Total	
	Absent	89	2	91
Present	28	24	52	
Total	117	26	143	



**Figure 1: CPD (current psychiatric diagnosis).**

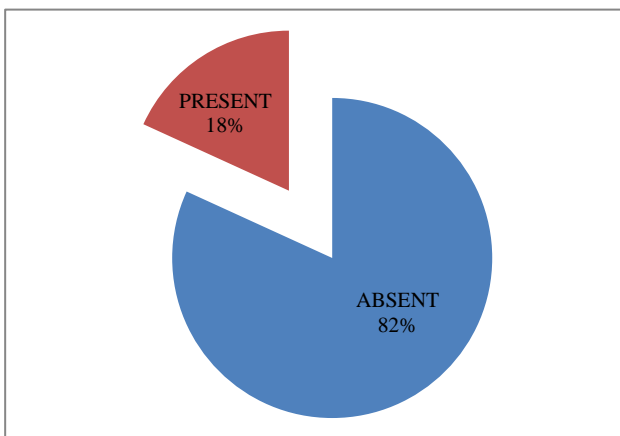
26 persons (18.2%) had current suicidal ideation (Figure 2 and Table 2). Mean of Beck suicidal ideation scale was 10.65. A significant association between suicidal ideation and psychiatric morbidity was detected by ANOVA (analysis of variance) (Table 1). 3 out of 143 persons (2.1%) had history of suicidal attempts within 6 months

following notification of HIV their status. Mean score for Beck suicidal intent scale was 14. A strong association was detected between current suicidal ideation and higher

scores on BDI (Beck depression inventory), BHS (Beck hopelessness scale) by ANOVA (Table 3). Mean score for BHS was 5.15.

**Table 3: ANOVA- BDI (beck depression inventory), BHS (beck hopelessness scale).**

		Sum of squares	DF	Mean square	F	Sig.
BDI	Between groups	3135.696	1	3135.696	284.225	0.000
	Within groups	1555.577	141	11.032		
	Total	4691.273	142			
BHS	Between groups	2275.214	1	2275.214	350.100	0.000
	Within groups	916.325	141	6.499		
	Total	3191.538	142			



**Figure 2: CS (current suicidality).**

## DISCUSSION

Psychiatric morbidity in HIV ranges from minor cognitive deficits to frank psychosis. Emotional and behavioral reactions including anger, guilt, fear, withdrawal, despair, confusion, appetite changes, sleep disturbances and suicidal ideations following the diagnosis of HIV may occur.

In the present study, Psychiatric diagnosis based on ICD-10 criteria was present in 36.4% (52/143), nearly 1/3 of the sample, which was almost similar to other studies, 31% in King et al and 34% in Deshpande et al.<sup>9,10</sup> Among them, Depression, 14% (20/143) was the commonest diagnosis. Depressive disorders are twice common than general population, William et al.<sup>11</sup> The high prevalence mood disorders in this study was generally similar to other studies, Chandra et al 40%, Rabkin et al 5-10%.<sup>12,13</sup> 43 persons expressed mild depressive symptoms as per BDI. Mean score BDI was 7.18. Mild depression need not to be treated with antidepressants always, can be treated by counselling and cognitive therapy. Among Depression, 10 persons had moderate depression and 10 persons had severe depression. The second common diagnosis in this study was adjustment disorders, 11.2%

(16/143) followed by alcohol related problems, 9.8% (14/143) and anxiety disorders, 1.4% (2/143). Anxiety disorders may manifest throughout the course of HIV disease. In the present study, 2 persons 1.4% (2/143) had anxiety disorders (AIDS Phobia and panic disorder). Studies have reported 2 to 30% prevalence rate of anxiety disorders depending upon the stage of illness.<sup>3,14</sup> Alcohol dependence syndrome (7/143) and alcohol harmful use (7/143) shared totally 9% of the sample in contrast to Lykestos et al, 22%.<sup>15</sup>

Suicide is the most lethal outcome of untreated depression. Chronic pain, anxiety and depression should prompt a through suicidal risk assessment. Among the study population 18.2% (26/143) were having current suicidal ideation which was similar to the study by Carrico et al (19%) and contrast to the study by Sherr et al 31% and Ogundipe OA et al 13.6%.<sup>8,16,17</sup> Mean score for suicidal ideation was 10.65. Suicidal ideation refers to thoughts, fantasies, ruminations and preoccupations about death, self-harm and self-inflicted death. In order to determine the nature and potential lethality of the patient's suicidal thoughts, it is necessary to elicit the intensity, frequency, depth, duration and persistence of the suicidal thoughts. Robertson found 1/3<sup>rd</sup> of HIV positive individuals having current suicidal ideation while 2/3<sup>rd</sup> having suicidal ideation at some point of time during the course of HIV disease.<sup>18</sup>

Chandra reported death wishes in 20%, fleeting suicidal ideations in 12% and persistent suicidal ideations in 6% of the sample.<sup>12</sup> Previous suicidal attempts were not only associated but also predictive of suicidal ideation in PLHIV. Suicidal attempt is most likely to occur in those with a history of psychiatric illness and in the period immediately following the HIV diagnosis.<sup>19</sup> Sherr et al also reported that suicidal attempts were much more common with the first peak at the time of diagnosis and the second peak at the time of development into AIDS stage.<sup>17</sup> 3 out of 143 persons (2.1%) had history of suicidal attempts within 6 months following declaration of results.

Beck reported highest correlation between hopelessness and suicidal ideation.<sup>20</sup> A strong association was detected between current suicidal ideation and higher scores on BDI (Beck depression inventory), BHS (Beck hopelessness scale) by ANOVA. Mean score for BHS was 5.15. According to Kelly, risk of suicidal ideation was nearly 11 times more in individuals who had a hopelessness score more than 8 but in this study mean of BHS was 5.15.<sup>7</sup>

Seventy nine percentage of the group felt that HIV was a stigmatizing illness. Stigma refers to prejudice, negative attitudes and abuse directed at PLHIV. Self-stigma has an equally damaging effect on the mental wellbeing of PLHIV. This study was limited by its cross-sectional design, patient characteristics, single time assessment, lack of data regarding coping skills and life events.

Nearly 1/3<sup>rd</sup> (36.4%) require psychiatric referral, 1/5<sup>th</sup> (18.2%) have suicidal ideations and 4/5<sup>th</sup> (80%) have definite HIV stigmata. These data were at par with most studies imply that we could improvise our health care services if we routinely screen PLHIV for psychiatric morbidity specially to assess suicidal thoughts and behavior. Early diagnosis and treatment could remarkably improve quality of life in PLHIV. It will be highly beneficial to integrate psychiatric services into daily care of PLHIV.

## CONCLUSION

In present study, we noticed that suicidal behavior is an important area to be dealt among PLHIV along with psychiatric morbidity. PLHIV experience considerable psychiatric morbidity and they immensely benefit from psychological counseling, psychiatric assessment and treatment. Psychiatrists should be inducted as a core member in HIV care, support and treatment team along with physicians and dermatovenereologists in order to ensure healthy life style. We advocate regular counseling sessions not only for infected patients, family members but also for health care providers in crisis situations to avoid professional burn out.

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