

# Mental health problem in HIV/AIDS patients

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**Abstract.** People with HIV positive have risk increased mental health problem than the general population. It associated with psychosocial factors, direct neurological effects of the HIV infection and medication. Overall it can make increased morbidity and mortality in HIV positive patients. The more common mental problem in HIV/AIDS people is dementia, delirium, depression, and mania, suicide, psychotic, sleep problem. Both psychopharmacologic and psychotherapeutic treatment strategies often indicate.

## 1. Introduction

Mental health problem associated with HIV/AIDS should be accurate identify and treated. In people with HIV infection, changes in mental status or the emergence of new psychiatric or cognitive disorders require ruling out treatable and reversible causes; medical causes are of increasing concern if CD4 counts are low or viral load has begun to rise.[1] HIV infection may lead to change mental health because of direct neurological effects of the virus, psychological stress induced by the inability to provide for one's family because of ill health and the social alienation associated with stigma and discrimination.[2]

The more common diagnoses found in association with HIV/AIDS are dementia and the spectrum of cognitive disorders, delirium, depression, mania, suicide problem, substance use disorders, anxiety disorders, psychotic disorders, adjustment disorders, sleep disorders, disorders occurring in infants, children, and adolescents. It is HIV-associated syndromes with psychiatric implications, and the adverse effect of Antiretroviral medication can cause a mental problem too.[1,2] Both psychopharmacologic and psychotherapeutic treatment strategies are often indicated.[1]

Prevalence rates of psychiatric disorders reported in published studies vary widely. In general, higher rates of psychiatric disorders are in later stages of HIV infection and report in studies that assess patients receiving care in HIV medical or psychiatric clinics rather than community-based samples. On one extreme, recent data from the national, multisite HIV/AIDS Mental Health Services Demonstration Program revealed high rates of depression(60%), dysthymic disorder (25%), and anxiety disorders (25%) among persons seeking HIV-related mental health services in the public sector (67 %). The study found high rates of comorbid substance use disorders, with nearly 50% of all patients also having a diagnosis of alcohol or drug dependence.[1]

These higher rates most likely link to characteristics of the population studied: HIV-positive individuals voluntarily seeking psychiatric care, a population that may be more reflective of patients receiving care from community mental health clinics. In contrast, prevalence studies in selected community-based samples have found much lower rates of psychiatric disorders, such as rates of major depressive disorder in the 4%–14% range.[1]



## 2. Clinical syndromes associated with HIV/ AIDS

HIV infection can lead to neuropsychiatric syndromes that can occur at various stages of infection. Clinicians need to be aware of this possibility when evaluating new patients and observing changes in the patients whom they treat.[1]

Symptomatic HIV infection of the brain affects cognitive and motor functioning. Subtle neuropsychological impairment found in 22%–30% of otherwise asymptomatic patients with HIV infection, these findings may or not have functional significance. There is ample evidence for HIV causing the disorders HIV-associated dementia and HIV-associated minor cognitive motor disorder. HIV can affect other areas of the nervous system, causing syndromes such as painful sensory peripheral neuropathy or vacuolar myelopathy of the dorsolateral columns of the spinal cord.

### 2.1 Dementia and the spectrum of cognitive disorders

Cognitive complaints are common among psychiatric patients in general, but the evaluation of such complaint in a patient with HIV infection requires a comprehensive psychiatric assessment, formulation of a differential diagnosis, and possible medical workup. Symptoms of early cognitive changes due to HIV can be subtle and can differ from symptoms associated with cortical dementia such as Alzheimer's. For example, HIV-associated dementia, due to its subcortical localization, more commonly presents with psychomotor slowing rather than deficits in language or visual recognition. Psychiatrists need to be aware of these differences in clinical phenomenology to identify HIV-associated dementia at early stages.[1]

Pharmacologic treatment of HIV-associated dementia consists of intervening with potent antiretroviral therapy that targets the underlying HIV infection with consideration of whether the agents adequately penetrate the CNS. For comorbid conditions such as depression, psychiatrists should consider prescribing antidepressant medications as they would for other medically ill patients. Last, for management of symptoms associated with HIV-associated dementia (e.g., agitation or fatigue), medication such as antipsychotic or stimulant agents, respectively, should be considered.[1]

### 2.2 Delirium

The evaluation of the cause of delirium in an HIV-infected patient requires the psychiatrist to be alert to multiple possible etiologic factors and be knowledgeable about specific diseases that associated with HIV infection. In the context of HIV infection should be evaluated like delirium with other medical conditions. A psychiatrist should advocate for a complete medical/neurological evaluation for patients with HIV infection who present with an acute onset of psychiatric symptoms with no previous psychiatric history. A workup should include a toxicology screen, thorough neurological examination, laboratory evaluation, and brain imaging studies. A comprehensive assessment of infectious processes should be conducted and may entail lumbar puncture. Management of delirium in the context of HIV infection includes judicious use of antipsychotic medications for symptoms of agitation or perceptual abnormalities such as hallucinations. Many clinicians use the newer, atypical antipsychotic agents due to their lower side effect profile.[1]

### 2.3 Mood disorders

**2.3.1 Major depression.** Major depression (MD) is the most common psychiatric manifestation associated with HIV infection, compared with the general population HIV –positive patient (HPP) are 2-7 fold more likely to meet the diagnostic criteria. MD is in accordance with international classification systems (Diagnostic statistical manual for mental disorder and International Classification of Disease), while MD prevalence rates 18-81%.[3] Etiology of depression in HIV is likely determined by (i) biological factors (alterations in the white matter structure. And there are hypothalamic-pituitary-thyroid dysfunction, Tat –protein-induced depressive behaviour); (ii) psychosocial factors (HIV stigma, occupational disability, body image changes, isolation and

debilitation); (iii) history or comorbidity of psychiatric illness; and (iv) the perinatal period in HIV women.

### *2.3.2 Risk factors for depression are below*

*2.3.2.1 Gender.* The women are with symptoms of a more severe intensity of depression than men. HIV men were more likely to have MD and the degree to which HIV associated with the risk for MD disorder appears to be the same for homosexual and bisexual men as it is for the general HIV positive population.

*2.3.2.2 Age.* The combination of HIV infection and old age and increases the problem of neuropsychiatric symptoms among the depression ones. HIV teenagers have an up to a fourfold risk of developing depression than their peers in the general population. They tend to use drug and alcohol abuse.

*2.3.2.3 Pre-infection history of MD.* The stigma and emotional consequences of the diagnosis can trigger relapses of pre-existing depression or a new depressive episode in individuals with recent infection.

Study of the community sample of 197 people living with HIV/AIDS found that felt stigma (awareness of societal stigma) and self-stigma (negative feelings toward oneself as a member of a stigmatized group) are related to psychological well-being. Both felt -stigma and self-stigma significantly correlated with symptoms of depression and anxiety.[1] Disease stage: MD rates are low in patients whose disease has not evolved to AIDS or who have received HAART compared with those who did not get it.

The negative impact of depression on the course of HIV may manifest in maladaptive self-care behaviors. Indeed depression has shown to associated with sexual risk-taking, substance abuse, and poor treatment adherence. Poor adherence is associated with the medical outcome as measured by viral load or CD4+ cell count. Poor adherence can also result in the development of viral mutation, which can lead to drug resistance.[4]

*2.3.3 Manic Syndrome.* Manic syndromes are difficult to treat in HIV-infected patients for several reasons. First, maniamay result from HIV infection (secondary mania), AIDS-associated brain infections, neoplasms, or treatment with medications like steroids.

Also, manic syndromes can relate to comorbid substance use disorders, and case reports have documented manic symptoms induced by the antiretroviral agent's didanosine and zidovudine. Patients who experience their first manic episode later in the course of their HIV disease are less likely to have personal or family histories of mood disorders and are more likely to have dementia or neurocognitive slowing.[2]

The management of disturbances in mood such as depression or mania for patients with HIV infection is similar to that for other patients with medical comorbidity. Fatigue and insomnia, frequent complaints in otherwise asymptomatic patients, are likely related to psychological disturbances such as major depressive disorder.[2]

*HIV and Suicide.* Suicide associated with serious illness generally and HIV specifically. It is widely reported that suicide-related thoughts and behaviors are more prevalent amongst HIV –positive individuals than those who are HIV negative. The direction of the relationship between HIV serostatus and suicidality is uncertain. It is possible that increased suicidality is due to awareness of HIV status, stress points over the course of illness or psychosocial effects of a diagnosis such as a stigma, relationship change or socioeconomic change. However, the documentary showed that those members of the population, who are at heightened risk for HIV infection in the first place –such as people who have diagnosed psychiatric disorders, men who have sex with men (MSM) and Injecting drug users – are also at heightened risk for suicidal thoughts and behavior. Catalan et al. suggest that all aspects of

suicide are elevated and urgently require routine monitoring and tracking as a standard component of the clinical care of HIV.[5]

#### *2.4 Substance use disorders*

In the United States, substance use disorders are prevalent in the population of persons with or at risk for HIV infection, and treatment is a high priority. Because drug- and alcohol-dependent, substance use disorders themselves often associated with comorbid psychiatric disorders such as anxiety, depression, and psychotic symptoms.[2] Treatment of these comorbid conditions can help stabilize patients who are attempting to achieve sobriety or abstinence.[2]

#### *2.5 Anxiety disorders*

Anxiety disorders can precede HIV infection or arise as for its consequence. Treatment of anxiety disorders among HIV-infected patients has not well studied; thus, psychiatrists should apply standard pharmacologic treatment for anxiety disorders with caution. For instance, many benzodiazepines contraindicate when patients are taking protease inhibitors, particularly ritonavir since predicted pharmacokinetics suggest blood levels of these psychotropic agents will be highly elevated. Thus, benzodiazepines should be a short-term intervention in most instances.[2]

#### *2.6 Psychotic disorders*

Nebhinani and Mattoo found that up to one-fourth of the subjects (3%-23%) with psychotic disorders were HIV positive. In contrast the prevalence of new-onset psychosis among patients with HIV infection range 0.23-15.2%.[6] Psychotic symptoms in the context of HIV infection, particularly at advanced stages of illness, do not necessarily indicate a primary psychotic disorder, such as schizophrenia, but may arise from causes ranging from opportunistic infections, mania, HIV-associated dementia, or delirium. Psychosis is also found to be a relation with medical conditions, substance dependence and more importantly with medications used to treat HIV/AIDS, especially efavirenz. [7]Evaluation of new-onset psychosis in HIV positive requires a comprehensive history and careful medical/neurological examination to rule out other known causes of psychosis.[2]

#### *2.7 Adjustment disorders*

Adjustment disorders associated with significant emotional or behavioral symptoms. Although they may arise from stressful life events such as testing HIV-antibody positive, they may indicate a sub syndrome state that will evolve into a severe psychiatric disorder if left untreated. Various forms of psychotherapy may indicate to prevent progression to a more severe psychiatric disturbance.[2]

#### *2.8 Sleep disorders*

Sleep complaints are common in HIV patients in psychiatric treatment. Sleep disturbances may arise from a psychiatric disorder such as depression or stem from complications of HIV infection. For instance, because pain is a frequent accompaniment of HIV-related illness and is often treatable, clinicians should intervene to alleviate pain that causes sleep disturbance. The antiretroviral medication efavirenz associates with a high incidence of vivid dreams and nightmares.[2]

#### *2.9 HIV-associated syndromes with psychiatric implications*

In the case of somatic syndromes that exist at the interface of medical and psychiatric disorders, psychiatrists can serve to integrate treatment approaches and promote interdisciplinary and interspecialty dialogue.

Symptoms such as fatigue, weight loss, pain, and sexual dysfunction can associate with HIV illness as well as psychiatric disorders. It is useful to avoid all-or-nothing, mind or body, approaches when evaluating such nonspecific symptoms. Fatigue is a used, often chronic symptom of HIV disease, frequently associated with depressed mood and physical disability, particularly among patients with more advanced HIV infection or AIDS.[2] Patients report pain at all stages of HIV illness, but

complaints tend to be more frequent and more intense at advanced stages of systemic illness. Common painful symptoms stem from headaches, herpetic lesions, peripheral neuropathy, back pain, throat pain, arthralgia, and muscle and abdominal pain.[2]

Sexual dysfunction has been reported to occur in both men and women with HIV infection. In men, hypogonadism can be treated by using testosterone replacement. As a rule, testosterone more effectively treats diminished libido than erectile dysfunction.[2]

### **3. HIV/AIDS in persons with mental illness**

There is a large literature showing that individuals with mental disorders engage in higher than average rates of risky behaviors ranging from unprotected sex to sex with multiple partners, sexual victimization, injection drug use, making them much more likely to become HIV infected.[1]

### **4. Anti Retroviral therapy and mental illness**

Okeke and Wagner study the impact of ART (antiretroviral therapy) the cohort of patients in Uganda entering HIV care. They found that 12 months after beginning ART the prevalence of major and minor depression in the treatment group had fallen by approximately 15 and 27 percentage points respectively relative to a comparison group of patients in HIV care but not receiving ART.[7]

## **5. Treatment**

### *5.1 Psychiatric Treatment in person with HIV/AIDS*

Psychosocial and psychopharmacologic treatments for mental disorder in HIV are important to increase the quality of life and health problem.[8] Treatment for HIV infected patients with psychosis follows the same basic principles as for any other patient with schizophrenia, namely, control of symptoms with medications and psychosocial support and rehabilitation. Quite often, patients require long-term treatment and require various antipsychotic medication to control the delusion, hallucinations, and overall level of disorganization. Because of the high sensitivity to antipsychotic side effects, always start with low doses and if possible maintain patients on half the required dosage for age and weight.[9] Organization of AIDS –Psychiatry (OAP) stated that first-line treatment of depression is escitalopram/citalopram; Psychosis and secondary mania: quetiapine; Anxiety: clonazepam.[8] Atypical antipsychotics especially risperidone, followed by clozapine and olanzapine are supported for the treatment of new-onset psychosis in HIV positive patients.

### *5.2 Psychosocial Intervention*

The goal of the intervention was to facilitate ventilation, motivate the patient to adopt healthy coping skills and problem-solving skills, HIV counseling, psychoeducation to the family and to avert further relapse rates by medication and active family intervention.[10]

Evidence from high-income countries suggests that psychological interventions for people living with HIV can improve mental health symptoms, quality of life, and HIV care engagement. However, little is known about the effectiveness of mental health interventions for people living with HIV in low and middle-income countries, where the high majority of people living with HIV reside.[11]

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