Published in final edited form as:

AIDS. 2012 March 13; 26(5): 656–658. doi:10.1097/QAD.0b013e3283519aae.

Falling through the cracks: The gaps between depression prevalence, diagnosis, treatment, and response in HIV care

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Depression is the most common mental health disorder among HIV patients, affecting 20–30% of those engaged in HIV medical care.¹ In addition to being a serious, costly, and potentially fatal medical condition in its own right, depression poses challenging barriers to effective medical care at multiple points along the continuum of HIV medical care engagement and treatment,² or what has become known as the “HIV treatment cascade.”³

The HIV treatment continuum shows that for an HIV-infected individual to achieve virologic suppression, the individual must be aware of his or her diagnosis, engage in HIV medical care, remain in care, start antiretroviral therapy (ART), and adhere to ART. Thus high population-level success rates in testing, linking and retaining in care, initiating ART, and maximizing adherence are essential to maximally reduce “community viral load.”⁴ However, with substantial attrition at each step along the HIV treatment continuum, a recent analysis estimated that only 19% of HIV-infected individuals in the US currently have suppressed virus.²

Attrition along the steps of the HIV treatment continuum is related to many factors, but in particular is strongly predicted by depression. Mounting evidence suggests that effectively treating depression in HIV patients may have benefits for their HIV treatment retention, ART adherence, and virologic suppression, and therefore for community viral load.^{5,6}

However, the response to depression in HIV patients suffers from its own “treatment cascade.” Depression in HIV patients, while highly prevalent, is widely unrecognized.⁷ When clinically recognized, the condition often goes untreated.⁸ When treated, providers’ adherence to best-practices guidelines about dosing, duration, and monitoring of antidepressants is low, meaning that many patients fail to receive an adequate treatment course and therefore fail to benefit from treatment.⁹

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Author contribution statement:

All authors meet ICMJE criteria for authorship. BWP conceived of the design. BWP and JKO wrote the first draft of the paper. BWP, JKO, and BNG reviewed the literature, wrote the paper, and agree with the manuscript’s results and conclusions.

Conflict of interest statement:

All authors state that no conflicts of interest exist.

Ethics approval:

This manuscript did not involve research with human subjects and therefore did not receive ethics approval.

Clinical recognition

In the nationally representative HIV Cost and Service Utilization Survey, 45% of those meeting diagnostic criteria for a major depressive disorder (MDD) had documentation of a diagnosis of depression in their medical record.⁷

Treatment

In the multi-site HIV/AIDS Treatment Adherence, Health Outcomes, and Cost Study of patients triply diagnosed with mental illness, substance use, and HIV, only 59% had received any mental health treatment in the past three months; of those with a mood disorder, 40% were taking a psychotropic medication.⁸ Other studies have reported similar results.¹⁰

Adequacy of treatment

Adequate treatment for psychotherapeutic treatments generally requires at least 8 sessions.⁹ For antidepressants, a core principle involves regular evaluation of depressive symptom response and side effects, combined with increasing antidepressant doses if response has not been achieved.¹¹ We did not identify any data on adequacy of depression treatment for HIV patients. The National Comorbidity Study-Replication estimated that in the US general population, 64% of those being treated in the specialty mental health sector and 41% of those being treated in the general medical sector were receiving adequate depression treatment, based on what is likely a generous definition of adequacy.⁹

Treatment response

Standard psychotherapeutic and pharmacological treatments work as well or better in achieving full remission from depression in HIV patients compared to the general population. In controlled and open-label trials of antidepressants in HIV patients, remission rates have ranged from 17–100% with a median of 72%.¹²

Based on these and other studies, we used the following estimates and 95% Bayesian credible intervals (BCI)¹³ to define the depression treatment cascade for HIV patients (Figure): 45% (40–50%) of MDD cases in HIV patients are recognized clinically; of those recognized clinically, 40% (30–50%) are being treated; of those treated, 40% (25–55%) are being treated adequately; and of those receiving adequate treatment, 70% (55–85%) have achieved remission.

Combining these estimates suggests that of all HIV patients with MDD, 18% (14–24%) are receiving any treatment, 7% (4–12%) are receiving adequate treatment, and 5% (3–9%) have achieved remission. Thus, we estimate that 82% of HIV patients with depression are not receiving any treatment, 93% are not receiving adequate treatment, and 95% have not achieved remission.

While effective medical treatments for depression are well established, the successful treatment of depression in HIV patients is a rare event due to shortcomings in clinical recognition, treatment initiation, and treatment adequacy. Substantial gains in depression remission rates are only likely by targeting multiple steps along this cascade, e.g. by combining routine depression screening with collaborative care models that give HIV providers decision support in prescribing and adjusting antidepressants within the HIV “medical home.”¹⁴ Mental health care models for HIV patients that address these gaps will be critical both to improve quality of life and to mitigate depression’s impact on community viral load.

Acknowledgments

Role of funding source:

BWP and BNG's contribution to this paper was supported by grant R01MH086362 of the National Institute of Mental Health, National Institutes of Health, Bethesda, MD, USA. The funder had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript. BWP had full access to all data and had final responsibility for the decision to publish.

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Figure. The Depression Treatment Cascade for HIV Patients

The figure depicts, of all HIV patients with a major depressive episode in the past year, the estimated proportion whose depression is recognized clinically, who are receiving any treatment, who are receiving adequate treatment, and who have achieved remission. The bars represent point estimates and the vertical lines indicate 95% Bayesian credible intervals.¹³