

ORIGINAL RESEARCH

Attitudes of Indian HIV Clinicians Toward Depression in People Living with HIV



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Abstract

BACKGROUND Depression is highly prevalent in people living with HIV (PLHIV) and is associated with increased morbidity and mortality. In India, where access to mental health specialists is limited, little is known about the attitude of HIV clinicians toward depression in PLHIV.

METHODS We administered a questionnaire to HIV clinicians attending the 2015 Chennai Antiretroviral Therapy Symposium that assessed respondents' level of agreement with 29 statements regarding the etiology, importance, and management of depression and whether they felt capable and willing to manage depression in PLHIV.

RESULTS The 69 respondents were from 9 Indian states. Most respondents agreed that depression in PLHIV is a serious problem (91%) and is associated with poorer HIV-related outcomes (62%-81%). Although most respondents (76%) reported feeling comfortable discussing mental health problems with PLHIV, almost half (48%) admitted that lack of knowledge and training about mental health issues hindered the diagnosis and treatment of depression in PLHIV. With few exceptions, there were no significant differences in responses by gender, urban/rural practice location, or government versus private practice.

CONCLUSIONS Indian HIV clinicians believe that depression in PLHIV is important and are willing to manage depression in the HIV primary care setting. These findings suggest that HIV clinicians require further training to deliver evidence-based interventions to treat PLHIV with depression.

KEY WORDS depression, clinicians, India, HIV

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BACKGROUND

Depression in people living with HIV (PLHIV) has been associated with increased HIV transmission risk,^{1,2} greater CD4⁺ cell count declines,^{3,4} reduced adherence to antiretroviral therapy

(ART),⁵ and increased mortality and morbidity.^{4,6,7} In India, which has the world's third-largest HIV epidemic with 2.4 million PLHIV,⁸ the prevalence of depression among PLHIV is high, with estimates ranging from 19%-56% among samples of PLHIV in care.⁹⁻¹²

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As in other low- and middle-income countries (LMICs), diagnosis and management of depression in India is made more difficult by the relative paucity of mental health specialists.¹³ Furthermore, in India as in other countries, depression often manifests with somatic symptoms, leading patients to consult nonpsychiatric clinicians.^{14,15} For these reasons, treatment of depression in LMICs such as India will remain the domain of primary care providers for the foreseeable future.¹⁶ Accordingly, HIV clinicians will likely be integral to any successful interventions targeted toward depression in PLHIV in LMICs.¹⁷ Given that effective interventions for depression can be implemented by nonspecialist clinicians,¹⁸ the integration of mental health care into HIV clinical care will be critical to improve HIV-related outcomes.¹⁹

Although the integration of mental health interventions into HIV care will require the involvement of HIV clinicians, a study conducted in Gujarat showed widespread stigma and misinformation about depression among nonpsychiatric clinicians.²⁰ Against this backdrop, it is critical to understand the perceptions of HIV clinicians toward depression in PLHIV—in particular, whether HIV clinicians would be willing and able to screen for and treat depression in HIV primary care settings. However, in India, no studies have been conducted on the attitudes of HIV clinicians toward depression in PLHIV.

To address this gap in knowledge, we administered a questionnaire to HIV clinicians attending the 2015 Chennai Antiretroviral Therapy (CART) Symposium. The aim of this study was to better understand the attitudes of Indian HIV clinicians toward depression in PLHIV and diagnosis and management of depression in routine HIV care. We hypothesized that Indian HIV clinicians would agree that depression in PLHIV is important and would be willing to address depression in an HIV primary care setting but would feel inadequately prepared to do so.

METHODS

The study was conducted at CART 2015, a 2-day HIV educational symposium organized by the Y.R. Gaitonde Centre for AIDS Research and Education (YRG CARE) and held in Chennai, India. YRG CARE is a leader in HIV clinical care and research in India, having treated more than 20,000 PLHIV since its founding in 1993 and having served as a study site for the HIV

Prevention Trials Network and AIDS Clinical Trials Group.^{21,22} CART, which is held yearly, is one of the most important HIV educational symposia in India and attracts HIV clinicians from all over India as well as other countries in South Asia. On the first day of the conference, we administered a written questionnaire that asked about clinicians' demographics and practice information and 29 items related to clinicians' attitudes toward depression. These 29 items, which were grouped into 5 categories, asked respondents to agree with statements about depression in PLHIV using a 5-point Likert scale (strongly agree, agree, neutral, disagree, strongly disagree). The questionnaire was adapted from other published questionnaires on provider attitudes toward mental health,^{23,24} including 2 from India.^{25,26} Study materials were written in English, which was the primary language used at CART 2015. We obtained informed consent from all study participants. Ethical approval for study procedures was obtained from the Institutional Review Board of YRG CARE.

We used descriptive statistics to characterize the sample and quantify the frequency of responses to the 29 questionnaire items. For each of the 29 items, after assigning values of 1 (strongly disagree) to 5 (strongly agree) for responses on the Likert scale, we used *t* tests to compare mean level of agreement by sex, government versus private practice, and urban versus rural practice location. To assess the association between level of agreement with each question and years of practice or number of PLHIV treated per month, we fitted linear regression models with level of agreement as the outcome variable and years of practice or number of PLHIV per month (log-transformed, given the skewed distribution of this variable) as the explanatory variable. A statistically significant regression coefficient was considered evidence that level of agreement with a particular question differed by years of practice or number of PLHIV per month.

RESULTS

We received questionnaires from 69 respondents, including 42 men and 25 women (2 persons did not provide responses for sex) (Table 1). The median age of respondents was 39 years old (range, 21–75). Seventeen clinicians reported specializing in infectious diseases, HIV medicine, or venereology; 11 clinicians reported specializing in medicine/internal medicine or serving as general practitioners. A variety of other specialties were reported,

Table 1. Participant Characteristics (n = 69)

Sex	
Male, %	42 (63%)
Female, %	25 (37%)
Age, median (range)	39 (21-75)
Specialty	
Infectious diseases, HIV, venereology	17 (25%)
Microbiology	12 (17%)
Internal medicine, medicine, general practice	11 (16%)
Other	18 (26%)
None reported	11 (16%)
Primary practice	
Government/public	37 (58%)
Private	26 (42%)
Urban/rural location	
Urban	48 (71%)
Rural	10 (15%)
No response	10 (15%)
Years in practice, median (range)	10 (1-25)
Approximate no. of patients per mo, median (range)	100 (1-5300)

including pulmonology, obstetrics/gynecology, anesthesia/critical care, and microbiology. The median number of years in practice was 10 (range, 1-25). The median number of PLHIV seen per month was 100, with a very wide range reported (1-5300); 11 clinicians reported caring for at least 1000 PLHIV per month. On average, clinicians employed in the public sector reported seeing far more PLHIV per month (933 vs 92, $P = 0.01$). Results for each of the 29 items are summarized in Table 2. Number of missing values for each item ranged from 1 to 4. Key results are summarized by category next.

Etiology of Depression in PLHIV/Stigmatizing Attitudes Toward PLHIV with Depression. There was a relatively wide range of responses regarding etiology of depression, with no strong consensus as to whether depression results from “biochemical imbalances” (38% agreed, 24% disagreed) or “recent misfortunes” (27% agreed, 38% disagreed). Similarly, results were mixed in regard to stigmatizing attitudes toward depressed PLHIV. Although 68% of respondents disagreed with the statement, “People who develop depression usually have only themselves to blame,” 62% of respondents were either neutral or agreed with the statement “Depression is a sign of personal weakness.” A majority (53%) of respondents felt that it was difficult to work with depressed PLHIV. There were no significant differences in responses by gender, urban versus rural practice location, government versus

private practice, years in practice, or number of PLHIV seen per month.

Importance of Depression in PLHIV. There was broad agreement that depression was both common and impactful. A large majority of the sample agreed that depression was common among PLHIV seen in practice (78%) and that depression exacerbated risky behaviors (80%) and worsened HIV-related outcomes, such as antiretroviral therapy adherence (73%), loss to HIV care (81%), and treatment failure (62%). There were no significant differences in responses by gender, urban/rural practice location, government versus private practice, years in practice, or number of PLHIV seen per month.

Treatment of Depression in PLHIV. Most respondents agreed that depression in PLHIV is treatable (81%) and that depression in PLHIV needs to be treated before it can improve (79%). A large majority agreed that depression should ideally be treated with a combination of medications and counseling (99%). Men compared with women (3.2 vs 2.7, $t = 2.07$, $P = 0.04$) and practitioners in rural locations (3.7 vs 2.8, $t = 2.95$, $P = 0.005$) were more likely to agree that depression in PLHIV can be treated with counseling alone. There were no significant differences in responses by government versus private practice, years in practice, or number of PLHIV seen per month.

Ability and Willingness of HIV Clinician to Manage Depression. Most respondents (76%) felt comfortable discussing mental health problems with PLHIV, with only 19% agreeing that it is inappropriate for a clinician to bring up mental health problems with patients. Respondents appeared to be more confident in their ability to diagnose depression (66%) than treat depression (45%). Forty-eight percent endorsed that “Lack of knowledge/training about depression prevents me from diagnosing and treating depression in PLHIV.” Men were more likely to agree that it was inappropriate to bring up mental health problems with patients (2.8 vs 2.2, $t = 2.59$, $P = 0.01$) and to be confident in their ability to treat depression (3.5 vs 3.0, $t = 2.02$, $P = 0.05$). Rural practitioners were more likely to feel comfortable discussing mental health problems with PLHIV (4.3 vs 3.7, $t = 2.53$, $P = 0.01$) and confident in their ability to treat depression in PLHIV (3.9 vs 3.2, $t = 2.05$, $P = 0.04$). Practitioners with more years in practice treating HIV were less likely to consider it inappropriate to bring up mental health problems with patients ($b = -0.04$, $t = 2.06$; 95% confidence interval [CI], -0.072 to -0.001).

Table 2. Levels of Agreement of 69 Indian HIV Clinicians with Statements Regarding Depression in People Living with HIV (PLHIV)

Statement	Disagree/Strongly Disagree*	Neutral	Agree/Strongly Agree
Etiology of depression in PLHIV / stigmatizing attitudes toward PLHIV with depression			
Depression in PLHIV is the result of biochemical imbalances.	24%	38%	38%
Depression in PLHIV is the result of recent misfortunes.	38%	34%	27%
People who develop depression usually have only themselves to blame.	68%	17%	15%
Depression is a sign of personal weakness.	38%	24%	38%
It is difficult to work with PLHIV who have depression.	26%	21%	53%
Importance of depression in PLHIV			
Depression is common among the PLHIV I see in practice.	6%	16%	78%
Among PLHIV, mental health problems are less important than physical health problems.	54%	9%	20%
Depression in PLHIV is worthy of serious concern and attention.	4%	4%	91%
Depression can cause or worsen somatic symptoms in PLHIV.	3%	11%	86%
PLHIV who are depressed are less likely to be adherent to antiretroviral therapy.	12%	15%	73%
PLHIV who are depressed are more likely to engage in risky behaviors.	12%	9%	80%
PLHIV who are depressed are more likely to have antiretroviral treatment failure.	15%	24%	62%
PLHIV who are depressed are more likely to drop out of care.	6%	13%	81%
Treatment of depression in PLHIV			
Depression in PLHIV is treatable.	3%	16%	81%
Depression in PLHIV needs to be treated before it can improve.	6%	15%	79%
Depression in PLHIV can be treated with counseling alone.	42%	20%	38%
Depression in PLHIV can be treated with medications alone.	79%	15%	6%
Depression in PLHIV should be treated with a combination of medications and counseling.	0%	1%	99%
Ability and willingness of HIV clinician to manage depression			
I actively look for depression among my patients with HIV.	6%	29%	65%
Time constraints prevent me from diagnosing and treating depression in PLHIV.	40%	24%	37%
Aside from university, I have received formal training in mental health disorders.	20%	43%	37%
Lack of knowledge/training about depression prevents me from diagnosing and treating depression in PLHIV.	31%	22%	48%
I am confident in my ability to diagnose depression in PLHIV.	13%	21%	66%
I am confident in my ability to treat depression in PLHIV.	18%	36%	45%
I am comfortable discussing mental health problems with PLHIV.	6%	18%	76%
It is generally inappropriate in India for a clinician to bring up mental health problems with patients.	52%	28%	19%
Access to and use of mental health specialists			
If I need to refer a PLHIV who has depression, I have easy access to psychiatrists and other mental health specialists.	19%	29%	71%
Diagnosis and management of depression in PLHIV should be left to psychiatrists and other mental health specialists.	56%	16%	28%
When my patients with HIV have depression, I usually manage their depression myself without making a referral.	40%	25%	35%

* Totals may not equal 100% because of rounding.

Access to and Use of Mental Health Specialists. A majority of respondents (71%) disagreed that “diagnosis and management of depression in PLHIV should be left to...mental health specialists.” Most respondents (71%) reported “easy access” to mental health specialists, with higher levels of agreement among private practitioners (4.1 vs 3.5, $t = 2.34$, $P = 0.02$) and practitioners with more years of practice ($b = 0.05$; $t = 2.28$; 95% CI, 0.006–0.085). There were no other significant differences in responses by gender, urban versus rural practice

location, government versus private practice, or number of PLHIV seen per month.

CONCLUSIONS

In this sample of 69 Indian HIV clinicians attending the 2015 Chennai ART symposium, we found that a majority agreed that depression in PLHIV is an important clinical problem and that depression can and should be managed by HIV clinicians. There appeared to be considerably less

misinformation and stigma about depression in this sample compared with a previous study of Indian nonpsychiatric clinicians,²⁰ which suggests that HIV providers may have been sensitized to the importance of behavioral health. Encouragingly, compared with nonpsychiatric clinicians in high-income countries,^{24,27} including HIV clinicians in the United States,²³ the Indian HIV providers sampled in our study appeared to have similar (if not greater) favorable attitudes toward PLHIV and a willingness to diagnose and treat depression. We found that these opinions and attitudes were generally held regardless of respondents' gender, rural versus urban practice locale, employment in public or private practice, years in practice, or numbers of PLHIV seen per month. These findings suggest that Indian HIV clinicians should play an integral role in delivering evidence-based interventions to treat depression in the HIV primary care setting.

There exist numerous examples in the literature of nonspecialist clinicians, including lay health workers, being trained in LMICs to provide mental health care.^{18,28} Further, emerging evidence from the United States²⁹ and Cameroon³⁰ suggests that task-shifting models for mental health care embedded within HIV care settings may be effective in reducing depression-related morbidity among PLHIV. Given these successful precedents, the results of our study should provide an impetus for efforts to train Indian HIV clinicians to integrate depression care into routine HIV clinical care.

Although the results of this study were generally encouraging, several findings of concern merit attention from policymakers. First, nearly half of respondents reported that a lack of knowledge or training hindered their management of depression in PLHIV. In particular, respondents felt relatively uncomfortable in treating, compared with diagnosing, depression. Second, although the prevalence of stigmatizing attitudes toward people with depression appeared to be lower in our sample compared with a sample of non-HIV, nonpsychiatric clinicians,²⁰ a significant percentage of respondents still

agreed that depression was a sign of personal weakness or that people with depression "have only themselves to blame." Therefore, efforts to improve clinical knowledge of depression and to reduce stigmatizing attitudes among HIV clinicians may be important to the success of interventions for depression in the HIV primary care setting.

There are several limitations to this study. First, because this study used a convenience sample of HIV clinicians who were motivated enough to attend an educational symposium, our results cannot be considered representative of all Indian HIV clinicians. Nevertheless, CART 2015 is one of the most widely attended HIV symposia in India, and it is likely that a sizable percentage of HIV clinicians from South India were in attendance. Second, responses may have been affected by social desirability bias and therefore may not have fully reflected participants' true opinions or practices. As a result, we may have underestimated respondents' stigmatizing attitudes or lack of knowledge and comfort regarding depression in PLHIV, underscoring the need for policymakers to address these issues as a part of interventions targeting PLHIV with depression.

In conclusion, we found that Indian HIV clinicians feel that depression in PLHIV is an important clinical problem and that depression can and should be managed in the HIV primary care setting. Our findings suggest that with proper training, HIV clinicians should occupy a central role in interventions for Indian PLHIV with depression. Given the high prevalence of depression and the association of depression with poorer HIV-related outcomes, including increased morbidity and mortality, further study to design and implement such interventions in the Indian context is warranted.

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