

Prevalence and Associated Factors of Depression among HIV Infected Patients in Debre Markos Town Northwest Ethiopia

Getiye Dejenu Kibret^{1*}, Selamawit Zewdu Salilih²

¹Debre Markos University College of Medicine and Health Sciences, Department of Public Health, Ethiopia

²Debre Markos University College of Medicine and Health Sciences, Department of Nursing, Ethiopia

ABSTRACT: *In the context of HIV/AIDS, depression is an often overlooked but potentially dangerous condition that can influence not only quality of life, relationships, employment, and adherence to medical care, but also perhaps survival. The main aim of this study was to assess prevalence and associated factors of depression among HIV infected patients in Debre Markos town northwest Ethiopia. The prevalence of depression among the study participants was 48(11.7%).*

Those who live alone were 2.5 times more likely to have depression compared to those who live with their family (AOR = 2.465 (95% C.I.: 1.196, 5.078).this finding is in line with findings from different areas. Those who face stigma and discrimination from the community were 3 times more likely to have depression than their counter parts (AOR = 3.42, 95% C.I.: 1.628, 7.188); supported by other findings. Patients who had experience of quitting work were also more depressive (AOR = 2.73, 95% C.I.: 1.778, 6.329). Variables like living condition, presence of stigma and discrimination, presence of positive social support and experience of work quitting were independent determinants of depression among HIV infected patients in the study area.

Key words: *Depression, Patients, Social support*

INTRODUCTION

In the context of HIV/AIDS, depression is an often overlooked but potentially dangerous condition that can influence not only quality of life, relationships, employment, and adherence to medical care, but also perhaps survival. Depression is associated with isolated lives, the absence of pleasure, and social and vocational impairment. Depression is also associated with failure to maintain a proper diet and exercise regimen and to adhere to medical care. Other than substance use disorders, depression is the most prevalent psychiatric disorder among HIV-positive (HIV+) adults. It can be identified even in primary care settings once the topic is raised (which is insufficiently often), and its treatment is one of psychiatry's strengths. Although, overall, rates of depressive disorders among HIV+ adults may or may not be elevated compared with HIV- persons from the same community, they clearly are greater than the rates for the general population (Rabkin, 2008).

Affective disorders have been reported as the most common mental health problem in persons with HIV infection. Depression has a significant impact on the quality of life of persons living with HIV and AIDS and is associated with HIV disease progression and mortality, even after controlling for socio-demographic and clinical characteristics and substance abuse. Depression has been also reported as one of the main causes of poor adherence with antiretroviral regimens (Starace et al., 1999).

Depression is second only to substance abuse as the most prevalent psychiatric disorder among HIV-positive patients (Morrison et al., 2011). A drink once in a while when you're stressed out or blue is one thing. But when you need that cocktail every time a problem crops up, it could be a sign of alcohol abuse. There's also a strong link between serious alcohol use and depression. The question is, does

regular drinking lead to depression, or are depressed people more likely to drink too much? Both are possible (Perugi et al., 2002)

In the context of HIV/AIDS, depression has also been shown to lead to more social isolation, lower antiretroviral medication adherence, and faster progression to a number of factors were associated with patient-reported diagnoses of depression and/or anxiety. Both histories of depression and anxiety frequently coexisted in patients; in fact, all patients who reported having a history of depression diagnosis also had a history of anxiety diagnosis. This finding suggests that anxiety or depression following HIV diagnosis may be co-morbid conditions (Morrison et al., 2011). Generally, the prevalence of depressive disorders in HIV-infected patients ranges from 12% to 66% and is undiagnosed in 50% to 60% of these patients (Silveira et al., 2012).

Depression and problems with adherence to treatment regimens have been noted for a variety of other medical conditions, including hypertension, coronary artery disease; diabetes mellitus and kidney failure. Adherence is also thought to be a significant problem for people with HIV/AIDS, and may mediate the relationship between HIV/AIDS and mortality. Sixty percent of participants reported experiencing at least two of the three cognitive symptoms associated with depression (thoughts of worthlessness, diminished ability to think and/or concentrate, and thoughts of death), and 30.6% reported experiencing all of these symptoms (Berger-Greenstein et al., 2007).

HIV stigma can negatively influence interactions with family, friends, sexual partners, coworkers, and health professionals and often results in loss of social support. Some HIV-infected persons do not have an adequate support network because they fear rejection from family members or friends (Robbins et al., 2003). Risk for suicide may be increased when HIV disclosure to loved ones is met with rejection rather than support (Kalichman et al., 2000). One study found that being in a current intimate relationship was associated with lower risk for depression in persons with HIV infection (Komiti et al., 2003). It is likely that strong and stable social support networks

*Correspondence regarding this article should be directed to: dgetiye@gmail.com

are important in ameliorating the effects of HIV-related stigma (Chenard, 2007).

A study in Nigerian University teaching hospital showed among 310 HIV-infected participants assessed for depression, 14.2% had current depressive disorder (Olisah, Adekeye & Sheikh, 2015).

Another study from Yaoundé, Cameroon among HIV infected patients showed that 63% of the study population had depressive symptoms, most of them having symptoms corresponding to moderate depression (46% of the entire sample, and 73% of the depressed ones). The overall prevalence of depressive symptoms was 63%, the majority having symptoms corresponding to moderate depression. Probably depressed patients were more likely than those who were not depressed to have had experience of alcohol abuse and a 100 CD4 cells/mm³ fewer was associated with a 2.9 times increase of the odds of probable depression (L'Akoa et al., 2013).

A study from Canadian National Population Health Survey showed that low education level and financial strain were associated with an increased risk of MDE in participants who worked in the past 12 months. In those who did not work in the past 12 months, participants with low education were at a lower risk of MDE compared with those with higher education. Working men who reported low household income (12.9%) and participants who did not work and reported low personal income (5.4%) had a higher incidence of MDE than others (Wang, Schmitz & Dewa, 2010).

A study done in Northern Ethiopia showed that among 269 participants 43.9% were depressed. In this research depression was associated with urban dwellers, with lower socio-economic class, unemployed and government employees. Overall, 73% of participants had good adherence to HAART and 63.6% of participants with depressive disorder had poor adherence to HAART compared to 21.1% of participants without depressive disorder (Berhe & Bayray, 2013).

The main aim of this study was to assess prevalence and associated factors of depression among HIV infected patients in Debre Markos town northwest Ethiopia.

RESULTS

Socio-Demographic Characteristics

Majority (95.1%) of the respondents were orthodox Christian followers and about 400(97.1%) were Amhara ethnically. Regarding their residence the majority 83% were urban from urban areas. About 295(71.6%) were living with family and the other 117(28.4%) were living alone (Table 1).

HIV Status and Related Characteristics

Majority (51%) of respondents were at HIV stage of T1. Fifty seven (13.8%) of the respondents were with less than 200 CD4 count. About 383 (93%) of the total respondents had started ART and the most common regimen they were taking was 1e/Tdf-3tc-Nvp. Among those on ART about 233 (56.6%) had experienced drug side effects. About thirty five percent of the respondents had started ART before five years of data collection time and the remaining 65% were on ART for one to- five years duration.

Regarding ART adherence, majority (87.1%) of respondent's adherence status was good and the remaining 3.2% and 9.7% adhere fairly and poorly respectively. Majority of patients 332(80.6%) had disclosed their HIV status and their disclosures were for families (64%), spouses (7.3%), friends (3.4%), neighbors (3%) and media (2.7%) respectively.

About 12.1% of the study participants faced family death due to HIV infection and the other 41.3% reported that their spouses were

HIV positive, 25.7% were unknown and the remaining 33% spouses were negative.

DISCUSSION

The prevalence of depression among the study participants was 48(11.7%). This finding is lower than previous study in Northern Ethiopia which was 43.9%. The difference might due to the social composition and support. The finding is also in approach with a finding from Nigerian University teaching hospital among HIV-infected participants (Olisah, Adekeye & Sheikh, 2015); within the range with common prevalence findings in different literatures (Silveira et al., 2012). Significant numbers (38%) of depressed patients were substance users like alcohol and chat; in agreement with a finding elsewhere (Perugi et al., 2002).

In this study majority (87.1%) of respondent's adherence to ART status was good and the remaining 3.2% and 9.7% adhere fairly and poorly respectively; in agreement with another finding in Ethiopia (Berhe & Bayray, 2013).

Those who live alone were 2.5 times more likely to have depression compared to those who live with their family (AOR= 2.465 (95% C.I: 1.196, 5.078), this finding is in line with findings from different areas (Komiti et al., 2003; Chenard, 2007) Those who face stigma and discrimination from the community were 3 times more likely to have depression than their counter parts (AOR= 3.42, 95% C.I: 1.628, 7.188); supported by other findings (Robbins et al., 2003; Kalichman et al., 2000). Patients who had experience of quitting work were also more depressive (AOR= 2.73, 95% C.I: 1.778, 6.329). In the other hand, patients who had poor social support were more likely to have depression than those who have good and fair social support in their locality (AOR= 10.1, 95% C.I: 1.91 33.16) (Table 2); in line with different findings (Unnikrishnan et al., 2012;

Table 1.
Socio-demographic characteristics of HAV infected patients in.

Variable	Frequency	%	
Sex of respondents	Male	172	41.7
	Female	240	58.3
Age of respondents	18-25	39	9.5
	26-35	164	39.8
	36-45	123	29.9
	56-65	22	5.3
	46-55	64	15.5
Marital status	Married	202	49.0
	Single	48	11.7
	Widowed	91	22.1
	Divorced/Separated	71	17.2
Religion	Orthodox	392	95.1
	Muslim	13	3.2
	Protestant	7	1.7
Ethnicity	Amhara	400	97.1
	Tigre	9	2.2
	Oromo	3	.7
Educational status	Cannot read and write	120	29.1
	Primary education completed	130	31.6
	Secondary education completed	115	27.9
	Diploma and above education achieved	47	11.4
Residence	Rural	70	17.0
	urban	342	83.0
Monthly income	<500	230	55.8
	501-1000	78	18.9
	1001-1500	31	7.5
	1501-2000	39	9.5
	>2000	34	8.3

Table 2.

Association of socio-demographic and other variables with depression

Explanatory Variables		Depression		COR (95 % C.I.)	AOR (95 % C.I.)	P-value (overall)
		Yes	No			
living condition	Family	26	269		1.00	0.014
	Alone	22	95	2.39(1.297, 4.428)	2.465(1.196, 5.078)*	
HIV disclosure	Yes	34	298		1.00	0.085
	No	14	66	1.86(0.945, 3.659)	2.003(0.908, 4.421)	
stigma and discrimination	Yes	30	310		1.00	0.001
	No	18	54	3.44(1.79, 6.61)	3.42(1.628, 7.188)*	
stop working	Yes	34	327		1.00	0.019
	No	14	37	3.69(1.79, 7.39)	2.73(1.778, 6.329)*	
health status	very good	22	231		1.00	0.009
	fair	24	117	2.15(1.11, 4.18))	1.176(0.183, 7.570)	
	poor	2	16	1.13(0.35, 7.6)	3.674(0.575, 23.479)	
social support	very good	2	34		1.00	<0.001
	fair	11	114	1.64(0.32, 11.29)	1.99(0.37, 10.72)	
	poor	35	216	2.75(0.61, 17.36)	10.1(1.91 33.16)*	
Sex	Male	14	158	0.54(0.279, 1.035)	0.523(0.254, 1.078)	0.079
	Female	34	206		1.00	
start ART	Yes	41	342	0.38(0.14, 1.04)	0.381(0.132, 1.105)	0.076
	No	7	22		1.00	

Significant at p-value<0.05

Robbins et al., 2003; Chenard, 2007)

CONCLUSION AND RECOMMENDATION

The prevalence of depression among HIV patients in this study area was relatively lower compared to findings in different parts of Ethiopia. Variables like living condition, presence of stigma and discrimination, presence of positive social support and experience of work quitting were independent determinants of depression among HIV infected patients in the study area.

Authors Contribution

The first author Getiye Dejenu Kibret; did the analysis, write the results and prepared the manuscript. The second author; selamawit Zewdu salilih, prepared the protocol and collected the data.

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