

Mental health needs of people living with HIV/AIDS: a thematic overview

Abstract

HIV and Mental illness are among the most stigmatized form of illness in most of the societies around the world. Little is being done by the public health systems of majority of nations to tackle this illness. Though considered as separate entities, the emerging research shows that majority of time, HIV and Mental illness are closely linked with each other reflecting the need to holistically address them. Though ample amounts of funds are being pumped in to HIV component annually both by governments and civil society organizations, most of the time mental health and particularly the mental health needs of persons living with HIV/AIDS go unaddressed. This paper trying to take the inputs from the literature and tries to thematically reflect on the aspect of HIV/AIDS and Mental health, there interrelationship and the mental health needs of persons living with HIV/AIDS. It tries to reflect on the barriers for addressing the mental health needs of persons living with HIV/AIDS, which are to be essentially tackled to provide holistic health services to PLHA.

Keywords: mental health, HIV/AIDS, PLHA, depression

Volume 7 Issue 1 - 2018

Prakash Babu Kodali

Department of Public Health and Community Medicine, Central University of Kerala, India

Correspondence: Prakash Babu Kodali, Assistant Professor, Department of Public Health and Community Medicine, School of Medicine and Public Health, Central University of Kerala, Kasaragod, Kerala, India, Tel +91 8330963085, Email prakashuph@gmail.com

Received: October 27, 2015 | **Published:** January 4, 2018

Introduction

HIV/AIDS is still one of the most talked about diseases and is considered as a prominent public health challenge in several countries around the world. Since the inception of millennium development goals and identification of HIV pandemic as a global public health challenge, significant improvements has been made in the area of HIV. However, newer challenges started emerging. Mental health issues are among the most common co morbidities associated with HIV/AIDS and post 2000, there has been a tremendous research in this area of HIV/AIDS and Mental Health, which has been talking about the coexistence and the burden of HIV/AIDS and Mental illness. This current thematic review reflects from the literature on co-existence of mental illness and HIV/AIDS, there interrelationships, mental health needs of People living with HIV/AIDS and prominent barriers for provision of mental health services to people living with HIV/AIDS.

HIV-Global Scenario

Being known to human kind since 1981 HIV/AIDS is one of the very few diseases which gained global attention in the last three decades. Soon after its discovery it escalated to the pandemic level and was considered as a global public health emergency needing immediate attention and investment of resources. The global epidemic claimed over 34million lives since its discovery,¹ and by the end of 2014 over 36.9million¹ people are living with HIV around the world. The HIV epidemic has a varied distribution in the countries around the globe with over 70% (25.8million) of them being concentrated in sub-Saharan African region.² As of 2014 Asia and pacific region account for around 5million reported cases of HIV whereas the European countries and the nations of American continents account for around 5.6million cases of HIV.² A similar pattern of unequal distribution is seen between countries where HIV prevalence rates range between 23.4% of total population as in Botswana to that of less than 0.01% of population in Afghanistan.³ Over 95% of HIV infections and deaths occur in developing countries⁴ overburdening the already weekend health system. As of 2013 the HIV prevalence in India among adults who are between 15-49years of age was around

0.3% accounting for about 21,00,000 cases.⁵ Post 2000 there has been a dramatic development in the global picture of HIV/AIDS response with HIV/AIDS being kept as key components at the overall centre of development. HIV/AIDS was even given a high priority as one of the goals in UN millennium development goals with two high priority targets specific to it.⁶

The Post 2000 strategies envisioned a global collective to fight against HIV/AIDS by the means of international cooperation, inter sectorial collaboration and combined efforts mobilizing funds and resources worldwide. Figure 1 shows that the last decade witnessed a near to 10 fold increase in international funding (though only funding from US federal government towards international contribution for AIDS is mentioned here). The advent of highly effective ART (HAART) has substantially increased the life expectancy of PLHA [7], currently the number of individuals receiving ART has risen from that of 0.69million in 2000 to 14.9million in 2014, reducing the number of HIV deaths from over 2.8million in 2000 to around 1.2million in 2014. However, as of 2013 only 36% of those with HIV living in LMICs were able to access ART³ reflecting the need to scale up the interventions and public health challenge they possess if left unturned.

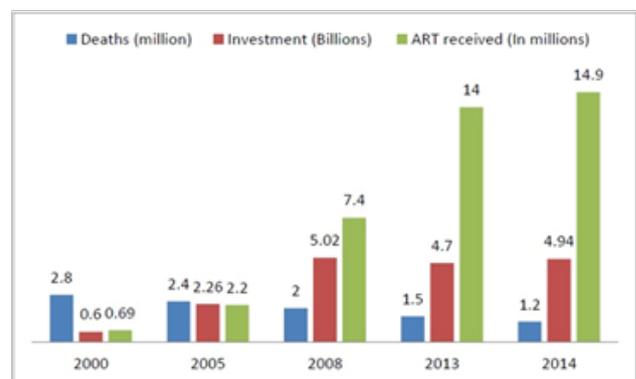


Figure 1 Showing the change in the parameters of HIV/AIDS over the years.

Mental health

WHO describes mental health as an individual's state of wellbeing and defines mental health as "a state of wellbeing where every individual realizes his/her own potential and copes up with the normal stressors of life, can work productively and is able to make contribution to his/her community".⁸ Considered as an integral component of health, the mental health of an individual is influenced by several biological, psychosocial and environmental aspects in which he/she lives. Further, the conditions of marginalization, conflict, exclusion and discrimination are known to have serious impact on mental health particularly of those who are most vulnerable.⁹ Neuropsychiatric disorders, mood disorders and substance use disorders account for majority of mental health illness.

Numerous attempts were made to quantify the prevalence of mental health issues. One such attempt was a meta-analysis which tried to come up with global prevalence of Mental health disorders by reviewing surveys published from 1980–2013 which found out that, the global prevalence of common mental disorders is 17.6%, the lifetime risk of developing anxiety disorders is 12.9% where as it is 9.6% and 10.7% for mood disorders and substance use disorders respectively.¹⁰ The High burden of mental illness on mankind is reported by the WHO global burden of disease report with depression (98.7million), Alcohol dependence and problem use (40.5million), bipolar disorder (22.2million) and schizophrenia (16.7million) standing at 3rd, 7th, 12th and 14th position respectively within the top 20 causes of disability around the world, thereby reflecting the severe threat posed by mental health issues.¹¹ Mental health illness is linked with several non-communicable diseases where mental health issues and NCDs influence each other's development.¹² Mental health issues are also known to be related to other diseases and illness, and mental illness with respect to people living with HIV/AIDS (PLHA) is one of the most studied areas in both fields of mental health and HIV.

HIV and mental health

The mental health status of an individual is influenced by the person's individual, social, psychological and environmental factors⁹ and it might be disturbed when the harmony and homeostasis of the above factors is disturbed. HIV/AIDS being considered as the disease without a cure affects all the social, physical and psychological dimensions of the individual's life¹³ and thereby has a negative effect on victim's mental health status. At least 30–73% of all individual's diagnosed HIV+ve have at least one psychiatric disorder in their life time.^{14,15} Mood disorders and behavioral disorders are among the most common mental disorders among the PLHA.^{16,17} Depression, anxiety and trauma are considered as the most common psychological ailments among PLHA, and depression is one of the most prominent mental health issues among PLHA, with it being 5–10times higher among PLHA than that of normal general population.¹⁷ In United States of America which is considered to be among the nations with highest ART coverage, around 25% of PLHA are diagnosed to be with depression.¹⁸

In African countries which account for majority of mortality and morbidity of HIV, studies report the prevalence of depression among PLHA to be ranging from 30% to 64%¹⁹ whereas, anxiety disorder and the associated symptoms are prevalent among 19–34% of them.¹⁹ Studies from India show the prevalence of Depression among PLHA to be ranging from 33.3% to 70%.²⁰ Also, other mental health issues like alcohol and substance abuse, Post traumatic stress disorder etc.,

are higher among PLHA.^{20,21} Post-Traumatic stress Disorder (PTSD) is also among most common Psychiatric co morbidities among PLHA.^{19–21} Studies show the prevalence of PTSD being as high as 30–40% among PLHA (DJ brief 2004), and further higher among those who were the victims of physical and sexual abuse (such as rape victims, those with history of Child sexual abuse etc) and those with the history of trauma.^{19–21} Alcohol and substance abuse is one of the major issues related to HIV and Mental health, serving as both the risk factor and mental health outcome of HIV.¹⁶ Studies show significant association between alcohol and substance use and HIV risk,^{22,23} with life time prevalence of alcohol abuse among PLHA ranging from 29%–60%,²³ which is comparably higher than that of lifetime prevalence of alcohol abuse among normal individuals which stands at 14–24%.¹⁵

Similarly, literature shows a higher prevalence of drug abuse among those with HIV,^{15–25} with life time prevalence of 23–56% among PLHA compared to that of 6–12% among normal individuals.¹⁵ Mental health issues like suicide are more prevalent among PLHA than that of normal population. Studies indicate the prevalence of suicide among PLHA as high as more than 10times the prevalence in general population. In Denmark which is considered as one of the most developed countries the suicides among PLHA is over 8.73times that of normal population, and suicide among PLHA those diagnosed with psychiatric disorders is over 13times higher.²⁶ Other studies indicate the prevalence of suicidal tendencies among PLHA to be around 9%,¹⁹ similarly studies show high prevalence of suicidal ideation among PLHA which was ranging from 20.5%–28.8%^{27,28} reflecting that mental illness among PLHA reduce their already compromised life expectancy to a greater extent. Other than the above mentioned mental health issues, PLHA are at higher risk of several personality disorders, severe mental illness like mania and psychosis etc.¹⁹ Further, PLHA are at risk of developing chronic mental health issues like dementia, schizophrenia, bipolar disorder etc.^{29,30} Also within PLHA, mental health issues are more prevalent among socially disadvantaged groups such as MSMs, Gays, Transgender, women, victims of abuse and children especially those orphaned by HIV.^{16–33}

Mental health, HIV and their interrelationship

Figure 2 gives an overview of mental health and HIV/AIDS and there interrelationship. An individual is put to psychological stress right from the moment of diagnosis of him/her being HIV positive, evident with the responses of shock, grief, disbelief, guilt and hopelessness etc. Though such responses are not just particular to HIV/AIDS and are seen in several other diseases, the fact that HIV has no potential cure and the societal and moral obligations associated with it puts the individual into prolonged instances of grief thereby dismantling his/her mental health status.³⁴ The victim is subjected to the felling of uncertainty of his life, quality of it, family and societal reactions towards his illness creating a tension between these uncertainties and coping of illness there by triggering the series of psychological responses which show a greater impact on his mental health.

Further, the aspects like stigma, rejection and discrimination coupled with economic, physical and social loss aggravate the development of mental illness.³⁵ Individuals with the previous history of trauma, abuse, and psychological disorders are more at risk of developing HIV risk behaviours (Unprotected sex, Drug and alcohol abuse, Needle sharing etc.,) putting them at higher risk of HIV²¹ and these individuals are at higher risk of developing serious mental illness post diagnosis of HIV. As HIV/AIDS is associated with stigma

majority of PLHA particularly in Low and middle income countries do not disclose their HIV status and do not seek medical care due to fear of discrimination thereby side-lining them from accessing highly effective ART.¹⁶ Also, individuals with HIV are at high risk of developing several mental health illnesses resulting in non-adherence to ART, high risk behaviours etc., which not just worsens their health but also contribute to spread of infection.^{16–34}

Mental Health, HIV and their Interrelationship:

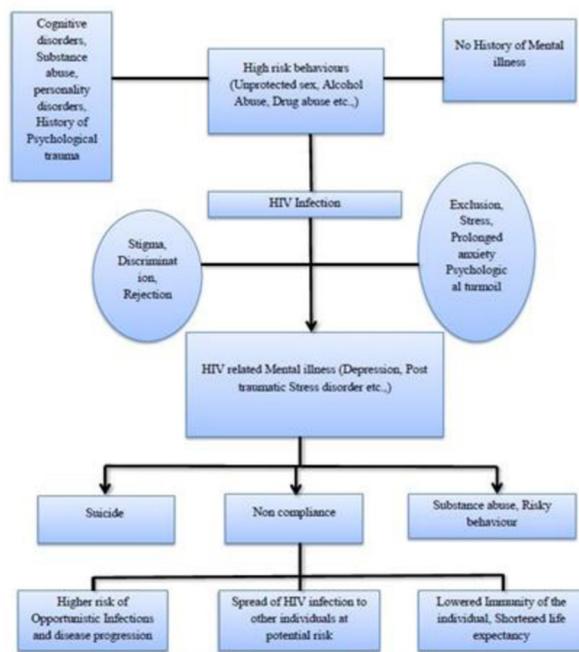


Figure 2 Schematic diagram showing how mental health illness and HIV are related to each other.

Mental health needs of PLHA

The mental health needs of PLHA can be looked as social, psychosocial and spiritual needs which PLHA require to live a life with quality and extend their contribution to the society.³⁶ These mental health needs could be looked on from the perspective of Maslow's hierarchy of needs, advocated by Abraham Maslow in 1943. Maslow says that it is the individual's need which motivates the individual and they are hierarchical in nature which can be deduced into five categories arranged as the pyramid.³⁷ The first 4 basic layers in the pyramid are called as deficiency needs, the physiological needs are essential for survival and with their exception the other 3 kinds of needs are essential for sound mental health of a person, which if are unmet the body might not give any physical manifestation (as in physiological needs) but trigger series of psychological responses making an individual tense and anxious.³⁶ As shown in Figure 3, HIV/AIDS affects all the important basic needs of the individuals. The discrimination towards him/her because of his HIV+ve status leads loss of social and economic security which is coupled with already worsening health because of infection. Stigma towards HIV/AIDS may lead to exclusion from the family and society affecting the individual's sense of belongingness, and esteem thereby worsening his mental health status thus marking them as the most basic aspects to consider while addressing the mental health needs of PLHA. Recognizing the additional burden which mental illness put on PLHA world health organization advocated for addition of mental health component in to the HIV/AIDS prevention programmes.¹¹ Studies has emphasised on essentiality of provision of psychosocial support as an important element to reduce the mental illness among PLHA.³⁶

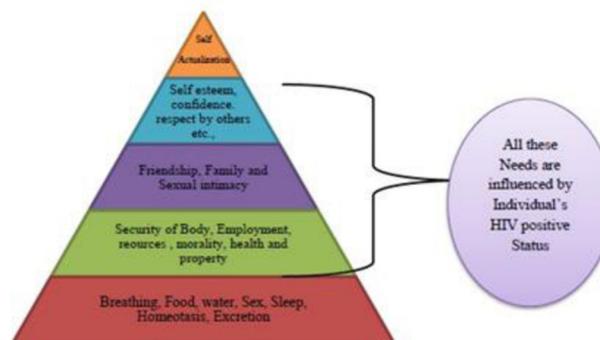


Figure 3 Diagram showing the basic needs which is influenced resulting in mental health issues.

Since HIV affects all the dimensions (Physical, Social and Psychological) of the individual life, WHO insisted that all these dimensions are to be considered while catering to the needs of PLHA. Studies and reports advocate that mental health needs of PLHA could be effectively addressed by providing counseling, social support and appropriate psychotherapeutic strategies,^{13–20} and PLHA who were provided appropriate counseling and social support were less likely to develop mental illness and were more likely to adhere to ART than their counterparts.¹³ The individual's family and community play a prominent role in providing social support and assisting PLHA which makes it important to rope in individual's family and community in catering to their health needs.^{14–36} The essentiality and importance of providing mental health service to PLHA is well known. However, since HIV/AIDS is associated with stigma and discrimination, individual's HIV status is seen as a lens to judge the morality of the individual. Majority of those with HIV/AIDS do not voluntarily disclose their HIV status to the health care provider/ approach a health facility with the fear of rejection,¹¹ owing to such situation in majority of the cases the only instance where the health care provider can have a dialogue with PLHA is during the initial diagnosis.

Thus, it is suggested that the primary care physicians at the site of diagnosis be equipped with the skills to provide counseling and initial mental health support to PLHA and help patients to adjust with positive diagnosis.³⁴ Easy accessibility of mental health services to PLHA enhances their health and wellbeing preventing further complications of mental health issues, and spread of infection etc.²⁰ Further, early screening, diagnosis and treatment of mental illness among PLHA saves emotional and economic costs thereby reducing the high economic burden on the individuals and the health systems of the country.¹⁴ Social support interventions with PLHA groups, interventions providing financial security, and interventions providing long term security for the children of PLHA, though not specific to mental health proved to have a significant influence in reducing mental health issues among PLHA reflecting the importance of multi-dimensional support strategies for people living with HIV. Also, studies show that mental health training to community health workers who are already providing HIV services could potentially serve to address the mental health needs among PLHA.³⁸ Further, several trials and pilots showed well trained and supported community health workers being efficient in provision of mental health services,^{39,40} reflecting that mental health strategies involving CHWs might be helpful in low-resource settings.

Barriers for provision of mental health services

Mental illness is the leading cause of disability around the world

and the high burden of mental illness among several vulnerable groups particularly among PLHA is most evident. Mental health is one of the most neglected areas of health in countries around the world including the developed countries where at least 50% of patients with psychiatric illness do not receive adequate treatment. The situation is much worse in low resource settings such as in African and Asian countries which account for over 80% of HIV burden in the world.²⁰ Stigma and Discrimination associated with HIV/AIDS stand as the most important barrier preventing the individual from accessing the HIV related services and interventions, they prevent the individual from disclosing HIV+ve status and joining intervention group (such as PLHA groups etc.) further limiting him from accessing the mental health services. Moreover, PLHA are already stigmatized in the community and the family and those being identified with mental issues (which are also stigmatic) keep them in the situation of “double stigma” fearing which PLHA do not access the mental health services.¹⁴ The trained human resources for mental health are a significant challenge primarily for developing countries which hold majority of HIV burden. Only 1% of health workforce around the world are working in mental health,⁴¹ and Low income countries are at significant disadvantage with mental health professionals as low as 0.6 psychiatrist/100,000, 0.16/100,000 psychiatric nurses, 0.04/100,000 psychologists and 0.03/100,000 psychiatric social workers which is far lesser than their western counter parts,¹⁴ in India itself there are less than 4000 psychiatrist serving the population of over 1.3billion⁴² reflecting the severe shortage of trained mental health workforce.

Additionally, majority of them are concentrated in and around urban areas, depriving the majority of vulnerable rural population from accessing appropriate mental health facilities. Also, the question of what proportion of these limited human resources can be engaged in providing mental health services to PLHA remains the biggest challenge to be addressed. Funding is an important component acting as a barrier for the provision of mental health services the average global spending on mental health per capital is less than 3\$USD, and is less than 0.25\$USD in low income countries (WHO 2011). Low and middle income countries spend less than 1% of their health budgets on mental health²⁰ making it one of the most underinvested sectors in health. Even though HIV/AIDS is among highly funded by several means majority of its funds are towards prevention strategies and ART provision grossly ignoring the mental health component of PLHA. Further, with reducing international funding in to AIDS and Governments steps towards cutting down its budget allocation to HIV/AIDS^{43,44} the mental health needs of PLHA remain grossly unaddressed. Further, issues of stigma, lack of awareness, weak health systems, and attrition of trained workforce remain as the barriers to meet the mental health needs, particularly those of PLHA.

Conclusion

HIV has been known to the humankind for over 3decades now, and though substantial improvement has been seen in terms of improving ART coverage and quality of life of PLHA, there is a lot of progress yet to be made. Particularly, mental health issues among PLHA are well known and several strategies have been proposed which were known to be effective. However, because of several barriers, the mental health needs of PLHA go unmet. There has been a substantial amount of work to prevent the spread of HIV pandemic, but the mental health needs of PLHA are ignored which in one sense are undoing the work done by decades of HIV prevention strategies, and helping to maintain the HIV epidemic in the population at constant levels. This burdens both the health system in terms of the resources

and individual in terms of his/her quality of life, thereby indicating that mental health needs of PLHA are to be essentially looked at to tackle HIV pandemic as a whole. In this era were HIV treatment has become highly effective, addressing the mental health needs of those with HIV becomes an essential priority as, untreated it might have severe consequences on the health of the patient and community as a whole.

Acknowledgement

None.

Conflict of interest

None.

Funding

None.

References

1. World Health Organization. HIV/AIDS. Switzerland: World Health Organization; 2015.
2. United Nations programme on HIV and AIDS. UNAIDS. USA: GLOBAL Statistics. HIV.gov. 2015.
3. World Health Organization (WHO). Global Health Observatory Data Repository: Number of Deaths due to HIV/AIDS Estimates by Country. Switzerland: World Health Organization; 2013.
4. Merson MH. The HIV/AIDS pandemic at 25—the global response. *N Engl J Med.* 2006;354(23):2414–2417.
5. UNAIDS. Switzerland: UNAIDS report on the global AIDS epidemic 2013. 2013;1–198.
6. United Nations. UN. Goal 6: Combat Hiv/Aids, USA: Malaria and Other Diseases. 2000.
7. World Health Organization (WHO). HIV Treatment and Care: Whats New in HIV Treatment. Switzerland: World Health Organization; 2015.
8. World Health Organization (WHO). Mental health: A state of well-being. Switzerland: World Health Organization; 2014.
9. World Health Organization (WHO). Mental health: strengthening our response. Switzerland: World Health Organization; 2014.
10. Steel Z, Marnane C, Iranpour C, et al. The global prevalence of common mental disorders: a systematic review and meta-analysis 1980–2013. *Int J Epidemiol.* 2014;43(2):476–493.
11. World Health Organization (WHO). Global Burden of Disease. Switzerland: World Health Organization; 2008.
12. Balhara YP. Diabetes and psychiatric disorders. *Indian J Endocrinol Metab.* 2011;15(4):274–283.
13. World Health Organization (WHO). Highlights global underinvestment in mental health care. Switzerland: World Health Organization; 2011.
14. Florence B, Rachel T, Christine C. HIV/AIDS and Mental Health. USA: *World Bank, New York.* 2011;1–65.
15. Klinkenberg W, Sacks S. Mental disorders and drug abuse in persons living with HIV/AIDS. *AIDS Care.* 2004;16(11):S22–S42.
16. Gerbi GB, et al. Triple Challenges of Psychosocial Factors, Substance Abuse, and HIV/AIDS Risky Behaviors in People Living with HIV/AIDS. USA: *Social and Psychological Aspects of HIV/AIDS and their Ramifications.* 2011;1–25.

17. Stern RA, Perkins DO, Evans DL. Neuropsychiatric Manifestations of HIV-1 Infection and AIDS, in Psychopharmacology. Raven Press Ltd. 2000.
18. Pence BW. The impact of mental health and traumatic life experiences on antiretroviral treatment outcomes for people living with HIV/AIDS. *J Antimicrob Chemother.* 2009;63(4):636–640.
19. Rene B. The mental health of people living with HIV/AIDS in Africa: A systematic review. *Afr J AIDS Res.* 2009;8(2):123–133.
20. Das S, Leibowitz GS. Mental health needs of people living with HIV/AIDS in India: a literature review. *AIDS Care.* 2011;23(4):417–25.
21. Brief DJ, Bollinger AR, Vielhauer MJ, et al. Understanding the interphase of HIV, post-traumatic stress disorder and Substance use and its implications for health outcomes. *AIDS Care.* 2004;16(1):S97–S120.
22. Booth RE, Kwiatkowski CF, Chitwood DD. Sex related HIV risk behaviors: differential risks among injection drug users, crack smokers, and injection drug users who smoke crack. *Drug Alcohol Depend.* 2000;58(3):219–226.
23. Parsons JT, Kutnick AH, Halkitis PN, et al. Sexual risk behaviors and substance use among alcohol abusing HIV-positive men who have sex with men. *J Psychoactive Drugs.* 2005;37(1):27–36.
24. Des Jarlais DC, Friedman SR, Novick DM, et al. HIV-1 infection among intravenous drug users in Manhattan, New York City, from 1977 through 1987. *JAMA.* 1989;261(7):1008–1012.
25. Sarkar K, Panda S, Das N, et al. Relationship of national highway with injecting drug abuse and HIV in rural Manipur, India. *Indian J Public Health.* 1996;41(2):49–51.
26. Jia CX, Mehlum L, Qin P. AIDS/HIV infection, comorbid psychiatric illness, and risk for subsequent suicide: a nationwide register linkage study. *J Clin Psychiatry.* 2012;73(10):1315–1321.
27. Schlebusch L, Govender RD. Elevated Risk of Suicidal Ideation in HIV-Positive Persons. *Depress Res Treat.* 2015:609172.
28. Tamsen JR, Ruth MB, Mark T, et al. Suicide ideation, depression and HIV among pregnant women in rural South Africa. *Health.* 2013;5(3A):650–661.
29. Sacktor N. The epidemiology of human immunodeficiency virus-associated neurological disease in the era of highly active antiretroviral therapy. *J Neurovirol.* 2002;8(suppl 2):115–121.
30. Mossie TB, Kassa AW, Tegegne MT. HIV dementia among HIV positive people at Debre markos hospital, Northwest Ethiopia. *American Journal of Psychiatry and Neuroscience.* 2014;2(2):18–24.
31. Allers CT, Benjack KJ. Connections between childhood abuse and HIV infection. *Journal of Counseling & Development.* 1991;70(2):309–313.
32. Cunningham RM, Stiffman AR, Doré P, et al. The association of physical and sexual abuse with HIV risk behaviors in adolescence and young adulthood: Implications for public health. *Child Abuse Negl.* 1994;18(3):233–245.
33. Wills PB. The impact of Mental health and traumatic life experiences on antiretroviral treatment outcomes for people living with HIV/AIDS. *J Antimicrob Chemother.* 2009;63(4):636–640.
34. Remien RH, Rabkin JG. Psychological aspects of living with HIV disease. *West J Med.* 2001;175(5):332–335.
35. Letamo G. Trends and Levels of HIV/AIDS-Related Stigma and Discriminatory Attitudes: Insights from Botswana AIDS Impact Surveys. *Africa: Social and Psychological Aspects of HIV/AIDS and their Ramifications.* 2011;1–13.
36. Yahaya, Lasiele A, Jimoh AAG. Psychosocial Needs and Support Services Accessed by HIV/AIDS Patients of the University of Ilorin Teaching Hospital, Nigeria. *Social and Psychological Aspects of HIV/AIDS and their Ramifications.* 2011;1–9.
37. Maslow AH. A theory of human motivation. *Psychological review.* 1943;50(4):370–396.
38. Dixon C, Cowan FM, Healy JL, et al. Psychological Interventions for common mental disorders for people living with HIV in low and middle income countries: a systematic review. *Trop Med Int Health.* 2015;20(7):830–839.
39. Patel V, Weiss HA, Chowdhary N, et al. Lay health worker led intervention for depressive and anxiety disorders in India: impact on clinical and disability outcomes over 12 months. *Br J Psychiatry.* 2011;199(6):459–466.
40. Paudel S, Gilles N, Hahn S, et al. Impact of mental health training on village health workers regarding clinical depression in rural India. *Community Ment Health J.* 2014;50(4):480–486.
41. World Health Organization. WHO. Global health workforce, Switzerland: finances remain low for mental health, 2015.
42. Mohandas E. Roadmap to Indian psychiatry. *Indian J Psychiatry.* 2009;51(3):173–179.
43. Gwalani P. NGOs Working for AIDS Control facing Funds crunch. India: *The Times of India.* 2014.
44. Mascharanus A HIV Prevention: Centre gets tight-fisted, mission takes a blow. India: *The Indian Express.* 2015.