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# Mental Health among People Living with HIV (PLWH) in Iran: A Policy Brief

Teaser: The necessity of a Tool for Mental Health in PLWH in Iran

SeyedAhmad SeyedAlinaghi<sup>1</sup>, Omid Dadras<sup>2</sup>, Zeinab Najafi<sup>1,\*</sup> and Minoo Mohraz<sup>1</sup>

**Abstract:** Depression and anxiety are the most common mental health disorders in people living with HIV (PLWH). Adherence to antiretroviral therapy (ART) is an important concern that could be significantly affected by psychological problems among PLWH. Therefore, the authors recommend using an anxiety and depression screening tool, among Iranian PLWH in HIV health care system and determine potential barriers to depression screening and effective care.

Keywords: HIV, AIDS, Mental health, Depression, Anxiety, Tool.

# **CONTEXT AND IMPORTANCE OF THE PROBLEM**

In 2018, based on the national HIV registry about 38,000 persons, and according to the estimation, 60,000 people, including 83% men and 17% women, were living with HIV (PLWH) in Iran. The number of Iranian people who died due to HIV-caused death was 9,764 [1].

Mental, physical and social problems caused by HIV for patients are associated with each other. For example, in a meta-analysis study on the association between HIV-related stigma and physical, emotional and mental health, high stigma level was consistently and significantly associated with low social support, poor physical and psychological health, lower income and younger age. These correlations were of a medium size, which would be recognized by the individual in daily life. The stigma as a lifetime psychosocial issue, not only affects the mental health of PLWH but also has a remarkable influence on social and physical health aspects [2].

In another study, the correlation between physical and mental health score with HIV infection stage and severity was measured. The results revealed that mean physical and mental health scores differed in patient groups defined by HIV disease stage, and severity. In fact, in patient reporting worsening health status, physical and mental health scores were significantly lower than the scores of patients reporting stable or improving health status [3].

A study about psychiatric disorders in recently diagnosed HIV/AIDS patients in South Africa revealed that mental disorders have a high prevalence among both men and women living with HIV. But gender-different responses such as increased alcohol and substance use and riskier sexual behaviour in men were seen [6].

Depression is the most common mental disorder in PLWH, which substantially is a result of longstanding psychological stress and negative perception and attitude in social interaction. Shakeri *et al.*, estimated the prevalence of dysthymia, major depressive disorder and generalized anxiety disorder, respectively, to be 22%, 15.2% and 17.4% among PLWH [7].

In another study, they investigated the association of race, gender and social support with the HIV caused chronic sorrow. Based on findings, stigma should be considered as a marker of chronic depression in PLWH and the women were likely to be stigmatized because of their association with "dirty sex," contagion, and moral threat in heterosexual communities [8].

<sup>&</sup>lt;sup>1</sup>Iranian Research Center for HIV/AIDS, Iranian Institute for Reduction of High-Risk Behaviors, Tehran University of Medical Sciences, Tehran, Iran

<sup>&</sup>lt;sup>2</sup>Department of Global Health and Socioepidemiology, Kyoto University, Japan

HIV/AIDS not only harms physical integrity but also could impose a considerable burden of social and psychological issues on PLWH. In fact, PLWH are more vulnerable to mental disorders. PLWH are more likely to experience stress-related disorders in challenging situations such as family conflicts, employment issues, and financial problems. Social stigma is also an important issue and often leads to social rejection and further isolation of HIV patient [4]. Therefore, thev need more emotional psychological support from the family and community [5].

<sup>\*</sup>Address correspondence to this author at the Iranian Research Center for HIV/AIDS, Imam Khomeini Hospital, Tehran, Iran; Tel/Fax: +98 (21) 66947984; E-mail: znb.najafi@gmail.com

In a study about mental health among rural and urban HIV positive men in various age groups, the results revealed that rural residents with HIV infection were more likely to be at risk for major depression than urban residents, but depression did not differ between various age groups [9].

Furthermore, chronic psychological tension could result in anxiety disorders, particularly phobic syndromes such as agoraphobia, social phobia and obsessive-compulsive disorder (OCD). Schizophrenia could also be a rare complication of AIDS. These cognitive, behavioural, and psychosocial issues adversely affect the quality of life in PLWH [10].

Most importantly, adherence to antiretroviral therapy (ART) is a paramount concern that could be dramatically affected by mental health in PLWH. The average adherence to antiretroviral treatment is about 65% in Iran. Lack of adherence is one of the most concerning issues in ART among HIV-positive people. The main obstacles of adherence in PLWH are stigma and mental health issues such as depression, anxiety, isolation, and financial issues [11, 12].

In spite of numerous benefits conferred by an anxiety and depression screening tool, a routine tool has not been implemented in HIV healthcare settings.

#### APPROACHES AND RESULTS

In this policy brief, we have tried to emphasize the importance of mental health considerations and using a standard tool for anxiety and depression among PLWH in Iran. There are numerous studies conducted among Iranian PLWH addressing the mental health, ART adherence, risk behaviours, psychological issues, familial and social problems. Table 1 in appendices presents a summary of the interventions.

# IMPLICATIONS AND RECOMMENDATIONS

PLWH suffered not only from many physical illnesses but also from the mental and social issues such as misconceptions and social stigma in society. Psychological and emotional abnormalities are common in these patients. In fact, more than half of them present emotional disturbance and psychological disorders such as depression, mania, psychosis, anxiety, drug abuse and suicide attempt [21].

The incidence of depression in PLWH is 2-5 times higher than the average population [22]. In a study by Shakeri et al., the prevalence of mental disorders in

PLWH was 93.2% in Iran. Of this, 93.9% had a history of drug abuse, 43.2% suffered from mood disorders, 18.9% struggled with anxiety disorders, and only 5.8% reported a psychotic episode [7]. The chronic psychological and emotional tension in PLWH are associated with several lifetime psychosocial issues such as social stigma, isolation, homelessness, substance abuse, inadequate educational and medical services and lack of the social support [23].

Stigma and discrimination play an essential role in PLWH lives and hinder them from accessing the treatment [24]. It is imperative to engage both the public and private sectors in continuing education programs to reduce the level of stigma experienced by PLWH [25]. HIV patients have limited access to the occupation, educational and health services. Policies should be made to target the high level of both perceived and external stigma among Iranian PLWH [26].

Therefore, addressing the mental health problems in PLWH is of critical importance. Socio-culturally sensitive interventions, consistent with the patient's beliefs and values, are necessary to be formulated by the government and policymakers to improve the adaptive mechanism in patients of such chronic disease. These programs should be mainly aimed at reducing stigma, improving the quality of life and providing psychological support and psychiatric services to these patients. Such interventions are to be able to improve the patient mental health and subsequently the ART adherence, through which, in turn, the risk of high-risk behaviours could be reduced, and the subsequent spread of disease in the community could be prevented [16].

The International HIV/AIDS and Human Rights Strategies, [27] issued by the Office of the United Nations High Commissioner for Human Rights (UNHCR) [28], emphasized the anti-discriminatory law for PLWH to be implemented equally not only in public health but also in wide variety of other social welfare such as security, education, employment, and transportation. The prohibition of discrimination against PLWH should be a law that widely applied in society. The PLWH should have the right to equal opportunities as healthy individuals, and their integrity and respect should be reserved and supported in society. It is important to consider PLWH as "disabled people" who are supported by the disability law, which is specially developed to meet the physical and mental needs and assure the well-being of this vulnerable population.

Table 1: Effect of Various Interventions on Psychological and Physical Profiles of PLWH in Iran

Author (Year)	Title	Sample	Method	Time	Main results
(Ahmad Seyed Alinaghi <i>et al.</i> , 2016) [13]	Adherence to antiretroviral therapy and tuberculosis treatment in a prison of Tehran, Iran	22 people living with HIV in the prison	Several cases taking ART and treatments for TB in each month were evaluated to access adherence and the treatment procedures were carried out via Direct Observed Therapy (DOT).	April to May 2014	Through removing the barriers and implementation of DOT for ART, HIV positive prisoners can achieve complete adherence.
(Mehraeen <i>et</i> al., 2018) [14]	Mobile-Based Applications and Functionalities for Self-Management of People Living with HIV.	-	A comprehensive search of PubMed, Scopus, Science Direct, Web of Science and Embase databases.	2010 to 2017	Inclusive evidence supports the use of text messaging as a mobile-based functionality to improve medication adherence and motivational messaging.
(Faezipour, Ghanbaripanah, Seyedalinaghi, Hajiabdolbaghi, & Voltarelli, 2018) [15]	Effectiveness of Acceptance and Commitment Therapy (ACT) on Reducing Depression among People Living with HIV/AIDS	24 patients living with HIV	The experimental group received eight training sessions of ACT. The control group received no intervention.	8 sessions of ACT	Acceptance and commitment therapy is a practical approach to reducing depression.
(SeyedAlinaghi et al., 2012) [16]	A randomized controlled trial of mindfulness-based stress reduction (MBSR) delivered to human immunodeficiency virus-positive patients in Iran	173 HIV- positive patients	PLWH participated in either an 8- week MBSR or a brief education and support condition.	8-week MBSR and 3, 6, 9 and 12- month follow-up	MBSR seems to have the most substantial potential to improve self-reported medical symptoms.
(Eshrati <i>et al.</i> , 2008) [17]	Preventing HIV transmission among Iranian prisoners: Initial support for providing education on the benefits of harm reduction practices	Random selection of 100 men incarcerated at a prison	Considering the three components of the Health Belief Model		Educational harm reduction initiatives that promote the effectiveness of strategies designed to reduce the risk of HIV transmission may decrease prisoners' highrisk behaviours.
(Ghayomzadeh et al., 2017) [18]	Effect Of 8-Week of Hospital-Based Resistance Training Program on TCD4+ Cell Count and Anthropometric Characteristic of HIV Patients in Tehran, Iran: A Randomized Controlled Trial	21 Patients receiving ART	Examination of the effects of an 8 w circuit resistance training program using elastic bands and body weight on TCD4+ cell counts and anthropometry in HIV patients	8 weeks	The resistance training program is effective for improving TDC4+ status and body composition.

(Table 1). Continued.

Author (Year)	Title	Sample	Method	Time	Main results
(Ghayomzadeh, Etesami, <i>et al.</i> , 2019) [19]	Effect of short-term lifestyle modification (LMP) program on quality of life, anthropometric characteristics and CD4+T cell count of HIV Infected Patients in Tehran/Iran	30 PLWH taking ART	All volunteers underwent body composition, CD4+T cell count measurement and quality of life assessments at the beginning and end of a two-month experimental period.	8 weeks	An LMP can be safely used as an effective intervention for improving the quality of life and immune competence.
(Ghayomzadeh, Earnest, <i>et al.</i> , 2019) [20]	Effects of Aerobic Dance Training on Psychological Well- Being and Immune Function of Women Living With HIV (WLWH)	10 WLWH	Participants were asked to register and attend aerobic dance training programs 3 times per week at a local gym.	8 weeks	Exercise programs significantly improve levels of anxiety and depression.

The fact that the infectious diseases specialists often have a major impact in the course of HIV treatment should not ignore the substantial physical and psychological benefits of effective preventive interventions which could be achieved through a collaborative endeavour between infectious diseases specialists, psychiatrists, psychologists and social workers. Screening for depression and anxiety should be performed in all HIV-counseling, testing and care provider centres and cases should be referred to the psychiatrist as necessary. While WHO recommends screening for depression in PLWH in 2016, there is no consensus recommendation in Iranian HIV guideline. Thus, we recommend using an anxiety and depression screening tool, among Iranian PLWH in the routine health care system and determine potential barriers to depression screening and effective care.

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### **CONFLICT OF INTERESTS**

The authors declare no conflict of interests.

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