Published Online: 2025 May 19

Letter



Status of Adherence to Antiretroviral Treatment Among People Living with HIV in Iran; Greater Need for Psychological and Pharmacological Interventions

SeyedAhmad SeyedAlinaghi 🔟 ^{1,2}, Pegah Mirzapour^{1,*}

¹ Iranian Research Center for HIV/AIDS, Iranian Institute for Reduction of High-Risk Behaviors, Tehran University of Medical Sciences, Tehran, Iran ² Research Development Center, Arash Women Hospital, Tehran University of Medical Sciences, Tehran, Iran

* Corresponding Author: Iranian Research Center for HIV/AIDS, Iranian Institute for Reduction of High-Risk Behaviors, Tehran University of Medical Sciences, Tehran, Iran. Email: pegah.mirzapour@yahoo.com

Received: 16 April, 2025; Accepted: 9 May, 2025

Keywords: Antiretroviral Treatment, Psychological, HIV, Adherence

Dear Editor,

HIV is a chronic disease that is completely manageable with current antiretroviral treatments (ART), and people living with HIV (PLWH) can live like other people in society if there is full adherence to ART. There are different definitions for treatment adherence, but the definition accepted by most evidence is adherence of more than 95%, meaning that PLWH consume at least 95% of their medications (1-3). In Iran, the mean treatment adherence in 2006 was about 60%, which was lower than the global mean of about 70% (1, 4).

As a result of effective and continuous training and psychological interventions in voluntary counseling and testing (VCT) centers and positive clubs (PCs), the mean adherence has gradually increased, so that the current overall mean adherence to ART in VCT centers is approximately 95%, and in PCs is about 97%. However, adherence varies by gender and key populations, including people who inject drugs (PWIDs), prisoners, men who have sex with men (MSM), female sex workers (FSWs), and transgender individuals. The practical results of this significant increase in adherence to treatment have led to a significant increase in the CD4

count of PLWH from about 300 cells/mm³ to about 700 cells/mm³ in Iran.

Regarding the factors affecting ART adherence, various studies have been conducted on PLWH in Iran. In the early decades, the most common cause of nonadherence was the side effects of antiretroviral (ARV) drugs, which have become rare with improvements in medication quality and the emergence of newer medicines. It should be noted that the most common drug side effects are gastrointestinal manifestations, which are resolved by continuing to take the ARV drugs. Currently, the most common cause of non-adherence to ART among PLWH is forgetfulness, which necessitates more psychological and pharmacological interventions to ensure complete adherence to treatment (5-11).

Footnotes

Authors' Contribution: The conception and design of the study: S. A. S. A.; Drafting the article: P. M.; Revising it critically for important intellectual content: S. A. S. A. and P. M.; Final approval of the version to be submitted: S. A. S. A. and P. M.

Conflict of Interests Statement: The first author has implemented many researches regarding adherence to antiretroviral treatments (ART) from 2006 to now in the Iranian Research Center for HIV/AIDS (IRCHA) affiliated to Tehran University of Medical Sciences (TUMS).

Funding/Support: The present study received No funding/support.

References

1. Emamzadeh-Fard S, Fard SE, SeyedAlinaghi S, Paydary K. Adherence to anti-retroviral therapy and its determinants in HIV/AIDS patients: a

Copyright © 2025, Applied Psychology for Health Promotion. This open-access article is available under the Creative Commons Attribution-NonCommercial 4.0 (CC BY-NC 4.0) International License (https://creativecommons.org/licenses/by-nc/4.0/), which allows for the copying and redistribution of the material only for noncommercial purposes, provided that the original work is properly cited.

How to Cite: SeyedAlinaghi S, Mirzapour P. Status of Adherence to Antiretroviral Treatment Among People Living with HIV in Iran; Greater Need for Psychological and Pharmacological Interventions. Appl Psychol Health Promot. 2025; 2 (1): e161943. https://doi.org/10.5812/aphp-161943.

review. Infect Disord Drug Targets. 2012;12(5):346-56. [PubMed ID: 23017163]. https://doi.org/10.2174/187152612804142251.

- Seyed Alinaghi SA, Farhoudi B, Mohraz M, Alipour A, Golrokhy R, Hosseini M, et al. Adherence to Antiretroviral Therapy and Tuberculosis Treatment in a Prison of Tehran, Iran. *Infect Disord Drug Targets*. 2016;16(3):199-203. [PubMed ID: 27311561]. https://doi.org/10.2174/1871526516666160616111308.
- Farhoudi B, Seyedalinaghi S, Jafarinasab M, Ghavam SM, Dadras O, Alipour A, et al. Barriers to Antiretroviral Therapy Adherence in One of the Prisons in Iran. *Infect Disord Drug Targets*. 2020;**20**(6):848-53. [PubMed ID: 31729304]. https://doi.org/10.2174/1871526519666191113110030.
- Khalili H, Rohani R, Seyedalinaghi S, Hajiabdolbaghi M, Dashti-Khavidaki S, Talasaz AH. Adherence to Antiretroviral Therapy Among Iranian HIV/AIDS Patients. *Curr Clin Pharmacol*. 2012;7(2):111-5. [PubMed ID: 22432842]. https://doi.org/10.2174/157488412800228910.
- 5. Seyedalinaghi S, Farhoudi B, Harandi H, Mahalleh M, Dadras O, Alipour A, et al. A study of barriers to adherence of antiretroviral treatment in prisoners living with HIV in Tehran, Iran. *Iran J Health Sci.* 2020. https://doi.org/10.18502/jhs.v8i2.4026.
- Farhoudi B, Alipour A, Ghodrati S, Seyedalinaghi S, Zanganeh M, Mohraz M. Barriers to Adherence to Antiretroviral Treatment Among Inmates of a Prison in Tehran, Iran: A Qualitative Study. Arch Clin Infectious Dis. 2018;13(2). https://doi.org/10.5812/archcid.57911.

- Bazrafshan A, Rafiei-Rad AA, Bazrafshan MS, Ghalekhani N, Mehmandoost S, SeyedAlinaghi S, et al. Facilitators and Barriers to adherence to antiretroviral therapy among incarcerated people living with HIV in Iran: Insights from a qualitative study. *Harm Reduct J.* 2025;22(1):4. [PubMed ID: 39773185]. [PubMed Central ID: PMC11708189]. https://doi.org/10.1186/s12954-024-01151-2.
- SeyedAlinaghi S, Afsahi AM, Moradi A, Parmoon Z, Habibi P, Mirzapour P, et al. Current ART, determinants for virologic failure and implications for HIV drug resistance: An umbrella review. *AIDS Res Ther.* 2023;20(1):74. [PubMed ID: 37884997]. [PubMed Central ID: PMC10604802]. https://doi.org/10.1186/s12981-023-00572-6.
- Etesami MS, Saboury N, Mohraz M, SeyedAlinaghi S, Jones DL, Vance DE, et al. Immediate and Long-Term Effects of a Computerized Cognitive Rehabilitation Therapy on Cognitive Function in People Living with HIV in Iran: A Single-Blind Two-Arm Parallel Randomized Controlled Trial. J Assoc Nurses AIDS Care. 2022;33(5):505-22. [PubMed ID: 35878047]. https://doi.org/10.1097/JNC.000000000000339.
- 10. Ghodrati S, Shahabinezhad Z, Seyedalinaghi S, Nejati V. Prospective and Retrospective Memory Complaints in HIV-Infected Individuals. *Iran J Health Sci.* 2020;7(4). https://doi.org/10.18502/jhs.v7i4.2202.
- Koochak HE, Babaii A, Pourdast A, Golrokhy R, Rasoolinejad M, Khodaei S, et al. Prevalence of Adverse Drug Reactions to Highly Active Antiretroviral Therapy (HAART) among HIV Positive Patients in Imam Khomeini Hospital of Tehran, Iran. *Infect Disord Drug Targets*. 2017;**17**(2):116-9. [PubMed ID: 28164754]. https://doi.org/10.2174/1871526517666170117111350.