**HIV-CARE ADHERENCE AS A PREDICTOR FOR HEALTH OUTCOMES IN AN URBAN POPULATION OF WOMEN LIVING WITH HIV**

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**Introduction**

- In the United States today, 67% of People living with HIV (PLWH) have received at least some form of HIV care, 40% are retained in HIV care, and 53% are virally suppressed (Figure 1)
- The steps in the HIV care continuum are: diagnosed with HIV, retained in care, medical appointments, care, and achieved viral suppression.  
  
  • Viral load (copies/mL) quantifies the amount of load present in the blood. Viral load is considered undetectable at <20 copies/mL (WHO, 2017).
  
  • CD4 (cells/mm³) is a health measure of the immune system. CD4 <200 cells/mm³ = AIDS.
  
  • Anti-retroviral therapy (ART) is prescribed to all PLWH. ART suppresses viral replication, permits CD4 cell counts, and leads to increased survival and reduced mortality. Adherence to ART has shown to significantly decrease the risk of HIV-related complications.
  
  • Attendance of HIV appointments is a significant independent predictor of disease progression.
  
  • Study aim: to determine if self-reported ART adherence and/or clinic attendance are predictors of disease progression.

![Figure 1: Percentage of PLWH in the US engaged in the HIV care continuum in 2016.](https://example.com/figure1.png)

**Methods**

- Inclusion criteria: female, with a confirmed HIV diagnosis, ≥18 years old, with a history of non-adherence to care.
- Non-adherence defined as: having a detectable HIV viral load OR missing one or more HIV-care appointments within the past year OR failure to take ART medication as prescribed
- Patients completed a 3-item questionnaire with self-reported variables, including the number of days ART was taken, the frequency of taking ART, and the rating of ART adherence.

**Results**

- The relationship between CD4 percentage and CD4 cell count was confirmed to be significant (p < 0.001, Table 1). Additionally, the relationship between viral load and CD4 cell count was confirmed to be significant (p < 0.05, Table 1).
  
  - A statistically significant relationship between medication adherence and viral load (p < 0.05) was observed (Table 2a).
  
  - A statistically significant relationship (p < 0.001) was observed between medication adherence and CD4 cell count (Table 2a).
  
  - These results indicate that medication adherence can be used as a predictor of health outcomes with regard to disease progression and immune system function.
  
  - A significant between clinic attendance and viral load (p < 0.05), CD4 cell count (p < 0.001), and CD4 percentage (p < 0.001) was observed, indicating that attendance of HIV appointments is an accurate predictor of disease progression (Table 2b).

![Figure 2: Relationship between non-adherence to clinic visits (% of HIV visits missed) and non-adherence to ART medication (days of ART not taken) r = 0.567, p = 0.001](https://example.com/figure2.png)

**Discussion**

- The study cohort is an at-risk population for disengagement from the HIV-care continuum.
- A statistically significant relationship (p < 0.001, Figure 2) exists between clinic attendance and adherence to ART in this study.
- Patients that were non-adherent to one aspect of the HIV-care continuum are more likely to be non-adherent to another.

**References**


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