

Factors Associated with Access to Highly Active Antiretroviral Treatment (HAART) in Homeless or Unstably Housed Persons Living with HIV

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Purpose

- To investigate the association between being on HAART with access to health care, mental health, substance use, and attitudes toward HIV treatment among homeless or unstably housed people living with HIV or AIDS (PLWHA).

Background

- Research suggests that low socioeconomic status, poor mental health, substance use, and not having health insurance are associated with delayed access to HIV therapeutics including HAART.

Methods

- Participants were 641 homeless or unstably housed PLWHA who were part of a longitudinal randomized controlled trial investigating the effects of providing housing on mental and physical health, medical care access and utilization, and treatment adherence.
- Study was conducted in three United States cities: Baltimore, Chicago, Los Angeles.
- Being on highly active antiretroviral therapy (HAART) was defined as being on at least 3 antiretrovirals, of which at least 2 were of different drug classes (NRTI, NNRTI, PI, fusion/entry inhibitor/FI).
- HAART recommended or considered was based on CD4 and viral load data and current clinical guidelines.
 - Treatment recommended if CD4 \leq 200 cells/mm
 - Treatment considered if CD4 is 201-350 cells/mm or VL $>$ 100,000 copies/ml
 - Treatment deferred if CD4 is $>$ 350 cells/mm and VL $<$ 100,000 copies/ml
- SF36 Mental Component Summary Measure (MCS), CES-D 10-item Depressive Symptoms Scale, Cohen & Williamson 10-item Perceived Stress Scale, and CDC-developed Attitude toward HIV Medications Scale were utilized to measure mental health, stress, and attitude toward HIV therapies.
- Chi-square test and t-test for means were used for bivariate analyses, and logistic regression for multivariate analyses examining the relationship between the likelihood of being on HAART with sociodemographic, health care access, substance use, mental health, and attitudinal variables.

Results

- Of the 644 participants:
 - 358 (55%) were on HAART
 - 152 (24%) were not on HAART, although CD4 and viral load indicated HAART should be considered or recommended
- Bivariate analyses (Table 1) indicated that NOT being on HAART was associated with:
 - Younger age
 - Being female
 - Lower income ($<$ \$600 USD per month)
 - Not having health insurance
 - Higher stress perception
 - Less positive attitudes about HIV treatment

Table 1. Bivariate Associations of Being on HAART Among Recommended and Considered by Demographic, Health Care Access, Income and Attitudinal Scale Variables

	Among Recommended for HAART, on HAART			Chi-square p-value
	Yes (N=358) N (%)	No (N=152) N (%)		
Demographics				
Age				
18 to 39	114 (31.84)	68 (44.74)		0.0054
40 Years or Older	244 (68.16)	74 (55.26)		
Race and Ethnicity				
Black or African American	278 (77.87)	118 (77.63)		0.9525
Other	79 (22.13)	34 (22.37)		
Gender				
Male	258 (72.07)	96 (63.16)		0.0458
Female	100 (27.93)	56 (36.84)		
Education				
Less than High School	117 (32.68)	60 (39.47)		0.2225
High School or GED	99 (27.65)	43 (23.29)		
More than High School or GED	142 (39.66)	49 (32.24)		
Housing Status				
Recently Homeless/Unstably Housed	342 (95.53)	148 (97.37)		0.3281
In Own Place	16 (4.47)	4 (2.63)		
Health Care Access				
Health Insurance				
Yes	326 (91.06)	122 (80.26)		0.0006
No	32 (8.94)	30 (19.74)		
Problems Getting Medical Care				
Yes	154 (43.02)	75 (49.34)		0.1890
No	204 (56.98)	77 (50.66)		
Substance Abuse				
Problem Alcohol Drinker				
Yes	160 (44.82)	68 (45.33)		0.9152
No	197 (55.18)	82 (54.67)		
Alcohol Caused Problems (90 Days)				
Yes	95 (26.76)	41 (27.33)		0.8945
No	260 (73.24)	109 (72.67)		
Used Drugs (90 Days)				
Yes	144 (40.45)	72 (48.00)		0.1168
No	212 (59.55)	78 (52.00)		
Drugs Caused Problems (90 Days)				
Yes	129 (36.24)	59 (39.33)		0.5102
No	227 (63.76)	91 (60.67)		
Income				
Household Income Past 30 Days				
Less than \$600	129 (38.97)	75 (55.15)		0.0014
\$600 or More	202 (61.03)	61 (44.85)		
Attitudinal and Mental Health Scales				
	Mean (SD)	Mean (SD)		t-test p-value
HIV Medical Attitudes Scale	26.19 (4.16)	23.72 (5.11)		$<$ 0.0001
SF-36 Mental Component	38.73 (14.08)	36.98 (13.97)		0.1619
CES-D Depression Scale	13.07 (7.67)	14.25 (7.65)		0.0840
Perceived Stress Scale	29.18 (8.01)	30.95 (7.57)		0.0122

Table 2. Multivariate Logistic Regression to Model the Probability of Being on HAART Among Those Recommended and Considered

	Not Being on HAART	
	Odds Ratio (95% CI)	p-value
Demographics		
Age		
18 to 39	1.50 (0.94, 2.38)	0.0877
40 Years or Older	1.00	
Race and Ethnicity		
Black or African American	1.28 (0.73, 2.26)	0.3945
Other	1.00	
Gender		
Male	1.00	0.1870
Female	1.40 (0.85, 2.31)	
Health Care Access		
Health Insurance		
No	2.43 (1.04, 5.69)	0.0408
Yes	1.00	
Income		
Household Income Past 30 Days		
Less than \$600	2.09 (1.08, 1.16)	0.0092
\$600 or More	1.00	
Attitudinal and Mental Health Scales		
HIV Medical Attitudes Scale	0.86 (0.81, 0.91)	$<$ 0.0001
Perceived Stress Scale	1.00 (0.97, 1.04)	0.8566

Conclusions

- Low income and lack of health insurance may prevent access to treatment.
- Attitudes about therapy may decrease motivation to seek care.
- Eliminating both structural and individual barriers is necessary to ensure access to treatment.

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Disclaimer

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