

Using Client Health Assessment and Intake Data to Identify Psychosocial Barriers to Retention In Care Among Women Clients of the Ryan White Care Part A Program, Miami-Dade County, 2017

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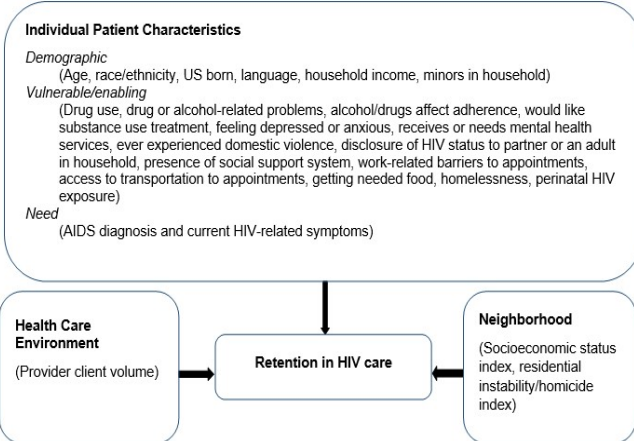
INTRODUCTION

- Women are minority group among people with HIV (PWH), making up about 25% of PWH in the US.¹
- Women have different barriers to care due to demographic differences² (more likely to be non-Hispanic Black or Hispanic,¹ have lower socioeconomic status,² and have lower educational levels.²)
- Objective: identify psychosocial barriers associated with lack of HIV care retention among women using Ryan White Program (RWP) intake, client assessment, laboratory and service data.

METHODS

- Study population: Clients ≥18 years, enrolled in Miami-Dade County Part A RWP prior to January 2017, and have received medical case management or peer services during 2017.
- Excluded those who moved out of the county, died in 2017, incarcerated, dropped from RWP because of no contact for ≥ 240 days or financially ineligible.
- Retention in care was defined as evidence of (record of HIV viral load or service) ≥2 HIV provider visits during 2017 at least 3 three months apart.³
- Independent variables were chosen based on adapted Andersen Behavioral Model for Health Services Utilization^{4,6} (Figure 1).
- Zip-code level data was obtained from American Community Survey. Indices were created using reliability analysis and exploratory and confirmatory factor analysis.
- Multilevel logistic regression model generated using the GLIMMIX procedure in SAS Version 9.4, using non-retention in care as dependent variable.
- Approval was obtained from Florida International University Institutional Review Board.

Figure 1: HIV care retention and adapted behavioral model for vulnerable populations and associated variables based on Andersen Behavioral Model for Health Services Utilization⁴ adapted for by Christopoulos et al.⁶ and Ulett et al.⁵



RESULTS

- Among 1606 women, 84.6% were retained in care.
- In crude analysis, non-retention in care was associated with younger age, being non-Hispanic White or non-Hispanic black, US-born, English speaking, having more children in household, drug use or problems related to drug use in the last 12 months, wanting substance use treatment, not working, being homeless, infected perinatally with HIV, either not knowing HIV clinician or having a clinician who cares for <10 RWP clients, and living in a neighborhood with more residential instability/homicide.
- In multilevel model results, non-retention was associated with age group 18-34 compared to ≥50, being US born, having ≥3 minors in household, not working, being infected perinatally with HIV, having a HIV provider who cares for <10 RWP clients.

Table 1: Percentage of and adjusted odds ratio of non-retention in HIV care by characteristics of Women in the Miami-Dade County Ryan White Program, 2017

Characteristics	Total	n=1609		P-value ^a	n=1606	
		Retained in care n (%)	Not retained in care, n (%)		Adjusted Odds Ratio	95% CI
Age (years)						
18-34	250	185 (74.0)	65 (26.0)	<0.0001	1.98	1.27-3.09
35-49	603	512 (84.9)	91 (15.1)		1.35	0.95-1.93
≥50	756	664 (87.8)	92 (12.2)			
Race/ethnicity						
NHB	668	547 (81.9)	121 (18.1)	0.0129	0.81	0.39-1.67
Hispanic	486	419 (86.2)	67 (13.8)		1.17	0.53-2.60
Haitian	747	350 (46.8)	47 (11.8)		1.01	0.43-2.38
NHW/Other	472	45 (7.6)	13 (2.4)		Ref	
US-born						
Yes	701	554 (79.0)	147 (21.0)	<0.0001	2.11	1.30-3.43
No	908	807 (89.0)	101 (11.1)		Ref	
Preferred language						
English	827	665 (80.4)	162 (19.6)	<0.0001	---	
Spanish	413	368 (89.1)	45 (10.9)			
Haitian Creole	350	312 (89.1)	38 (10.9)			
All other	19	16 (84.2)	3 (15.8)			
Household income, percent of Federal Poverty Level						
≥200%	202	171 (84.7)	31 (15.4)	0.073	Ref	
100%–199%	572	499 (87.2)	73 (12.8)		0.70	0.43-1.13
<100%	835	691 (82.8)	144 (17.3)		0.71	0.43-1.16
Number of minors in household						
None	1153	986 (85.5)	167 (14.5)	0.0174	Ref	
One	248	211 (85.1)	37 (14.9)		1.13	0.73-1.73
Two	137	113 (82.5)	24 (17.5)		1.34	0.80-2.26
Three or more	71	51 (71.8)	20 (28.2)		2.03	1.10-3.76
Diagnosis of AIDS at any time						
Yes	795	663 (83.4)	132 (16.6)	0.1912	1.20	0.89-1.61
No	814	698 (85.8)	116 (14.3)		Ref	
Has HIV-related symptoms						
Yes	42	31(73.8)	11 (26.2)	0.05	Ref	
No	1567	1330 (84.9)	237 (15.1)		0.67	0.30-1.47
Drug use in the last 12 months						
Yes	99	69 (69.7)	30 (30.3)	<0.0001	1.18	0.42-3.33
No	1510	1292 (85.6)	218 (14.4)		Ref	
Drug use resulted in problems with daily activities or legal issue or hazardous situation						
Yes	47	28 (59.6)	19 (40.4)	<0.0001	1.39	0.48-4.05
No	1562	1333 (85.3)	229 (14.7)		Ref	
Drug use affect adherence or not						
Yes	57	44 (77.2)	13 (22.8)	0.1155	0.77	0.28-2.13
No	1552	1317 (84.9)	235 (15.1)		Ref	
Would like substance use treatment now						
Yes	36	19 (52.8)	17 (47.2)	<0.0001	2.25	0.91-5.54
No	1573	1342 (85.3)	231 (14.7)		Ref	
Feeling depressed or anxious						
Yes	289	239 (82.7)	50 (17.3)	0.3265	0.90	0.58-1.39
No	1320	1122 (85.0)	198 (15.0)		Ref	
Receives or needs mental health services						
Yes	310	252 (81.3)	58 (18.7)	0.0736	0.92	0.60-1.41
No	1299	1109 (85.4)	190 (14.6)		Ref	
Ever experienced domestic violence						
Yes	134	111(82.8)	23 (17.2)	0.5577	0.71	0.40-1.24
No	1475	1250 (84.8)	225 (15.3)		Ref	

Characteristics	Total	n=1609		P-value ^a	n=1606	
		Retained in care n (%)	Not retained in care, n (%)		Adjusted Odds Ratio	95% CI
Disclosure of HIV status to adults in households						
No adults in HH	540	445 (82.4)	95 (17.6)	0.1551	1.34	0.97-1.84
Adults in HH, but none know status	203	178 (87.7)	25 (12.3)		1.03	0.63-1.67
At least 1 HH adult knows status	866	738 (85.2)	128 (14.8)		Ref	
Has a social support system to depend on						
No	234	189 (80.8)	45 (19.2)	0.0802	1.13	0.76-1.68
Yes	1375	1172 (85.2)	203 (14.8)		Ref	
Work related barriers to attending care appointments						
Not working	825	671 (81.3)	154 (18.7)	0.0001	1.72	1.21-2.43
Yes	735	43 (5.8)	6 (0.8)		1.13	0.45-2.85
No	49	647 (88.0)	88 (12.0)			
Client has access to transportation to appointments						
No	127	101 (79.5)	26 (20.5)	0.0999	1.19	0.71-1.99
Yes	1382	1260 (85.0)	222 (15.0)		Ref	
Client getting food she needs						
No	22	16 (76.2)	5 (23.8)	0.2834	1.53	0.51-4.64
Yes	1588	1345 (84.7)	243 (15.3)		Ref	
Homeless						
Yes	76	52 (68.4)	24 (31.6)	<0.0001	1.30	0.67-5.23
No	1533	1309 (85.4)	224 (14.6)		Ref	
Infected perinatally with HIV						
Yes	24	12 (50.0)	12 (50.0)	<0.0001	3.04	1.16-7.93
No	1585	1349 (85.1)	236 (14.9)		Ref	
Number of Ryan White clients that client's clinician cares for						
1-9	70	48 (68.6)	22 (31.4)	<0.0001	1.91	1.03-3.56
10-29	64	56 (87.5)	8 (12.5)		0.63	0.27-1.46
30-99	426	361 (84.7)	65 (15.3)		1.10	0.74-1.65
100-199	510	452 (88.6)	58 (11.4)		0.66	0.44-1.00
≥200	444	375 (84.5)	69 (15.5)		Ref	
Unknown ^c	95	69 (72.6)	26 (27.4)		1.41	0.79-2.51
Neighborhood low socioeconomic status index^d						
Median		0.88	1.04	0.317	1.00	0.82-1.23
IQR		(0.34, 1.51)	(0.33, 1.64)			
Neighborhood residential instability/homicide^e index						
Median		0.35	0.65	0.0043	1.12	0.92-1.36
IQR		(-0.29, 0.89)	(-0.04, 1.28)			

NHB = non-Hispanic black, NHW = non-Hispanic white, HH = household, IQR = inter-quartile range, Ref = referent group
 a: P-values for chi-squares and Wilcoxon Rank Sum for neighborhood indices.
 b: Those born in Puerto Rico or other US territories are classified as non-US born.
 c: Clients who could not name HIV care provider during health assessment or patient intake.
 d: Higher score indicates lower SES.; e: Higher score indicates more instability and homicides.
 f: Variable not in model due to collinearity.
 Results exclude three records with missing values for the two neighbor indices. Bold and highlight indicates statistically significant P<0.05

LESSONS LEARNED

- Childcare responsibilities may be barrier to HIV care retention.
- Women with perinatal infection are at particularly high risk for non-retention.
- Young women, in particular, need additional support.
- Providers with low volume of RWP clients may need additional support to help RWP clients be successful with HIV care retention.

LIMITATIONS

- While valuable insights can be made from analysis of RWP data, completeness and accuracy of information may vary due to data collection by multiple case managers.
- Substance use and intimate partner violence are likely to be underreported; thus lack of association found in this analysis must be interpreted with caution.
- Analysis was restricted to clients engaged in care because they had to have at least one health assessment.
- Service data only could be used as one part of the retention measurement. Service data was not available for clients enrolled in Affordable Care Act insurance plans whose clinic visit was ascertained by evidence of viral load laboratory test.

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CONFLICT OF INTEREST: None

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