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Barriers to HIV Care for Women of Color Living in the Southeastern US Are Associated with Physical Symptoms, Social Environment, and Self-Determination

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Abstract

HIV-infected women of color (WOC) face particular barriers to accessing HIV medical care. To understand the impact of physical symptoms, social support, and self-determination on barriers to care, we interviewed HIV-infected women of color. HIV-infected WOC ($N=141$), attending an academic infectious disease clinic for HIV care in North Carolina, completed the Barriers to Care scale and were categorized as reporting a history of low (less than four of eleven barriers) or high (five or more) barriers to care. Binomial regression was used to estimate prevalence ratios and risk differences of reported barriers to care and its correlates such as depression, anxiety, illness-severity, psychological abuse, social support, treatment-specific social support, and self-determination (autonomy, relatedness, competency). A lower risk of reporting five or more barriers to care was associated with higher levels of autonomy (PR = 0.93, 95% CI: 0.89, 0.96), relatedness (PR = 0.92, 95% CI: 0.89, 0.94), competency (PR = 0.93, 95% CI: 0.87, 0.98), and social support (PR = 0.24, 95% CI: 0.81, 0.81). Depression, illness severity, and psychological abuse were associated with a greater risk of having five or more barriers to care. There are multiple social and psychological factors that contribute to perceived barriers to HIV care among WOC in the southeastern USA. Interventions that promote social support and increase individual self-determination have the potential to improve access to HIV care for WOC.

Introduction

In 2009, women represented 24% of all HIV diagnoses in the United States.[1] Of women diagnosed with HIV, African-American (AA) women were the largest proportion of those infected and accounted for two-thirds of new AIDS diagnoses in 2010,[2] while Hispanic women were 4.2 times more likely to be infected than White women from 2007 to 2010.[3] HIV-infected women belonging to racial and ethnic minorities (women of color, WOC) are more likely to report infrequent antiretroviral therapy (ART) use,[4] to be socioeconomically disadvantaged, miss medical appointments,[5] and have late access to, and more frequent discontinuations of ART[6–8] than other women. Related work suggests unique trajectories for the process of engaging and remaining in HIV care among WOC compared with other populations.[9–11] The process by which people living with HIV enter and are retained in HIV medical care is influenced by a variety of factors that include medical, social-environmental, and personal characteristics.

Medical characteristics, like disease severity and overall physical health, are associated with care-seeking behavior and service utilization. Poor health is associated with increased risk of hospitalization among HIV-positive patients in previous studies.[12] Patients with low CD4 counts are at greater risk of more outpatient visits and hospitalizations than patients with higher CD4 counts.[13] In a review of the literature,[8] illness severity, physical symptoms, and health related quality of life, have all been shown to be associated with increased health care usage.

Besides physical symptoms, the social environment is another influence on HIV care engagement, as both supportive and abusive relationships impact health service utilization among chronically ill patients.[14] Intimate partner abuse

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towards HIV-infected women may constitute a barrier to outpatient HIV care, particularly if the HIV-infected woman is dependent on the abuser for affection, money, or transportation.[15,16] The presence of general social support from formal and informal networks has been shown to contribute to engagement in HIV care, particularly among AAs.[17–19] Social expectation, norms, and pressure from one's peer network may facilitate engaging in HIV care.[20] Psychological aspects of the patient, such as self-determination, may also play an important role in engaging in HIV care among WOC.

The concept of self-determination, which can be characterized as a personal characteristic, is used to help understand and predict the adoption of a variety of health related behaviors, including smoking cessation, exercise, and diabetes care.[21–24] According to self-determination theory, the inherent psychological needs for competence, relatedness, and autonomy must be fulfilled for the adoption of new behaviors to be internally-motivated and sustained.[25] Limited use has been made of this theory for understanding HIV care behaviors, but autonomy support, autonomy motivation, and competency have been correlated with ART adherence.[21] Thus, higher levels of self-determination, via competency, relatedness, and autonomy, could predict fewer perceived barriers to accessing HIV care among WOC.

There are also other potential barriers and facilitators to accessing HIV care, such as demographic characteristics, medical and psychiatric co-morbidities. Yet, information regarding the extent to which any of these patient-level factors is associated with logistical and environmental barriers-to-care has not been analyzed for HIV-infected WOC. In light of this limitation and prior literature, the research reported here will answer the following questions: (1) To what extent do HIV-infected WOC report logistical and social-environmental barriers to care? (2) Are reports of barriers to care associated with demographic characteristics, mental or physical co-morbidities? (3) Are positive social environments or higher levels of self-determination characteristics associated with fewer barriers-to-care?

Methods

Research setting

The research was conducted as a part of a broader project called Guide to Healing. This project delivers a nurse navigation intervention to women entering or re-entering HIV care. This project took place in an academic medical care clinic in North Carolina (NC) that is one of 11 sites in the Women of Color Initiative, a study to enhance access to HIV care for WOC.[26] The NC medical clinic provided HIV care to 1700 HIV-infected people in 2010, of whom 58% were AA, 10% were Hispanic or otherwise not white, consistent with NC state epidemiology. Almost all (82%) of the 31% of the female patients belonged to racial/ethnic minorities, including 69% AA. Baseline study participants were recruited between April 2010 and February 2011. The clinic's catchment area includes both rural and urban NC counties.

Data collection

Serial cross section data were collected as part of an interrupted time series evaluation design of the Guide to Healing project. WOC were eligible if they met the following criteria: (1) were HIV-infected; (2) had an appointment that day at the clinic; (3) were aged 18 or older; and (4) English-literate. All women of color who showed up for their medical appointment on an interview day were approached to participate in an interview; no sampling was employed, rather the population of women who were present were approached. The response rate was 58%, and participants represent 29% of the total HIV-positive women of color in the clinic, and nearly 34% of all African-American women attending the clinic. A comparison of the demographic characteristics of women of color who consented to interview and the total clinic population of WOC suggest participants do not differ from the clinic population on sociodemographic variables. Interviewers asked about psychosocial constructs, trauma histories, medical and social barriers to care, and sociodemographic characteristics, among others. The survey was read to participants by trained interviewers who entered their responses into netbook computers. Participants received a $25.00 gift card for their time. The University of North Carolina's Institutional Review Board approved the research protocols.

Barriers to Care Scale

We used a modified version of the Barriers to Care Scale.[27] Interviewers asked respondents to indicate the extent to which a given medical or social service barrier makes it difficult for the respondent to obtain medical care, specifically HIV clinic appointments and mental health services. The exact wording read "I will read a statement and ask you to please indicate to what extent each of the following circumstances makes it difficult for you to obtain care. Please use the following scale: "No Problem at all," "Very Slight Problem," "Somewhat of a Problem," or "Major Problem." The present tense was used in the question stem ("makes it difficult") but the time period was not defined. Items referred to one of five areas: (1) transportation, (2) mental health service availability, (3) work environment, (4) community stigma, (5) housing and economic concerns, or (6) confidentiality.

We dichotomized all eleven of the items to the Barriers to Care Scale.[27] "No Problem at all" responses were set to '0', and any score higher than "0" was coded as '1'. Responses were summed to produce a continuous scale of '0' to '11', where '0' represented 'no barriers,' '1' represented 'one barrier,' '2' represented 'two barriers,' and so on. We explored the continuous count of barriers scale for any threshold effect. In the absence of any prior research establishing a cut point for this scale, and given our data examination, the mean and median numbers of barriers (4) were used to dichotomize the count of barriers scale such that each woman either reported four-or-fewer barriers *or* five-or-more barriers.

Independent variables

Sociodemographic variables. Participants reported their age, housing status, employment status, insurance status, relationship status, and years of education. Age was coded as a continuous variable, and education was categorized as having less than 12 years, 12 years, or more than 12 years of education. To include an additional indicator of personal resources, insurance status was dichotomized to private insurance and not private insurance.

Co-morbidities. The HIV Symptom Index[28] is a 20-question scale that asks about general health issues in the past 4 weeks.

Table 1. Barriers to Care Reported by Women of Color Living with HIV and Attending an Academic Infectious Diseases Clinic ($N=164$)

Barriers to Care	*No problem at all* N (%)	*Very slight problem* N (%)	*Somewhat of a problem* N (%)	*Major problems* N (%)	*Missing* N (%)
The shortage of psychologists, social workers, and mental health counselors who can help me address mental health issues	129 (82%)	14 (9%)	9 (6%)	6 (4%)	6 (4%)
The lack of psychological support groups for persons living with HIV or AIDS	120 (75%)	21 (13%)	10 (6%)	10 (6%)	2 (2%)
Long distances to medical facilities and personnel	111 (68%)	18 (11)	27 (16%)	8 (5%)	0 (0%)
The lack of transportation to access services I need	120 (73%)	17 (10%)	16 (10%)	11 (7%)	0 (0%)
The lack of employment opportunities for people living with HIV or AIDS	87 (55%)	14 (9%)	37 (24%)	19 (12%)	7 (4%)
The lack of supportive and understanding work environments for people living with HIV or AIDS	77 (50%)	16 (10%)	38 (25%)	24 (15%)	9 (5%)
Lack of adequate and affordable housing	91 (56%)	23 (14%)	28 (17%)	20 (12%)	2 (1%)
Breaches of confidentiality	105 (64%)	17 (10%)	19 (12%)	23 (14%)	0 (0%)
The level of knowledge about HIV or AIDS among people in the community	91 (56%)	14 (9%)	33 (20%)	24 (15%)	2 (1%)
My personal financial resources	73 (45%)	22 (13%)	39 (24%)	30 (18%)	0 (0%)
Community residents' stigma against persons living with HIV or AIDS	71 (44%)	26 (16%)	31 (19%)	35 (21%)	1 (1%)

Anxiety and depression questions ($n=3$) were excluded since they were assessed separately. Answers ranged from 1 ("I don't have this symptom") to 5 ("It bothers me a lot") and higher scores indicate worse physical health. Responses to the HIV Symptom Index were summed, with reverse coding as appropriate to create a continuous variable. The PHQ-9 is a validated and reliable 9-item survey designed to screen for potential DSM diagnosable depression.[29] Respondents were asked questions regarding the symptoms experienced over the last 2 weeks and responded on a scale of 1 ("Not at all") to 4 ("Nearly every day"). The PHQ-9 [29] was scored by summing the item values and scores were categorized as "Minimal," "Mild," and "Moderate to Severe." Anxiety in the last 3 months was dichotomized as '0' for answering "No" to both anxiety questions, and '1' for answering "Yes" to either question.

Social environment. The Index of Psychological Abuse Scale (IPA Scale) captured experiences of ridicule, harassment, criticism, and emotional withdrawal from their partner.[30] Reponses on 21 items ranged from '1' ("Never") to '4' ("Often") with the potential scores ranging from 21 to 84. Perceived emotional and practical social support available from friends and others was captured as a 7-item subset of the Social Support and Activities Scale.[31,32] Response options ranged from '1' ("Definitely not") to 4 ("Definitely yes") with a potential range of scores from 7 to 28. The availability of support, care, and guidance for HIV care was assessed using the Treatment-specific Social Support Scale (TSSS). TSSS Scale is a modified 12-item subset of the Social Provisions Scale.[32] Responses ranged from 1 ("strongly disagree") to 4 ("strongly agree") and were summed to create potential scores from 12 to 48. Each of these social environmental scales were continuous covariates in our model.

Self determination. The Basic Needs Satisfaction in General Scale is a 21-item scale aimed at capturing autonomy, relatedness, and competency associated with self-determination and has been used in diverse populations.[33,34] Items were reverse-coded as necessary to ensure that higher score values corresponded to higher levels of each attribute. The autonomy scale was constructed using 7 items (scores from 7 to 28), relatedness included 8 items (scores from 8 to 32) and competency included 6 items (scores from 6 to 24). Scores were summed and specified as continuous covariates in our models.

Data analysis

Means and standard deviations of the continuous variables, counts, and percentages of the categorical variables were created. Scale properties were examined, including Cronbach's alphas for scale. Alpha scores for the scales ranged from 0.49 (Autonomy) to 0.91 (Index of Psychological Abuse). Scale correlations were also explored.

Binomial regression was used to assess the relationship between each independent variable (autonomy, relatedness, competency, depression, anxiety, self-rated physical health, social support, treatment-specific social support, psychological abuse, and sociodemographics) and the dichotomized barriers-to-care outcome. We calculated the unadjusted risk prevalence in a bivariate analysis of the independent variables. Models were adjusted for age, insurance status, and years of education. Prevalence ratios and risk differences were obtained. We report coefficients from the adjusted models here. Housing, employment, and marital status were not modeled due to co-linearity with the barriers scale.

Results

Barriers to care description

Women ($n=164$, complete = 141, incomplete = 23) were asked to identify barriers to accessing HIV care (Table 1). The barrier cited by the fewest women was a lack of mental health providers, as only 4% reported this as a major problem and only 18% reported as any degree of problem. Long distances and transportation services affected more women, 32% and 27% reporting a slight to major problem, respectively. Work-related difficulties, housing, and confidentiality concerns were slight to major problems for 36–46% of respondents. Community stigma and personal finances were cited as the most common barriers, with 56% and 55% reporting these barriers as slight to major problems in accessing HIV care, respectively, and 20% reporting both as a major barrier.

Table 2. Sociodemographic Characteristics of Women of Color Living with HIV and Attending an Academic Infectious Diseases Clinic ($N=164$)

	N (%)
Race	
Black	140 (85.37)
Native American	14 (8.54)
Hispanic	5 (3.04)
White	2 (1.22)
Other	3 (1.83)
Age (mean, SD)	46.07 (10.43)
Education years	
<12 years	57 (35%)
=12 years	61 (37%)
>12 years	46 (28%)
Insurance status (missing = 5)	
Public or uninsured	135 (85%)
Private	24 (15%)
Employment status	
Unemployed	114 (70%)
Full or part time	50 (30%)
Married (missing = 4)	
Not married	134 (84%)
Married	26 (16%)
Housing	
Institution	7 (4%)
Non-permanent	10 (6%)
Permanent	147 (90%)
HIV co-morbidities	
Depression (PHQ-9 score: 0–27) (missing = 8)	
Minimal (0–4)	77 (50%)
Mild (5–9)	32 (21%)
Moderate to severe (10–27)	47 (30%)
Anxiety	
No	90 (55%)
Yes	74 (45%)

Descriptive analyses

Table 2 illustrates the descriptive characteristics of the study respondents, including depression and anxiety. Most respondents were African-American (85%), over the age of 40 (72%), 72% had 12 years or more of education, had public or no insurance (85%), were unemployed (69%), unmarried (86%), and lived in permanent housing (89%; Table 2). Moderate-to-severe depression was reported by 30% and anxiety by 45%.

Table 3 describes the responses to the continuous explanatory variable scales. Women reported an average score on the HIV symptom scale of 37.23, with a range between 17 and 73. Responses on the index of psychological abuse ranged from 21 to 70, with a mean score of 32.14. Responses to the social support scale ranged from 7 to 28, with a mean of 23.76. The Treatment-Specific Social Support scale had a score range of 16 to 48, with a mean of 37.73. Self-determination basic needs scale was used to assess autonomy (range, 13–28; mean, 22.64), relatedness (range, 12–32; mean, 24.88), and competency (range, 9–24; mean, 18.84).

Prevalence ratios for reporting five-or-more barriers to care

To determine both risk and protective characteristics associated with reporting a high number of barriers-to-care, prevalence ratios were calculated (Table 4). The absence of private insurance was associated with increased risk of reporting five-or-more barriers to care [prevalence ratio (PR) = 3.25, 95% confidence intervals (95% CI): 1.13, 9.41]. No associations with age or education were seen. When the influence of co-morbidities was examined in the adjusted models, poor physical health, moderate to severe depression and anxiety were associated with an increased risk. Each one point in the HIV Symptom Index was associated with a 52% increase in the risk of having five or more barriers to care (PR = 1.52, 95% CI: 1.52, 1.52). Psychological abuses predicted increased risk for five-or-more barriers in the adjusted models (PR = 2.99, 95% CI: 2.98, 4.64) and as expected, each unit increase in social support was associated with a lower adjusted risk of reporting barriers-to-care (PR = 0.81, 95% CI: 0.81, 0.81). A smaller, insignificant but similar effect was seen with treatment-specific social support, however. Each unit increase in the self-determination scales (autonomy, relatedness, competency) were associated with a 7–8% reduction in the risk of having five or more barriers to care (95% CI: 0.89,0.97; 95% CI: 0.92, 0.92; 95% CI: 0.88, 0.98; respectively).

Risk differences for reporting five-or-more barriers to care

To explicate the public health significance of the associations observed under the ratio scale, risk differences were calculated (Table 4). Risk difference determinations demonstrated that HIV-infected WOC report more barriers to care with the absence of private insurance. For every 100 women without private insurance, an additional 33 women reported having five-or-more barriers to care (risk difference, RD = 0.35; 95% CI: 0.20, 0.51) compared with women who have private insurance.

Table 3. Response Characteristics of the Scaled Explanatory Variables Among Women of Color Living with HIV and Attending an Academic Infectious Diseases Clinic (N=164)

Scale	*Mean (sd)*	*Theoretical range*	*Observed range*	*Cronbach's alpha*
HIV symptoms	37.23 (13.36)	17–73	17–73	0.88
Psychological abuse	31.89 (11.50)	0–70	0–70	0.91
Social support	23.76 (4.16)	7–28	7–28	0.84
Treatment-specific social support	37.73 (6.47)	16–48	16–48	0.86
Autonomy	22.64 (3.42)	13–28	13–28	0.49
Competency	18.84 (3.29)	9–24	9–24	0.61
Relatedness	24.88 (4.63)	12–32	12–32	0.76

Each one-unit increase in the HIV symptom index scale was associated with two additional women reporting five-or-more barriers to care in the adjusted models (RD = 0.02, 95% CI: 0.02, 0.02). Compared to women without depression and anxiety, 43 (per 100) women with moderate to severe depression (RD = 0.43, 95% CI: 0.24, 0.61) and 36 women (per 100) with anxiety (RD = 0.36, 95% CI: 0.20, 0.51) were more likely to report five or more barriers to care. As a measure of negative social environmental characteristics, psychological abuse was also shown to be associated with slightly more women with a high number of barriers, although not reaching statistical significance (RD = 0.01, 95% CI: 0.00, 0.01).

Positive social environments were inversely associated with reported barriers. Each one-unit increase in the social support was associated with a lower barrier-to-care score for social support (RD = −0.05, 95% CI: −0.06, −0.05). Self-determination levels also predicted that fewer women reported five-or-more barriers to care. Each unit increase on the self-determination subscales were associated with one to four fewer women experiencing a high number of barriers to care. The risk and protective factors that were identified by

Table 4. Adjusted Prevalence Ratios and Risk Differences of Reporting More Than 4 Barriers to Care Among Women of Color Living with HIV and Attending an Academic Infectious Diseases Clinic (N=141)

	Adjusted prevalence ratio (95% CI)	*Adjusted risk differences (95% CI)*
Sociodemographics		
Age	1.00 (0.98, 1.03)	0.00 (−0.00, 0.01)
Education		
<12 years	1.05 (0.66, 1.64)	0.09 (−0.09, 0.26)
=12 years	1.00 (0.61, 1.65)	0.07 (−0.11, 0.26)
>12 years	Referent	Referent
Insurance status		
Non-private insurance	3.31 (1.14, 9.58)	0.35 (0.20, 0.51)
Private insurance	Referent	Referent
HIV co-morbidities		
Physical symptom scale	1.52 (1.52, 1.52)	0.02 (0.02, 0.02)
Depression		
Minimal	Referent	Referent
Mild	1.51 (0.82, 2.78)	0.11 (−0.09, 0.32)
Moderate to severe	2.72 (1.77, 4.18)	0.43 (0.24, 0.61)
Anxiety		
No	Referent	Referent
Yes	3.25 (2.22, 4.75)	0.36 (0.20, 0.51)
Social environment		
Psychological abuse	2.99 (2.98, 2.98)	0.01 (0.00, 0.01)
Social support	0.81 (0.81, 0.81)	−0.05 (−0.06, −0.05)
Treatment specific social support	0.97 (0.95, 1.00)	−0.01 (−0.02, −0.00)
Self determination		
Autonomy	0.93 (0.89, 0.96)	−0.04 (−0.05, −0.02)
Relatedness	0.92 (0.89, 0.94)	−0.01 (−0.01, −0.01)
Competency	0.93 (0.87, 0.98)	−0.04 (−0.06, −0.02)

Prevalence ratio models and risk difference models were adjusted for sociodemographics (age, categorized education, and health insurance) except with the prevalence ratio analysis for autonomy. The autonomy prevalence ratio was adjusted for age and education only, because of problems with convergence. Risk difference models adjusted for age, education, and health insurance.

relative risk analysis were confirmed by the risk difference analysis even after adjusting for demographics.

Discussion

In the context of better understanding the unique gender-specific needs of HIV-positive women,[35] this study highlights the perceived psychological and environmental barriers and facilitators to HIV care among WOC. The data suggest that a high number of barriers are present when HIV-infected women of color attempt to access HIV care. Most women reported four of 11 possible barriers, with community stigma and financial issues being most commonly cited. Access to mental health treatment and support were the two least frequently cited barriers but presented some difficulty to 18–25% of the women. The remaining seven barriers were cited by 27–56% of women. The cumulative experience of accessing healthcare by the women interviewed is one of multiple barriers.

Co-morbidities of all types were consistently associated with barriers to care. Women with poorer physical health, moderate to severe levels of depression, anxiety or higher levels of psychological abuse were more likely to have five-or-more barriers. This is consistent with the literature supporting the effects of intimate partner abuse on delayed access to HIV care and missed appointments[17] and with other studies illustrating the relationship between mental health and service utilization.[36,37] Additionally, poorer physical health was associated with a greater risk for more barriers to care. Treatment-specific and general social supports were associated with fewer reported barriers, though the association with treatment specific support was not significant in the adjusted model. Additionally, women reporting high levels of autonomy, competence, and relatedness reported fewer barriers.

In this analysis of barriers-to-care reported by HIV-infected women, the theory of self-determination was used to expand the literature of engagement and retention in HIV care. All three basic needs—relatedness, competency, and autonomy—were associated with fewer barriers to care. Previous SDT-related research has focused on ART adherence, and show that autonomy support and/or autonomous motivation are associated with higher levels of adherence, and a greater sense of well-being.[21,38,39] Men with higher levels of adherence were more likely to report that "taking medications for others" was part of an intrinsic value system whereas men with lower adherence reported this as an external obligation.[40] Autonomy with motivation based on personal values was associated with higher levels of well-being in persons adjusting to a new diagnosis of HIV.[39] This quantitative work complements previous qualitative findings showing that autonomy, competency, and relatedness influence adherence to HIV medical care.[11]

Severity of physical symptoms was associated with multiple barriers-to-care in our sample. This is in contrast to earlier work reporting that health service utilization, including outpatient care, increased with increased severity of illness.[8,13] Gender, urban versus rural environments, age, or other factors are possible explanations for the differences between our findings and previous work. These studies examined actual use of care and here we are reporting perceived barriers. Indeed, in two studies with rural HIV-infected women, women described physical symptoms as barriers to care. We reported earlier that women in our mixed geographic population describe missing clinic appointments when they feel sick or have medication side effects.[10] Others reported that California rural women (50% white, 29% Latina, 15% African-American) reported more missed appointments in the presence of physical symptoms.[41] Not accessing outpatient care increases the use of hospital services.[13] Chronically ill women experiencing multiple barriers to care may be at risk for poor health and subsequent hospitalizations or emergency room visits. Poor health, in turn, may increase barriers to care. Severity of illness influences utilization of services in a complex manner depending on the setting, population, and service type.

Treatment-specific social support positively influences engagement in HIV care, especially among AAs.[17–19] However, this effect was not observed among our sample. Rather, general social support in the form of emotional and practical support was associated with fewer reported barriers to care, confirming that social support may buffer barriers to care.[17–19,42] The difference in these two findings may be explained by the heterogeneous effects of social networks on access to care. In a prior study on HIV-positive African-American women,[19] social support from other women, and emotional support, were associated with outpatient service use, whereas instrumental support in the form of direct financial and physical assistance was not. A recent pilot study suggests that peer-support among HIV positive African-American women reduces stigma [43] and may have implications for engagement in HIV care. Treatment-specific social support is more instrumental and may not represent the type of social support that is needed to address barriers to care.

These findings, while promising, are not without limitations. Twenty-three respondents completed only part of the Barriers to Care Scale and there were women who declined to participate in the data collection. While the resulting sample of 141 women represents one-third of the clinic's population of minority women, and have similar demographics, respondents may differ from non-respondents in meaningful ways. Responses to the Barriers to Scale represent perceived barriers to HIV care. Further study is needed to capture the direct experience of barriers to care among this population. Additionally, our dependent variable is specified as a dichotomous indicator of multiple barriers to care, which may limit the interpretability of our findings. Since our sample included only WOC of one geographic area, the results may not be generalizable to other populations. Our use of validated instruments, however, facilitates comparison with other populations. Further, the distribution of responses to the covariate items suggests representation of broad range of experiences and perspectives, increasing the generalizability of the findings. Finally, these data are cross-sectional, which means the causal direction of the relationships between barriers to care and our independent variables cannot be determined.

HIV-infected women attending a medical clinic report the presence of multiple barriers to accessing HIV care. These findings have important policy implications. Since the sample was drawn from women already accessing care, the results may understate the effect of these predictors on barriers to HIV care for non-engaged women. Furthermore, as described above, a cycle between poor physical health and increases in barriers to care may play a role for these women. Thus, engaging and tracking women at the point of care is important.

There is some evidence that implementing rapid HIV testing in emergency rooms can further our understanding of the unique characteristics of women of color not in HIV care,[44] while potentially addressing perceived barriers to care. Interventions that target improved self-determination and social support among HIV positive women of color may also help improve access and retention into HIV care.

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Author Disclosure Statement

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