

## Sigma's 30th International Nursing Research Congress

### Path Analysis of Health Literacy and Retention in Care Among African Americans Living With HIV

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#### Introduction

Low health literacy and poor retention in care contribute to HIV health disparities among African Americans, but causal pathways have not been examined. We employed an adapted health literacy model to examine the role of health literacy on racial disparities in retention in care and HIV outcomes.

#### Methods

Participants included 699 HIV-positive adults receiving care at one of four HIV clinics in metro-Atlanta Georgia. We used path analysis to test the mediating effect of 1) health literacy between race (African American vs. non-African American) and retention in care; 2) retention in care between health literacy and HIV viral load; 3) health literacy between sociodemographic indicators and patient-provider interactions. Retention in care was operationalized as 100% visit adherence versus less than 100% visit adherence. Measures included the Short-Test of Functional Health Literacy and the Attitudes Towards the HIV Health Care Provider Scale. Data were collected from 2012 to 2015 through face-to-face interviews. Retention in care and viral load data were abstracted from electronic medical records 24-months post survey.

#### Results

Average participant age was 48 years, with 60% African American and 93% virally suppressed. Non-African American race ( $p = .028$ ) was related to greater health literacy. Greater health literacy led to 100% visit adherence ( $p = .002$ ), which was subsequently associated with viral suppression ( $p < .001$ ). Socioeconomic status ( $p = .013$ ) and cognitive function ( $p < .001$ ) directly influenced health literacy, which then influenced 100% visit adherence and patient-provider interactions ( $p < .001$ ). The model demonstrated good fit (RMSEA = 0.002, SRMR = 0.042, CFI = 0.999, TLI = 1.003).

#### Discussion

Health literacy mediates the relationship between race and retention in care, as well as the effect of race and sociodemographic predictors on patient-provider interactions. Findings suggest causal pathways between retention in care and health literacy for racially disparate HIV populations. Findings from this study highlight areas of research that may expand knowledge of health literacy on disparities in retention in care. Additional implications include the need to provide individualized, patient-centered educational health resources and retention in care interventions that address patient health literacy.

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#### Title:

Path Analysis of Health Literacy and Retention in Care Among African Americans Living With HIV

**Keywords:**

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**References:**

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**Abstract Summary:**

Low health literacy and poor retention in HIV care may contribute to the morbidity and mortality of HIV among African Americans. Findings from this study suggest causal pathways between retention in care and health literacy among racially disparate HIV populations.

**Content Outline:**

1. Introduction
  1. Health literacy and retention in care may contribute to racial health disparities among African Americans living with HIV, but causal pathways have not been examined.
  2. This study utilized an adapted health literacy model to examine the role of health literacy on racial disparities in retention in care and HIV outcomes.
2. Methods and Results
  1. This study is a prospective, observational study. It is ancillary to a longitudinal, non-experimental study that recruited 699 persons living with HIV between June 2012 and December 2015 from four urban outpatient HIV clinics in Metro-Atlanta, Georgia.
    1. Nearly 60% of participants were African American, and the majority were male, single/never married, non-heterosexual, and very low SES.
    2. Participants averaged  $13 \pm 11$  HIV scheduled appointments over a 24-month post-baseline period.
  2. This study collected socioeconomic status at baseline, as well as HIV viral load and retention in care 24-months post-baseline from electronic medical record data abstraction. This study also used several measures collected by the parent study at baseline.
    1. Retention in care was operationalized as visit adherence and was dichotomized as 100% visit adherence and less than 100% visit adherence.
    2. Other measures included the Short-Test of Functional Health Literacy and the Attitudes Towards the HIV Health Care Provider Scale.
  3. Path analysis was conducted to assess the relationships among the variables theorized in the adapted health literacy model. Variables included race, insurance, cognitive

function, health literacy, visit adherence, and patient attitudes towards the health care provider.

1. Results indicated that non-African Americans had greater health literacy ( $p = .03$ ), which was related to increased likelihood of 100% visit adherence ( $p = .002$ ) and subsequent viral suppression ( $p < .0001$ ).
  2. Health literacy mediated the relationship between race and sociodemographic predictors on patient-provider interactions.
  3. The model demonstrated good fit (RMSEA = 0.002, SRMR = 0.042, CFI = 0.999, TLI = 1.003)
3. Conclusions
1. Health literacy mediates the relationship between race and retention in care, as well as between race and sociodemographic predictors on patient-provider interactions.
  2. Findings suggest causal pathways between retention in care and health literacy for racially disparate HIV populations.
  3. Findings from this study highlight areas of research that may expand knowledge of health literacy on disparities in retention in care.
  4. Additional implications include the need to provide individualized, patient-centered educational health resources and retention in care interventions that address patient health literacy.

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**Author Summary:** Ashley Anderson recently graduated with a PhD in Nursing from the Nell Hodgson Woodruff School of Nursing at Emory University in Atlanta, Georgia. Ms. Anderson's dissertation research focused on the role of health literacy in disparities in retention in care among African Americans living with HIV. In fall 2019, Ms. Anderson will begin a postdoctoral fellowship at Columbia University, where she will receive training in the use of informatics and technology for HIV care management.

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