

Using Network Analysis to Explore the Associations between Identities Targeted by Discrimination, Mental Health, and Barriers to Care among Community Residents in Miami, FL

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Disclosures

Dr. Sannisha Dale/PI serves as Co-investigator/ Miami Site PI on a Merck & Co. funded project (PI Ojukutu) on " A Qualitative Study to Explore Biomedical HIV Prevention Preferences, Challenges and Facilitators among Diverse At-Risk Women Living in the United States"

Dr. Sannisha Dale/PI previously served as a workgroup consultant on engaging people living with HIV for Gilead Sciences, Inc.



Background:

- 15% of Miami-Dade County's population is Black, however the Black community accounts for 27% of people living with HIV in the county as of 2022 (FDOH)
- Structural barriers to healthcare may drive lack of access to preventative care for HIV
- Race-related discrimination has been found to be linked to structural barriers to care and mental health symptoms such as anxiety

Dale et al., 2019;
Bouabida et al., 2023;
Moody et al., 2023;
Nydegger et al., 2021;

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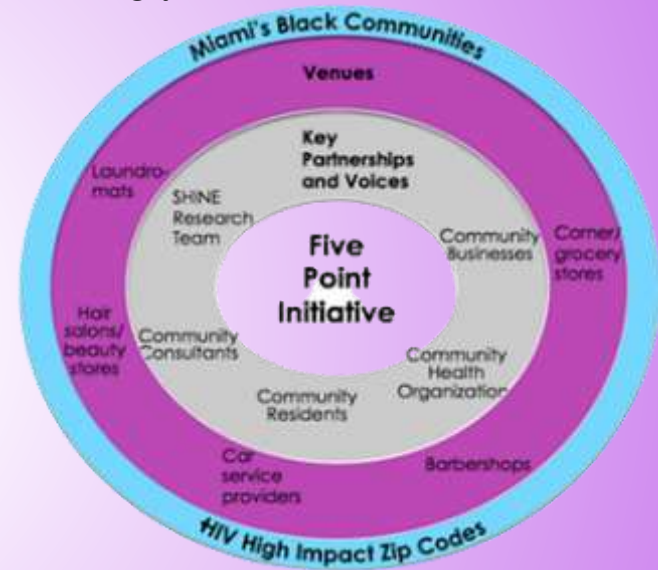


Five Point Initiative Bundled Implementation Strategy

A hybrid type 2 cluster randomized trial (using a stepped-wedge design) is being conducted to evaluate the effectiveness and implementation of FPI BIS.

Intervention:

- Coordinate outreach events in local venues
- Community residents engaged on a brief survey and provided with HIV testing and PrEP information, screening, and linkage (if indicated)



Everyone benefits:

			
Cash vouchers	Daily revenue	Increased reach	Compensation for lived expertise

Using pre-intervention data, the current substudy sought to understand the identities targeted by discrimination, mental health, and barriers to care.

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Methods

- 3,240 community members in Miami, FL
- Recruitment between February and December 2024
- Pre-intervention phase of FPI BIS
- Eligible participants (age 18 and older) completed a survey at events across 8 sites in Miami



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Methods: Measures

Sociodemographics

Race
Ethnicity
Gender
Sexual
Orientation
Housing
Education
Income

Mental

Health

In the last two weeks, how often have you been bothered by any of the following problems?:

1. Feeling down, depressed, or hopeless (PHQ-9)
2. Feeling nervous, anxious, or on edge (GAD-7)

Barriers to

Care

Please select which of the following have made it difficult for you to receive the healthcare services you need:

1. Lack of transportation
2. Lack of health care professionals who are adequately trained and knowledgeable
3. Personal financial resources (Adapted

Everyday

Discrimination

In your day-to-day life, how often do any of the following things happen to you?:

1. You are treated with less courtesy or respect than other people
2. You are threatened or harassed

What do you think is the main reason for these experiences?

- Your gender (being a woman or a man)
- Your Gender Identity (e.g., Trans identified, gender nonconforming)
- Your Race or Ethnicity (Black, Latinx, etc)
- Living with HIV
- Your Sexual Orientation (LGBTQ)
- Your Socioeconomic status (SES)

(Williams et al., 1997)

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Methods: Statistical Analyses

- Two network analyses were conducted using polychoric correlations:
 1. Being treated with a lack of courtesy or respect (1,235 pts indicated)
 2. Being threatened or harassed (544 pts indicated)
- Network analyses included the following for all participants sampled:
 - Total number of barriers experienced
 - Average of how often they experienced mental health symptoms in the past two weeks
 - Reasons for why they experienced discrimination
- Edge weight significance was used to determine significant relations between network nodes
- Analyses were conducted in RStudio using: qgraph, glasso, bootnet



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Results: Sociodemographic Characteristics

Race	Full Sample		Network 1		Network 2	
	N	%	N	%	N	%
Black/African-American	2654	81.9	987	79.9	414	76.1
White	385	11.9	158	12.8	75	13.8
Ethnicity	Full Sample		Network 1		Network 2	
Non-Hispanic	2776	85.7	1044	84.5	453	83.3
Hispanic	464	14.3	191	15.5	91	16.7
Gender	Full Sample		Network 1		Network 2	
Cis man	1702	52.5	673	54.5	292	53.7
Cis woman	1519	46.9	554	44.9	245	45.0
Trans man	2	0.06	1	0.1	1	0.2
Trans woman	5	0.15	2	0.2	1	0.2
Gender queer/gender non-conforming/non-binary	7	0.2	4	0.3	4	0.7
Two-Spirit	4	0.12	1	0.1	1	0.2

Black/African-American

Non-Hispanic/Latine

Male

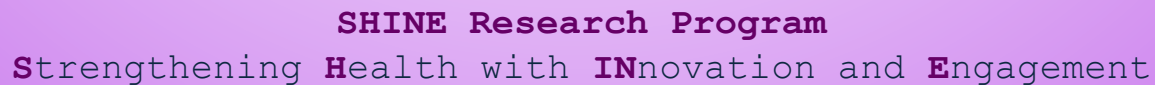
Sexual Orientation	Full Sample		Network 1		Network 2	
Heterosexual	2949	91.0	1104	89.4	459	84.4
LGBTQIA	267	8.2	124	10.0	83	15.3
Housing	Full Sample		Network 1		Network 2	
Renting home or apartment	1524	47.0	629	50.9	265	48.7
Living in home or						
Education	Full Sample		Network 1		Network 2	
Some high school	536	16.5	211	17.1	75	13.8
High school graduate or GED	1202	37.1	486	39.4	196	36.0
Some college	454	14.0	253	20.5	128	23.5
Less than \$5,000	682	21.0	345	27.9	160	29.4
\$5,000 through \$11,999	411	12.7	175	14.2	88	16.2
Don't know	585	18.1	194	15.7	68	12.5

Heterosexual

Renting

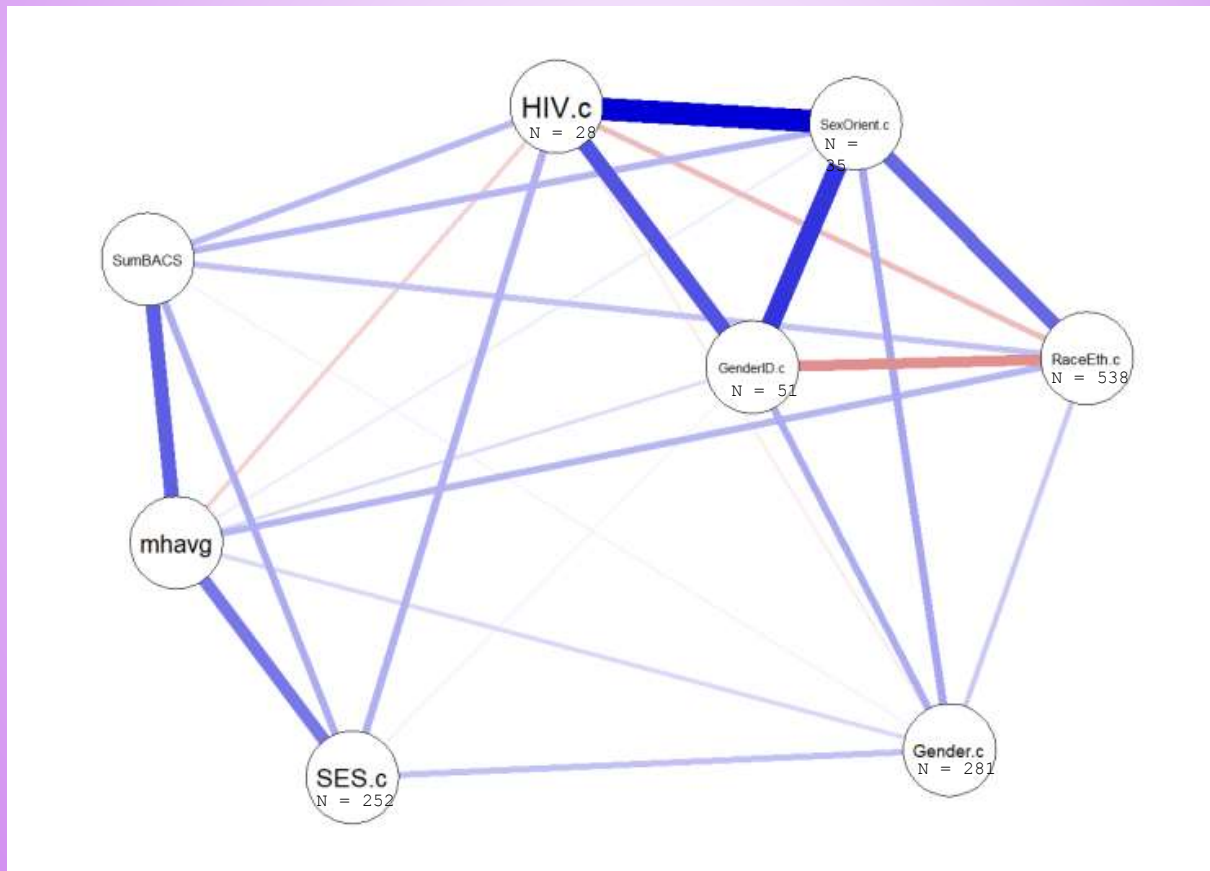
High school graduate/GED

Less than \$5,000



Results Network 1: Network Centrality

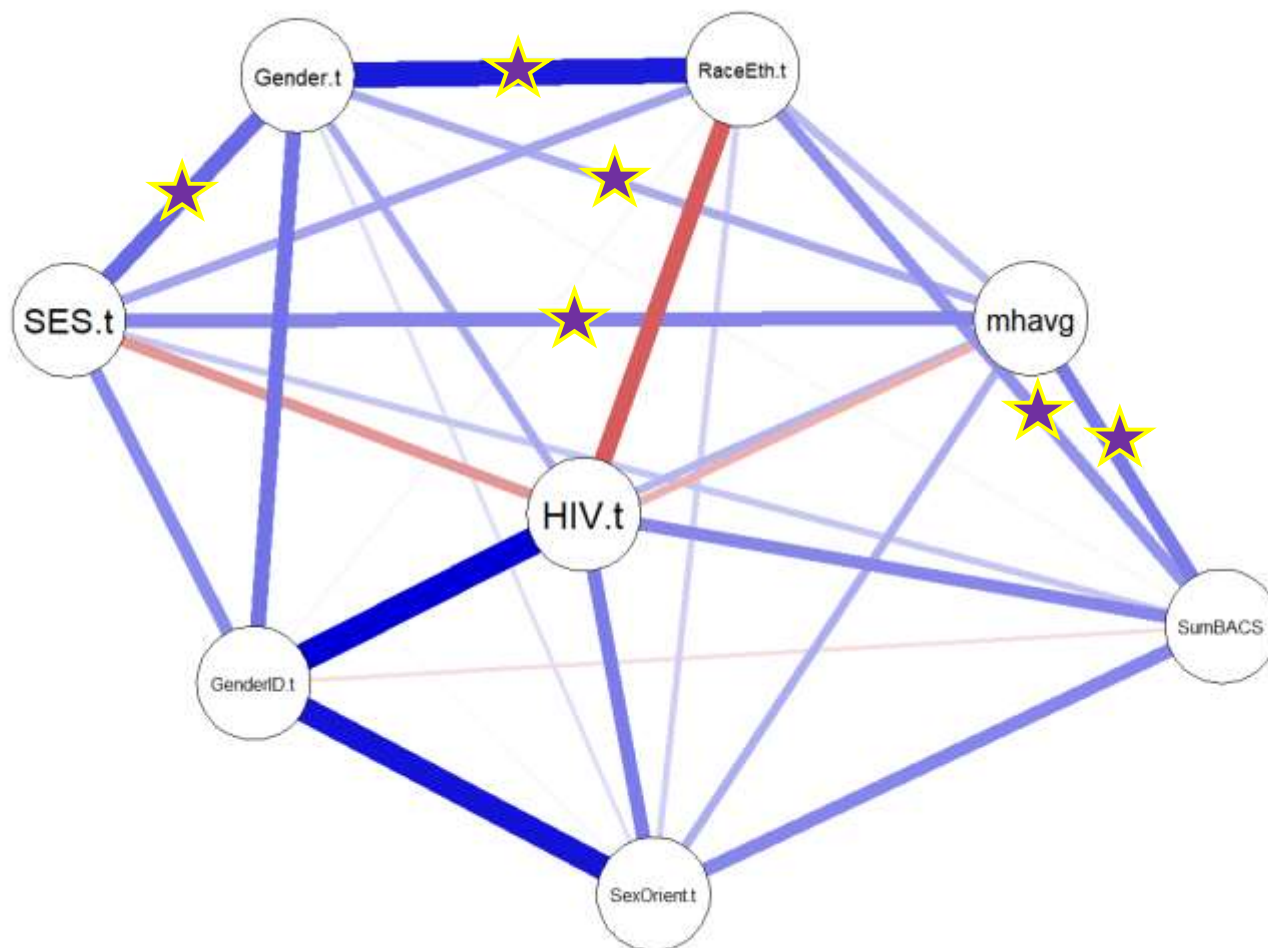
- Most central node in strength, closeness and betweenness: experiencing discrimination due to sexual orientation
- Second most central node in strength, closeness, and betweenness: experiencing discrimination due to living with HIV



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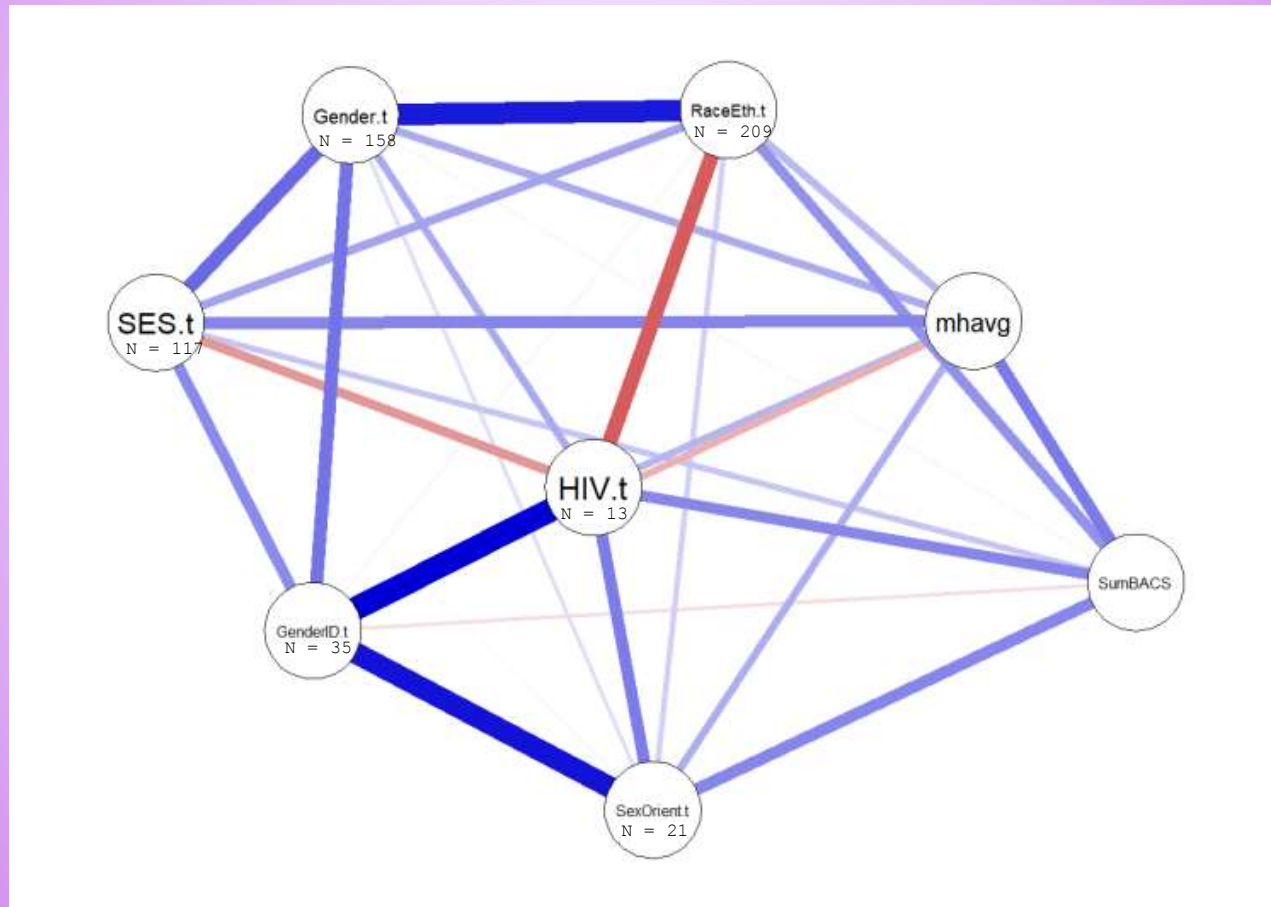
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Results Network 2: Being Threatened or Harassed



Results Network 2: Network Centrality

- Strength and betweenness: Living with HIV
- Closeness: Gender identity



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Discussion

- Majority of participants who experienced discrimination were Black, low SES, heterosexual males
- Community residents in Miami, FL who are experiencing discrimination are also experiencing **mental health symptoms more often** and **more structural barriers** to healthcare
- Discrimination, structural barriers, and mental health within the Black community must all be addressed to increase access to HIV prevention services



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THANK YOU



- ✧ Participants
- ✧ Community Stakeholders and Consultants
- ✧ Collaborators
- ✧ Funders
 - ✧ NIMH R01MH134269 (PI: Dale

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Unused items

Race	Network 1		Network 2	
	N	%/sd	N	%/sd
Black/African-American	987	79.9	414	76.1
Asian	9	0.7	2	0.4
White	158	12.8	75	13.8
Native Hawaiian/Pacific Islander	4	0.3	3	0.6
Native American	15	1.2	8	1.5
Multi-racial/Mixed	41	3.3	30	5.5
Different racial identity	21	1.7	12	2.2
Hispanic	191	15.5	91	16.7
Gender	Network 1		Network 2	
Cis man	673	54.5	292	53.7
Cis woman	554	44.9	245	45.0
Trans man	1	0.1	1	0.2
Trans woman	2	0.2	1	0.2
Gender queer/gender non-conforming/non-binary	4	0.3	4	0.7
Two-Spirit	1	0.1	1	0.2

Sexual Orientation	Network 1		Network 2	
	N	%/sd	N	%/sd
Heterosexual	1104	89.4	459	84.4
Gay	22	1.8	16	2.9
Lesbian	17	1.0	10	1.8
Bisexual	55	4.5	41	7.5
Queer	5	0.4	2	0.4
Pansexual	5	0.4	4	0.7
Asexual	9	0.7	3	0.6
Unsure/Questioning/Exploring	11	0.9	7	1.3
Not listed	6	0.5	2	0.4
Choose not to answer	1	0.1	0	0

Housing	Network 1		Network 2	
	N	%/sd	N	%/sd
Renting home or apartment	629	50.9	265	48.7
Living in home or apartment owned by you or else	261	21.1	98	18.0
Residential drug, alcohol or other treatment facility	5	0.4	3	0.6
Publicly subsidized housing	32	2.6	19	3.5
A friend or relative's	116	9.4	54	10.0
Education	Network 1		Network 2	
Eighth grade or lower	50	4.0	19	3.5
Some high school	211	17.1	75	13.8
High school graduate or GED	486	39.4	196	36.0
Some college	253	20.5	128	23.5
College graduate	134	10.9	76	14.0
Some graduate school	16	1.3	10	1.8
Graduate school degree	64	5.2	28	5.3
Choose not to answer	21	1.7	12	2.2
\$5,000 through \$11,999	175	14.2	88	16.2
\$12,000 through \$15,999	111	9.0	48	8.8
\$16,000 through \$24,999	102	8.3	44	8.1
\$25,000 through \$34,999	96	7.8	41	7.5
\$35,000 through \$49,999	75	6.1	32	5.9
\$50,000 and greater	93	7.5	45	8.3
Don't know	194	15.7	68	12.5
Choose not to answer	44	3.6	18	3.3