Differences in Sexual Health Communication:
The Use of Latent Class Analysis to Inform HIV Intervention Tailoring for Young Black Women

UNIVERSITY *of* MARYLAND
SCHOOL OF SOCIAL WORK

CHIPTS
Center for HIV Identification, Prevention and Treatment Services

Jaih Craddock, PhD, MSW, MA
Assistant Professor
Jaih.Craddock@ssw.umaryland.edu

Background

- Black American women account for 57% of new HIV infections among U.S women [3].

- Challenges remain in identifying which Black women are at elevated risk for HIV [5] due to complex and multifaceted factors associated with HIV acquisition (e.g., individual behaviors, social network dynamics, and HIV knowledge and prevention awareness) [6].

Why Latent Class Analysis?

The literature has…

1. Understudies sexual health communication differences among young Black women, and

2. Overlooked how these differences may be associated with YBWs HIV prevention and risk behaviors.

Latent class analysis (LCA) is a method used to provide insight into patterns of behaviors. Specifically, LCA identifies subgroups within a sample and highlights underlying profiles and conditional probabilities (in this case, of communication) within an emerging latent class.

Why Sexual Health Communication?

- It has shown to be a critical determinant of HIV prevention behaviors cross the lifespan [13].

- Little attention has been given to understanding who (besides partners) YBW may communicate with about sexual health topics or how it may be associated with YBW's HIV prevention behaviors.

- Variations in sexual health communication with SNMs may be associated with effectiveness outcomes of HIV interventions targeting YBW.

Who? When?
(Methods)

Recruitment

- June 4, 2018 to December 2, 2018
- Fourteen YBW (seeds) were recruited from various community organizations in the Los Angeles area and on Twitter and Facebook.
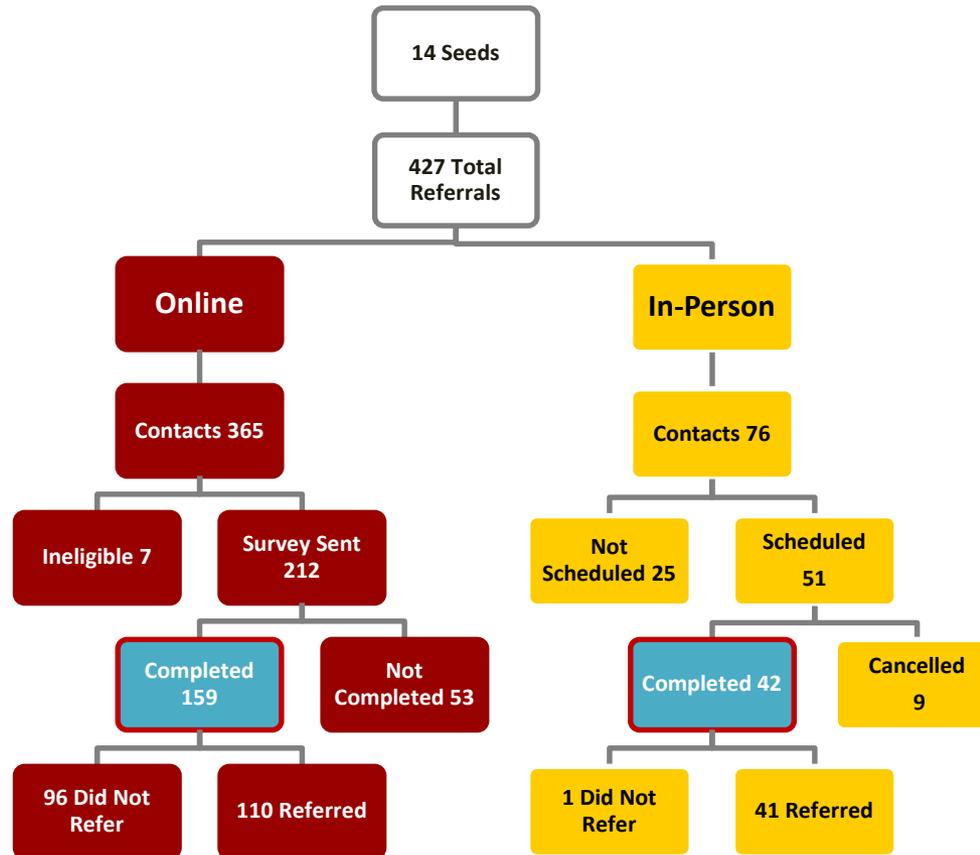
Screening and enrollment

(a) 18 to 24 years of age

(b) Identify as a Black or African American woman

(c) Ever sexually active

Respondent Driven Sampling

- As part of the RDS, participants were asked to invite at least three eligible YBW to participate in the study, until 200 women have participated.

Who? What?

Demographics (*n* = 180)

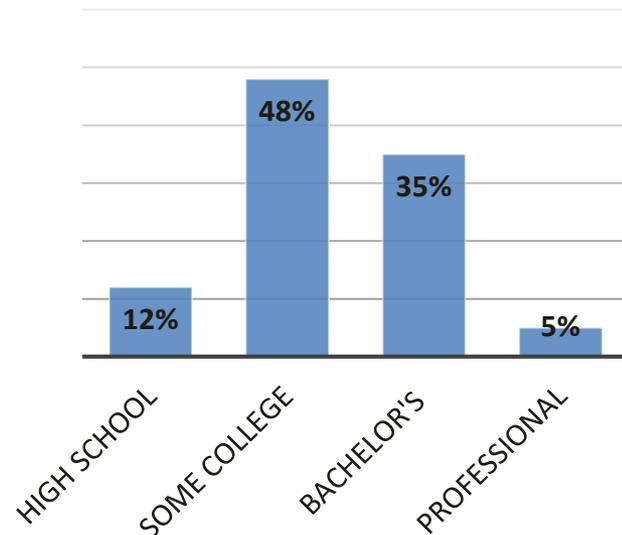**Age**: 18 to 24 years ($M =$21.15)

Regions lived in...
- 42.13% - South
- 41.01% - West
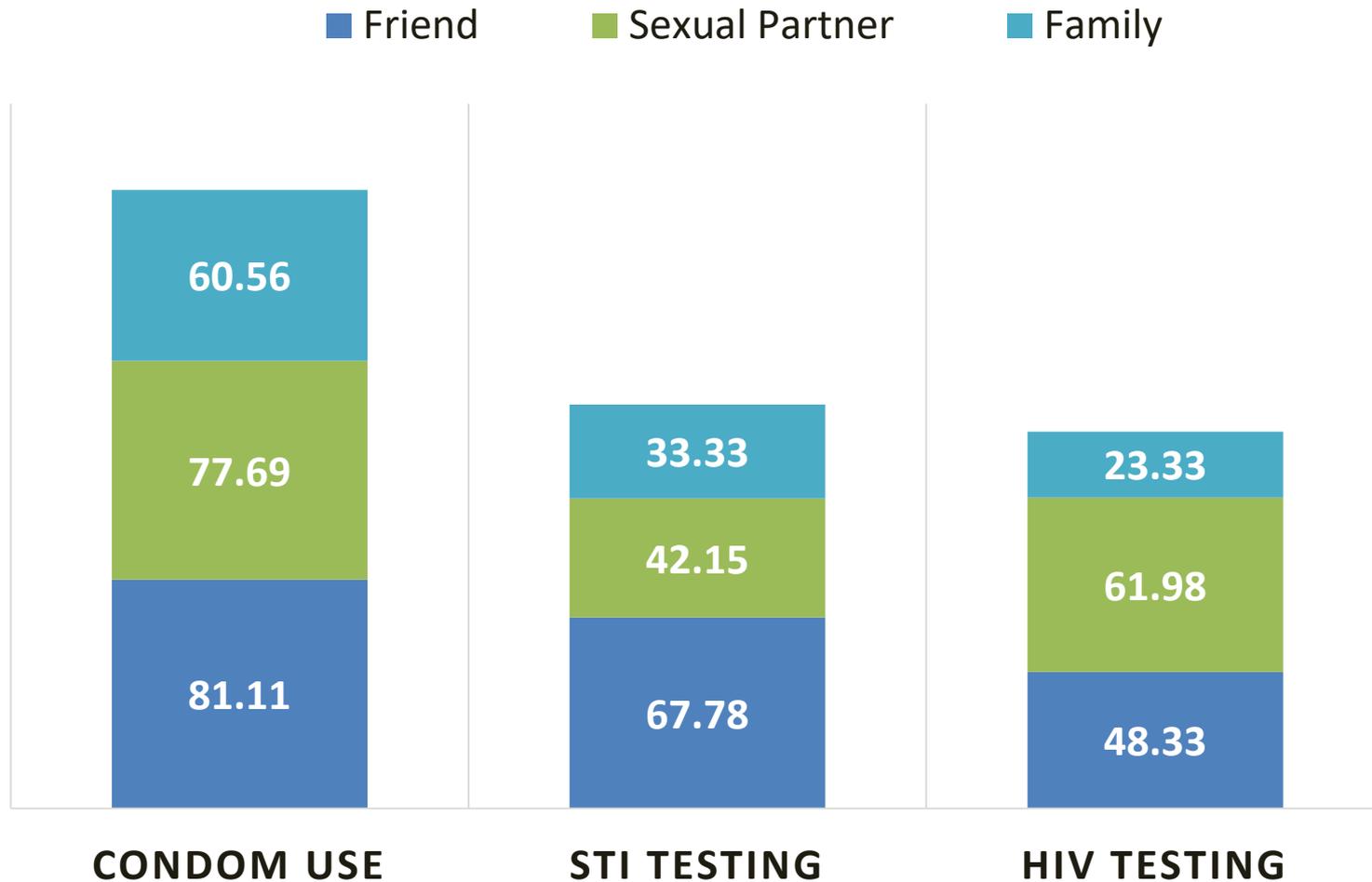- 8.99% - Northeast
- 7.87% - Midwest

Outcome Variables
- 72.22% - Reported ever tested for HIV
- 40.22% - Reported using a condom at last sex
- 36.11% - Reported being interested in using PrEP for HIV prevention

Education

Bar chart showing Education levels: HIGH SCHOOL 12%, SOME COLLEGE 48%, BACHELOR'S 35%, PROFESSIONAL 5%

What did we find? (Results)

There were SEVEN Subgroups of Cisgender Young Black Women

Spoke about condom use with Friends and Family

Spoke to Friends & Partners

Spoke to Friends & Family

Spoke to Everyone

Only Spoke with Friends

Only Spoke with Partners

Spoke with NO ONE

What did we find?
(Results)

Table 3. Seven class latent class analysis model of conditional probabilities of sexual health communication (n = 176)

	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7
	Condom Use Only	Friends & Partners	Friends & Family	Everyone	Friends Only	Partners Only	No One
N (%)	38 (21.59)	16 (9.09)	19 (10.80)	34 (19.32)	32 (18.18)	8 (4.55)	29 (16.48)
Talk to Family Members about…							
Condom Use	1.00	0.47	0.84	1.00	0.30	0	0.24
STI Testing	0.30	0.11	1.00	0.86	0	0	0
HIV Testing	0	0	0.79	0.75	0	0.13	0
Talk to Friends about…							
Condom Use	1.00	1.00	0.95	0.89	0.97	0	0.36
STI Testing	0.64	1.00	1.00	0.85	0.76	0	0.17
HIV Testing	0	0.91	1.00	0.77	0.62	0.13	0
Talk to Sexual Partners about…							
Condom Use	0.47	0.86	0.20	0.91	0.31	1.00	0.29
STI Testing	0.43	0.84	0	0.93	0	0.88	0.27
HIV Testing	0.05	0.71	0	0.83	0	1.00	0

What else did we find?

(Results)

Table 4. Univariable multinomial regression models with Class 4 as reference group

|	Class 1 Condom Use		Class 2 Friends & Partners		Class 3 Friends & Family		Class 5 Friends only		Class 6 Sexual Partners only		Class 7 No One	
	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI	OR	95% CI
Sex in the prior 30 days	0.50	0.18, 1.20	1.21	0.39, 3.78	**0.31**	**0.12, 0.86**	**0.40**	**0.17, 0.97**	0.91	0.24, 3.51	0.91	0.36, 2.33
Condom use at last sex	1.27	0.45, 3.57	2.94	0.95, 9.11	1.14	0.40, 3.27	**2.87**	**1.17, 7.02**	2.48	0.66, 9.37	1.42	0.54, 3.70
Ever tested for HIV	**0.21**	**0.06, 0.71**	0.37	0.09, 1.51	1.09	0.23, 5.22	**0.16**	**0.05, 0.48**	0.90	0.12, 6.56	0.37	0.11, 1.23
Interest in PrEP	0.54	0.20, 1.48	0.75	0.12, 2.22	0.91	0.34, 2.42	0.88	0.37, 2.08	***	*****	0.45	0.17, 1.19
Participated in HIV prevention Program	**0.16**	**0.03, 0.99**	0.46	0.12, 1.69	0.73	0.25, 2.13	0.58	0.22, 1.54	0.68	0.16, 3.00	**0.31^**	**0.09, 1.02**

Class 4

Spoke to Everyone

So… What does this mean?

(Discussion & Implications)

Without assessing subgroup differences, a highly effective intervention may not be effective for a seemingly homogeneous population.
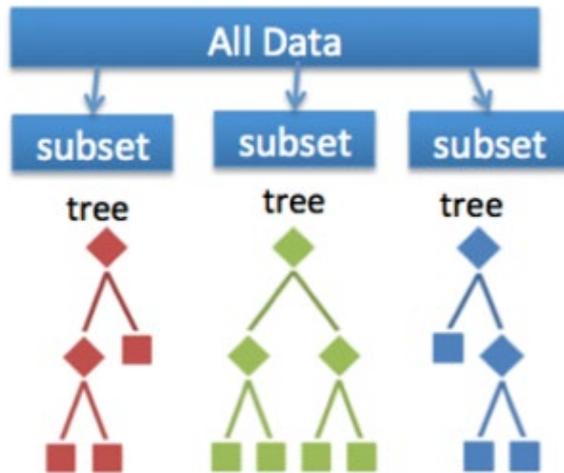
Limitations

- Cross-sectional

- Data were self-reported

- Study was respondent driven

Acknowledgments

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THANK YOU!
QUESTIONS?

E: Jaih.Craddock@ssw.umaryland.edu

T: @jbcraddock

POCKET SLIDES

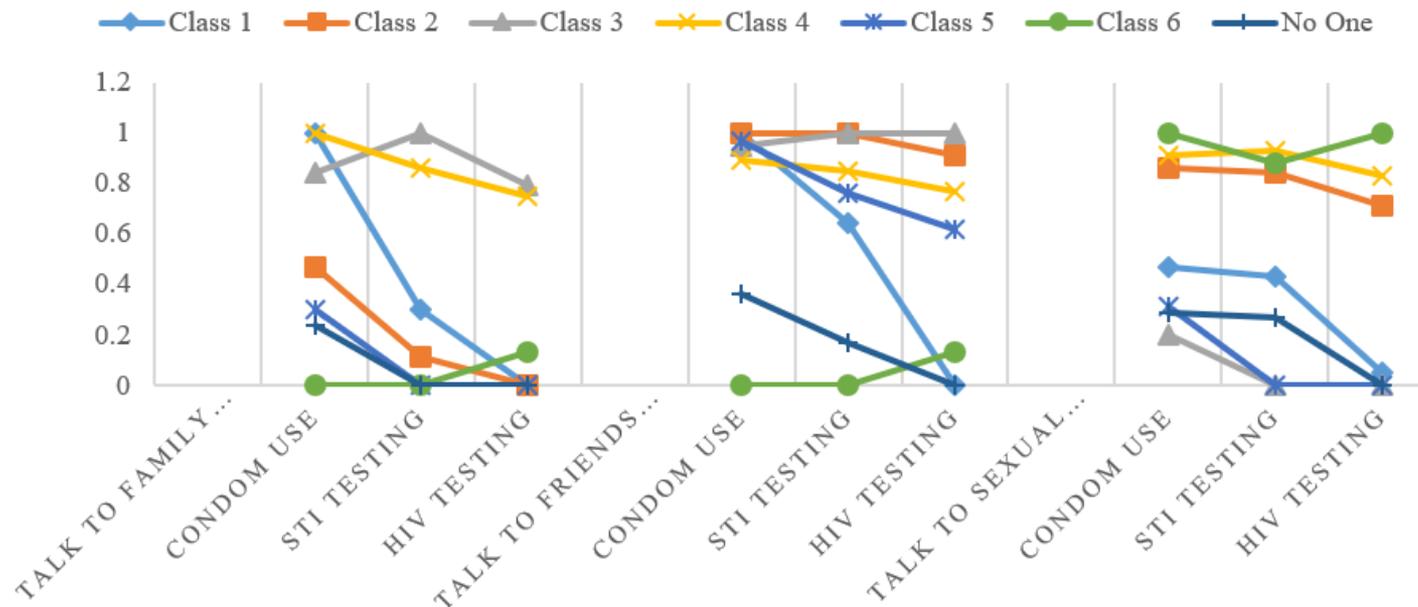# What did we find?
(Results)

Figure 1. Item Response Probabilities for Sexual Health Communication Across the Seven Classes

What did we find?

(Results)

There were SEVEN Subgroups of Cisgender Young Black Women

Only Talk about condoms
With Friends and Family

Friends
Partners

Only Spoke to Friends
and Partners

Friends
Family

Only Spoke to Friends
and Family

Friends
Partners
Family

Spoke to Everyone

Friends

Only Spoke with Friends

Partners

Only Spoke with Partners

Spoke with no one

Friends
Partners
Family