An Examination of Positive Intersectionality Latent Profiles and Associations to Psychosocial Factors and PrEP outcomes in Black Men who have Sex with Men (HPTN 073)

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HPTN 073

Pre-Exposure Prophylaxis (PrEP) Initiation and Adherence among Black Men who have Sex with Men (BMSM) in Three U.S. Cities

(n = 226)

Location 1: Washington, DC
Location 2: Los Angeles, CA
Location 3: Chapel Hill, NC
Key takeaway

Need to focus on resilience factors within BMSM such as Positive Intersectionality (PI)

LPA suggests BMSM vary in their self conceptualization of PI

Differing PI profiles may put BMSM at risk for depression, social support, identity concerns, and PrEP adherence
Background/Rationale
Background: NIH Health Disparity Groups

- Racism
- Heterosexism

Health Disparities

- HIV Risk
- PrEP uptake/adherence
- Depression
- Social Support
Possession of a socially stigmatized identity creates undue stress in the form of discrimination and stigma due to a stressful social environment that causes mental health concerns.\(^3,4\)

Interconnected nature of social categorizations such as race, class, and gender create interdependent systems of oppression and privilege.\(^5,6\)

Background: Theoretical Frameworks

Risk

Resilience

Minority stress

Intersectionality
“There is no such thing as a single-issue struggle because we do not live single issue lives”
-Audre Lorde

Allows folks to draw from multiple sources of strength
Background: Positive Intersectionality

“view that one’s stigmatized identity can be embraced as a positive aspect of the self”

A strong connection with one’s sociocultural identities can help increase the ability to cope with stress and discrimination.

Black men with HIV with a strong ethnic identity showed lower levels of psychological distress and higher perceived social support.

Applying an intersectionality lens can help conceptualize discrimination and HIV risk within Black MSM and potential sources of strength.
2 Project Aims/ Objectives
The current study examines the experiences of BMSM from a resilience (i.e., positive intersectionality) framework and its relationship to PrEP (e.g., adherence) and psychosocial (e.g., social support and depression) outcomes.
Methods
Methods: Positive Intersectionality Measures

Multi Ethnic Identity Measure

I have a strong sense of belonging to my own ethnic group.

Integrated Race and Sexuality Scale

Black homosexual and bisexual men contribute to Black communities.

Internalized Heterosexism

As a Black man, I try to act more masculine to hide my sexuality.
Methods: Outcome Measures

**Depression**
- During the past week, I felt depressed

**Social Support**
- How often is there someone available to you who shows you love and affection?

**PrEP Self-Regulation**
- The reason that I would use PrEP daily is because I personally believe it is the best thing for my health

**PrEP Adherence**
- ≥ 700 fmol/punch cutoff as an indicator of protective levels of PrEP measured by TFV-DP and FTC-TP
4

Analysis Plan

Latent Profile Analysis (LPA)
Latent profile analyses are well suited for modeling intersectionality

Intersecting identities are multidimensional and complex

Can guide practice recommendations and at risk groups within communities
## LPA Fit Indices

<table>
<thead>
<tr>
<th>Fit Indicator</th>
<th>Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>Akaike’s Information Criterion (AIC)</td>
<td>Lower value indicates better fit</td>
</tr>
<tr>
<td>Bayesian Information Criteria (BIC)</td>
<td>Lower value indicates better fit</td>
</tr>
<tr>
<td>Sample-size Adjusted BIC (SA-BIC)</td>
<td>Lower value indicates better fit</td>
</tr>
<tr>
<td>Vuong-Lo-Mendell-Rubin LRT (VLMR LRT)</td>
<td>Helps to determine a model with one more class performs better than k-1 classes</td>
</tr>
<tr>
<td>Entropy value</td>
<td>Higher indicates better separation between profiles</td>
</tr>
</tbody>
</table>

**Estimation Method:** Full Information Maximum Likelihood

**Mplus 8.4**
Results

• Latent Profile Analyses
## Results: Latent Profile Analyses of Positive Intersectionality Variables

<table>
<thead>
<tr>
<th></th>
<th>Comparative Fit Indices</th>
<th>K-1 tests</th>
<th>Proportions in class</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Entropy</td>
<td>AIC</td>
<td>BIC</td>
</tr>
<tr>
<td>1-class</td>
<td>1</td>
<td>1512</td>
<td>1532</td>
</tr>
<tr>
<td>2-class</td>
<td>.901</td>
<td>1449</td>
<td>1483</td>
</tr>
<tr>
<td>3-class</td>
<td>.852</td>
<td>1406</td>
<td>1454</td>
</tr>
<tr>
<td>4-class</td>
<td>.840</td>
<td>1386</td>
<td>1448</td>
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<tr>
<td>5-class</td>
<td>.846</td>
<td>1364</td>
<td>1439</td>
</tr>
<tr>
<td>6-class</td>
<td>[non-convergence]</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Results: Positive Intersectionality Profiles

- **Low Positive Intersectionality** (C1; n = 3)
- **Moderate Positive Intersectionality** (C2; n = 66)
- **Salient/High Positive Intersectionality** (C3; n = 124)
- **Mild Positive Intersectionality** (C4; n = 19)
- **Positive Intersectionality Conflict** (C5; n = 13)

Integrating Race and Sexuality Scale
Multigroup Ethnic Identity Measure
Internalized Heterosexism

<table>
<thead>
<tr>
<th>Profile</th>
<th>Scale 1</th>
<th>Scale 2</th>
<th>Scale 3</th>
<th>Scale 4</th>
<th>Scale 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Positive Intersectionality (C1)</td>
<td>2.01</td>
<td>1.73</td>
<td>2.11</td>
<td></td>
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<tr>
<td>Moderate Positive Intersectionality (C2)</td>
<td>4.96</td>
<td>2.91</td>
<td>2.44</td>
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<td></td>
</tr>
<tr>
<td>Salient/High Positive Intersectionality (C3)</td>
<td>5.77</td>
<td>3.21</td>
<td>1.64</td>
<td>3.99</td>
<td>3.31</td>
</tr>
<tr>
<td>Mild Positive Intersectionality (C4)</td>
<td>2.43</td>
<td>2.28</td>
<td></td>
<td>2.43</td>
<td>3.36</td>
</tr>
<tr>
<td>Positive Intersectionality Conflict (C5)</td>
<td>5.81</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

Legend:
- Integrated Race and Sexuality Scale
- Multigroup Ethnic Identity Measure
- Internalized Heterosexism
### Results: Outcomes

<table>
<thead>
<tr>
<th>Social Support</th>
<th>Depression</th>
<th>Income</th>
<th>Educational Attainment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class 2 reported less SS than class 3</td>
<td>Class 2 scored higher on DEP than class 3</td>
<td>Class 4 reported higher income than class 2, 3, and 5</td>
<td>Class 5 had lower levels of EA than Class 3 and 4</td>
</tr>
</tbody>
</table>
Results: Outcomes

PrEP Self-Regulation
No Differences across classes

PrEP Adherence
Significant differences unable to interpret

Sexual Orientation
Bisexual individuals were more likely to be in class 2
Gay/Queer/Homo sexual individuals were more likely to be in Class 3
Discussion

Implications, Future Directions, & Limitations
Discussion & Implications

Higher levels of positive intersectionality seems to be protective (e.g., higher social support and lower levels of depression).

Sexual orientation identity may impact positive intersectionality.

Develop strengths-based and culturally tailored interventions to improve well-being and self esteem within BMSM.

Limitations: Sample size, measurement, statistical discernability of classes.
Thank you!

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Harvard Medical School

Christopher Kahler, PhD
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Drs. Darrell Wheeler & Sten Vermund

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• The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health.
References

A note on reflexivity and social positionality…
## Results: Bivariate Correlations

<table>
<thead>
<tr>
<th>Bivariate Correlations and Descriptive Statistics</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>M</th>
<th>SD</th>
<th>α</th>
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</thead>
<tbody>
<tr>
<td>1. Integrated Race and Sexual Scale</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>5.312</td>
<td>0.821</td>
<td>0.716</td>
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<tr>
<td>2. Multi Ethnic Identity Scale</td>
<td>0.485**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2.997</td>
<td>0.680</td>
<td>0.882</td>
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<tr>
<td>3. Internalized Heterosexism</td>
<td>-0.148*</td>
<td>-0.020</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>2.069</td>
<td>0.834</td>
<td>0.825</td>
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<tr>
<td>4. Social Support</td>
<td>0.286**</td>
<td>0.179*</td>
<td>-0.259**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3.641</td>
<td>0.954</td>
<td>0.877</td>
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<tr>
<td>5. Depression</td>
<td>0.023</td>
<td>-0.092</td>
<td>0.224**</td>
<td>-0.253**</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.765</td>
<td>0.532</td>
<td>0.770</td>
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<tr>
<td>6. PrEP Self Regulation</td>
<td>0.206**</td>
<td>0.169*</td>
<td>0.068</td>
<td>0.070</td>
<td>0.131*</td>
<td>-</td>
<td>-</td>
<td>3.42</td>
<td>1.4189</td>
<td>0.893</td>
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<td>7. PrEP Adherence</td>
<td>0.176*</td>
<td>-0.094</td>
<td>-0.022</td>
<td>0.196*</td>
<td>-0.067</td>
<td>0.020</td>
<td>-</td>
<td>1.427</td>
<td>0.523</td>
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Note. **p<.01; *p<.05.
Results: 5 Latent Classes