Diffusion of Pre-Exposure Prophylaxis (PrEP) among African American MSM

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Background

- Pre-exposure prophylaxis (PrEP) is a powerful HIV prevention tool, but is not reaching high-risk populations in the US including young African American men-who-have-sex-with-men (AAMSM)\(^1\)

- PrEP use among MSM remains low (2-12\%)\(^2-7\)
Background

- Despite efforts to disseminate PrEP among MSM, we are still early in the diffusion process

- Lack of theoretical framework to guide improvement of PrEP adoption among AAMSM
**Diffusion of Innovations Theory**

**Diffusion**: process in which an innovation is communicated through certain channels over time among members of a social system.
What individual-level factors facilitate progression across stages?
PrEP and Stigma

- Stigma related to PrEP is multifaceted and disproportionately impacts communities of color\(^9\)-\(^{15}\)

- Young AAMSM often face particularly high levels of social stigmatization\(^9\),\(^{10}\)

- Influence of stigma at each stage of PrEP diffusion among young AAMSM not well understood
Current Study

1. Apply Diffusion Theory to examine the process of PrEP diffusion among a sample of young AAMSM in Chicago

2. Identify correlates of PrEP awareness (Knowledge) and PrEP adoption (Implementation Confirmation)

3. Examine factors related to different levels of readiness for PrEP among men who are aware but haven’t adopted (Persuasion)
## Methods – Dependent Variables

<table>
<thead>
<tr>
<th>Item</th>
<th>PrEP Awareness</th>
<th>PrEP Adoption</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;Have you heard about PrEP, a medication that will help prevent you from getting HIV?&quot;</td>
<td>&quot;Are you currently taking PrEP?&quot;</td>
<td></td>
</tr>
<tr>
<td>Coding</td>
<td>0 = Unaware 1 = Aware</td>
<td>0 = Not adopted 1 = Adopted</td>
</tr>
</tbody>
</table>
Methods – Independent Variables

- **HIV Testing Stigma**: composite scale of 4 items (Fortenberry adapted; α = .71)
  1. “Getting tested for HIV would make me feel ashamed.”
  2. “I would feel embarrassed if a doctor asked me if I needed an HIV test.”
  3. “Getting tested for HIV would make me feel like I failed to take care of myself.”
  4. “I would find it embarrassing to ask for an HIV test.”

- **HIV health literacy** (e.g. “If a man has some risk for getting HIV from sex or drug use, how often should he get tested [in a year]?”)

- **Sexual risk**: URAI last year

- **HIV testing history** (“Have you ever been tested for HIV?”)

- **Socio-demographics**: education, employment, insurance coverage
Methods - Analyses

1. Multivariate logistic regression models to identify correlates of PrEP awareness and adoption

2. Descriptive coding for perceptions of PrEP’s key characteristics → used to stratify men in the Persuasion stage by level of readiness to adopt PrEP
   - Bivariate analyses to identify correlates
Results

- Unaware of PrEP (n=21): 11%
- Aware, but not adopted (n=138): 76%
- Adopted PrEP (n=22): 12%
# Results

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>PrEP Awareness</th>
<th></th>
<th>PrEP Adoption</th>
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<tbody>
<tr>
<td></td>
<td>Bivariate p-value</td>
<td>Regression OR (SE)</td>
<td>Bivariate p-value</td>
<td>Regression OR (SE)</td>
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<td>.49 (.18)*</td>
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<tr>
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<td>2.43 (1.18)*</td>
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<td>.05</td>
<td>.25 (.18)*</td>
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<tr>
<td>Sexual risk</td>
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<td>.10</td>
<td>2.89 (1.61)*</td>
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</tr>
</tbody>
</table>

*p < .05
Results

Persuasion stage analysis

- Least Ready: N = 9
- Moderately Ready: N = 20
- Ready: N = 40
- Adopters: N = 22

Significant correlates:
- Sexual risk
- Education

HIV testing stigma did not differentiate men in the Persuasion stage.
Majority of the sample is in the Persuasion stage (aware but not adopted). Approximately 1 in 8 AAMSM report current PrEP use.

Greater levels of social stigma are associated with less PrEP awareness, controlling for HIV health literacy.

Stigma does not differentiate men in the Persuasion stage, or adopters from non-adopters.
Diffusion theory can be tailored to fit the unique dynamics of different innovations.

The influence of HIV- or sexuality-related social stigma may be most salient in earlier stages of PrEP diffusion.

Interventions must include uniquely targeted strategies to mitigate stigma and facilitate retention of PrEP-related information among young AAMSM.
References


Questions?

Thank you!

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