Antecedents of Oral-SIT Beliefs Following Exposure to HIV Oral Self-Testing

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Background

- HIV testing is a critical component of HIV prevention, but current venue-based testing strategies are not sufficiently reaching high-risk populations in the US including young, African American men-who-have-sex-with-men (AAMSM)\textsuperscript{1,2}

- Barriers to venue-based testing are often related to access, inconvenience, privacy concerns, and stigma\textsuperscript{1,3}

- Oral self-implemented HIV testing (Oral-SIT) can improve the reach of HIV testing, facilitate more frequent and repeat testing, and improve linkage to care\textsuperscript{4-8}
Diffusion of Oral-SIT

- Although MSM report favorable attitudes toward Oral-SIT, use among young AAMSM remains minimal\(^1,4,9-11\)

- Diffusion theory can provide a useful conceptual framework for mitigating barriers and improving the reach of Oral-SIT\(^12\)
Trialability of an Innovation

- People can learn about an innovation through media and social networks, but direct experience has the most powerful influence on belief formation.

- Innovations that can be tried first are generally adopted more quickly.

- Experimental trial occurs in Decision stage, before choice to adopt/reject.
Oral-SIT Beliefs (OSB)

- The formation of innovation-related beliefs in the context of trialability (e.g., after initial trial) is not well understood.

- Oral-SIT belief formation has important implications for facilitating adoption and repeated testing.

- Prior research highlights factors that may act as antecedents to the formation of Oral-SIT beliefs (e.g., kit cost, social stigma).  

\(^{13-17}\)
Current Study

Examines individual characteristics associated with more positive beliefs about Oral-SIT among young (17-24 yrs.) AAMSM in Chicago, following an initial trial.

Sample (n=181):
- HIV negative (76%); status unknown (24%)
- 33% < high school education
- 24% unemployed & not in school
- Never used Oral-SIT
## Methods

### Dependent Variable: Oral-SIT Beliefs (OSB)

[Composite scale; higher score = more positive beliefs]

<table>
<thead>
<tr>
<th>Items</th>
<th>Coding</th>
</tr>
</thead>
<tbody>
<tr>
<td>The HIV oral self-test is pretty easy to use.</td>
<td></td>
</tr>
<tr>
<td>The oral self-test would be a good way for <em>me</em> to test myself for HIV.</td>
<td>1 = Strongly disagree</td>
</tr>
<tr>
<td>The oral self-test is a good way for <em>other people</em> to test themselves for HIV.</td>
<td>2 = Somewhat disagree</td>
</tr>
<tr>
<td>The HIV oral self-test is too difficult to use. (reverse coded)</td>
<td>3 = Somewhat agree</td>
</tr>
<tr>
<td></td>
<td>4 = Strongly disagree</td>
</tr>
</tbody>
</table>
Methods

Independent Variables: *Individual Factors*

- **HIV testing stigma**
  *Example:* “Getting tested for HIV would make me feel ashamed.”
  (Fortenberry et al., 2002: $\alpha = .71$)

- **HIV health literacy**
  *Example:* “If a person gets infected with HIV, how long does it usually take before an HIV test would show he was infected?”

- **Kit cost**
  (e.g. reservation price; Wang et al., 2007)

- **Educational attainment**

- **Sexual risk**
Methods

**Independent Variables: Trial-Related Factors**

- **Procedural knowledge**
  
  *Example:* “What is the shortest period of time you need to wait between putting the test stick in the tube and taking it out to read the result?”

- **Performance fidelity**
  
  *Example:* “R placed specimen stick correctly into the test tube.”

- **Perceptions of training video**
  
  “The video was important in helping me understand how to use the kit.”

  “The video made me think about trying an oral HIV self-test sometime soon”
## Results

### Explanatory Correlates of OSB (Mean: 3.82)

<table>
<thead>
<tr>
<th>Independent variables</th>
<th>Bivariate p-value</th>
<th>Regr. B (SE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social stigma</td>
<td>&lt; .001</td>
<td>-.17 (.05)***</td>
</tr>
<tr>
<td>HIV health literacy</td>
<td>ns</td>
<td>--</td>
</tr>
<tr>
<td>Education</td>
<td>ns</td>
<td>--</td>
</tr>
<tr>
<td>Kit cost</td>
<td>&lt; .002</td>
<td>.09 (.04)**</td>
</tr>
<tr>
<td>Sexual risk</td>
<td>&lt; .05</td>
<td>-.02 (.05)</td>
</tr>
<tr>
<td>Procedural knowledge</td>
<td>ns</td>
<td>--</td>
</tr>
<tr>
<td>Procedural fidelity</td>
<td>ns</td>
<td>--</td>
</tr>
<tr>
<td>Video important in understanding how to use kit</td>
<td>&lt; .02</td>
<td>.16 (.10)</td>
</tr>
<tr>
<td>Video influenced intention to use test</td>
<td>&lt; .001</td>
<td>.21 (.05)***</td>
</tr>
</tbody>
</table>

***p<.001; **p<.01
Discussion

Social stigma

- More positive OSB associated with lower levels of stigma
- Stigma may inhibit men’s ability to have a positive response to SIT, or prevent processing of HIV- or sexuality-related information

*How do we change stigma?*

*How do we provide AAMSM with a buffer against stigma, when its effects are often severe?*
Discussion

Kit cost

- Cost acts as a de-motivator to adopting Oral-SIT

- AAMSM in sample were young; many unemployed or in low-level jobs
Discussion

Kit cost

- Need for broad-scale dissemination efforts

- Example: Departments of Public Health
  - Doesn’t require trained staff
  - Purchase kits below retail cost ($25 v. $40)
  - Increased efficiency
Discussion

Influence of training video on Oral-SIT intention

- More positive OSB among men who perceived the video as influencing their intention to adopt

- Video acted to enhance motivation to adopt Oral-SIT
  - Portrays test as easy to use
  - Provides relatable character, situation
  - Demonstrates privacy, convenience
Discussion

**Implications for Diffusion Theory**

- Trialability is a critical factor in the decision to adopt an innovation. Individual level factors can influence attitude formation following an initial trial.

- Improved dissemination of Oral-SIT can facilitate adoption, early identification of HIV-positive individuals, and linkage to care.
References


17 Peralta L et al. Barriers and facilitators to adolescent HIV testing. AIDS Patient Care STDs. 2007;21(6):400–8.
Questions?

Thank you!

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