Access to Healthcare and Preferences across PrEP Modalities among Young Men Who Have Sex in the U.S.: A Latent Class Analysis study

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Overview
We identified three latent classes of YMSM based on their interactions with health services and providers. Membership to the shared decision-making class was associated with better access to healthcare and higher odds of choosing next generation PrEP modalities over daily oral PrEP.

Background
- Young men who have sex with men (YMSM) in the U.S. are at increased risk of HIV acquisition.
- Daily oral pre-exposure prophylaxis (PrEP) is highly efficacious to prevent HIV transmission but uptake among YMSM is low.
- Next generation PrEP modalities do not involve daily oral medication may facilitate access to effective HIV prevention.
- Next generation PrEP implementation relies on patient-provider communication and YMSM’s ability to navigate health systems.
- We identified latent classes of YMSM based on patterns of interactions with healthcare and examined (i) associations between latent classes and access to HIV prevention services and (ii) preferences across five different PrEP modalities (i.e., daily oral, event-driven oral, rectal douche, IV broadly neutralizing antibodies, PrEP implants, and PrEP injectable).

Methods
- **Overview:** Online survey with U.S. YMSM ages 15-24.
- **Sample:** N=737, Mean age=21.1 years (SD=2.27), 44% non-White, 80% identified as gay (see Suppl. Table linked in QR code).
- **Latent class analysis (LCA):** (a) communication with providers (2 indicators), (b) stigma and mistrust in healthcare (2 indicators) (c) autonomy in sexual health decisions (2 indicators).
- **Logistic regression:** Associations between most likely class membership and measures of access to healthcare.
- **Exploded logit model:** Associations between most likely class membership and preferences across PrEP modalities.

Access to Healthcare

<table>
<thead>
<tr>
<th>Most likely class membership</th>
<th>Health needs met</th>
<th>Has insurance</th>
<th>HIV test (ever)</th>
<th>PrEP awareness</th>
<th>PrEP use</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: Shared DM</td>
<td>REF</td>
<td>REF</td>
<td>REF</td>
<td>REF</td>
<td>REF</td>
</tr>
<tr>
<td>2: Provider-driven DM</td>
<td>0.32 ***</td>
<td>0.10 ***</td>
<td>0.26 ***</td>
<td>0.20 **</td>
<td>0.43 **</td>
</tr>
<tr>
<td>3: Patient-driven DM</td>
<td>0.42 ***</td>
<td>0.13 ***</td>
<td>0.21 ***</td>
<td>0.61</td>
<td>0.26 ***</td>
</tr>
</tbody>
</table>

Adjusted coefficients control for age, social constructs of race/ethnicity, and sexual identity

*p<0.05 **p<0.01 ***p<0.001

Preferences for PrEP modalities

- **SHARED DECISION-MAKING:** High communication, high autonomy, moderate mistrust
- **PROVIDER-LED DECISION-MAKING:** High communication, low autonomy, moderate mistrust
- **PATIENT-DRIVEN DECISION-MAKING:** Low communication, high autonomy, moderate mistrust

Conclusions
- Shared decision-making (i.e., high communication with providers and high autonomy in clinical decision-making) is associated with access to healthcare and HIV prevention services.
- Subgroups of YMSM engaging in shared decision-making with providers and have better access to HIV prevention services may be the ones most likely to initiate next generation PrEP, whereas youth not being reached by existing services may face challenges to access next generation PrEP.
- Future studies should evaluate the role of interventions to promote shared clinical decision-making (e.g., provider training, decision aids) in enhancing access to HIV prevention services and promoting acceptability of next generation PrEP modalities.

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