Relationship Between Risky Sexual Behavior and PrEP Use Within the NYC LGBTQ Community

Kathryn Bacci, PA-S1, Thomas Behar, PA-S1, Alexandra Berwick PA-S1, Victoria Drumski, PA-S1, Avery Maltman, PA-S1, Alexis Wright, PA-S1, Gail Tiburzi, MPA, PA-C2, and Anthony V. D’Antoni MS, DC, PhD2

1 Student Physician Assistant Program, Wagner College, Staten Island, NY 10301, USA; 2 Faculty, Wagner College, Staten Island, NY, 10301, USA.

INTRODUCTION

• Since FDA approval in 2012, Truvada® and Descovy® (emtricitabine/tenofovir disoproxil fumarate) are oral drugs indicated for the use of human immunodeficiency virus (HIV) pre-exposure prophylaxis (PrEP).
• Assessment of PrEP users’ risky sexual behaviors within the NYC LGBTQ community has not been extensively researched.
• When initiating a PrEP regimen for an at-risk patient, comprehensive counseling regarding the types of infections PrEP provides protection against may not be instated.
• Scientific literature has shown that use of PrEP is related to increased risky sexual tendencies among its users and, consequently, increased transmission of STIs.

PURPOSE

• The purpose of our study was to determine if a statistically significant difference exists in risky sexual behavior of New York City LGBTQ individuals who use HIV pre-exposure prophylaxis (PrEP) compared to New York City LGBTQ individuals who do not use PrEP.

METHODS

• Wagner College IRB approval was obtained.
• An a priori power analysis revealed that the minimum sample size needed to achieve significance was 93 responses (G-power Version 3.1.9.6 Germany).
• A p value < 0.05 was considered significant.
• An electronic survey was distributed via shared linked on social media.
  • Survey consisted of 14 demographic items, 23 risky sexual behavior items, and 22 likert-scale questions regarding PrEP stigma.
• Sample size was N = 100.
• Data were analyzed with IBM SPSS Version 26 (Armonk, NY) with alpha level set a 0.05.

Inclusion Criteria:
• Subjects ≥ 18 years of age that self-identify as a member of the LGBTQ population and live in NYC (Brooklyn, Bronx, Manhattan, Queens, or Staten Island).
• Completed surveys.

Exclusion Criteria:
• Subjects < 18 years of age, who self identify as cisgender and heterosexual and do not live in NYC.
• Incomplete surveys.

RESULTS

• Our research found statistically significant moderate negative correlations between PrEP use and the Sexual Risk Survey. Negative correlations indicated that those who have never taken PrEP participate in risky sexual behaviors less frequently than those who currently take PrEP.
• Our results demonstrated a statistically significant correlation between PrEP stigma and sexual orientation.
• Additional research, outside of COVID-19 pandemic, is needed to more accurately study risky sexual behaviors in this population.

CONCLUSIONS

• Since FDA approval in 2012, Truvada® and Descovy® (emtricitabine/tenofovir disoproxil fumarate) are oral drugs indicated for the use of human immunodeficiency virus (HIV) pre-exposure prophylaxis (PrEP).
• Assessment of PrEP users’ risky sexual behaviors within the NYC LGBTQ community has not been extensively researched.
• When initiating a PrEP regimen for an at-risk patient, comprehensive counseling regarding the types of infections PrEP provides protection against may not be instated.
• Scientific literature has shown that use of PrEP is related to increased risky sexual tendencies among its users and, consequently, increased transmission of STIs.

CLINICAL IMPLICATIONS

Our results highlight that those who do not take PrEP may participate in risky sexual behaviors less frequently than those who do take PrEP, highlighting the potential need for comprehensive sexual health education for PrEP users. Our results indicate negative PrEP stigma exists within the NYC LGBTQ community.

Figure 1 and 2. Demographic data of sample.

Figure 1. PrEP status of sample. N = 100

Figure 2. Sexual orientation of sample.

Figure 3. PrEP use vs. sexual partners.

Figure 4. PrEP stigma vs. sexual orientation.

Table 1. Sexual Risk Survey vs. PrEP Use

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Spearman rho</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Had sex with someone who was also engaging in sex with others during the same time period?</td>
<td>100</td>
<td>-0.556</td>
<td>0.000</td>
</tr>
<tr>
<td>Had sex with someone you don’t know well or just met.</td>
<td>100</td>
<td>-0.522</td>
<td>0.000</td>
</tr>
<tr>
<td>Number of partners you had sex with.</td>
<td>100</td>
<td>-0.475</td>
<td>0.000</td>
</tr>
<tr>
<td>Have had anal sex without a condom.</td>
<td>100</td>
<td>-0.477</td>
<td>0.000</td>
</tr>
<tr>
<td>Had sex with someone but are not involved in a relationship.</td>
<td>100</td>
<td>-0.442</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Table 2. PrEP Stigma vs. Sexual Orientation

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Spearman rho</th>
<th>p value</th>
</tr>
</thead>
<tbody>
<tr>
<td>People would feel uncomfortable with me if they found out that I used PrEP.</td>
<td>100</td>
<td>0.449</td>
<td>0.000</td>
</tr>
<tr>
<td>People would avoid me if they found out that I used PrEP.</td>
<td>100</td>
<td>0.449</td>
<td>0.000</td>
</tr>
<tr>
<td>Most people think that using PrEP is a sign of personal failure.</td>
<td>100</td>
<td>0.462</td>
<td>0.000</td>
</tr>
<tr>
<td>Worry that people would tell others I am using PrEP.</td>
<td>100</td>
<td>0.423</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Table 3. statistical significance found between sexual orientation and PrEP stigma.