



Formal Education Improves Southeastern United States Primary Care Residents' Understanding and Attitudes Towards HIV Pre-Exposure Prophylaxis

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INTRODUCTION

HIV pre-exposure prophylaxis (PrEP) is an approach to utilize agents active against HIV in at-risk patient populations to decrease the incidence of HIV. PrEP has been identified as one of the pillars of the national plan to end the HIV epidemic. Notably, southern states have been shown to have the lowest PrEP-to-need ratio in the country, and previous work on assessing clinician understanding of and attitudes towards PrEP has mainly focused on in-practice physicians, nurse practitioners, and other clinicians.¹⁻³

Primary care physicians serve a predominantly HIV-negative population in their daily clinical activities, making this group an attractive target for interventions aimed at improving PrEP uptake. We sought to address a gap in the understanding of how comfortable physicians in primary care residencies (PCRs) felt about discussing various aspects of PrEP and STI-related care. We aimed to assess the attitudes towards and understanding of PrEP among residents training in PCRs in the Southeastern United States and determine whether formal education played a role in these attitudes.

METHODS

A survey was developed to assess PCR residents' attitudes towards and understanding of PrEP. The survey contained questions that assessed demographics, type of program, PrEP awareness, knowledge, attitudes, and formal education. We defined formal education as lectures, formal discussion with faculty members, small group discussions, or online educational modules.

Email addresses were obtained for program administrators in ACGME-approved residency programs in Internal Medicine, Family Medicine, Med-Peds, and Obstetrics/Gynecology from each specialty's national organization. Administrators were asked to distribute an invitation with a link to the survey to their residents during a six week period in May and June 2019.

The survey was sent to each PCR in the states of Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia. Logistic regression was used to assess association between formal PrEP education and comfort levels with PrEP and other STI related topics. Institutional IRB approval was obtained for the study.

RESULTS

We identified approximately 7,574 residents across 247 residencies in 11 states. We received 217 survey responses for a response rate of 3.3%, of which 203 had complete data available for analysis.

Table 1: Demographics of Survey Respondents

Variable	Sample % (n)
<i>Post-Graduate Year</i>	
PGY-1	22.2% (45)
PGY-2	47.8% (97)
PGY-3	26.6% (54)
PGY-4	3.4% (7)
<i>Age (years)</i>	
25-29	75.4% (153)
30-34	23.2% (47)
35-39	1.5% (3)
<i>Gender Identity</i>	
Male	53.2% (108)
Female	45.8% (93)
Prefer not to disclose	1.0% (2)
<i>Sexual Orientation</i>	
Straight	90.1% (183)
Gay/Lesbian	6.9% (14)
Bisexual	1.0% (2)
Prefer not to disclose	2.0% (4)
<i>Race</i>	
White	47.3% (96)
American Indian/Alaskan Native	1.0% (2)
East Asian	9.9% (20)
South Asian	11.8% (24)
Native Hawaiian/Pacific Islander	1.5% (3)
Black or African American	18.7% (38)
Other or Unknown	6.9% (14)
Multiracial	1.5% (3)
Prefer not to disclose	1.5% (3)
<i>Ethnicity</i>	
Hispanic or Latino	8.9% (18)
Not Hispanic or Latino	89.7% (182)
Unknown	0.5% (1)
Prefer not to disclose	1.0% (2)

RESULTS

Table 2: Logistic Regression Model Findings for Association Between Formal PrEP Education and Comfort Levels with PrEP and Other STI Related Topics†

Comfort Level (Comfortable vs. Uncomfortable) (N=203)	Odds Ratio	95% CI	p-value
Taking Sexual History from LGBTQI Patient (n=201)	9.92	2.58-38.15	0.001*
Discussing and Providing PrEP (n=201)	20.63	7.36-57.88	0.000*
Efficacy of PrEP (n=201)	23.74	8.31-67.87	0.000*
Monitoring while on PrEP (n=201)	16.91	6.27-45.56	0.000*
Side Effects and Risks (n=201)	12.73	4.83-33.53	0.000*
PrEP Related Drug Resistance (n=201)	25.03	6.14-102.10	0.000*
PrEP Adherence (n=201)	19.26	6.99-53.02	0.000*

*p-value<0.05; †Covariates included in the models: Age group, gender identity, race/ethnicity, sexual orientation, post graduate year

CONCLUSIONS

We found a strong association between formal PrEP education and resident confidence in discussing PrEP and STIs as well as monitoring while on therapy. Integrating formal PrEP education in primary care residency programs in the Southeastern region can increase competency of emerging primary care physicians in a region with the highest PrEP-to-need ratio in the nation. Our study was limited by not asking residents about their specific concerns regarding PrEP usage, since other studies have found that some clinicians are worried about PrEP increasing risky behaviors (though that has not been shown to be true).⁴

REFERENCES

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