

Associations between State Level Policy and AIDS among Men Who Have Sex with Men

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Abstract

Objective: There continues to be a large disparity in the prevalence of HIV/AIDS among men who have sex with men (MSM) compared to all other populations. Recent research suggests discriminatory laws may play a role in the health outcomes of the LGBT community. We hypothesized that discriminatory state-level relationship recognition, employment, and housing policies would predict a higher proportion of MSM among the population living with AIDS than heterosexuals while controlling for state-level healthcare quality and political orientation.

Method: Data for the proportion of AIDS cases comprised of MSM and heterosexuals were collected for 2008 for each state from CDC 2010 State Surveillance Reports. Additionally, relationship recognition, housing discrimination, and employment discrimination laws were collected from 2008 for each state. Covariates included the political orientation of each state based on the 2008 presidential election and a composite measure of overall healthcare quality of each state created by the Agency for Healthcare Research and Quality.

Results: Overall, MSM account for the highest proportion of people living with AIDS in the US. Hierarchical regressions indicated that MSM accounted for a higher proportion of people living with AIDS in states with discriminatory relationship recognition policies. Housing discrimination policies, employment discrimination policies, healthcare quality, and political orientation were not associated with the proportion of MSM or heterosexuals that comprise the total population of people living with AIDS in each state.

Conclusion: Findings suggest relationship recognitions are a unique protective factor against HIV/AIDS for MSM. Future research is needed to fully understand the mechanisms by which relationship recognitions serve as a protective factor from HIV/AIDS for MSM.

Keywords: AIDS; HIV; MSM; Public policy; Relationship recognitions; Discrimination

Introduction

Men who have sex with men (MSM) continue to have the highest HIV and AIDS rates of any other group [1,2]. In the United States (US), MSM constitute approximately 2% of the population; however, 63% of all new HIV infections were among MSM in 2010. Additionally, approximately 56% of all HIV-infected individuals in the US are MSM as of 2010. More troubling, HIV and AIDS rates have been on the rise in MSM for the past several years [1]. While the effect of individual level discrimination (eg. experience of violence, stigma, and homophobia) on risky health behaviors associated with HIV-infection is well-known, less is known about the effects public policies may have on the prevalence of risky health behaviors on a population level [3-6].

Recent research suggests public policy is a unique factor when assessing health among the LGBT community [7-9]. For example, institutional discrimination confers increased risk for psychiatric disorders among the LGBT community [7,10-12]. Moreover, after Massachusetts legalized gay marriage, hospital utilization, psychiatric visits, and overall healthcare expenditures among gay men was significantly reduced [13]. Other studies suggest that environments with policies that support the LGBT community endorse lower suicide and substance use rates among LGBT youth compared to less supportive environments [9,14]. While there is evidence that public policy has an effect on the health of LGBT individuals, it is unclear whether LGBT specific public policy affects HIV and AIDS rates among MSM.

The current study is a preliminary analysis of the effect of state-level institutional LGBT discrimination on the proportion of MSM that comprise the total population of people living with AIDS in each state

compared to heterosexuals. We looked at state-level proportions of MSM and heterosexuals that have AIDS as reported by the Centers for Disease Control and Prevention in 2008 [15] and 3 areas of state-level legislation as of 2008: (1) gay marriage recognitions, (2) employment discrimination protections, (3) and housing discrimination protections. Data from 2008 was used because that is the latest data available for state-level proportions of MSM and heterosexuals that have AIDS. We hypothesized that state level LGBT discriminatory policies would predict a higher proportion of MSM among the population living with AIDS than heterosexuals while controlling for healthcare quality and political orientation.

Methods

All data for state-level proportions of AIDS in 2008 was collected from the individual state profiles of the National Center of HIV/AIDS, Viral Hepatitis, STD, and TB Prevention of the CDC [15]. The current study uses proportions of people living with AIDS for men who have sex with men (MSM), intravenous drug using MSM, heterosexuals,

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and intravenous drug using heterosexuals from all 50 states. As we are assessing for AIDS proportions that are associated with discriminatory policies regardless of method of transmission, MSM and intravenous drug using MSM were combined into a single category. This was also done for the heterosexual AIDS proportions. These proportions were straight percentages of the number of AIDS cases for each state.

State-level legislation

We used 3 areas of state-level LGBT legislation: (1) relationship recognitions (i.e., civil unions, domestic partnerships, or marriage), (2) employment discrimination protections, and (3) housing discrimination protections. For each of these three categories, we created a binary variable that indicated the absence or presence of these protections. States with laws allowing gay marriage, civil unions, or domestic partnerships were coded as 1. States that have any laws protecting against discrimination in employment in both the private and public sectors and housing were coded as 1 in both of those variables. All variables were coded using legislation specific to 2008 according to the Human Rights Campaign [16-21] and the Center for American Progress Action Fund [22].

Healthcare quality

We acknowledge that the overall healthcare quality of a given state might affect AIDS rates (i.e., poor HIV management will increase the likelihood of progression to full blown AIDS diagnosis) [23,24]. Healthcare quality will be used as a control variable. We used a composite variable developed in 2008 by the U.S. Agency for Healthcare Research and Quality (AHRQ) to assess the overall quality of healthcare in each individual state [25]. The Health Care Quality Index score is a continuous variable ranging from 0 (poor healthcare quality compared to other states on healthcare indicators assessed by AHRQ) to 100 (better healthcare quality compared to other states on healthcare indicators assessed by AHRQ). Healthcare indicators assessed by AHRQ include overall healthcare quality, care provided for 5 key clinical conditions (cancer, diabetes, heart disease, respiratory disease, and maternal and child health), settings of care (hospitals, ambulatory care, and nursing homes), and type of care (preventive, acute, and chronic).

Political orientation

Political orientation of a state could have a direct effect on the minority stress experienced by its LGBT population [26]. We coded states using a binary variable as liberal vs. conservative based on that state's vote in the 2008 presidential election. We included this variable as a covariate to determine the effect of the politics of a state.

Statistical analysis

We described the percentages of MSM and heterosexuals that comprise the total population of people living with AIDS using simple non-parametric descriptives. We used hierarchical linear regression analyses to assess the effect of state-level legislation on AIDS proportions among the 2 groups. Specifically, healthcare quality and political orientation were entered in the first step of the analyses as control variables in the analyses. Then relationship recognitions, employment protections, and housing protections were entered as predictor variables in the second step. All proportions were logit-transformed to make them normally distributed to use in hierarchical linear regression analyses [27,28]. All analyses were performed using SPSS 22.0 [29].

Results

All 50 states were included in these analyses. Fourteen states had

Mode of Infection	Relationship Recognitions		Housing		Employment		Healthcare Quality		Political Orientation	
	B	p	B	p	B	p	B	p	B	p
MSM	-0.70	0.03*	0.06	0.84	0.60	0.18	0.00	0.72	-0.32	0.25
Hetero	0.67	0.04*	-0.14	0.66	-0.54	0.24	0.00	0.93	0.38	0.19

*Significant at the p<0.05 level

Table 1: Effect of LGBT policies on AIDS proportions.

relationship recognitions while 21 states had LGBT/T employment protections and 13 states had LGBT/T housing protections. MSM represent a higher proportion of people living with AIDS than heterosexuals (MSM Median=65.00%, Q1=52.90%, Q3=72.63%; Heterosexual Median=31.05%, Q1=24.38%, Q3=42.03%).

The effect of LGBT policies

LGBT relationship recognitions predicted a lower proportion of MSM among people living with AIDS (Table 1). Consistent with this, LGBT relationship recognitions predicted a higher proportion of heterosexuals among people living with AIDS. LGBT employment protections, LGBT housing protections, healthcare quality, and state political orientation were not predictive of percentage of AIDS cases for either group.

Discussion

The finding that same-sex relationship recognitions are associated with a reduction in the proportion of MSM that comprise the population living with AIDS is consistent with other studies suggesting a reduction in other morbidities and hospital visits when same-sex relationship recognitions are instituted [13]. Advocacy to increase relationship recognitions may reduce the prevalence of HIV/AIDS among MSM. The validation of same-sex relationships may symbolize increased acceptance compared to anti-discrimination laws that focus on the need for protection.

In future studies, we can assess the longitudinal effects these policies have on the proportion of people living with AIDS using data from all the years subsequent to 2008 using a more extensive repeated measures analysis. Other factors that could affect the prevalence of HIV/AIDS that the current study did not take into account are the racial makeup of states, incomes, and the percentage of individuals that have health insurance. These factors are more appropriately included in a more powerful longitudinal study assessing the effects of LGBT policies on AIDS proportions over time.

Future research should assess the effects of interactions of LGBT policies, mean incomes, state racial makeup, and the proportion of MSM that have health insurance on their HIV/AIDS rates in a longitudinal analysis. Additional research is needed on macro level policies that could affect the health outcomes in general in the entire LGBT population. More extensive longitudinal analyses of the protective benefits of macro-level protections on the physical and mental health behaviors LGBT populations are needed.

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