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LGBTQ state policies: A lever for reducing SGM youth substance use and bullying

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Abstract

Purpose: Sexual and gender minority youth (SGMY) are more likely than their cisgender and heterosexual peers to use substances and to be bullied, yet it is unknown whether the absence/presence of youth- and LGBTQ-specific equity laws drive these disparities. The purpose of this study was to extend previous research focused on adult- and LGBTQ-specific structural factors (e.g., same-sex marriage laws) to determine whether the youths' structural environment (i.e., state-level LGBTQ youth-focused equity laws) was associated with bullying and recent alcohol use, binge drinking, and cigarette use among SGMY.

Procedures: We utilized data from the *LGBTQ National Teen Survey*, collected in 2017 ($N=8,841$ sexual and gender minority youth). Linear regression analyses examined the association between bullying and substance use and between state-level LGBTQ youth-focused equity laws (individually and as a composite variable) and bullying and substance use.

Findings: SGMY living in states with LGBTQ equity laws were less likely to experience bullying. Findings regarding the relation between LGBTQ equity laws and substance use were mixed, such that LGBTQ equity laws were associated with a higher likelihood of binge drinking and alcohol use, and a lower likelihood of cigarette use.

Conclusions: Findings highlight the role of state-level equity laws in reducing bullying and substance use disparities for SGMY. Yet, given the finding that equity laws were associated with a

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Contributors

Dr. Ryan J. Watson conceptualized and designed the study, collected the data, drafted the manuscript, and reviewed the manuscript. Dr. Jessica N. Fish conceptualized the study, wrote portions of the manuscript, reviewed and revised analyses, and reviewed the manuscript. Whitney Menary conducted the initial analyses and reviewed and revised the final manuscript. Antonia Caba, Casey Cunningham, and Dr. Lisa Eaton wrote portions of the manuscript and reviewed and revised the final manuscript.

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higher likelihood of binge drinking, it is important to continue to explore how the structural environment shapes SGMY health.

Keywords

structural environment; policies; LGBTQ; binge drinking; substance use

1. Introduction

It is well-established that sexual and gender minority youth (SGMY) are at a disproportionately higher risk of alcohol and cigarette use (Baiocco et al., 2010; Fish et al., 2019; Wheldon and Wiseman, 2019). Recent data from the Youth Risk Behavior Survey (YRBS) show that compared to heterosexual youth, sexual minority youth are 1.4 to 1.8 times more likely to report lifetime cigarette use (Johns et al., 2018), and bisexual youth are 1.45 times more likely to report recent binge drinking (Phillips et al., 2017). Population-based studies have also documented elevated risk for lifetime and recent cigarette and alcohol use among transgender youth (when compared to their non-transgender peers): in 2017 YRBS data, transgender youth were 1.34 and 1.31 times more likely to ever smoke cigarettes and drink alcohol in their lifetimes, respectively, compared to their cisgender counterparts (Johns et al., 2019). Despite overall declines in adolescent substance use in the recent decade (Fish et al., 2017; Watson et al., 2018), sexual orientation and gender identity (SOGI) disparities in alcohol use persist among contemporary cohorts of youth (Day et al., 2017; Fish et al., 2017; Fish and Baams, 2018; Johns et al., 2019), which warrant large-scale strategies to address elevated risk for substance use for this population.

Scholarship that links sexual orientation disparities (but to a lesser extent gender disparities) in substance use to interpersonal and enacted stigma (e.g., bullying, victimization) has increased in recent years. A growing body of research, including meta-analyses, demonstrates a strong association between peer victimization and substance use among SGMY (Goldbach et al., 2014; Reisner et al., 2015). As such, one of the more often sought strategies to support SGMY is through policies, programs, and practices that attempt to decrease and eliminate victimization, bullying, and stigma. Yet, there remains limited research focused on identifying how LGBTQ protective policies can influence the broader environment and culture wherein LGBTQ youth develop, explore, and assert their identity (barring few exceptions; see Hatzenbuehler et al., 2015; Pachankis et al., 2014). Given the potential for SGMY policies to protect and support SGMY, it is important to consider how varying policy environments may differentially impact SGMY experiences and substance use compared to straight/cisgender youth.

1.1. Structural Stigma and Substance Use among SGMY

Scholarship that explores the relation between structural policy environments and health outcomes for SGMY is growing. Up until now, studies have focused primarily on operational structural stigma—utilizing indices to measure climates and environments operationalized by factors such as public opinions toward sexual minorities, density of same-sex partner households, bans on same-sex marriage, and SOGI-related state policies (Hatzenbuehler et al., 2015; Pachankis et al., 2014). These studies typically focus on tobacco

and illicit drug use among sexual minority young adults, finding that youth living in states with greater structural stigma use more tobacco and illicit substances, though the studies found structural stigma was not associated with alcohol use.

Although the aforementioned studies examined whether structural stigma explained higher alcohol use among sexual minority youth compared with heterosexual youth, they did not examine LGBTQ affirming policies *specific to the lives of youth* as a possible explanation for differences in alcohol and cigarette use. That is, structural stigma is typically operationalized via policies and laws specific to adults (e.g., bans on same-sex marriage, numbers of same-sex couples). It is known, however, that SGMY living in states or counties with affirmative youth-focused policies (e.g., anti-bullying, anti-discrimination) have decreased risk of suicide (Hatzenbuehler and Keyes, 2013) and have made fewer reports of homophobic victimization and harassment (Kosciw et al., 2018). Despite the important impact of state-level youth-affirming policies on mental health, LGBTQ affirming policies have not been investigated to the same extent, and yet, deserve further attention.

1.2 Focusing on Youth-Specific Policies and Protections

Given the research on structural stigma, it bears investigating how youth-specific policies, protections, or lack thereof contribute to SGMY experiences with bullying and substance use. Although not universal, there are several laws that states have enacted that help to protect SGMY from school-based victimization and bullying, SOGI change efforts, and other forms of discrimination. Seventeen states, Puerto Rico, and Washington D.C. have enacted nondiscrimination laws that protect LGBTQ individuals from discrimination in accessing school sports teams, clubs, or facilities in school (e.g., bathrooms, locker room) based on SOGI. Anti-bullying laws have also been enacted to combat harassment and violence towards LGBTQ students from peers, teachers, and school staff on the basis of SOGI, which have been shown to reduce students' experiences with bullying (Hatzenbuehler et al., 2017). Policies and laws banning SOGI change efforts (also referred to as "conversion therapy" or "reparative therapy") are also gaining traction; 20 states and D.C. have fully banned these practices, which have been discredited and widely regarded as ineffective, unnecessary, and deleterious by the medical community (Fish and Russell, 2020; Green et al., 2020; Movement Advancement Project, n.d.).

Although many states are making strides to protect SGMY, 8 states have also enacted anti-LGBTQ laws that prohibit protections for LGBTQ youth in schools. For example, South Dakota and Missouri ban schools from including SOGI in the school's anti-discrimination and anti-bullying policies (e.g., "No Promo Homo" laws; Movement Advancement Project, n.d.). Students attending schools with generic (i.e., non-enumerated by SOGI) anti-bullying policies are more likely to experience victimization based on their SOGI compared to students attending schools with enumerated policies (Kosciw et al., 2018). Similarly, "Don't Say Gay" policies, which were originally created to prohibit the discussion of LGBTQ identities in sexuality education curricula, are often misapplied to completely restrict teachers and school staff from talking about any LGBTQ issues in classrooms, school events, and extracurricular activities (Movement Advancement Project, n.d.).

1.3 Current study

Despite research that links structural stigma and school-based policies to substance use for SGMY, the relation between state-level equity laws enacted to protect SGMY is not well understood. The current study specifically examines the association between five equity policies targeted towards SGMY and their association with bias-based bullying and recent cigarette use, alcohol use, and binge drinking. It was hypothesized that the likelihood of bullying and substance use would be lower among SGMY who live in states with more LGBTQ equity laws compared to SGMY who live in states with fewer LGBTQ equity laws. Given the link between peer harassment and substance among SGMY (Goldbach et al., 2014), models estimating the relation between LGBT policy and substance use outcomes were adjusted for youth experience of bullying, to better isolate the effect of policy on SGMY substance use. We also assess the degree to which this association between LGBTQ equity laws, bullying, and substance use may differ for sexual minority relative to gender minority youth.

2. Methods

2.1. Data Source and Sample

This analysis utilized data collected by the Human Rights Campaign (HRC) and the University of Connecticut via the *LGBTQ National Teen Survey*. The survey targeted youth, aged 13–17 years old, who identified as LGBTQ+, who were currently living in the United States, and who read English. All responses were recorded between April and December of 2017. Participants were recruited virtually through social media (Twitter, Facebook, Instagram, Reddit, and Snapchat) through HRC's official media accounts. Beyond this outreach, HRC had assistance from social influencers (e.g., Jazz Jennings, Tyler Oakley) and HRC partner organizations. Youth completed questions on a range of topics, including demographic variables, school experiences, health behaviors, identity disclosure, and sexuality- and gender-specific experiences. All procedures were approved by the University of Connecticut IRB, protocol #H16-322.

A total of 29,291 individuals entered the survey website and viewed the consent page which initiated the survey. The sample, however, was limited to 17,112 participants due to ineligibility (e.g., living outside the U.S.), incomplete or low-quality data, or duplicate respondents. Roughly half the sample did not complete the full survey; the current sample was restricted to those who completed the bullying and substance use portion of the survey ($n=8,841$). The sample included participants from all 50 states, Washington D.C., and Puerto Rico. Sample characteristics are presented in Table 1.

2.2. Measures

The LGBTQ Equity Index: The LGBTQ Equity Index utilized state and territory laws that were in place in 2017, when the surveys were completed. Data for the state-based laws were obtained from the *Movement Advancement Project*, an independent, nonprofit website that documents state- and territory-based laws related to LGBTQ+ rights in the United States. Four laws were used to calculate the index given their direct link to LGBTQ youth: *Nondiscrimination laws* and *anti-bullying laws*, which prohibit discrimination and bullying,

respectively, on the basis of SOGI in schools; “*conversion therapy*” bans, which prohibit sexual orientation and gender identity change efforts with minors; and *anti-LGBTQ laws*, which include policies that prevent schools from adding LGBTQ protections and prohibit educators from discussing LGBTQ topics.

Nondiscrimination, anti-bullying, and “conversion therapy” bans were each counted as a +1 and *anti-LGBTQ laws* counted as a -1 (to account for the perceived harmful effects of the law). When summed, scores ranged between -1 and 3, with a higher number indicating better legal protections for LGBTQ+ youth.

Outcome Variables.

Recent Alcohol Use, Binge Drinking, and Cigarette Use: Youth were asked “During the past 30 days, on how many days did you have at least one drink of alcohol?”, “During the past 30 days, on how many days did you have 5 or more drinks of alcohol in a row, that is within a couple of hours?”, and “During the past 30 days, on how many days did you smoke cigarettes?” with ordinal response options ranging from 0 (0 days) to 6 (all 30 days).

Bias-Based Bullying: Participants were asked “Have you ever been teased or bullied because of your actual or perceived LGBTQ identities?” with the options of “Yes, because I am LGBTQ and I have told others,” “Yes, because someone thought I was LGBTQ,” “No,” and “Not Sure.” If participants responded to either of the “yes” options, they were further asked “Has this happened to you in the past year?” with response options of *Never, Rarely, Sometimes, Often* and *Very Often*. Responses were recoded to reflect *no* = 0 (no bias-based bullying) or *yes* = 1 (any bias-based bullying). Respondents who selected “Not Sure” were not considered for this analysis.

Covariates.—The following demographic covariates were included: age of respondent, gender identity (cisgender male, cisgender female, transgender male, transgender female, and nonbinary), sexual orientation (gay or lesbian, bisexual, straight, queer, pansexual, asexual, questioning, or something else), and race/ethnicity (White, Black, Native American, Asian American, Hispanic/Latinx, or something else). The race/ethnicity variable was check-all-that-applies; youth who checked more than one box were coded as bi/multi-racial.

2.3. Analysis Plan

All analyses were conducted using SAS software (version 9.2). First, univariate analyses were used to assess the demographic characteristics of the sample, prevalence of each outcome variable (recent alcohol use, binge drinking, cigarette use, bias-based bullying), and the prevalence of each policy environment. Second, regression models were used to investigate the relationships between state LGBTQ equity scores (individually and composite) and the four outcomes, with logistic regression being used for the bullying analysis and linear regression being used for the alcohol, binge drinking, and cigarette use analyses. Third, interaction terms were added to each regression model to assess whether the relationship between LGBTQ equity scores and each outcome (three substance use outcomes, and the bias-based bullying outcome) varied by gender identity (transgender vs. cisgender, and sexual orientation (gay/lesbian, bisexual, pansexual, all other sexual

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orientations), separately. All models were adjusted for age and race/ethnicity. The models investigating LGBTQ equity scores and substance use also controlled for bullying to isolate the effect of the policy.

3. Results

3.1. LGBTQ Equity Laws and Bias-Based Bullying

All LGBTQ Equity Index laws were independently related to bias-based bullying (see Table 2). Participants were less likely to experience bullying if they lived in states with *nondiscrimination laws* (OR = 0.739 [0.675, 0.809]), *anti-bullying laws* (OR = 0.738 [0.675, 0.806]), or “conversion therapy” laws (OR = 0.760 [0.682, 0.847]), and they were more likely to experience bullying if they lived in states that had *anti-LGBT laws* (OR = 1.263 [1.129, 1.413]). When investigating the association between the composite LGBTQ equity index and bias-based bullying, youth who lived in states with two (OR = 0.744 [0.654, 0.846]) or three (OR = 0.709 [0.624, 0.805]) protective laws had lower reports of bias-based bullying compared to youth living in states with an equity score of 0.

3.2. Equity Laws and Recent Substance Use

Associations between LGBTQ equity laws and substance use were mixed. Although the composite equity score was unrelated to youth cigarette use, cigarette use was less frequent among youth living in states with *nondiscrimination laws* ($\beta = -0.15 [-0.32, -0.03]$) or *anti-bullying laws* ($\beta = -0.19 [-0.36, -0.02]$). Contrary to expectations, youth living in states with two or more protections were more likely to report recent binge drinking (Equity Score = 2, $\beta = 0.34 [0.14, 0.54]$, Equity Score = 3, $\beta = 0.30 [-0.10, 0.50]$), as were SGMY who lived in states with nondiscrimination policies ($\beta = 0.30 [0.16, 0.44]$). Composite equity scores were unrelated to recent alcohol use. However, youth living in states with *non-discrimination policies* were more likely to report recent alcohol use ($\beta = 0.12 [0.03, 0.22]$), and youth living in states that enact *anti-LGBT policies* were less likely to report recent alcohol use ($\beta = -0.13 [-0.25, -0.01]$).

For gender minority interaction models, gender moderated the relation between anti-LGBT laws and bullying ($p = 0.037$), such that the relation between LGBT laws and bullying was not significant for gender minority youth (OR=1.04 [.843,1.28]). No additional gender interactions were statistically significant for the laws (composite or individual) related to any of the substance use outcomes (recent alcohol use, binge drinking, or cigarette use).

For sexual minority interaction models, sexual orientation status moderated the relationship between conversion therapy laws and frequency of alcohol use ($p = 0.026$), with bisexual SGMY reporting higher frequency of drinking compared non-bisexual SGMY in states with laws that ban conversion therapy ($\beta = 0.300 [0.061, 0.539]$). No additional sexual orientation interactions were statistically significant for laws (composite or individual) related to bullying or any of the other substance use outcomes.

4. Discussion

In an effort to better identify large-scale strategies to address SGMY substance use, this study examined whether state-level equity laws were associated with bullying and recent alcohol use, binge drinking, and cigarette use among SGMY. Informed by previous studies documenting the link between structural stigma and substance use among SGMY, we were interested in whether SGMY bullying and substance use varied across states with distinct SGMY policy profiles. Prior research highlights substance use disparities between sexual minority and gender minority youth and their heterosexual (Goldbach et al., 2014; Johns et al., 2018; Phillips et al., 2017) and cisgender counterparts (Day et al., 2017; Johns et al., 2019), respectively. Our findings support greater substance use disparities between sexual minority and heterosexual youth when compared to such disparities between gender minority and cisgender youth. Although our findings are consistent with previous studies that find lower odds of bias-based bullying in the presence of SGMY protections (Hatzenbuehler et al., 2015), and links between bullying and sexual minority youth (Goldbach et al., 2014; Phillips et al., 2017) and gender minority youth (Day et al., 2017; Reisner et al., 2015) substance use, we found mixed results for the association between LGBT equity policies and substance use.

Though previous research shows a reduction in SGM-based victimization among SGMY who are protected by school-level LGBTQ-specific affirmative policies (Kosciw et al., 2018; Kull et al., 2016), this study provides evidence that state-level youth-specific policies are also protective against bias-based bullying. Interestingly, the most robust findings were related to states that had two or more equity laws protecting SGMY. However, our findings also indicated that each policy was independently associated with bias-based bullying. Unfortunately, results from our interaction models focused on gender suggest that LGBT equity laws were less effective in protecting transgender youth from bias-based bullying. It is well-accepted that sexual minority visibility and rights have progressed more quickly than for transgender youth – a population that continues to experience a volatile policy landscape with regard to youth-specific laws and protections. There needs to be more focused attention on how structural factors are associated with health for transgender youth (Hatzenbuehler, 2017), and how these policies and their implementation may be more or less effective for sexual minority relative to gender minority youth.

With regards to equity laws and substance use, our findings are mixed. SGMY living in states with more LGBTQ-focused policies, specifically nondiscrimination and anti-bullying laws, reported lower odds of cigarette use, which is consistent with prior studies assessing the effects of structural stigma on sexual minority youths' cigarette use (Hatzenbuehler et al., 2015; Pachankis et al., 2014). Contrary to what was expected, however, alcohol use and binge drinking were more common among SGMY who resided in states with nondiscrimination laws. This is a finding that has yet to be documented by previous studies focused on structural policies and sexual minority youths' alcohol use (i.e., Hatzenbuehler et al., 2015; Pachankis et al., 2014). One explanation for these findings may be related to increased socialization/social cohesion and trust among youth in their communities. For example, in a study that examined changes in social capital and binge drinking behaviors among youth, increases in feelings of social cohesion in neighborhoods and communities

were associated with higher odds of binge drinking; decreases in trust of others was associated with a decrease in binge drinking (Martins et al., 2017). Additionally, more equitable states might encourage youth to engage in peer-related activities that include alcohol; whereas SGMY students who live in more oppressive environments may be more isolated and disconnected and therefore may not be readily engaged in large peer networks that include drinking behaviors. Last, it is noteworthy that we found that bisexual SGMY reported a higher frequency of drinking compared to non-bisexual SGMY in states with conversion therapy bans. It may be that the continued biphobia among sexual minority groups contribute to a weaker relation between conversion therapy bans and drinking alcohol for bisexual SGMY. Future research needs to continue examining differences in substance use among specific subgroups within the SGM community.

Taken together, the findings invite researchers to consider a more complicated narrative for SGMY alcohol use, particularly among sexual minority youth. Generally, the SGMY substance use literature has supported linkages between stigma and substance use (Fish et al., 2019; Goldbach et al., 2014), but the general youth substance use literature provides plenty of evidence to suggest that the story is likely more complicated than this. For example, youth substance use is also heavily influenced by interpersonal (e.g., peer networks, peer affiliations) and intrapersonal (e.g., alcohol expectations, motivations) factors that likely also play out in unique ways for SGMY (Bos et al., 2016).

Results urge us to consider that equity laws are necessary, but alone are an insufficient strategy to address SGMY substance use. Our findings, along with others, demonstrate the importance of state-level policy for addressing SGM youths' vulnerability to bullying, which is a known mechanism of substance use for this population. However, policies should also be accompanied by other multisectoral strategies to address SGMY substance use. This includes improved education and screening for medical and mental health providers, school personnel, and the implementation of prevention and intervention programs that are directed towards or (at the very least) sensitive to the unique experiences of SGMY.

4.1. Limitations

Along with our contributions, we also have limitations to note. First, although large and national in scope, the data are from a non-probability sample of SGMY. We therefore cannot readily generalize our findings to all youth in the United States. Second, policy profiles were calculated at the state-level, which limits the degree to which we can address other local factors that may create within-state variability in the degree to which LGBTQ youth experience protection or stigma (e.g., local or municipal population density, rurality, politics). Understanding these more proximal features would allow us to better document how neighborhood-specific contexts might impact bullying and substance use (see Eisenberg et al., 2020). Third, our data were cross-sectional, and we therefore cannot infer causality between the implementation of state-level laws and SGMY experiences with bullying and substance use.

4.2. Conclusion

In this study, we documented that SGMY reported lower odds of bullying and higher odds of binge drinking when they resided in states with more equitable laws toward LGBTQ individuals (e.g., laws against conversion therapy, LGBTQ anti-bullying laws). Broader cultural environments (e.g., political affinities, religiosity, poverty) that drive policies and laws are important to further examine when understanding which youth are at highest risk of binge drinking and being bullied. If we are to reduce the disparities in substance use for SGMY, we should continue to consider how the larger structural environment contributes to the well-documented differences in health inequities for vulnerable young people.

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Abbreviations:

LGBTQ	lesbian, gay, bisexual, transgender, and queer
SGMY	sexual and gender minority youth
SOGI	sexual orientation and gender identity
HRC	Human Rights Campaign

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Highlights

- Inclusive LGBTQ policies were associated with reduced bullying and cigarette use.
- Inclusive LGBTQ policies were related to more binge drinking among SGM youth.
- Protective policies reduce some but not all health inequities for SGM youth.

Table 1

Participant Demographics (N = 8831)

	Mean	SD
Age	15.59	1.266
	n	%
Gender Identity		
Cisgender Male	1964	22.24
Cisgender Female	3823	43.29
Transgender Male	778	8.82
Transgender Female	106	1.20
Nonbinary	2160	24.46
Sex Assigned at Birth		
Male	2227	25.90
Female	6544	74.10
Sexual Orientation		
Gay or lesbian	3350	37.93
Bisexual	2964	33.56
Straight	141	1.60
Queer	377	4.27
Pansexual	1187	13.44
Asexual	426	4.82
Questioning	195	2.21
Something else	191	2.16
Race/Ethnicity		
White	5861	66.37
Black	378	4.28
Native American	42	0.48
Asian American	344	3.90
Hispanic/Latinx	882	9.99
Bi/multiracial	1184	13.41
Something else	140	1.59
Alcohol Use		
0 Days	6345	71.85
1 or 2 Days	1622	18.37
3 to 5 Days	500	5.66
6 to 9 Days	207	2.34
10 to 19 days	123	1.39
20 to 29 days	11	0.12
All 30 days	6	0.07
Missing	17	0.19
Binge Drinking		
0 Days	7917	89.65

	Mean	SD
1 or 2 Days	628	7.11
3 to 5 Days	150	1.70
6 to 9 Days	73	0.83
10 to 19 days	39	0.44
20 to 29 days	5	0.06
All 30 days	6	0.07
Missing	13	0.15
Cigarette Use		
0 Days	8183	92.66
1 or 2 Days	261	1.96
3 to 5 Days	104	1.18
6 to 9 Days	55	0.62
10 to 19 days	62	0.70
20 to 29 days	46	0.70
All 30 days	93	1.05
Missing	27	0.31
Bias-Based Bullying		
No	3645	41.28
Yes	5186	58.42
Equity Score		
-1	1652	18.71
0	2909	32.94
1	929	10.52
2	1613	18.27
3	1728	19.57
Non-Discrimination		
No	5310	60.13
Yes	3521	39.87
Antibullying		
No	4745	53.73
Yes	4086	46.27
Anti-conversion		
No	6691	79.16
Yes	1840	20.84
Anti-LGBT		
No	7071	80.07
Yes	1760	19.93

Relation between LGBTQ Equity Laws, Bias-Based Bullying, and Substance Use

	Bias-Based Bullying			Recent Alcohol Use			Recent Binge Drinking			Recent Cigarette Use		
	OR	CI	β	CI	β	CI	β	CI	β	CI	β	CI
Equity Score												
3	0.709	0.624, 0.805	0.057	-0.080, 0.193	0.302	0.100, 0.504	-0.166	-0.416, 0.084				
2	0.744	0.654, 0.846	0.134	-0.001, 0.262	0.343	0.143, 0.543	-0.103	-0.348, 0.141				
1	0.915	0.782, 1.071	0.098	-0.066, 0.262	-0.049	-0.315, 0.218	0.016	-0.270, 0.306				
0	--	--	--	--	--	--	--	--	--	--	--	
-1	1.073	0.942, 1.222	-0.025	-0.164, 0.113	0.154	-0.056, 0.363	0.072	-0.162, 0.306				
Non-Discrimination	0.739	0.675, 0.809	0.122	0.026, 0.219	0.298	0.156, 0.440	-0.145	-0.319, 0.029				
Anti-Bullying	0.738	0.675, 0.806	0.041	-0.053, 0.136	0.143	0.002, 0.284	-0.188	-0.357, -0.019				
Conversion Therapy	0.760	0.682, 0.847	0.013	-0.105, 0.130	0.160	-0.010, 0.330	-0.123	-0.339, 0.093				
Anti-LGBT in Schools	1.263	1.129, 1.413	-0.127	-0.247, -0.006	-0.065	-0.245, 0.115	0.074	-0.132, 0.279				

Notes: adjusted for using age, gender identity, sexual orientation, and race/ethnicity demographics. Models for alcohol use, binge drinking, and cigarette use are also adjusted for by bullying. Reference for equity score is 0. Reference for individual laws is the absence of a law. Significance ($p<0.05$) is noted by bolding.