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Permalink

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Journal

Sexuality Research and Social Policy, 19(3)

ISSN

1868-9884

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Publication Date

2022-09-01

DOI

10.1007/s13178-021-00602-w

Peer reviewed



Published in final edited form as:

Sex Res Social Policy. 2022 September ; 19(3): 1069–1079. doi:10.1007/s13178-021-00602-w.

Uncertainty and Confusion Regarding Transgender Non-discrimination Policies: Implications for the Mental Health of Transgender Americans

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Author Contribution Dr. Hughto is the overall principal investigator of the parent study. She conceptualized the analysis and wrote the first draft of the manuscript. All authors contributed to the interpretation of the analysis and edited the manuscript. Drs. Reisner, Mimiaga, and Cahill are all co-investigators on the parent study.

Data Availability The deidentified data is available upon request. Please email the first author for access.

Code Availability The SAS code used for this analysis is available upon request. Please email the first author for access.

Conflict of Interest The authors declare no competing interests.

Abstract

Introduction—Recent policies have restricted the rights of the US transgender people; there is a need to explore transgender people’s knowledge and attitudes regarding such policies and related mental health.

Methods—In 2019, 580 transgender adults living in the Northeastern US completed a survey assessing demographics, knowledge/attitudes toward transgender-related policies, and mental health. Multivariable logistic regression models, adjusted for age, gender, race, and prior abuse, were fit to examine the association of concerns about the implementation of discriminatory policies and depression, anxiety, and post-traumatic stress disorder (PTSD).

Results—Many participants were confused about the status of federal and state protections for transgender people, and 48.4% were concerned that their state would pass policies that took away transgender rights. In adjusted models, compared to participants who were not concerned, those who were concerned about the enactment of state-level, anti-transgender policies had greater odds of depression, anxiety, and PTSD ($p < 0.05$).

Conclusions—Our findings highlight the uncertainty around changing policies and potential mental health implications as well as the need to ensure legal protections for transgender Americans.

Policy Implications—There are several pending lawsuits seeking to overturn Trump-era policies that restrict the rights of transgender individuals. At the same time, lawmakers in several states are pushing anti-transgender legislation. Findings from this study can be cited as part of future and ongoing legal and legislative efforts from advocates seeking to ensure equal protections for transgender people under state and federal law.

Keywords

Policies; Stigma; Transgender; Mental health

Introduction

Transgender individuals have a gender identity or expression that differs from their assigned birth sex. Throughout the centuries, transgender people in the United States (US) have endured severe acts of stigma-motivated violence and discrimination and inequitable access to health-promoting resources (e.g., employment, education, housing, healthcare) (White Hughto et al., 2015). These experiences have led to the development of substantial health disparities between transgender people and cisgender people, including elevated rates of depression, anxiety, suicidality, and HIV (Brown & Jones, 2016; Reisner et al., 2014; CDC, 2019).

Recognizing the harms associated with structural and interpersonal discrimination, violence, and other forms of stigma, the Obama administration took aggressive steps to ensure that transgender individuals are protected against discrimination in the US. These actions include the landmark passage of the 2010 Patient Protection and Affordable Care Act (ACA), and a 2016 regulation implementing Sect. 1557, the ACA’s non-discrimination provision (U.S., 2016). Other actions include the February 2017 letter from the US

Departments of Justice and Education to public schools stating that Title IX, a federal law banning sex discrimination in education programs and activities, requires access to sex-segregated facilities based on gender identity (Battle, 2017); and the June 2016 reversal of a longstanding ban, effectively enabling transgender people to serve openly in the military (Trump, 2018). Throughout the Obama administration, numerous states, including Massachusetts and Rhode Island, also enacted state-level mandates prohibiting discrimination on the basis of gender identity and expression in employment, housing, education, credit and lending, and public accommodations, including healthcare settings (MAP, 2020a, b). During this time, hate crime legislation was also passed at the federal level and in numerous states throughout the country (The Mathew Shepard and James Byrd, 2009; MAP, 2020c). Following these 8 years of progress, the Trump Presidency unleashed a wave of anti-transgender stigma and rhetoric that has since been codified in our nation's laws and embedded in our institutional practices as forms of structural stigma (TransEquality.org., 2020).

Structural stigma targeting transgender individuals increased under the Trump Presidency, with the enactment of federal and state policies that serve to deny transgender people access to equal rights under the law. Indeed, from the early days of the Trump administration, appointed federal officials engaged in extensive efforts to restrict the rights of transgender people in the US (Janssen, 2020). For example, in February 2017, the Departments of Justice and Education withdrew Obama-era guidance to public schools about their responsibilities under Title IX to ensure that transgender students are not treated in a discriminatory manner (Battle, 2017). Later, in August of 2017, President Trump issued a memorandum to the Secretary of Defense and Secretary of Homeland Security to ban transgender individuals from enlisting in the armed forces (Trump, 2017). Following the 2017 memorandum, the Pentagon adopted a policy banning transgender individuals from serving in the US military (Trump, 2018). Numerous states and municipalities, including Massachusetts, North Carolina, and Houston, TX, have also brought forth measures to overturn state protections in education, housing, and public accommodations settings such as public bathrooms and healthcare settings (MAP, 2020d). These anti-transgender policies sought to restrict access to needed resources for transgender people, with the potential to exacerbate economic and health disparities for transgender people.

Qualitative research finds that anticipation of the implementation of discriminatory policies under the Trump administration is related to excess stress for some transgender Americans. In a 2017 qualitative study with transgender people, numerous respondents cited concerns that the Trump administration would eliminate policies that protect the rights of transgender people and reported being concerned about how policy changes could negatively impact them (Veldhuis et al., 2018). Respondents were also concerned that the repeal of the protections afforded by the ACA would make medically necessary gender affirmation surgery unobtainable. These fears about impending policy changes led transgender respondents to feel overwhelmed, helpless, and depressed. Transgender participants also reported that the election of Donald Trump had compounded their existing mental and physical health problems. However, to our knowledge, no study has quantified transgender individuals' knowledge and attitudes related transgender policy changes or the relationship between possible changes to protective policies and the mental health of transgender people.

To fill the aforementioned research gaps, the present study aimed to (1) examine the extent to which transgender adults have accurate knowledge of federal and state policies impacting transgender rights, (2) explore the extent to which transgender adults are concerned that their right to equal protections under the law will be removed, and (3) explore the association between concerns about the implementation of anti-transgender legislation and the mental health of transgender individuals living in two states with comprehensive non-discrimination policies for transgender people — Massachusetts and Rhode Island. Our findings can be used to inform supportive policy agendas and clinical care for transgender people.

Study Data and Methods

Study Procedures

Between March and August 2019, Fenway Health and Brown University collaborated to conduct a stress and health needs assessment of transgender adults in Massachusetts (MA) and Rhode Island (RI). Specific details about the study methodology can be found elsewhere (Restar et al., 2020). Briefly, the majority (95%) of participants were sampled online (via electronic listservs, community-based Web sites, social networking sites), and 5% were sampled in-person (at transgender community events, community organizations, and healthcare clinics). Eligible participants were ages 18 years or older, self-identified as transgender, non-binary, or otherwise gender diverse, resided in Rhode Island or Massachusetts for at least 3 months in the last year, and had the ability to read/write in either English or Spanish. Participants completed a one-time survey assessing sociodemographics, stigma, federal and state policy perceptions, and health. Electronic written informed consent was obtained from all participants. Study activities were approved by the Institutional Review Boards of Fenway Health and Brown University.

Measures

Demographics.—Age was assessed in years. Participants reported whether they had resided in Massachusetts, Rhode Island, or both states in the past 12 months. Race and ethnicity were assessed separately and categorized as follows: White; non-Hispanic vs. person of color, which included Hispanic, Black, Asian, Middle Eastern, American Indian; and multiracial. Gender identity was assessed using a two-step method with two items: (1) assigned sex at birth (female, male) and (2) current gender identity (e.g., man, trans man, woman, trans woman, genderqueer, non-binary) (Reisner et al., 2014b). The two items were cross-tabulated to categorize participants as trans woman, trans men, or non-binary (e.g., genderqueer, gender non-conforming).

Sexual and Physical Abuse. Participants were also asked about experiences of abuse throughout the life course via measures previously utilized in transgender samples (James et al., 2016; White Hughto et al., 2017; Reisner et al., 2016). Childhood physical abuse and sexual abuse were defined as occurring before age 18. Physical and sexual abuse (partner and non-partner) in adulthood (age 18 or older) were also assessed.

Knowledge of and Attitudes Toward Transgender-Related Federal and State Policies. Adapting questions previously used in research with transgender people (Reisner et

al., 2015a), participants were asked to indicate whether new laws and policies had been implemented by the White House and/or the Federal Government that allow transgender people to be discriminated against in 6 areas: public schools, healthcare settings (hospitals, doctor's offices), employment, housing, public places (restaurants, parks, stores, transportation), and the military. Response options for each of these items were as follows: yes, no, don't know, and prefer not to answer. Participants were also asked whether their state has policies in place that prohibit hate crimes on the basis of gender identity (response options: yes, no, don't know, and prefer not to answer). Participants were also asked if (check all that apply) their state has policies that prohibit anti-transgender discrimination in employment, public education, hospitals, doctor's offices and healthcare centers, housing, public transportation, retail stores, and credit and lending; participants could also indicate don't know and prefer not to answer. Participants were also asked whether they had concerns that politicians in the state where they live will pass laws that take away transgender people's rights (response options: yes, no, unsure). See Appendix 1 for exact survey items.

Mental Health Outcomes.—Clinically significant depressive symptoms, anxiety symptoms, and global psychological distress were assessed in the past 7 days using the Brief Symptom Inventory (BSI) (Derogatis, 2000). The 6 depression items and 6 anxiety items were each summed and standardized using T-scores and then dichotomized based on a standard cutoff score indicative of clinically significant symptoms. Post-traumatic stress disorder (PTSD) was assessed using a 4-item scale designed for primary care settings (Prins et al., 2004). Participants responded to each item using binary (yes vs. no) responses. Items were summed and dichotomized based on a score of 3 or more.

Analysis

The sample size was restricted to individuals who reported currently living in Massachusetts or Rhode Island ($N = 580$). Univariate descriptive statistics were used to summarize the overall distribution of variables such as mean, standard deviation (SD), frequency, and proportion. Three separate adjusted multivariable logistic regression models examined the association between being concerned that one's state would pass policies that remove non-discrimination protections for transgender people (referent: no, not concerned) and depression, anxiety, and PTSD. In order to isolate the association between concerns about policy changes and mental health, we controlled for factors previously shown to be associated with poor mental health among transgender populations: age, race, gender, and childhood and adult sexual and physical abuse. All statistical analyses were conducted in SAS 9.4. Statistical significance was determined at $p < 0.05$.

Results

The mean age of the sample was 31.3 years ($SD = 11.3$); 81.2% had resided exclusively in Massachusetts in the past 12 months (Table 1). Nearly half the sample identified as non-binary (43.8%), and the majority were White non-Hispanic (82.2%) and had completed some college or more (86.2%). The prevalence of self-reported abuse was high in childhood (45.6% physical abuse, 38.4% sexual abuse) and adulthood (29.9% physical abuse, 48.4% sexual abuse).

As shown in Table 2, transgender participants had varied levels of understanding about federal policies related to transgender people's rights. The majority of the sample (80.5%) indicated that the Federal Government had implemented a new law or policy that restricts rights for transgender people in the military, 14.7% did not know, and 4.5% believed such policies had not been enacted. Regarding employment, 40.5% of the sample did not know whether anti-transgender policies had been enacted; 44.7% believed such policies had been enacted, and 14.5% believed they had not. Similarly, in housing, 38.3% of the sample did not know whether anti-transgender policies had been enacted at the federal level; 47.1% believed such policies had been enacted, and 14.3% believed they had not. Further in public spaces, 47.9% of the sample did not know whether anti-transgender policies had been enacted at the federal level; 36.9% believed such policies had been enacted, and 15.0% believed they had not.

Transgender participants also reported confusion about their protections under state law as 27.2% of the sample did not know whether their state had prohibitions against hate crimes and 2.1% incorrectly believed that their state did not have such prohibitions (Table 2). When asked about specific types of transgender protections in their state, 56.2% correctly indicated that they had protections in healthcare, 49.5% in public education, 47.2% in hospitals, 45% in doctors' offices and healthcare centers, 52.8% in housing, 43.3% in public transportation, 38.1% in retail stores, and 29.7% in credit/lending. Additionally, 45.5% of the sample reported that they were concerned that politicians in their state would pass laws that would take away the rights of transgender people and 48.4% were unsure about how they felt about potential changes to state protections for transgender people.

In adjusted analysis, we found that compared to individuals who were not concerned that politicians in their state would pass laws that would take away transgender rights, those who were concerned were at significantly greater odds of having clinically significant symptoms of depression (aOR = 1.97; $p = 0.02$), anxiety (aOR = 2.76; $p = 0.003$), and PTSD (aOR = 2.47; $p < 0.0001$). Significant differences were not found between those who were not concerned about state policy changes and those who were uncertain about their concern for the future implementation of anti-transgender policies (Table 3).

Discussion

This study represents the first, to our knowledge, to quantitatively assess knowledge and attitudes toward transgender right policies at the federal and state level and document the relationship between state-level policy concerns and the mental health of transgender people. Knowledge of anti-transgender policy changes at the federal level varied according to the nature of the policy, with the majority of the sample demonstrating awareness of the transgender military ban, yet less than half demonstrating awareness of the rollback of transgender protections in public schools, and a sizeable proportion of participants did not know whether there are federal protections in other areas such as healthcare, employment, housing, and public spaces. At the state level, awareness of the existence of transgender protections also varied greatly. Less than a third correctly indicated that Massachusetts and Rhode Island have protections against discrimination in credit and lending; about half of the sample recognized that transgender people have protections against discrimination in

housing, employment, public schools, and healthcare; and nearly three quarters recognized that there are hate crime protections in place for transgender individuals in their state. Additionally, nearly half the sample expressed concerns that their state would pass policies that strip transgender individuals of their rights and these concerns were significantly associated with clinically significant mental health symptoms. The present results extend prior qualitative work documenting the psychological harms of threats to transgender rights laws during the Trump presidency (Veldhuis et al., 2018). Findings have implications for advancing federal and state policy agendas to reinstate and/or ensure ongoing legal protections for transgender people as well as clinical relevance to transgender people and the clinicians who care for them.

Findings from this study demonstrate that many of the transgender residents of Massachusetts and Rhode Island sampled were confused about their legal protections under state and federal law. At the federal level, 80% of the sample correctly reported that federal policy changes had impacted the rights of transgender people serving in the military. The high level of awareness is likely due in part to the significant media coverage of the transgender military ban disseminated via major media outlets (CNN, 2017; Liptak, 2019; Baldor, 2019) and on social media, including the President's own July 2017 tweets that declared that the "United States Government will not accept or allow ...transgender individuals to serve in any capacity in the U.S. Military." Conversely, only about two-fifths of the sample were aware of the loss of protections for transgender students in public schools, which occurred during the same year. While the rollback of the Obama-era guidance related to Title IX protections for transgender students was widely publicized, it is possible that some transgender participants in our sample recognized that the guidance from the Obama administration was never enforceable, and thus Trump's reversal of this guidance did not have legislative "teeth." Nonetheless, the aforementioned actions by the Departments of Justice and Education under President Trump do effectively sanction mistreatment against transgender individuals in the military and in schools.

Confusion regarding the existence of federal policies that strip transgender people of their rights in healthcare settings was high. In the present study, 43.6% of participants believed that the Federal Government had already enacted policies that allowed transgender people to be discriminated against in healthcare settings; 40.5% did not know, and 14.5% believed that healthcare policies had not been enacted. Notably, at the time of the survey in 2019, the Trump administration had yet to finalize the repeal of the gender identity-related protections under Sect. 1557 of the ACA. However, on May 2, 2017, the Department of Health and Human Services (HHS) announced a plan to roll back transgender-related protections under the ACA (Franciscan, 2017). Further, a prior nationwide injunction put in place by a Texas judge on December 31, 2016, made the gender identity protections unenforceable by HHS (Franciscan, 2016). While the injunction did not prevent transgender individuals from invoking the Sect. 1557 rule in lawsuits related to discrimination in healthcare, media coverage of these various actions related to Sect. 1557 are likely to have led to confusion among transgender individuals regarding whether or not healthcare protections were still in place for them at the federal level.

Transgender participants in the sample also reported confusion regarding whether recent federal policies had stripped transgender people of their rights in employment, housing, and public spaces. Indeed, 38.3%, 40.5%, and 47.9% of the sample reported that they did not know whether federal policies had restricted transgender people's rights in housing, employment, and public spaces, respectively. The confusion regarding the presence or absence of anti-transgender policies implemented under the Trump administration in key areas such as employment, healthcare, housing, and public accommodations may derive from a recognition of the anti-transgender rhetoric and actions by President Donald Trump and members of his administration. For example, on December 5, 2017, former Press Secretary Sarah Huckabee Sanders reported that President Trump supports businesses denying services to LGBTQ customers (WhiteHouse.gov., 2017). Later, on October 24, 2018, the Department of Justice submitted a brief to the Supreme Court arguing (ultimately ineffectively) that it is legal to discriminate against transgender employees (No. 18–107, 2018).

Additionally, on March 10, 2017, the Department of Housing and Urban Development (HUD) announced it would withdraw a previously proposed policy that would have required HUD-funded emergency shelters to put up a notice regarding residents' right to be free from anti-LGBT discrimination under HUD regulations (Department of Housing and Urban Development, 2017). Together, these actions are likely to have led to confusion among transgender people regarding their rights under federal law. This confusion is particularly problematic as it may lead transgender individuals to not challenge acts of discrimination. The actions taken by the Trump administration also send a signal to transgender individuals and the broader US population that transgender people are not worthy of protecting and could increase stress and poor mental health among transgender people as discussed below (Veldhuis et al., 2018; Bockting et al., 2020).

Awareness of state-level non-discrimination policies for transgender individuals, while greater to that of federal policy recognition, was still suboptimal in many key areas. In 2012, Massachusetts and Rhode Island passed hate crime legislation that was inclusive of gender identity, yet at the time of the 2019 survey, 27.2% of transgender participants living in these states did not know whether there were policies that prohibited anti-transgender hate crimes or 2.1% believed that such policies did not exist. Additionally, since 2001 and 2016, respectively, transgender residents in Rhode Island and Massachusetts have been protected against discrimination in education, employment, credit/lending, and public accommodations, including public bathrooms, retail stores, transportation, hospitals, and doctor's offices. However, when asked about specific types of transgender protections in their state, 56.2% correctly indicated that they had protections in healthcare, 52.8% in housing, 49.5% in public education, 47.2% in hospitals, 45.0% in doctors' offices/healthcare centers, 43.3% in public transportation, 38.1% in retail stores, and 29.7% in credit/lending. The confusion regarding the extent of state-level protections is problematic as it means that many transgender individuals in the sample believe that they do not have legal recourse should they be discriminated against in employment, education, healthcare, and other settings in which transgender individuals routinely experience mistreatment (James et al. 2016). Believing that one does not have comprehensive protections against discrimination could lead transgender individuals to avoid needed services (White Hughto et al., 2015). The

avoidance of healthcare for fear of discrimination is particularly problematic for transgender individuals as such avoidance has been linked to numerous adverse physical and mental health outcomes, including the delay of needed care that resulted in a medical emergency (Xavier et al., 2013; Grant et al. 2011; Cruz, 2014; Dewey, 2008; Reisner et al., 2015b, c).

Importantly, the present study found that almost half of the sample of transgender individuals in Massachusetts and Rhode Island feared that their rights would be taken away by politicians in their state, and these fears were significantly associated with poor mental health. Indeed, being concerned about the future implementation of state anti-transgender legislation was associated with the elevated odds of depression, anxiety, and PTSD, even after controlling for known sources of poor mental health (i.e., physical and sexual abuse). These findings suggest, that even when anti-transgender ballot measures overwhelmingly fail, as was the case in Massachusetts in 2018, (Massachusetts, 2018), the very fact that transgender rights are put up for a popular vote could cause transgender individuals to be concerned about the future passage of anti-transgender policies or legislation, in turn yielding poor mental health outcomes for transgender residents. These findings also support prior qualitative research in which transgender adults cited concerns that anti-transgender policies would be enacted during the Trump presidency and described the ways in which these concerns made them to feel depressed, anxious, and suicidal (Reisner et al., 2015; Bockting et al., 2020). By documenting the relationship between structural stigma and poor mental health, findings from this study extend prior quantitative research with transgender individuals linking enacted stigma (e.g., mistreatment by others) to PTSD over and above traumatic experiences in childhood and adulthood (Reisner et al., 2016). This research underscores the importance of ensuring ongoing activism and outreach to policymakers to ensure comprehensive state and federal level protections for transgender individuals.

Burgeoning empirical work suggests that policies that reduce stigma and provide necessary access to legal protections have the potential to improve the health of transgender people and other marginalized groups (Goldenberg et al., 2020; Hatzenbuehler, 2013; Hatzenbuehler et al., 2009). Indeed, Goldenberg et al. examined data from 28,000 transgender adults in the US and found that living in states with more protective policies was associated with the reduced odds of avoiding healthcare due to fear of mistreatment (Goldenberg et al., 2020). Similarly, Hatzenbuehler et al. examined state-level policies that provided protections against hate crimes and employment discrimination based on sexual orientation and found that protective policies led to a reduction in the association between LGB status and mood disorders (Hatzenbuehler et al., 2009). Taken together, the findings from this study and prior research suggest that if gender identity protections were reinstated for transgender people at the federal level, and state-level protections continued to be enforced, such actions could yield health benefits for transgender people.

While ongoing policy efforts are needed to ensure non-discrimination protections for transgender individuals, individual-level interventions can help to mitigate the potential harms of structural sources of stigma. Notably, the fear that transgender individuals would be stripped of their civil rights was highly related to adverse mental health outcomes among transgender adults in this sample who lived in states with comprehensive transgender non-discrimination policies. Therapists and primary care providers should be aware of

the potential health impact of anti-transgender rhetoric and actions by state and federal governments and assist transgender patients in developing active coping strategies to manage the stress of anti-transgender social forces. Active coping strategies for transgender individuals might include engaging in collective activism in order to challenge efforts to remove civil rights for transgender individuals in various areas of the law (White Hughto et al., 2015). In addition to empowering transgender individuals to challenge hostile actors, collective activism can also help transgender individuals to connect with other transgender people and provide one another with social support (White Hughto et al., 2015). Additionally, national and state transgender policy organizations such as the Transgender Law Center, Lambda Legal, and the Massachusetts Trans Political Organization routinely track proposed and enacted policies changes impacting transgender individuals. Ongoing efforts must be made to link transgender community members to this information so as to mitigate confusion regarding policies and empower transgender individuals to engage in individual and collective activism to safeguard their civil rights. Together, these efforts can help transgender individuals survive and thrive, even during periods of unprecedented stigma targeting transgender people.

Limitations

As a cross-sectional study, causality cannot be inferred. Additionally, while the racial/ethnic distribution of this convenience sample (82% White) was similar to the racial/ethnic distribution of residents of Massachusetts (8% White) and Rhode Island (84% White) (U.S 2020a, b), it is possible that our findings might not be generalizable to samples largely comprised of racial/ethnic minorities or recruited in other locations. Additionally, this study focused on the experiences of transgender individuals living in two progressive states and only focused on transgender-related policies and laws, without consideration for other anti-transgender actions or rhetoric espoused by federal and state politicians and appointees. Future mixed-methods research should seek to explore the relationship between the breath of anti-transgender language and actions taken against this population and the wellbeing of transgender individuals exposed to such stigma. Research would also benefit from the identification of resilience characteristics innate to transgender people that can be leveraged in future multilevel interventions to eliminate health inequities and help transgender people to thrive even during periods of widespread oppression.

Conclusion

The study found that, overall, the transgender residents of Massachusetts and Rhode Island sampled had an incomplete understanding of the extent of their legal protections against discrimination under federal and state laws and policies. Additionally, many of these transgender participants who live in states with extensive transgender non-discrimination protections feared that their rights would be stripped via the implementation of future anti-transgender policies in their state. Moreover, concerns about the future implementation of anti-transgender policies were significantly related to poor mental health outcomes among transgender people in the sample. Findings underscore the need for ongoing state and federal policy efforts to ensure non-discrimination protections for transgender individuals, particularly in light of aggressive anti-transgender actions taken by the Trump

administration. Transgender individuals who are at greater risk for poor mental health due to the fear of losing their civil rights would also benefit from empowerment-focused interventions that help them cope with the impact of structural stigma and engage in collective activism to fight systems of oppression to ensure the health and wellbeing of all transgender people.

Acknowledgements

We wish to thank our participants and community partners: Massachusetts Transgender Political Coalition (MTPC) (Mason Dunn, Kelsey Grunstra), Boston Health Care for the Homeless (Pam Klein, Sarah Reid), Lifespan Adolescent Medicine (Michelle Forcier), Thundermist Health Center (Jaye Watts, Dreya Catozzi, Denise Crooks), Project Weber/RENEW (Coleen Daley Ndoye, Lily Rivera, Rich Holcomb), Fenway Health staff (Dana Pardee, Josibel Garcia Valles, Athena Vaughn) and board member (Bianca Robinson), and Brown University staff (Christopher Santostefano, Peter Salhaney, Jennifer Olson) and outreach consultants/alumni (Jackson McMahon, Ryan Segur, Arjee Restar).

Funding

This study was supported by an award from the Providence/Boston Center for AIDS Research (CFAR) NIH/NIAID fund P30AI042853. Dr. Hughto is also supported by COBRE on Opioids and Overdose funded by the National Institute of General Medical Sciences of the National Institutes of Health under grant no. P20GM125507.

Appendix 1.: Policy-related Survey Items Adapted or Developed for this Study

Federal Laws

New laws and policies passed by the White House and/or the Federal Government allow transgender people to be discriminated against in...

	True	False	Don't know	Prefer not to answer
1. Public schools				
2. Private schools				
3. Healthcare settings (hospitals, doctor's offices)				
4. Employment				
5. Housing				
6. Public places (restaurants, parks, stores, transportation)				
7. The military				

Correct answer = true (1, 3, 7); false (2, 4, 5, 6)

State Hate Crime Laws

There is a transgender rights law in my state that protects people from hate crimes based on their gender identity/expression.

1. Yes
2. No
3. Don't know

4. Prefer not to answer

Correct answer = yes

State Legal Protections

The transgender rights law in my state makes it illegal to discriminate against people based on their gender identity and expression in the following places (Check all that apply):

1. Employment
2. Housing
3. Public education/schools
4. Hospitals
5. Doctor's offices and healthcare centers
6. Public transportation
7. Supermarkets
8. Retail stores
9. Credit/lending
10. Nursing homes
11. Don't know
12. Prefer not to answer

Correct answers: checking yes to items 1–10

State-level Policy Concerns

I am concerned that politicians in the state where I live will pass laws that take away transgender people's rights.

1. Yes
2. No
3. Unsure
4. Prefer not to answer

*No correct answer

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Table 1

Characteristics of a sample of transgender adults from Massachusetts and Rhode Island (*N* = 580)

Demographics	Mean	SD
Age		
Range (18–73)	31.3	11.3
State resided in during the past 12 months		
Massachusetts	471	81.2
Rhode Island	96	16.6
Both	13	2.2
Gender identity spectrum		
Trans woman	144	24.8
Trans man	182	31.4
Non-binary	254	43.8
Race/ethnicity (<i>n</i> = 578)		
White, non-Hispanic	477	82.2
Person of color	101	17.4
Hispanic	20	3.4
Black	17	2.9
Asian	13	2.2
Middle Eastern	8	1.4
American Indian	1	0.2
Multiracial	42	7.2
Educational attainment (<i>n</i> = 578)		
Highschool degree or less	80	13.8
Some college or more	498	86.2
Childhood abuse (<i>n</i> = 544)		
No	215	39.5
Yes	329	60.5
Physical	248	45.6
Sexual	209	38.4
Adult abuse — lifetime (<i>n</i> = 546)		
No	231	42.3
Yes	315	57.7
Physical	163	29.9
Sexual	264	48.4
Mental health outcomes—current Depression (<i>n</i> = 559)		
No	472	84.4
Yes	87	15.6
Anxiety (<i>n</i> = 560)		
No	488	87.1
Yes	72	12.9
Post-traumatic stress disorder (PTSD) (<i>n</i> = 554)		

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Demographics	Mean	SD
No	350	63.2
Yes	204	36.8

Source: Data based on survey data collected by authors. Mental health outcomes were assessed via the BSI

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Table 2
 Knowledge and attitudes of transgender people in Rhode Island and Massachusetts (N = 580) regarding state and federal policies impacting the rights of transgender people

Perception of the removal of transgender federal protections		
	N	%
The military		
Yes	467	80.5
No	26	4.5
Don't know	85	14.7
Prefer not to answer	2	0.3
Public schools		
Yes	246	42.4
No	80	13.8
Don't know	252	43.4
Prefer not to answer	2	0.3
Healthcare settings (hospitals, doctor's offices)		
Yes	253	43.6
No	84	14.5
Don't know	243	41.9
Employment		
Yes	259	44.7
No	84	14.5
Don't know	235	40.5
Prefer not to answer	2	0.3
Housing		
Yes	222	38.3
No	83	14.3
Don't know	273	47.1
Prefer not to answer	2	0.3
Public places (restaurants, parks, stores, transportation)		
Yes	214	36.9
No	87	15.0

Perception of the removal of transgender federal protections		
The military	N	%
Don't know	278	47.9
Prefer not to answer	1	0.2
Awareness of existing state-level transgender protections		
Awareness of prohibitions against hate crimes on the basis of gender identity/expression		
Yes	410	70.7
No	12	2.1
Don't know	158	27.2
Awareness of prohibitions against discrimination on the basis of gender identity/expression in:		
Employment	326	56.2
Public education/schools	287	49.5
Hospitals	274	47.2
Doctor's offices and healthcare centers	261	45.0
Housing	306	52.8
Public transportation	251	43.3
Retail stores	221	38.1
Credit/lending	172	29.7
Concerned about the removal of transgender protections		
Concerned about the passage of state policies that will remove transgender rights		
Yes	281	48.4
No	227	39.1
Unsure	72	12.4

Source: Authors analysis of survey data

Table 3

Adjusted logistical regression analyses examining the association between being concerned about the passage of anti-transgender policies and the mental health of transgender adults in Massachusetts and Rhode Island (*N* = 580)

	Depression			Anxiety			PTSD					
	OR	95% CI	<i>p</i> value	aOR	95% CI	<i>p</i> value	aOR	95% CI	<i>p</i> value	aOR	95% CI	<i>p</i> value
Concerned*	1.00	—	—	1.00	—	—	1.00	—	—	1.00	—	—
No	1.61– 4.78	0.0002	0.02	1.98– 7.08	0.0001	<0.0001	2.76	1.41– 5.40	0.003	3.27	2.19– 4.87	<0.0001
Yes	0.64– 3.43	0.36	0.47	0.82– 5.21	0.12	0.12	1.96	0.75– 5.11	0.17	2.10	1.17– 3.75	0.01
Unsure	1.48	0.64– 3.43	0.36	1.38	0.58– 3.30	0.47	1.38	0.58– 3.30	0.47	1.76	0.93– 3.35	0.08

Missing data was < 10% across models. The sample size for each analysis was as follows: depression (*N* = 534), anxiety (*N* = 535), and PTSD (*N* = 533)

Concerned = concerned that state will pass policies that will remove transgender rights, aOR = adjusted odds ratio (adjusted for age, gender, race, and childhood and adult physical and sexual abuse)