

# Experiences of violence and discrimination among LGBTQ+ individuals during the COVID-19 pandemic: a global cross-sectional analysis

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## ABSTRACT

**Objectives** To characterise the extent to which the levels of violence and discrimination against lesbian, gay, bisexual, transgender and queer (LGBTQ+) people have changed amid COVID-19.

**Design** Cross-sectional, secondary analysis.

**Setting** 79 countries.

**Participants** All adults (aged ≥18 years) who used the Hornet social networking application and provided consent to participate.

**Main outcome measure** The main outcome was whether individuals have experienced less, or the same or more levels of discrimination and violence from specific groups (eg, police and/or military, government representatives, healthcare providers).

**Results** 7758 LGBTQ+ individuals provided responses regarding levels of discrimination and violence. A majority identified as gay (78.95%) and cisgender (94.8%). Identifying as gay or queer was associated with increased odds of experiencing the same or more discrimination from government representatives (OR=1.89, 95% CI 1.04 to 3.45, p=0.045) and healthcare providers (OR=2.51, 95% CI 0.86 to 7.36, p=0.002) due to COVID-19. Being a member of an ethnic minority was associated with increased odds of discrimination and violence from police and/or military (OR=1.32, 95% CI 1.13 to 1.54, p=0.0) and government representatives (OR=1.47, 95% CI 1.29 to 1.69, p=0.0) since COVID-19. Having a disability was significantly associated with increased odds of violence and discrimination from police and/or military (OR=1.38, 95% CI 1.15 to 1.71, p=0.0) and healthcare providers (OR=1.35, 95% CI 1.07 to 1.71, p=0.009).

**Conclusions** Our results suggest that despite the upending nature of the COVID-19 pandemic, around the world, government representatives, policymakers and healthcare providers continue to perpetuate systemic discrimination and fail to prevent violence against members of the LGBTQ+ community.

## INTRODUCTION

As of 3 August 2022, there have been 579 million confirmed cases of the novel COVID-19 virus and over 6.4 million deaths

## WHAT IS ALREADY KNOWN ON THIS TOPIC

- ⇒ There is a substantial amount of research that shows the health impacts of COVID-19; however, there is still a limited amount of information regarding the direct impact of the pandemic on lesbian, gay, bisexual, transgender and queer (LGBTQ+) persons and other structurally marginalised communities across the globe in regard to discrimination and violence.
- ⇒ Throughout the pandemic, there have been reports that COVID-19 has been used to justify community crackdowns and antigay backlash, but no empirical studies have been designed to investigate these reports further.

## WHAT THIS STUDY ADDS

- ⇒ Our results suggest that despite the upending nature of the COVID-19 pandemic, around the world, LGBTQ+ individuals and others with individual-level and group-level identities are at higher risk for violence and discrimination from government representatives, policymakers and healthcare providers.
- ⇒ These actions are a direct violation of international humanitarian and human rights law, and it may further exacerbate existing vulnerabilities and deepen social inequalities.

## HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

- ⇒ These results should compel agencies and multilateral organisations to begin robust global monitoring and reporting of anti-LGBTQ+ discrimination, coupled with legal protections and interventions to protect the members of this community.
- ⇒ In responding to ongoing complications of the COVID-19 pandemic, targeted resources and interventions must consider the structural vulnerabilities of the LGBTQ+ community outlined here to ensure that discrimination and violence do not keep members of this community from accessing needed help.



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globally.<sup>1</sup> Two years since the first case of COVID-19 was confirmed, there continues to be wide heterogeneity in the burden of

COVID-19 and the stringency of mitigation measures implemented around the world. While prevention strategies such as full and partial lockdowns, mask mandates, border closures and stay-at-home orders have helped to curb the growth of new cases, they have also had indelible effects on all aspects of life and led to immeasurable socio-economic, health, and political consequences.<sup>2 3</sup> The severity of these impacts is likely dependent on underlying infrastructure and resources, structural barriers such as racism, discrimination, stigma, transphobia, and homophobia, as well as individuals ability to adhere to public health guidelines.

In the current body of COVID-19 literature, unintended impacts of COVID-19 prevention strategies include exacerbating existing health disparities and deepening social inequalities, especially among groups already marginalised by society, such as lesbian, gay, bisexual, transgender and queer (LGBTQ+) individuals, racial/ethnic minorities, immigrants, individuals living with disabilities and others.<sup>4-10</sup> In certain areas of the world, there have also been reports that COVID-19 has been used to justify community crackdowns and antigay backlash, which in turn can push impacted communities further away from trusting government-sponsored initiatives like COVID-19 testing and vaccination campaigns.<sup>11-21</sup> Given the crucial role that governments play in combating COVID-19, it is all the more concerning when some of their representatives and policymakers exploit the pandemic as a guise for draconian precedents. Not only does it put these communities at additional risk, and it is a direct violation of international humanitarian and human rights law.<sup>22-26</sup>

As outlined in Article 7 of the Universal Declaration of Human Rights, 'all are entitled to equal protection against any discrimination in violation of this Declaration'.<sup>27</sup> The rights to protection from discrimination and violence based on sexual orientation and gender identity are further detailed in the International Covenant on Civil and Political Rights.<sup>28</sup> In response to the COVID-19 pandemic, the United Nations High Commissioner for Human Rights issued guidance that called on states to 'not use states of emergency or other emergency measures to roll back existing rights and guarantees that apply to LGBTI people' nor allow 'LGBTI persons to be subjected to discrimination or fear of retribution for seeking healthcare'.<sup>29</sup> As the COVID-19 pandemic continues, it is imperative to characterise discriminatory practices and targeting of members of the LGBTQ+ communities by state actors such as government representatives, military, law enforcement officers, and health-care providers.<sup>22 30-32</sup>

The goal of this study was to explore how rates of discrimination and violence against LGBTQ+ communities have changed in the context of the global COVID-19 response. We aimed to determine if anti-LGBTQ+ discrimination increased or was facilitated by COVID-19 government-mandated safety and public health initiatives. We recognise that LGBTQ+ individuals may belong to other social groups that are subject to other forms of

discrimination, such as ableism, xenophobia and racism. Therefore, we also examined the association between levels of discrimination and violence with living with a disability, immigration status and being a racial/ethnic minority.

## METHODS

### Study design and individuals who participated

The data presented here come from the global COVID-19 Disparities Survey. The online, cross-sectional study was developed by the COVID-19 LGBTQ+ Disparities Working Group and deployed with the social networking application ('app') Hornet. The intent of this survey was to fill the data gap that exists for members of this community and further examine the impact of COVID-19 on their everyday lives. The survey consisted of 58 questions regarding demographics and the impact of COVID-19 on economic vulnerability, access to services, mental health and experiences of violence and discrimination. The survey was made available to individuals between 25 October 2021 and 26 November 2021. The survey comprised previously validated measures such as Patient Health Questionnaire-4 (PHQ-4), financial strain, access to health services and stigma.

To be eligible to participate in the survey, individuals had to report being 18 years or older and provide informed consent in the app. A total of 21 929 individuals responded to the survey. More detailed study design and procedures are discussed elsewhere.<sup>4 7 8</sup>

In order to ensure the highest possible data quality, we implemented multiple best practice strategies.<sup>10 33-36</sup>

For example, we screened for duplicate survey responses based on IP address, and again by searching for identical responses to 20 randomly selected variables, but found no deduplicated responses based on these procedures. We excluded individuals who completed 89% or less of the survey, those who finished in less than the minimum piloted time of 7 min, those who provided conflicting responses for multiple questions, as well as those with incomplete data with respect to our latent outcome variables. A total of 14 171 individuals were excluded from this analysis for a final sample size of 7758 individuals.

### Patient and public involvement

Neither patients nor the public were involved in the design or conduct of our research. That said, a majority of the members of the COVID-19 Disparities Working Group are LGBTQ+ and represent North America, South America, Europe, Africa and Asia. For this manuscript, all members of the research team were LGBTQ+, and 80% identify as people of colour. The public will be involved with the dissemination and reporting of our findings whenever possible.

## Measures

### Sociodemographic

Individuals were asked about demographic characteristics, including age, country of residence, urbanity,

disability (yes/no/not sure), immigration (yes/no/not sure) and ethnic minority status (yes/no/not sure). Individuals were able to select from a list: gender identity (eg, *How would you primarily identify your gender identity: gender non-binary/gender diverse (also genderqueer, gender non-conforming, gender expansive); transgender woman; transgender man; man; woman; agender; I don't know*); sexual orientation (eg, *Which of these best describes your sexual orientation: gay; lesbian; bisexual; pansexual; queer; heterosexual; asexual; questioning; I don't know*); and assigned sex at birth (eg, *What sex were you assigned at birth: male; female; intersex—I my sex was unclear at birth and/or I was diagnosed with an intersex condition/difference of sex development*). Individuals reported what country they live in from a list of 196 countries and were further categorised according to regions defined by the WHO (*Europe/South East Asia/America/Eastern Mediterranean/Western Pacific/Africa*). In lieu of asking more traditional measures of socioeconomic status, individuals were asked to report how well they can meet their basic needs (*How well are you able to meet your basic needs (eg, food, clothing, shelter, transportation, education and healthcare) with your current income*). This allowed us to circumvent regional differences in income and cost of living. Respondents were asked to select among the following options: (1) not at all, (2) slightly, (3) somewhat, (4) fairly, or (5) very well. For our analyses, we collapsed individuals into three groups for measure of socioeconomic status (*not at all or slightly/somewhat/fairly or very well*) to simplify the analysis and allow for better comparisons.

We operationalised gender via cross-tabulation of assigned sex at birth and current gender identity to form three groups: (1) transmasculine, that is, people who were assigned female at birth or assigned intersex who self-reported being transgender or being a man; (2) transfeminine, that is, people who were assigned male at birth or intersex who self-reported being transgender or being a woman; and (3) non-binary, that is, individuals who reported being either solely non-binary, both a man and a woman or a transgender man and a transgender woman. These methods were used to honour the distinction individuals made when reporting gender given the limited number of gender options that the survey provided, especially considering the diversity of gender expression that is distinct from Western concepts (eg, two-spirit, bissu, fa'afafine, qariwarmi).<sup>37–41</sup>

### Discrimination during COVID-19

Individuals responded to questions about whether COVID-19 has impacted their experience of stigma and discrimination overall (eg, *Because of your sexual orientation, gender identity, gender expression or sex characteristics, are you currently experiencing: more discrimination or violence than before the COVID-19 crisis; the same levels of discrimination or violence as before the COVID-19 crisis; less discrimination or violence than before the COVID-19 crisis*), as well as stigma and discrimination from specific groups or individuals (eg, *From whom are you experiencing discrimination or violence? Choose all that apply: family, friends, neighbours, government*

*representatives, healthcare providers, reporters and the media, police and/or military, employer or coworker, religious or faith community, teachers or school, all of the above, other, none of the above*). Experience with stigma and discrimination broadly was characterised by asking individuals whether the amount of stigma and discrimination they experience was less, the same or more than before COVID-19. Given the upending nature of the COVID-19 pandemic, we hypothesise (and hope) that there would be less violence and discrimination against members of the LGBTQ+ community. Thus, even the same level of violence and discrimination during COVID-19 is a cause for concern, let alone experiencing higher levels than 'normal', which is why this variable was then dichotomised as less than or the same/more than before COVID-19.

### Statistical analyses

The analytical cohort was restricted to individuals who responded to the above-mentioned demographic questions, the outcome variables of interest, resulting in a final sample of n=7758. Univariate descriptive statistics were conducted to provide information (eg, frequency and percentages) of overall distribution and pattern of the outcome among the sample. Bivariate analyses using  $\chi^2$  and Fisher's exact tests were used as appropriate. Using the full analytical sample (n=7758), multivariable logistic regression analyses were conducted to examine the factors associated with experiences of stigma and discrimination. Lastly, we assessed gender group differences using our main outcome (eg, discrimination due to sexual and gender identity) and found none. Therefore, we followed a gender-inclusive approach to data analysis, in line with methodological guidelines from Restar *et al*, where a 'gender-inclusive' approach is appropriate to understand the influence of shared social and structural determinants that gender groups are commonly subjected to on health outcomes and behaviours. Given there was no statistical significance between gender groups, we therefore used the full sample and controlled for gender in the adjusted models.<sup>42</sup>

### RESULTS

**Table 1** displays the demographic characteristics of our analytical sample (n=7758). A total of 401 (5.17%) individuals were transmasculine, transfeminine or non-binary. Overall, 79.0% of individuals identified as gay, ~15.0% bisexual, ~0.3% lesbian, 0.95% heterosexual and 4.89% queer, asexual, pansexual or questioning. About 65.7% and 22.0% were from the European and Pan American regions, respectively; 5.72% from the South-East Asian region, 3.08% Eastern Mediterranean region, 3.12% Western Pacific region and 0.36% African regions. Individuals were young and urban, with 33.9% being between 18 and 30 years old and 71.7% residing in a large or capital city. A majority indicated that they were fairly or very well able to meet their basic needs (60.8%), while 22.9% of individuals indicated they could

**Table 1** Sample demographics, and socioeconomic and geographical indicators in a global sample of LGBTQ+ persons, Global COVID-19 Disparities Survey 2020 (n=7758)

	n	Overall (%)
<b>Sexual orientation</b>		
Heterosexual	74	0.95
Gay	6125	78.95
Lesbian	22	0.28
Bisexual	1158	14.93
Queer/asexual/pansexual/questioning	379	4.89
<b>Gender</b>		
Transmasculine	96	1.24
Transfeminine	23	0.3
Non-binary	282	3.63
Cisgender	7357	94.83
<b>Disability</b>		
Yes	516	6.65
No	7242	93.35
<b>Ethnic minority</b>		
Yes	1227	15.82
No	6531	84.18
<b>Immigrant</b>		
Yes	637	8.21
No	7121	91.79
<b>WHO region</b>		
South-East Asian Region (SEARO)	444	5.72
Pan American Region (PAHO)	1709	22.03
Eastern Mediterranean Region (EMRO)	239	3.08
African Region (AFRO)	28	0.36
European Region (EURO)	5096	65.69
Western Pacific Region (WPRO)	242	3.12
<b>Age</b>		
≤20	357	4.6
21–30	2274	29.31
31–40	2577	33.22
41–50	1587	20.46
51–60	760	9.8
61+	203	2.62
<b>City</b>		
Rural area	381	4.91
Small city or suburb	1817	23.42
Large or capital city	5560	71.67
<b>Ability to meet Basic Needs</b>		
Fairly or very well	4714	60.76
Somewhat	1775	22.88
Not at all or slightly	1269	16.36
LGBTQ+, lesbian, gay, bisexual, transgender and queer.		

only somewhat meet their basic needs and 16.3% could only either slightly or not at all meet their basic needs. Additionally, 6.7% identified themselves as living with a disability, 15.8% considered themselves a member of an

**Table 2** Experiences of violence and discrimination among LGBTQ+ persons

		n	Total (%)
Discrimination based on sexual orientation or gender identity	Yes	6544	84.35
	No	1214	15.65
Discrimination from police and/or military	Yes	1598	20.6
	No	6160	79.4
Discrimination from government representatives	Yes	2251	29.02
	No	5507	70.98
Discrimination from health providers	Yes	1125	14.5
	No	6633	85.5
LGBTQ+, lesbian, gay, bisexual, transgender and queer.			

ethnic/racial minority and 8.2% as an immigrant to the country they currently live in.

Table 2 details the discrimination experiences among this sample. A total of 6544 (84.35%) individuals reported having experienced the same or more discrimination and violence than before the COVID-19 crisis because of their sexual orientation, gender identity, gender expression, or sex characteristics. Moreover, a total of 20.6% (n=1598) of individuals indicated that they experienced violence and discrimination from police, 29.0% (n=2251) from government representatives and 14.5% (n=1125) from healthcare providers.

Table 3 displays the results of the final unadjusted and adjusted multivariable logistic regression models. Each of the adjusted regression models included the following variables: sexual orientation, gender identity, disability, immigration status, ethnic minority, age, city, ability to meet basic needs, and WHO region.

In the first adjusted model, identifying as gay (OR=1.82, 95% CI 1.05 to 3.17) or queer/asexual/pansexual (OR=2.00, 95% CI 1.07 to 3.72) was significantly associated with increased odds of having experienced the same or more levels of discrimination or violence due to their gender identity and sexual orientation as before the COVID-19 crisis. Those living with a disability had decreased odds of having experienced the same or more discrimination or violence due to their gender identity and sexual orientation (OR=0.66, 95% CI 0.52 to 0.83), while those who identified as immigrants to the country they currently reside in had increased odds of having experienced the same or more discrimination or violence since COVID-19 (OR=1.56, 95% CI 1.28 to 1.91). Those who could only somewhat (OR=1.14, 95% CI 0.98 to 1.34), or slightly/not at all (OR=1.28, 95% CI 1.06 to 1.53) meet their basic needs were also significantly associated with increased odds of having experienced the same or more discrimination or violence due to their gender identity and sexual orientation since the COVID-19 pandemic. Being transmasculine, transfeminine, or non-binary was also associated with increased odds of having experienced the same or more discrimination or violence due to their gender identity and sexual orientation since COVID-19, though none were significant.

**Table 3** Multivariable logistic regression results: correlates of state discrimination in the context of COVID-19 in a global sample of LGBTQ+ persons, Global COVID-19 Disparities Survey 2020

	Discrimination based on sexual orientation and/or gender identity			Discrimination from police and/or military			Discrimination from government representatives			Discrimination from health providers								
	OR	aOR	95% CI	OR	aOR	95% CI	OR	aOR	95% CI	OR	aOR	95% CI						
<b>Sexual orientation</b>																		
Heterosexual	Ref	Ref		Ref	Ref		Ref	Ref		Ref	Ref							
Gay	1.83	1.82	* 1.05	3.17	0.98	1.27 *	1.05	1.80	1.73	1.89	*	1.04	3.45	3.07	3.45	**	1.23	9.72
Lesbian	1.45	1.41	0.04	4.85	1.36	0.85	0.27	2.70	2.25	1.89		0.63	5.65	2.76	2.52		0.50	12.87
Bisexual	1.36	1.30	0.73	2.28	0.77	0.72	0.39	1.32	1.07	1.13		0.61	2.09	2.58	2.74	**	0.96	7.81
Queer/asexual/pansexual/questioning	1.93	2.00	* 1.07	3.72	0.78	0.62	0.32	1.19	1.53	1.30	*	1.21	2.47	2.91	2.52	**	0.86	7.36
<b>Gender</b>																		
Cisgender woman	Ref	Ref		Ref	Ref		Ref	Ref		Ref	Ref		Ref	Ref	Ref		Ref	Ref
Transmasculine	4.3	3.48	0.2	59.72	1.56	1.33	0.77	2.28	0.91	0.75		0.451	1.25	0.84	0.79		0.43	1.43
Transfeminine	3.6	2.63	0.13	51.56	0.69	0.71	0.22	2.26	0.69	0.79		0.30	2.09	0.89	0.99		0.34	2.93
Cisgender man	5.4	4.12	0.25	67.67	0.83	0.99	0.73	1.33	0.63	0.66		0.51	0.86	0.52	0.57	***	0.42	0.78
Non-binary	4.75	4.15	0.25	69.38	1.01	1.07	0.97	1.61	1.13	1.27	*	0.89	1.85	1.14	1.65	***	1.01	1.78
Disability																		
Yes	0.66	0.66	* 0.52	83	1.54	1.38	1.12	1.71	1.35	1.21		0.99	1.48	1.62	1.35	**	1.07	1.71
No	Ref	Ref		Ref	Ref		Ref	Ref	Ref	Ref		Ref	Ref	Ref	Ref		Ref	Ref
<b>Immigrant</b>																		
Yes	1.82	1.56	* 1.28	1.91	1.66	1.10	1.14	1.54	1.74	1.64	***	1.32	2.03	2.35	1.83	***	1.32	2.52
No	Ref	Ref		Ref	Ref		Ref	Ref	Ref	Ref		Ref	Ref	Ref	Ref		Ref	Ref
<b>Ethnic minority</b>																		
Yes	0.94	1.00	0.84	1.18	1.38	1.32	0.86	1.41	1.62	1.47	***	1.29	1.69	1.69	1.62	***	1.38	1.91
No	Ref	Ref		Ref	Ref		Ref	Ref	Ref	Ref		Ref	Ref	Ref	Ref		Ref	Ref
<b>Age</b>																		
≤20	Ref	Ref		Ref	Ref		Ref	Ref	Ref	Ref		Ref	Ref	Ref	Ref		Ref	Ref
21–30	1.17	1.30	0.96	1.77	0.88	0.95	0.73	1.23	0.95	0.96		0.762	1.21	0.68	0.73	**	0.57	0.96
31–40	1.14	1.32	0.98	1.79	0.74	0.85	0.66	1.10	0.66	0.70	***	0.55	0.88	0.49	0.56	***	0.43	0.74
41–50	1.17	1.36	0.99	1.86	0.49	0.60	0.45	0.79	0.42	0.47	***	0.36	0.60	0.31	0.38	***	0.28	0.51
51–60	0.9	1.12	0.80	1.58	0.28	0.42	0.30	0.60	0.28	0.33	***	0.24	0.45	0.18	0.25	***	0.17	0.37
61+	0.74	1.09	0.70	1.71	0.15	0.25	0.13	0.48	0.07	0.09	***	0.05	0.19	0.03	0.04	***	0.014	0.18
<b>City</b>																		
Rural area	1.17	1.1	0.81	1.50	0.78	0.71	0.51	0.99	0.77	0.82		0.62	1.10	1.04	1.03		0.73	1.48
Small city or suburb	Ref	Ref		Ref	Ref		Ref	Ref	Ref	Ref		Ref	Ref	Ref	Ref		Ref	Ref
Large or capital city	1.32	1.22	1.05	1.41	1.51	1.45	1.25	1.67	1.57	1.50	***	1.32	1.71	1.45	1.37	***	1.16	1.622
<b>Ability to meet basic needs</b>																		
Fairly or very well	Ref	Ref		Ref	Ref		Ref	Ref	Ref	Ref		Ref	Ref	Ref	Ref		Ref	Ref
Somewhat	1.19	1.14	* 0.97	1.34	1.8	1.50	1.30	1.72	1.79	1.62	***	1.43	1.83	1.67	1.55	***	1.32	1.81
Not at all or slightly	1.18	1.28	* 1.06	1.53	2.31	2.08	1.78	2.42	2.02	1.80	***	1.57	2.07	2.37	2.02	***	1.71	2.39

\*p<0.05, \*\*p<0.01, \*\*\*p<0.001. aOR, adjusted OR; LGBTQ+, lesbian, gay, bisexual, transgender and queer.

The second adjusted model shows the odds of experiencing violence or discrimination from police and/or the military. Sexual orientation nor gender identity was not significantly associated with a change in odds of experiencing violence or discrimination from police and/or military. Living with a disability (OR=1.38, 95% CI 1.15 to 1.71) and being a member of an ethnic minority (OR=1.32, 95% CI 1.13 to 1.54) were significantly associated with increased odds of experiencing violence or discrimination from police and/or military. Older age was significantly associated with decreased odds of experiencing violence or discrimination from police and/or military while living in a large or capital city (OR=1.45, 95% CI 1.25 to 1.67), and being only somewhat (OR=1.50, 95% CI 1.30 to 1.72), or slightly/not at all able (OR=2.08, 95% CI 1.78 to 2.41) to meet your basic needs increased the odds of experiencing violence or discrimination.

In the third adjusted model, sexual orientation was associated with increased odds of experiencing discrimination or violence from government representatives since COVID-19, though only a gay (OR=1.89, 95% CI 1.04 to 3.45) and queer/asexual/pansexual (OR=1.30, 95% CI 0.68 to 2.47) orientation were significant when compared with their heterosexual counterparts. Being non-binary was significantly associated with increased odds of experiencing discrimination or violence (OR=1.27, 95% CI 0.89 to 1.85). Being an immigrant (OR=1.64, 95% CI 1.32 to 2.03) or member of an ethnic minority (OR=1.47, 95% CI 1.29 to 1.69) were both significantly associated with increased odds while older age was significantly associated with decreased odds of experiencing violence or discrimination at the hands of government representatives.

The final model shows that being non-binary was significantly associated with increased odds of experiencing discrimination or violence from health providers (OR=1.65, 95% CI 1.01 to 1.78), while being a cisgender male was significantly associated with decreased odds (OR=0.57, 95% CI 0.42 to 0.78). Sexual orientation was associated with increased odds of experiencing discrimination or violence from healthcare providers since COVID-19, with gay (OR=3.45, 95% CI 1.22 to 9.71), bisexual (OR=2.74, 95% CI 0.96 to 7.81) or queer/asexual/pansexual (OR=2.51, 95% CI 0.86 to 7.36) orientation being significantly associated. Living with a disability (OR=1.35, 95% CI 1.07 to 1.71), being an immigrant (OR=1.83, 95% CI 1.32 to 2.52) and being a member of an ethnic minority (OR=1.62, 95% CI 1.38 to 1.91) were all significantly associated with increased odds of violence/discrimination. For those who were only somewhat (OR=1.55, 95% CI 1.33 to 1.81) or slightly/not at all (OR=2.02, 95% CI 1.71 to 2.39) able to meet their basic needs, there was a significant association with increased odds of experiencing discrimination or violence from health providers since the COVID-19 crisis.

## DISCUSSION

This study evaluated how COVID-19 has impacted rates of discrimination and violence against LGBTQ+ communities, as well as how these rates may vary among individuals within the LGBTQ+ community with other marginalised identities (race/ethnic minority, disability, immigration status), subject to additional forms of systemic oppression (racism, ableism and xenophobia). Our analyses demonstrated that overall, discrimination from police/military and healthcare providers was the same or higher for many subpopulations within the LGBTQ+ community, beyond sexual and gender minority groups and including persons living with disabilities, immigrants and with lower socioeconomic status. Given the pivotal role that governments play in maintaining the safety, security and well-being of their residents, it was necessary to better characterise the extent to which government have instead chosen to forfeit that role amid the COVID-19 pandemic. During the pandemic, relief efforts were employed throughout the world, presumably to help protect individuals from new vulnerabilities, as the novel coronavirus was an acute shock to the economies and healthcare systems everywhere. Unfortunately, our findings suggest that the LGBTQ+ community was thrust into an even more vulnerable social climate during this time, and the violence and discrimination perpetrated against the community persist despite the destabilising nature of the pandemic. These findings corroborate previous studies that have shown the extent of the impact on members of the LGBTQ+ community and others.<sup>6 9 43–46</sup>

While our data did not directly measure societal and systemic oppression such as homophobia, transphobia, ableism, xenophobia and racism<sup>47</sup>—a point for further research—our results, by proxy of corresponding social individual-level and group-level identities, reveal the impact of how discrimination and violence operated during the pandemic among the groups examined. Specifically, gay and queer/asexual/pansexual/questioning individuals had higher odds of experiencing violence and discrimination from police, government representatives and healthcare providers when compared with their heterosexual peers. Bisexual individuals also had higher odds of experiencing violence and discrimination from healthcare providers. Immigrants had increased odds of experiencing violence and discrimination generally, as well as from government representatives and healthcare providers. Individuals living with a disability had decreased odds of experiencing violence and discrimination generally, but increased odds of experiencing violence and discrimination from police and healthcare providers. Individuals who were a member of a racial/ethnic minority also had increased odds of experiencing violence and discrimination from police, government representatives and healthcare providers. These results are concerning because they signal that LGBTQ+ persons are at additional risk, but could also further exacerbate existing vulnerabilities. If individuals are afraid of experiencing violence and discrimination, it has been shown

they are less likely to access resources.<sup>48–55</sup> Ultimately, structural and policy changes must prioritise public health and address systemic racism, homophobia and xenophobia to truly alleviate the disparities indicated here and to ensure social, economic and health equity among all LGBTQ+ persons.<sup>56–60</sup> Further training and accountability for healthcare providers, military, police, and government officials are also required.

This study has several noteworthy limitations. While the survey is not a representative sample of LGBTQ+ individuals worldwide, it did reach individuals from six continents and was made available in 13 languages. This study is based on a convenience sample captured through a mobile app, so our findings likely do not capture individuals who experience more severe economic deprivation and lack cellphone access. This means that the results presented here likely underestimate the true impact of COVID-19 on the most marginalised members of the LGBTQ+ community. In addition, given language and methodological limitations, it was not possible to capture the full spectrum nor fluidity of gender or sexual orientation expression reflected across the cultural richness of the communities represented. Collapsing several sexual orientations into one category, queer, may further obfuscate differences between groups of individuals. In order to better understand and control for geographical differences, we relied on WHO regions; however, that may not be sufficiently granular to capture regional variation. Based on the demographics of the Hornet user base, there is an over-representation of gay men and men who have sex with men (MSM) and a limited number of non-cisgender MSM and transgender individuals, which likely affected any possible relationships with the outcomes of interest. Nevertheless, the methods used here reflected prior work that has documented the ability of social networking platforms to efficiently reach communities at the margins.<sup>61–64</sup> Despite these limitations, this study is the first of its kind to measure state violence and discrimination against the LGBTQ+ community and is an important contribution to the literature documenting health and sociopolitical inequities for this group.

These findings have several important implications. First, the results indicate that, globally, LGBTQ+ individuals are struggling to meet their basic needs. Since these data are not longitudinal, we are unable to determine causation on whether this is a result of COVID-19 or not, but we believe these are important considerations no less. The results also highlight the need for robust monitoring and accountability associated with violence and discrimination being committed against this community. Multilevel (subnational, national and international), transparent reporting will allow us to identify regions in need of more resources and interventions and, if necessary, facilitate legal action. This may include economic sanctions, freezing the assets of perpetrators, and further investigations by the Office of the United Nations High Commissioner for Human Rights. If we are to ever dismantle the oppressive systems that allow for violence

and discrimination against the LGBTQ+ community, we must eliminate laws around the world that criminalise same-sex behaviour, vilify immigrants and treat individuals living with disabilities as less deserving of their rights enshrined in international human rights law. Based on our findings, healthcare providers and government officials continue to be perpetrators of LGBTQ+ discrimination around the globe. Therefore, it is necessary to codify into law processes that identify, remediate and hold accountable individuals within these professions who are harmful to the LGBTQ+ community and other oppressed groups.

<sup>61–64</sup>

## CONCLUSION

The results presented here demand immediate action. COVID-19 has created an international health crisis that has increased the vulnerability of LGBTQ+ populations, further indicating that COVID-19 has brought increased risk to LGBTQ+ communities, not just in health, but in safety and security, even from those who have sworn to protect them. Globally, robust monitoring and reporting of anti-LGBTQ+ discrimination, paired with legal protections and interventions, are necessary to ensure that this population is not unfairly targeted.

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