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ISSN 2769-2124

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Thomas J Billard
The Impact of Sociopolitical Events on Transgender People in the US

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Marginalization experienced by transgender and gender diverse (trans) people exerts negative effects on health. However, few studies examine how trans people respond to events reflecting structural stigma or anti-trans sentiment and the sociopolitical contexts in which they occur. This study examined how trans people (N = 158) residing in Michigan, Nebraska, Oregon, and Tennessee responded to specific sociopolitical events and their impacts on health and well-being. Baseline data were collected Fall 2019–Spring 2020, followed by monthly surveys for a year. Current analyses include baseline data and one monthly survey. At baseline, participants reflected on their responses to the 2016 presidential election of Donald Trump and a 2018 memo leak with negative implications for trans people’s lives. Participants reported decreased positive experiences (e.g., hopefulness) and increased negative experiences (e.g., fear) after these events. Additionally, 80.2% of participants reported increased hate speech following the 2016 election. During one of the monthly surveys, we found variability in participants’ responses to the 2020 presidential election. Perhaps due to backlash, 31.3% of participants reported increased hate speech, with participants of color reporting additional negative impacts. These findings contextualize experiences of trans people, highlighting how marginalization and exposure to minority stressors are shaped by structural-level stigma.

KEYWORDS transgender; gender minority stress; sociopolitical context; resilience; stigma

DOI 10.57814/sdx3-7y41

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Since former President Donald Trump’s election in 2016, there has been a marked and on-going increase in anti-trans rhetoric and legislation that negatively impacts transgender and gender diverse (trans) people throughout the United States (Conron et al. 2022). The lives of trans people are directly impacted, for example, by political policies and practices including state-level legislation banning trans youth from accessing gender affirming care (Conron et al. 2022; e.g., HB 1557, 2022 Leg. [ Fla. 2022]) and a proliferation of laws banning trans athletes from participating in sports (e.g., SB 1046, 55th Leg. [ Ariz. 2022]) reflecting aspects of structural stigma. Trans people are also positively impacted by policies and practices at the federal level, for example, providing antidiscrimination protections based on gender identity and/or sexual orientation (2022 Executive Order 14075, “Advancing Equality for Lesbian, Gay, Bisexual, Trans-Gender, Queer, and Intersex Individuals”). Nonetheless, despite the steady increase of trans visibility in the media and cultural recognition of trans identities in recent years, trans people are continuously faced with backlash, systemic discrimination, and erasure.

The ongoing societal debates targeting trans people’s rights and very existence also reflect the social and political climates within which trans people live day-to-day. As such, these broader sociopolitical contexts, as well as positive and negative events (e.g., legislation, elections), have impacts on health and well-being (Kuper, Cooper, and Mooney 2022). Anti-trans stigma within these contexts contributes to further marginalization of trans people, including heightened verbal and physical violence (Feinberg, Branton, and Martinez-Ebers 2019).

These experiences of stigmatization, discrimination, and violence also have adverse effects on the mental and physical health of trans people (Bockting et al. 2013; Hughto, Reisner, and Pachankis 2015; Gonzalez, Ramirez, and Galupo 2018; Link and Phelan 2006; Breslow et al. 2015). The current study adds descriptive data to help further our understanding of how sociopolitical contexts and events associated with structural stigma impact health and well-being. We examined how key societal events impacted the health and well-being of trans people living in four states in the US. These events included the 2016 and 2020 US presidential elections, and the October 2018 memo leak during Trump’s administration that threatened trans exclusion by rigidly redefining sex and gender at the federal level as “a biological, immutable condition determined by genitalia at birth” (Green, Brenner, and Pear 2018, 1).

UNDERSTANDING STIGMA AND GENDER MARGINALIZATION STRESS
Stigma occurs in multiple, overlapping ways and is increasingly recognized as an important social determinant of health and driver of population health disparities for trans people, as well as other marginalized groups (Hatzenbuehler 2009; Hughto, Reisner, and Pachankis 2015; King, Hughto, and Operario 2020). Building on sociological understandings of stereotypes and norms within sociocultural contexts (Goffman 1963), stigma refers to the systematic process by which people become socially discredited because they hold characteristics deemed somehow unacceptable, resulting in reduced access to resources and power (Brewis and Wutich 2020; Link and Phelan 2014; 2001). The minority stress model, sometimes referred to as marginalization stress, builds upon these frameworks to highlight how stigma and inequality impact sexual
and gender minority populations specifically (Brooks 1981; Hendricks and Testa 2012; Meyer 2003; 2013; Puckett et al. 2020; Price, Puckett, and Mocarski 2021). The minority stress model details how distal stressors, such as discrimination, impact mental health and well-being, including via proximal stressors (e.g., internalized stigma). Although a helpful model, research that recognizes the broader sociopolitical context of systemic issues lags behind research on anti-trans stigma at the interpersonal or individual level (King, Hughto, and Operario 2020). Recognizing the structural factors that drive distal and proximal stressors provides a necessary analysis of power, privilege, and systemic factors that are key to understanding health disparities for this marginalized community.

Socioecological frameworks enable recognition of different levels of stigma. These include individual (individual behaviors), interpersonal (community interactions), or structural (laws, policies, and institutional practices) levels and further our understanding of how these interact with one another (Bronfenbrennen 1977; Hughto, Reisner, and Pachankis 2015). Research with trans people increasingly shows that structural factors shape individual experiences of stigma and marginalization. Puckett and colleagues’ (2022a) expansion of the socioecological model to trans people’s experiences of marginalization found that participants experienced a range of sociopolitical stressors. For example, the 2016 presidential election of Donald Trump resulted in heightened vigilance and fear in the daily lives of trans people. Similarly, DuBois and Juster’s (2022) extension of this model to trans people found participant levels of embodied stress (i.e., allostatic load) and mental health were significantly impacted by their perception of the sociopolitical climate in which they lived. By drawing these connections between systemic factors, individual experience, and health, research can reveal avenues for addressing structural inequities rather than placing the responsibility solely on the individual to adapt and manage inequities.

IMPACTS OF ANTI-TRANS RHETORIC AND POLICIES

Anti-trans political rhetoric and discourse often rests on the assertion that trans identities are somehow immoral (Haider-Markel et al. 2019; Miller et al. 2017; Vanaman and Chapman 2020). This morality-based discourse and related legislation directly encourages anti-trans public sentiment by deceptively suggesting that trans people pose a threat (e.g., legislation proposed to “protect” children; Conron et al. 2022). Previous research on morality politics and disgust-driven public policy implementation demonstrates how these public discourses directly lead to political policy and how policy proposals and enactment then influence public discourse (Haider-Markel et al. 2019; Miller et al. 2017; Vanaman and Chapman 2020). As these policies are disguised within arguments of “morality,” the stigma and discrimination therein become increasingly insidious.

As anti-trans sentiment and political policy continue to propagate in the US, trans people likewise continue to experience increased levels of discrimination and violence, with clear impacts on mental health, including increased levels of anxiety, depression, and vigilance (Gonzalez, Ramirez, and Galupo 2018; Price, Puckett, and Mocarski 2021; Puckett et al. 2022a; Veldhuis et al. 2018). Intersecting forms of stigma and oppression, including racism, white supremacy, cissexism, and transmisogyny,
are also occurring across multiple levels, negatively impacting trans people, particularly trans women of color (Arayasirikul and Wilson 2019; Collins 2015; K. Crenshaw 1989; 1991; Serano 2016; Smart et al. 2022). Several studies have been published over the last 8 years examining the specific effects of the 2016 US presidential election and the co-occurring discriminatory political discourse on the mental health of marginalized people. For instance, in their study on marginalization stress and coping, Price and colleagues (2021) found that the increased anti-trans political discourse throughout the 2016 US presidential election led to increased experiences of stigma, stress, anxiety, and expectations of discrimination. Trump rallies have been recognized as contributing directly to escalations in hate speech and hate crimes targeting marginalized populations throughout the United States (Feinberg, Branton, and Martinez-Ebers 2019; Warren-Gordon and Rhineberger 2021). These documented incidents of hate and hostility continue to reinforce cycles of marginalization stress as they inflict fear of violence and discrimination on marginalized people (Meyer 2003; 2013; Puckett et al. 2020; Puckett et al. 2022a, b).

Similarly, Veldhuis and colleagues (2018) analyzed the impact of anti-lesbian, gay, bisexual, transgender, queer, and intersex (LBGTQI+) policies surrounding the 2016 presidential election (such as the marriage equality act and potential rollbacks on Obama-era protections for LBGTQI+ people) on the health and well-being of sexual minority women, transgender, and/or nonbinary individuals. In their study, they also found that participants reported increased feelings of fear, anxiety, depression, and vigilance surrounding their personal safety in response to the discourse surrounding the 2016 election. Participants in that study accurately anticipated the increase in normalization and propagation of anti-LGBTQI+ discrimination on a systemic level, as more and more of these anti-LGBTQI+ bills were introduced and implemented nationwide (Veldhuis et al. 2018). Discriminatory discourses and policies continue to spread throughout the US political system. These take a toll on the health and safety of LBGTQI+ people both physically and psychologically.

THE TRANS RESILIENCE AND HEALTH STUDY
The Trans Resilience and Health Study aimed to elucidate the impacts of sociopolitical contexts and key events on trans people's health, well-being, and resilience. The study enrolled a diverse sample of trans people residing in four states in the US (Michigan, Nebraska, Oregon, and Tennessee), which vary in legislative protections as well as levels and types of support available for trans people (Movement Advancement Project 2022). Baseline data were collected Fall 2019–Spring 2020, followed by a year of monthly surveys.

Analyses presented here draw on data from baseline and one of the monthly surveys to detail descriptive data about participant experiences of three key events that reflect structural-level factors and inequalities: 1) the 2016 US presidential election (Donald Trump versus Hillary Clinton); 2) the 2018 memo leak which occurred in October 2018 during the Trump administration and suggested a potential, narrow re-definition of both gender and sex as biological and immutable based on genitalia at birth (Green, Brenner, and Pear 2018); and 3) the 2020 US presidential election (Donald Trump versus Joe Biden).
METHODS

Participants
There were 158 participants across Oregon (n = 45; 28.5%), Michigan (n = 39; 24.7%), Tennessee (n = 39; 24.7%), and Nebraska (n = 35; 22.2%). Participants were 19–70 years old at time of enrollment (M = 33.06; SD = 12.88). In terms of gender, 27.2% of participants identified as trans men/men, 26% as trans women/women, and the remaining participants identified with terms like genderqueer, nonbinary, and others. The sample was 30.4% people of color and 69% white. For a summary of sample characteristics, see Table 1.

Procedures
Participants were recruited through in-person and virtual outreach to community organizations, snowball sampling, and social media. Potential participants completed an online screener which included basic demographic items. The screener data was then used to target recruitment to maximize diversity regarding gender identities, race/ethnicities, and age across each of the 4 states in the study. Eligibility criteria required participants to be at least 19 years of age (the age of majority in Nebraska), trans identified, and living in Michigan, Nebraska, Oregon, or Tennessee. As described above, these states were selected because they reflect variation in sociopolitical climates, legislative protections, and types and levels of support available for trans people (Movement Advancement Project 2022).

Once enrolled, participants completed a baseline in-person, semi-structured interview focused on their experiences in their state of residence, their reflections on recent sociopolitical events, and the topic of resilience. Participants then completed a series of questionnaires and surveys along with the collection of biomarker samples to assess embodied stress effects and health (for elaboration of these approaches see DuBois et al. 2021). After baseline data collection ended, participants completed monthly online surveys for 12 months (April 2020–March 2021), followed by a final semi-structured virtual interview and in-person collection of biomarker samples assessing health and allostatic load. Retention was high throughout the 12 months of follow-up ranging from 118 (74.68%) to 147 (93.04%) participants completing each monthly survey, with an average retention rate of 83.76% across the 12 months. Data analyzed here focuses on baseline data and one of the monthly surveys focused on the specific events described below. This study was approved by the Institutional Review Board at the University of Oregon. Participants provided their informed consent during the baseline visit.

Measures

Demographics
Participants completed a series of questions, including items assessing age, gender identity, race and/or ethnicity, and rural, urban, or suburban residence. See Table 1 for sample characteristics, including response options.
<table>
<thead>
<tr>
<th>Characteristic</th>
<th>n (%)</th>
<th>Characteristic (cont.)</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender Identity</td>
<td></td>
<td>Residential Area</td>
<td></td>
</tr>
<tr>
<td>Trans man</td>
<td>37 (23.4%)</td>
<td>Rural</td>
<td>26 (16.6%)</td>
</tr>
<tr>
<td>Trans woman</td>
<td>32 (20.3%)</td>
<td>Suburban</td>
<td>55 (35%)</td>
</tr>
<tr>
<td>Genderqueer</td>
<td>16 (10.1%)</td>
<td>Urban</td>
<td>76 (48.4%)</td>
</tr>
<tr>
<td>Non-binary</td>
<td>40 (25.3%)</td>
<td>Education Level</td>
<td></td>
</tr>
<tr>
<td>Agender</td>
<td>3 (1.9%)</td>
<td>High school graduate – high school diploma or equivalent (i.e., GED)</td>
<td>14 (8.9%)</td>
</tr>
<tr>
<td>Androgynne</td>
<td>1 (0.6%)</td>
<td>Bachelor's degree</td>
<td>52 (32.9%)</td>
</tr>
<tr>
<td>Genderfluid</td>
<td>2 (1.3%)</td>
<td>Master's degree</td>
<td>16 (10.1%)</td>
</tr>
<tr>
<td>Woman</td>
<td>9 (5.7%)</td>
<td>Doctorate or professional degree (e.g., PhD, MD, JD, DDS)</td>
<td>2 (1.3%)</td>
</tr>
<tr>
<td>Man</td>
<td>6 (3.8%)</td>
<td>One or more years of college, no degree</td>
<td>42 (26.6%)</td>
</tr>
<tr>
<td>Bigender</td>
<td>2 (1.3%)</td>
<td>Associate degree</td>
<td>18 (11.4%)</td>
</tr>
<tr>
<td>Not listed</td>
<td>9 (5.7%)</td>
<td>Graduate of a Certificate Program</td>
<td>1 (0.6%)</td>
</tr>
<tr>
<td>Missing</td>
<td>1 (0.6%)</td>
<td>Graduate of a Certificate Program</td>
<td>1 (0.6%)</td>
</tr>
<tr>
<td>Race or Ethnicity</td>
<td></td>
<td>Income</td>
<td></td>
</tr>
<tr>
<td>Black or African American</td>
<td>8 (5.1%)</td>
<td>Less than $10,000</td>
<td>43 (27.2%)</td>
</tr>
<tr>
<td>American Indian or Alaskan</td>
<td>2 (1.3%)</td>
<td>10,000 – 19,999</td>
<td>38 (24.1%)</td>
</tr>
<tr>
<td>Native</td>
<td>6 (3.8%)</td>
<td>20,000 – 29,999</td>
<td>16 (10.1%)</td>
</tr>
<tr>
<td>Asian</td>
<td>6 (3.8%)</td>
<td>30,000 – 39,999</td>
<td>12 (7.6%)</td>
</tr>
<tr>
<td>Latinx</td>
<td>23 (14.6%)</td>
<td>40,000 – 49,999</td>
<td>11 (7%)</td>
</tr>
<tr>
<td>White</td>
<td>109 (69%)</td>
<td>50,000 – 59,999</td>
<td>14 (8.9%)</td>
</tr>
<tr>
<td>Not listed</td>
<td>1 (0.6%)</td>
<td>60,000 – 69,999</td>
<td>5 (3.2%)</td>
</tr>
<tr>
<td>Multiracial/Multiethnic</td>
<td>26 (16.5%)</td>
<td>70,000 – 79,999</td>
<td>8 (5.1%)</td>
</tr>
<tr>
<td>Sexual Orientation</td>
<td></td>
<td>Employment</td>
<td></td>
</tr>
<tr>
<td>Bisexual</td>
<td>44 (27.8%)</td>
<td>Employed Full-time</td>
<td>69 (43.7%)</td>
</tr>
<tr>
<td>Gay</td>
<td>23 (14.6%)</td>
<td>Employed Part-time</td>
<td>48 (30.4%)</td>
</tr>
<tr>
<td>Lesbian</td>
<td>20 (12.7%)</td>
<td>Full-time Student</td>
<td>38 (24.1%)</td>
</tr>
<tr>
<td>Queer</td>
<td>83 (52.5%)</td>
<td>Part-time Student</td>
<td>6 (3.8%)</td>
</tr>
<tr>
<td>Asexual</td>
<td>16 (10.1%)</td>
<td>Unable to work for health reasons</td>
<td>16 (10.1%)</td>
</tr>
<tr>
<td>Pansexual</td>
<td>60 (38%)</td>
<td>Unemployed</td>
<td>11 (7%)</td>
</tr>
<tr>
<td>Heterosexual/Straight</td>
<td>8 (5.1%)</td>
<td>Other</td>
<td>13 (8.2%)</td>
</tr>
<tr>
<td>Not Listed</td>
<td>8 (5.1%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**Sociopolitical context: state-level**

We operationalized sociopolitical context at the state level by characterizing the state of residence of each participant in terms of structural equality and overall sociopolitical context using the ratings provided by the Movement Advancement Project (MAP), which tracks over 50 different LBGTQI+-related laws and policies by state (Movement Advancement Project 2022). These include policies and laws most impactful in the lives of trans people such as state nondiscrimination laws, policies regarding correcting identity documents, criminal justice laws (e.g., hate crimes laws), and healthcare laws and policies. Each state is rated based on the presence/absence of protective, antidiscrimination policies and the presence/absence of harmful policies. Higher scores reflect a more positive sociopolitical context, and lower scores reflect a more negative sociopolitical context. Based on these criteria, each state in this study was rated as follows: Oregon = high (earned 75-100% of possible points); Michigan = fair (earned 25–49.9% of possible points); Nebraska and Tennessee = negative (earned < 0 points). Participants living in NE and TN were thus combined into one group given they received the same rating from the MAP report.

**Sources of consistent and decreased support**

Participants completed a baseline checklist to assess which relationships participants felt provided support and which relationships had become less affirming since the 2016 election. Relationship options included: no one, partner, strangers, cisgender friends, transgender friends, family members, coworkers, support groups/community organizations, not listed (with a text response box).

**Impacts of structural-level sociopolitical events**

To assess individual reactions and understand differential group-level impacts of certain structural-level sociopolitical events, participants completed a series of 17 items assessing post-event changes at baseline and in the monthly surveys. Each set of questions focused on specific key events. Impacts of key events in the present analysis include: 1) baseline reflections on the 2016 US presidential election (Donald Trump versus Hillary Clinton), 2) baseline reflections on impacts of the 2018 Trump administration leaked memo which suggested a potential federal-level shift whereby both gender and sex would be re-defined as “a biological, immutable condition determined by genitalia at birth” (Green, Brenner, and Pear 2018), and 3) one of the monthly surveys, in which participants reflected on impacts of the November 2020 US presidential election (Donald Trump versus Joe Biden).

Each questionnaire named the specific event and asked participants to reflect on the impact of this event in their lives using a 7-point “degree of change” scale (1 = extremely decreased, 4 = about the same, 7 = extremely increased). For analyses, participants were then dichotomized into sub-groups reflecting 1) those reporting negative impacts (i.e., those reporting increased negative and decreased positive experiences) and 2) all other participants (i.e., those reporting decreased negative, increased positive, and neutral experiences).
RESULTS
Figures 1 and 2 present an overview of the effects of the 2016 presidential election, the 2018 memo leak, and the 2020 presidential election, on participants in this study.

Impacts of the 2016 US presidential election
A substantial portion of our sample reported overall negative impacts of the 2016 election (see Table 2 for a full description). Participants reported decreased positive experiences (ranging from slight to extreme) including hopefulness (80.1%), safety (76.2%), energy level (60.3%), feeling accepted by others (52.9%), patience with others (49.3%), motivation (44.9%), ability to focus (42.3%), mental clarity (39%), and extroversion (36.6%). Participants also reported increased negative experiences (ranging from slight to extreme), including increased fear (87.2%), anxiety (83.4%), social uneasiness (82.7%), exposure to hate speech targeting trans people (80.2%), anger (76.3%), sadness (71.2%), physical symptoms of illness or distress (58.1%), and introversion (57.1%). Most
notably, nearly a quarter (23.9%) of participants reported experiencing an extreme increase in exposure to hate speech targeting trans people following the 2016 election.

For simplicity in presentation, we summarize the main findings related to demographic differences in the impacts of the 2016 election rather than each item. Age was unrelated to any of the items. Participants of color (47.9%) were more likely to report decreased feelings of extroversion compared to white participants (31.5%); $\chi^2 (1, n = 156) = 3.87, p < .05$. Individuals in urban areas (54.7%) were more likely to report decreased motivation compared to people in suburban (33.3%) and rural (38.5%) areas; $\chi^2 (2, n = 155) = 6.25, p < .05$. Additionally, using the MAP context designation at the state-level, individuals living in areas characterized as negative sociopolitical contexts (68.5%) were more likely to report decreased energy compared to those living in high inclusion contexts (61.4%) or those living in contexts rated as fair (43.6%); $\chi^2 (2, n = 156) = 6.61, p < .05$. Individuals in negatively rated sociopolitical contexts (56.2%) were also more likely to report decreased motivation compared to those in positive, high inclusion contexts (38.6%) or those in contexts rated as fair (30.8%); $\chi^2 (2, n = 156) = 7.59, p < .05$.

We found that nonbinary/genderqueer participants (70.8%) and trans masculine participants (66.1%) were more likely to report decreased energy compared to trans feminine (41.7%) participants; $\chi^2 (2, n = 155) = 9.99, p < .01$. Nonbinary/genderqueer participants (58.3%) were also more likely to report decreased motivation compared to trans masculine (44.1%) and trans feminine (31.3%) participants; $\chi^2 (2, n = 155) = 7.14, p < .05$, and to report having decreased ability to focus (54.2%) compared to trans masculine (44.1%) and trans feminine participants (27.1%); $\chi^2 (2, n = 155) = 7.41, p < .05$. In addition, trans masculine participants (59.3%) were more likely to report decreased patience for others compared to nonbinary/genderqueer (52.1%) and trans feminine participants (33.3%); $\chi^2 (2, n = 155) = 7.41, p < .05$.

In terms of sources of support since the 2016 election, 1.9% ($n = 3$) of participants reported support from no one, 17.1% ($n = 27$) from strangers, 39.9% ($n = 63$) from coworkers, 46.8% ($n = 74$) from family members, 55.7% ($n = 88$) from support groups and community organizations, 63.3% ($n = 100$) from a partner, 70.9% ($n = 112$) from cisgender friends, and 82.9% ($n = 131$) from trans friends. Some participants ($n = 10; 6.3\%$) indicated that they received support from other options that were not listed. This support came from people like therapists, teachers or mentors, and other forms of community, like drag culture and online organizations. In contrast, when asked who had become less affirming since the 2016 election, participants endorsed the following: 1.3% ($n = 2$) trans friends, 2.5% ($n = 4$) partner, 6.3% ($n = 10$) support groups and community organizations, 15.8% ($n = 25$) no one, 21.5% ($n = 34$) cisgender friends, 25.9% ($n = 41$) coworkers, 59.5% ($n = 94$) strangers, and 43% ($n = 68$) family members. An additional 5.7% ($n = 9$) of participants indicated that other people who were not listed had become less affirming since the 2016 election. Written responses included celebrities, churches, professors and students, housemates, and the government.

**Impacts of the 2018 federal memo leak**

Table 3 provides an overview of the effects of the 2018 memo leak (described above). We found that 32 participants (20.3%) did not know about the memo leak, and 2 additional participants did not respond to these items. These participants were excluded from all
analyses related to the memo leak. Table 3 provides an overview of the effects of the memo leak. In the 2 weeks following this event, participants reported decreases (ranging from slight to extreme) in: hopefulness (85.5%), safety (66.9%), feeling accepted by others (62.9%), energy levels (54.8%), motivation (52.5%), patience with others (45.2%), extroversion (40.4%), ability to focus (39.5%), and mental clarity (33%). Participants also reported increases (ranging from slight to extreme) in the following: fear (83.9%), anger (83%), anxiety (79.9%), sadness (76.6%), social uneasiness (71.8%), exposure to hate speech targeting trans people (66.9%), introversion (54.9%), and physical symptoms of illness or distress (43.5%).

Participants experienced many of the negative consequences of the memo leak regardless of the sociopolitical context of the state they resided in or other aspects of their identity. Age was correlated with three of the items; older participants were more likely to report increased physical symptoms of illness or distress ($r = .21$, $p < .05$), decreased extroversion ($r = .19$, $p < .05$), and decreased safety ($r = .17$, $p < .05$). Participants of color (57.9%) were more likely to report decreased feelings of extroversion compared to white participants (32.6%); $\chi^2 (1, n = 124) = 7.03, p < .01$. Individuals in suburban areas (85.7%) were more likely to report increases in their social uneasiness compared to people in urban (65.1%) and rural (63.2%) areas; $\chi^2 (2, n = 124) = 6.12, p < .05$. There were no significant associations between the effects of the memo leak and context via the MAP ratings or gender.

Impacts of the 2020 US presidential election
Table 4 provides an overview of the effects of the 2020 election. Participants reported decreases (ranging from slight to extreme) in the following: energy level (45.3%), ability to focus (43.8%), motivation (35.9%), patience with others (35.9%), mental clarity (30.5%), safety (27.8%), hopefulness (21.1%), feeling accepted by others (18.8%), and extroversion (18.0%). Participants also reported increases (ranging from slight to extreme) in the following: anxiety (47.7%), social uneasiness (38.9%), fear (34.4%), physical symptoms of illness or distress (33.6%), introversion (32.8%), exposure to hate speech targeting trans people (31.3%), and sadness (30.7%).

Older participants reported more sadness after the 2020 election ($r = .23, p < .01$). Participants of color (51.4%) were more likely to report decreased motivation after the 2020 election compared to white participants (29.7%); $\chi^2 (1, n = 128) = 5.37, p < .05$, as well as decreased hopefulness (32.4%) compared to white participants (16.5%); $\chi^2 (1, n = 128) = 4.02, p < .05$. Participants of color (45.9%) were also more likely to report decreased mental clarity compared to white participants (24.2%); $\chi^2 (1, n = 128) = 5.89, p < .05$. Participants of color (51.4%) were more likely to report increased fear compared to white participants (25.5%); $\chi^2 (1, n = 128) = 6.65, p < .05$, and increased anxiety (62.2%) compared to white participants (41.8%); $\chi^2 (1, n = 128) = 4.39, p < .05$. Finally, participants of color (42.9%) were more likely to report decreased safety compared to white participants (22.0%); $\chi^2 (1, n = 128) = 5.49, p < .05$.

In relation to urban/rural residence, individuals in urban areas (50.0%) were more likely to report increased fear compared to individuals in suburban (25.0%) or rural areas (14.3%); $\chi^2 (2, n = 127) = 11.86, p < .01$. Urban participants (58.6%) were also more likely to report increased anxiety compared to rural participants (28.6%); $\chi^2 (2, n = 127) = 6.14, p < .05$. There was not a significant association between sociopolitical
## Table 2. Post-2016 Election Changes

<table>
<thead>
<tr>
<th>Type of Change</th>
<th>Extremely Decreased</th>
<th>Moderately Decreased</th>
<th>Slightly Decreased</th>
<th>About the Same</th>
<th>Slightly Increased</th>
<th>Moderately Increased</th>
<th>Extremely Increased</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy level</td>
<td>26 (16.7%)</td>
<td>36 (23.1%)</td>
<td>32 (20.5%)</td>
<td>46 (29.5%)</td>
<td>9 (5.8%)</td>
<td>5 (3.2%)</td>
<td>2 (1.3%)</td>
</tr>
<tr>
<td>Physical symptoms of illness or distress</td>
<td>1 (0.6%)</td>
<td>1 (0.6%)</td>
<td>4 (2.6%)</td>
<td>59 (38.1%)</td>
<td>42 (27.1%)</td>
<td>30 (19.4%)</td>
<td>18 (11.6%)</td>
</tr>
<tr>
<td>Introversion/desire to be alone</td>
<td>2 (1.3%)</td>
<td>6 (3.8%)</td>
<td>9 (5.8%)</td>
<td>50 (32.1%)</td>
<td>36 (23.1%)</td>
<td>36 (23.1%)</td>
<td>17 (10.9%)</td>
</tr>
<tr>
<td>Extroversion/desire to be with others</td>
<td>11 (7.1%)</td>
<td>13 (8.3%)</td>
<td>33 (21.2%)</td>
<td>49 (31.4%)</td>
<td>23 (14.7%)</td>
<td>16 (10.3%)</td>
<td>11 (7.1%)</td>
</tr>
<tr>
<td>Motivation</td>
<td>7 (4.5%)</td>
<td>25 (16%)</td>
<td>38 (24.4%)</td>
<td>42 (26.9%)</td>
<td>24 (15.4%)</td>
<td>14 (9%)</td>
<td>6 (3.8%)</td>
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<tr>
<td>Hopefulness</td>
<td>28 (17.9%)</td>
<td>48 (30.8%)</td>
<td>49 (31.4%)</td>
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<td>6 (3.8%)</td>
<td>7 (4.5%)</td>
<td>1 (0.6%)</td>
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<tr>
<td>Mental clarity</td>
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<td>27 (17.3%)</td>
<td>28 (17.9%)</td>
<td>71 (45.5%)</td>
<td>14 (9%)</td>
<td>8 (5.1%)</td>
<td>2 (1.3%)</td>
</tr>
<tr>
<td>Ability to focus</td>
<td>9 (5.8%)</td>
<td>27 (17.3%)</td>
<td>30 (19.2%)</td>
<td>73 (46.8%)</td>
<td>11 (7.1%)</td>
<td>6 (3.8%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Social uneasiness</td>
<td>3 (1.9%)</td>
<td>7 (4.5%)</td>
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<td>54 (34.6%)</td>
<td>43 (27.6%)</td>
<td>32 (20.5%)</td>
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<tr>
<td>Patience with others</td>
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<td>41 (26.3%)</td>
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<tr>
<td>Fear</td>
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<td>20 (12.8%)</td>
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<tr>
<td>Anxiety</td>
<td>1 (0.6%)</td>
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<td>46 (29.5%)</td>
<td>53 (34%)</td>
<td>31 (19.9%)</td>
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<tr>
<td>Sadness</td>
<td>1 (0.6%)</td>
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<td>3 (1.9%)</td>
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<td>55 (35.3%)</td>
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<td>17 (10.9%)</td>
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<tr>
<td>Anger</td>
<td>2 (1.3%)</td>
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<td>5 (3.2%)</td>
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<td>32 (20.5%)</td>
<td>51 (32.7%)</td>
<td>36 (23.1%)</td>
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<tr>
<td>Safety</td>
<td>18 (11.5%)</td>
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<tr>
<td>Feeling accepted by others</td>
<td>13 (8.4%)</td>
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<td>3 (1.9%)</td>
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<tr>
<td>Exposure to hate speech targeting trans people</td>
<td>1 (0.6%)</td>
<td>1 (0.6%)</td>
<td>2 (1.3%)</td>
<td>26 (16.5%)</td>
<td>39 (24.7%)</td>
<td>49 (31.6%)</td>
<td>37 (23.9%)</td>
</tr>
</tbody>
</table>

*Note.* Percentages are based on the participants who answered these items and participants with missing data were excluded.
<table>
<thead>
<tr>
<th>Type of Change</th>
<th>Extremely Decreased</th>
<th>Moderately Decreased</th>
<th>Slightly Decreased</th>
<th>About the Same</th>
<th>Slightly Increased</th>
<th>Moderately Increased</th>
<th>Extremely Increased</th>
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<td>17 (13.7%)</td>
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<td>2 (1.6%)</td>
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<tr>
<td>Physical symptoms of illness or distress</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>5 (4%)</td>
<td>65 (52.4%)</td>
<td>31 (25%)</td>
<td>16 (12.9%)</td>
<td>7 (5.6%)</td>
</tr>
<tr>
<td>Introversion/desire to be alone</td>
<td>0 (0%)</td>
<td>4 (3.2%)</td>
<td>5 (4%)</td>
<td>47 (37.9%)</td>
<td>28 (22.6%)</td>
<td>26 (21%)</td>
<td>14 (11.3%)</td>
</tr>
<tr>
<td>Extroversion/desire to be with others</td>
<td>13 (10.5%)</td>
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<tr>
<td>Motivation</td>
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<tr>
<td>Hopefulness</td>
<td>30 (24.2%)</td>
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<td>3 (2.4%)</td>
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<tr>
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<tr>
<td>Social uneasiness</td>
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<tr>
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<tr>
<td>Fear</td>
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<tr>
<td>Anxiety</td>
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<tr>
<td>Sadness</td>
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<td>0 (0%)</td>
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</tr>
<tr>
<td>Feeling accepted by others</td>
<td>22 (17.7%)</td>
<td>32 (25.8%)</td>
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<td>Exposure to hate speech targeting trans people</td>
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<td>18 (14.5%)</td>
<td>32 (25.8%)</td>
</tr>
</tbody>
</table>

*Note. Percentages are based on the participants who answered these items and participants with missing data or those who were unaware of the memo were excluded.*
context based on state-based MAP designation and any reactions to the 2020 election. Nonbinary/genderqueer participants (50.0%) were more likely to report decreased motivation compared to trans masculine participants (23.1%); \( \chi^2 (2, n = 127) = 6.97, p < .05 \), as well as decreased ability to focus (61.1%) compared to trans masculine participants (30.8%); \( \chi^2 (2, n = 127) = 8.04, p < .05 \). Nonbinary/genderqueer participants (44.4%) were also more likely to report increased sadness compared to trans masculine participants (19.2%); \( \chi^2 (2, n = 126) = 6.60, p < .05 \). Trans feminine participants (41.0%) and trans masculine participants (34.6%) were more likely than nonbinary/genderqueer participants (13.9%) to report increased exposure to hate speech; \( \chi^2 (2, n = 127) = 7.11, p < .05 \).

**DISCUSSION**

This study examined how trans people living in four different states in the US responded to key societal events, each highlighting aspects of structural stigma. These events included the 2016 US presidential election of Donald Trump, the 2020 US presidential election of Joe Biden, and the 2018 memo leak from the Trump administration that suggested narrowing the definition of gender and sex, which would exclude and negatively impact trans people. Drawing on theories of stigma as a social determinant of health (Brewis and Wutich 2020; Goffman 1963; Link and Phelan 2001; 2014), as well as socioecological models to interpret the impacts of these events, we can elaborate further the ways that multiple levels of oppression negatively affect the lives of people facing marginalization and inequality (Bronfenbrenner 1977; Hughto, Reisner, and Pachankis 2015; Puckett et al. 2022a). Overall, our findings expose the powerful impact structural stigma can have on trans people’s lives and highlight how certain key events can threaten trans quality or equality of life.

Our findings provide a striking example of the impacts of structural stigma on trans people as reflected in the high percentage of participants who reported negative impacts particularly from the 2016 election and 2018 memo leak. Most alarming is the fact that nearly a quarter of participants in this study experienced an extreme increase in exposure to hate speech targeting trans people following the 2016 election of President Trump. These findings are aligned with others documenting the harmful effects of the 2016 election on LGBTQI+ people more broadly, pointing to a period of increased risk for structural stigma, including discriminatory legislation, stigmatizing political campaigns, and increased anti-LGBTQI+ policies (Gonzalez, Ramirez, and Galupo 2018; Veldhuis et al. 2018).

These reports of increased verbal attacks through hate speech since the 2016 election also align with reports of a massive increase (226%) in hate crimes, particularly those targeting minority populations in counties where Trump rallies were held during the 2016 campaign (Feinberg, Branton, and Martinez-Ebers 2019; Warren-Gordon and Rhineberger 2021). Our findings are in line with a recent study among sexual minority women and trans feminine people which also found heightened threats to safety, civil rights, psychological, and emotional well-being due to increased structural stigma after the 2016 presidential election (Veldhuis et al. 2018). Additional support for our findings is seen in another recent study which revealed that following the 2016 election, anti-trans political rhetoric and stigmatization were found to have effects on the mental and physical health of trans people because of the increased threat of phys-
<table>
<thead>
<tr>
<th>Type of Change</th>
<th>Extremely Decreased</th>
<th>Moderately Decreased</th>
<th>Slightly Decreased</th>
<th>About the Same</th>
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</thead>
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<td>25 (19.5%)</td>
<td>20 (15.6%)</td>
<td>39 (30.5%)</td>
<td>18 (14.1%)</td>
<td>13 (10.2%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Physical symptoms of illness or distress</td>
<td>5 (3.9%)</td>
<td>5 (3.9%)</td>
<td>13 (10.2%)</td>
<td>62 (48.4%)</td>
<td>24 (18.8%)</td>
<td>16 (12.5%)</td>
<td>3 (2.3%)</td>
</tr>
<tr>
<td>Introversion/desire to be alone</td>
<td>3 (2.3%)</td>
<td>6 (4.7%)</td>
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<td>56 (43.8%)</td>
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<tr>
<td>Extroversion/desire to be with others</td>
<td>7 (5.5%)</td>
<td>3 (2.3%)</td>
<td>13 (10.2%)</td>
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<td>35 (27.3%)</td>
<td>15 (11.7%)</td>
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</tr>
<tr>
<td>Motivation</td>
<td>11 (8.6%)</td>
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<td>21 (16.4%)</td>
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<td>12 (9.4%)</td>
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<tr>
<td>Hopefulness</td>
<td>6 (4.7%)</td>
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<td>10 (7.8%)</td>
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<tr>
<td>Mental clarity</td>
<td>8 (6.3%)</td>
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<tr>
<td>Ability to focus</td>
<td>11 (8.6%)</td>
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<tr>
<td>Social uneasiness</td>
<td>1 (0.8%)</td>
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<td>14 (10.9%)</td>
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<td>Fear</td>
<td>2 (1.6%)</td>
<td>8 (6.3%)</td>
<td>25 (19.5%)</td>
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<td>15 (11.7%)</td>
<td>9 (7.0%)</td>
<td>1 (0.8%)</td>
</tr>
<tr>
<td>Exposure to hate speech targeting trans people</td>
<td>2 (1.6%)</td>
<td>3 (2.3%)</td>
<td>8 (6.3%)</td>
<td>75 (58.6%)</td>
<td>20 (15.6%)</td>
<td>15 (11.7%)</td>
<td>5 (3.9%)</td>
</tr>
</tbody>
</table>

*Note.* Percentages are based on the participants who answered these items and participants with missing data were excluded.
ical violence and compounding effects of marginalization stress (Price, Puckett, and Mocarski 2021). Together, with these findings, our results demonstrate how sociopolitical events reflect and also impact the contexts in which they occur, thereby shaping experiences of minority stressors.

In addition to increased experiences of direct physical and verbal attacks and violence, the sociocultural and political climate can take a direct toll on mental and physical health, as exhibited by our results. For example, in terms of mental health effects, in their study of minority stress experiences in LBGTQI+ individuals before and after the 2016 election, Gonzalez and colleagues found that participants experienced significantly higher levels of minority stress pertaining to rumination, daily harassment, and discrimination, as well as increased levels of depression and anxiety (2018). Similarly, sexual minority women and gender minority individuals felt they were at increased risk of experiencing discrimination after the 2016 election (Riggle et al. 2018; Veldhuis et al. 2018). A majority of participants, all of whom identified as trans, reported increased negative experiences following the 2016 election, including increased fear and anxiety, with nearly a quarter of participants reporting an *extreme* increase in exposure to hate speech towards trans people. On top of this, the nonbinary/genderqueer participants were more likely to report negative impacts on their energy, motivation, and focus, compared to trans masculine and trans feminine participants, illuminating the discrepant experiences between trans masculine and trans feminine individuals and those whose identities fall outside of the gender binary (Matsuno et al. 2022). Nonbinary/genderqueer individuals experience elevated discrimination and marginalization amplified by the systemic enforcement of gender binarism (e.g., political oppression, rejection, interpersonal invalidation) resulting in unique experiences of minority stress (Matsuno et al. 2022; Puckett et al. 2021).

These findings linking sociopolitical context to mental health and well-being have further relevance as impacts of marginalization, minority stress, and stigma can also negatively affect physical health and chronic disease risk (Hatzenbuehler 2009; Hatzenbuehler and McLaughlin 2014). A recent study of embodied minority stress among trans masculine people found lower stress-induced physical “wear and tear” as measured through allostatic load among those who perceived themselves as living in more politically progressive areas compared to those in more politically conservative areas (DuBois and Juster 2022). Similarly, recent research shows that trans people who are aware of anti-trans legislation efforts in their states experience a stronger impact of discrimination on belonging and hopelessness compared to trans individuals who are not aware of such efforts in their state (Tebbe et al. 2022). This implies that the effects of minority stressors may vary depending on the broader sociopolitical context trans people are living in. Our findings show similarly negative effects in these contexts when it came to the 2016 election of Donald Trump; individuals living in negatively rated sociopolitical contexts/states were more likely to report negative health effects (i.e., decreased energy and motivation), compared to those living in areas rated as positive and high-inclusion contexts. This further underscores the importance of considering the impact of sociopolitical events and the contexts in which they take place, particularly when examining social determinants of health (Tebbe et al. 2022).

Our findings also suggest that major sociopolitical events need to be recognized as complex and their impacts need to be assessed with recognition of other contextual
factors. For instance, the 2020 election of President Biden, which may have brought relief to many trans people given the negative impact of the Trump administration on trans people’s lives, was also accompanied by significant political backlash in the form of capitol riots, protests, and armed militias threatening marginalized communities, to name a few. In addition to President Biden’s election in 2020 and the surrounding political climate and backlash, the COVID-19 pandemic was on-going, exacerbating existing inequalities, marginalization, and social isolation many trans people experience (Gibb et al. 2020). As such, we acknowledge that it is difficult to describe the 2020 election in strict binary (positive/negative) ways as these may mask the complicated nature of such events within this broader political climate, and that participant responses would be inseparable from that broader context. Nonetheless, in our study, participants recalled their experience as trans people during this time with about 30% of participants reporting an increase in exposure to hate speech after the 2020 election of President Biden. We interpret this increase as another example of the political backlash that followed the election with negative impacts for trans people. Along these lines, others have noted that generally there can be sociopolitical turmoil during periods of transition such as these, so they are never uniformly “positive” (Russell et al. 2011).

In terms of the individual responses to these events and their impacts, we identified important differences in the types of experiences that are impacted by different events. Broadly speaking, “negative” sociopolitical events harmed trans people in this study in two ways - by decreasing positive experiences and increasing negative experiences. The 2016 presidential election through which Trump became President and the 2018 memo leak, which threatened a federal re-definition of “sex” as biological and unchangeable from assigned birth sex, were especially impactful through decreasing participants’ sense of hopefulness, safety, and feelings of being accepted by others. Moreover, these events increased participants’ negative experiences and emotions. These findings are consistent with other studies of the 2016 or 2020 elections - in particular, Price et al., (2021) who found that political rhetoric and stigmatization of trans people impacts mental and physical health due to their elevated risk of physical violence, discrimination, and marginalization stress.

While all participants were familiar with the 2 presidential elections, 1 out of 5 of our participants were unfamiliar with the content of the 2018 memo leak. This may reflect media and news avoidance as additional ways trans people may respond and cope with these stressors and challenges (Gorman et al. 2020; Puckett et al. 2020; Rood et al. 2017; 2016). Trans people engage in many forms of coping with stigma and minority stress. For example, when trans people were asked about their experiences of social rejection and how they coped with perceived hostility, avoidance, and escape (e.g., leaving the situation when possible) were common coping strategies (Rood et al. 2016). In a more recent study, coping strategies involving detachment or withdrawing from a situation were also associated with heightened depression and anxiety (Puckett et al. 2020).

Nonetheless, avoidant coping strategies implemented by trans people to protect themselves from discrimination may reflect an adaptive technique unique to marginalized groups. Given the cisgender-focused coping literature, avoidance coping is often interpreted as a negative coping mechanism (Gorman et al. 2020). Rood et al. (2017) showed how negative social messages regarding trans people originating in
media like television shows and movies led to reports of emotional distress (i.e., angry/frustrated, sad/hurt, fearful/anxious, dehumanized/devalued) among trans participants. Kteily and Bruneau (2016) expanded on the impacts of dehumanization on minority populations, suggesting that advantaged groups use this tactic to perpetuate the marginalization of other groups for self-fulfilling purposes. As such, the negative effects of bias portrayed in the media may lead trans people to avoid the news, which could help to explain why a quarter of our participants were unfamiliar with the memo leak. Furthermore, it is possible that this may be a helpful coping strategy when managing such pervasive anti-trans rhetoric.

When comparing different demographic groups within our study, participants of color reported decreased feelings of extroversion/desire to be with others in response to both the 2016 election and 2018 memo leak, along with decreased motivation, hopefulness, mental clarity, and safety, and increased fear and anxiety after the 2020 election. This, again, may reflect experiences of backlash and emphasize the heightened racist violence in the US; the 2020 election occurred at a time of greater societal engagement with the Black Lives Matter movement and on-going protests against police brutality and police murder of Black people (McManus et al. 2019). Several recent studies have discussed similar impacts of sociopolitical marginalization and structural stigma on sexual and gender minority people of color (Gorman et al. 2020; James et al. 2016; Rood et al. 2016). A recent systematic review focuses specifically on the health and well-being of trans people of color in the US, pointing to the varied experiences and different forces that may shape health and health disparities among trans communities of color (Farvid et al. 2021). Moreover, in a study by Rood and colleagues (2017), trans participants of color also expressed feeling better prepared to face and cope with anti-trans discrimination and stigma because of chronic experiences of racism and race-related discrimination. The broader context of the 2020 election also included the COVID-19 pandemic, the police murder of George Floyd and other Black people, the Black Lives Matter movement and associated protests, all occurring alongside local level events (e.g., wildfires in Oregon). It is thus clear that multiple structural drivers of systemic, racial oppression occurred during this time, raising concerns like immigration status and economic precarity, for instance, which might have differential effects on participants of color in our study (Stone et al. 2020). The intersection of events and experiences undoubtedly influenced participant reflections on the events themselves. The broader political climate in which these events occurred also likely brought existing health and economic inequalities, systemic oppression, and racism to the forefront of participants’ minds. In this study, we asked participants to reflect on their responses to specific events, not to try to disentangle or explain their responses in relation to other on-going events or experiences. Participant reflections thus represent how they recall their responses and attribute those responses to certain events included in our survey – within the broader context in which they were occurring.

Reflecting similar findings to Ralston et al. (2022), we also see interesting variation in responses based on rural versus urban residency. The most striking differences were seen in relation to the 2020 election where individuals residing in urban areas were more likely to report increased fear and anxiety compared to those living in rural or suburban areas. It is possible that trans people in rural areas have come to expect anti-trans sentiment in their areas (e.g., trans youth in rural areas experience greater
bullying than trans youth in urban areas (Eisenberg et al. 2019). Thus, any backlash occurring after the election may have been expected by trans people living in rural compared to more urban areas. It also may be that more urban areas provide a sense of anonymity to those perpetuating anti-trans stigma and that this could heighten trans people’s vigilance about others, whereas in rural communities there is less anonymity and communities are more close-knit.

Support and supportive resources are vital to combat the impacts of stigma and inequality endured by trans people. However, research also shows that the type of support that trans people have access to is important to health and resilience (Puckett et al. 2019). Considering the increased risk of exposure to hate speech and violence, and the direct effects on mental and physical health following these events, we examined support systems after the 2016 election. Most participants reported accessing support from friends (especially those friends who also identify as trans) and support groups/community organizations. In contrast, less than half (46.8%) reported accessing support from family. These findings are consistent with those of Gonzalez et al. (2018) who found stronger connections of support reported within the LBGTQI+ community following the 2016 election, despite increased levels of minority stress, anxiety, depression, and experiences of discrimination and harassment. Another study however, found that anti-trans political rhetoric and policies targeting the LGBTQI+ community as a whole, can lead to increased feelings of isolation for some trans people, even within their own communities (Price, Puckett, and Mocarski 2021). Furthermore, though perhaps not surprisingly, given the reports of increased hate speech, participants reported negative changes in their relationships. Since the 2016 election, most participants said they felt that strangers had become less affirming, nearly half said family members had become less affirming, and a quarter said coworkers had become less affirming. Trans people understandably experience elevated stress levels in unsafe or un-affirming social environments, underscoring the significance of validating social relationships and support systems for health and well-being (Gorman et al. 2020). Over the course of this study, extremist political discourse and a heavily politicized pandemic may also have shifted support systems for our participants, further exacerbating experiences of marginalization and social isolation. Given the importance of familial support, and support in general, in relation to mental health and resilience, these findings are concerning and again emphasize how individual experiences are embedded within the broader sociopolitical climate.

Overall, these findings thus highlight the importance of collecting contextual data concerning structural changes and stigma, as there is not a single, homogenous experience for trans people in the US or elsewhere. The impacts of sociopolitical events vary by location, individual identities, and other factors including the cultural contexts within which they occur. Moreover, they sadly reflect the fact that some communities may continue to endure high rates of hardship even in the wake of relatively “positive” events. Again, this reflects the complexity of these events and the contexts in which they occur and suggest individuals may be managing political reactions such as increased bias, occurring in tandem with structural level change.
Strengths, limitations, and future research
As a contribution to the limited literature on trans people’s experiences of structural stigma and contemporary political events, the current study offers several strengths. This study is one of the first to draw on data collected across multiple cross-sections of time to examine the impact of a series of sociopolitical events on trans people. Combined with a socioecological and gender minority stress framework, our results provide insight into the importance of structural level inequalities, stigma, and their impacts on trans people (Puckett et al. 2022a). Future research should continue building on socioecological frameworks to expand minority stress theory and literature to better reflect the contextual factors that shape trans people’s lived experiences and health. This study also expands on previous literature about the negative impacts of anti-LGBTQ+ policies and other sociopolitical events more broadly on LGBTQ+ people at the individual, community, and sociocultural levels (Frost and Fingerhut 2016; Hatzenbuehler 2017; Hatzenbuehler et al. 2011; Hughto et al. 2021; Russell et al. 2011).

Several limitations should also be considered when assessing the results of this study. First, all participants in this study identified as trans, a population currently underrepresented in the literature, but this sample is not representative of all trans people. Future studies could incorporate a more diverse range of gender and sexual identities to examine how intersecting identities (e.g., gender, ethnicity, sexual identity) may impact an individual’s experience, exposure, and response to sociopolitical events. Second, our sample is diverse in terms of state of residence as participants were enrolled from four different states reflecting variable legislative protections and forms of support available. However, the study was less diverse in terms of race, ethnicity, and certain socioeconomic characteristics. For instance, our sample was mostly white (30.4% participants of color), and trans people of color endure disproportionate discrimination compared to white counterparts (James et al. 2016; Gorman et al. 2020; Rood et al. 2016; 2017; Veldhuis et al. 2018). The COVID-19 pandemic and the heightened visibility of social movements, including the Black Lives Matter movement, in response to the police murder of George Floyd and other Black people, accentuated the health, economic, and systemic disparities particularly faced by people of color. As such, our findings cannot be generalized and likely underestimate the impacts of these sociopolitical events on trans people of color. Finally, though participants in our study are relatively well-educated/accessing higher education, with more than half completing at least an associate degree, most of the participants were low-income (less than $30,000), likely reflecting the stigma and socioeconomic disparities prevalent for trans people (Kenagy 2005; Xavier, Honnold, and Bradford 2007). Future research could elaborate on understandings of these socioeconomic inequalities and their intersection with experiences of stigma.

CONCLUSIONS
This research aimed to illuminate the impacts of sociopolitical contexts and key events on trans people's health, well-being, and resilience, and contribute to our understanding of how multiple levels of oppression negatively affect the lives of trans people. Overall, our findings expose the powerful impact structural inequality and stigma has on trans people’s lives. Through our assessment of the impact of three key events, the
2018 memo leak and the 2016 and 2020 US presidential elections, we found “negative” events (the memo leak and 2016 election of Trump) had negative impacts on participants by increasing several negative experiences, while also decreasing participants’ positive experiences and emotions. In particular, the increase in exposure to hate speech reported by a majority of study participants following the 2016 election highlights the critical link between sociopolitical contexts, structural stigma, and the risk to trans people in daily life. These findings point to the need to move beyond individual and interpersonal levels of analyses to include structural-level analyses within sociopolitical contexts. Although it may be clear how policies directly denying services or human rights to trans people can harm health and well-being, the impacts of negative sociopolitical contexts on health can often be underestimated. Our findings support recognizing that a stigmatizing political climate can and should be considered a social determinant of health. These findings thus have implications for policy and practice; certainly, reducing structural stigma is necessary as a long-term goal. But so is increasing the provision of support and community connection where possible in the more immediate future to ameliorate harmful effects of structural stigma and isolation which may take much longer to address.

REFERENCES


**ACKNOWLEDGEMENTS**

We would like to thank the members of the community board associated with Trans Collaborations in Nebraska for their thoughtful feedback. We also deeply appreciate the time of all the participants who contributed to this study. This study also would not have been possible without the many dedicated research team members across all sites. We wish to thank Geeta Eick, Bex Macfife, Holly Moulton, Lindsey Foltz, Oliver Hoover, Jaden Haun, Beyla Geoffrey, Alex Jagielski, Julia Rohrbaugh, Lauren King Watt, Felix Hart, Judith Moman, Dee Jolly, Rin Nguyen, Maryam Razzag, Terra Dunn, Bella Andrus, Kalei Glozier, Rowan Giffel, Felix Brown, Taylor Anderson, Devon Kimball, Callie Harris, Megan Wertz, Heather Barnes, Lex Pulice-Farrow, and Drs. Kirsten Gonzalez, Jennifer Jabson-Tree, and Cindi SturtzStreetharan for their involvement in this work.
“I Owe No One Any Gender Performance”: Transgender and Nonbinary Individuals’ Experiences of Gender Dysphoria in Bodily, Social, and Systemic Contexts During the COVID-19 Pandemic

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Conceptualizations of gender dysphoria have primarily centered only on bodily contexts, but researchers have recently identified the importance of also considering the roles of social and systemic contexts when conceptualizing experiences of gender dysphoria. The present study aimed to expand the understanding of transgender and nonbinary (TNB) individuals’ experiences of gender dysphoria within bodily, social, and systemic contexts, including experiences at two points during and prior to the COVID-19 pandemic. Data were collected from 364 TNB participants at two time points: before (May 2019 to January 2020) and during (May to December 2020) the COVID-19 pandemic. Consensual Qualitative Research-Modified (CQR-M) was used to analyze participant responses. Using CQR-M, 12 domains were identified that captured participant descriptions of factors that contribute to their experiences of gender dysphoria: (a) binary gender norms, (b) language, (c) systems and structural issues, (d) gender congruence, (e) safety, (f) community exclusion, (g) transition care, (h) close relationships, (i) multiple marginalization, (j) pandemic detriments, (k) pandemic benefits, and (l) buffers against experiencing gender dysphoria. The results of the present study suggest that social and systemic factors, in addition to bodily factors, play a significant role in the experiences of gender dysphoria reported by TNB individuals. These findings demonstrate a complex, far reaching, and relatively stable impact of social and systemic factors on the development and maintenance of gender dysphoria that needs to be integrated into the process of conceptualization, assessment, and treatment.

**KEYWORDS** gender dysphoria; social dysphoria; body dysphoria; COVID-19; stress

**DOI** 10.57814/cchg-zz61

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At present, there are significant gaps in health research literature and clinical practice scholarship that describe the complexity of transgender and nonbinary (TNB) peoples’ experiences of gender dysphoria from their own perspectives (Austin, Holzworth, and Papciak 2022; Galupo and Pulice-Farrow 2020; Galupo, Pulice-Farrow, and Lindley 2020; Pulice-Farrow, Cusack, and Galupo 2020). So far, researchers and scholars have characterized TNB people as possessing an internal, personal incongruence between their sex assigned at birth and gender identity (Tompkins 2021). Gender dysphoria has been conceptualized as being a byproduct of that internal incongruence (Coleman et al. 2012). However, approaches to gender dysphoria that account for individual differences are limited (Goldbach and Knutson 2021). Research is needed to further expand conceptualizations of gender dysphoria from the perspectives of TNB people that form the current basis of health interventions and research, conceptualizations that include the ways in which social and systemic factors, in addition to internalized/bodily factors, may contribute to experiences of gender dysphoria. Furthermore, the potential effects of the COVID-19 pandemic on TNB people’s experiences of gender dysphoria are largely unknown in the current research literature.

From a systems perspective, TNB people experience a branching (Davy 2015; van Anders 2015) or difference between their gender identity and the sociocultural expectations held by others (e.g., family, friends, broader society, and so on) that are based on their sex assigned at birth (Tompkins 2021). In other words, a TNB person may be assigned male at birth and, therefore, may be expected to identify as a man, but may
identify as a woman. The potential roles of social and systemic factors in contributing to many TNB people’s experiences of gender dysphoria have been largely absent in research literature and clinical practice considerations, but recent research has demonstrated that the branching between social and systemic expectations and internal identity can produce significant health concerns such as general distress and gender dysphoria (Austin, Holzworth, and Papciak 2022; Galupo and Pulice-Farrow 2020; Galupo, Pulice-Farrow, and Lindley 2020).

THE MEDICAL MODEL
Gender dysphoria has historically been conceptualized from a medical lens with a primary focus on dissatisfaction, distress, and incongruence associated with the physical body, and without an acknowledgement of the impact of sociocultural expectations (Pulice-Farrow, Cusack, and Galupo 2020). Many TNB people experience gender dysphoria, formally defined as distress that an individual experiences when their gender identity does not conform to sociocultural gender expectations based on their sex assigned at birth (Byne et al. 2018). Many, but not all, TNB people experience gender dysphoria. Of course, there is ample evidence that, for many TNB people, gender dysphoria is a significantly distressing, internal and body-centered experience, but other factors have been implicated as well (Austin, Holzworth, and Papciak 2022; Byne et al. 2018; Cooper et al. 2020).

BEYOND BODY DYSPHORIA
Transgender and nonbinary people report experiencing significantly high rates of prejudice, discrimination, and even violence (James et al. 2016). Researchers continue to document the extensive physical and mental health disparities experienced by TNB people (James et al. 2016; Su et al. 2016), and how these disparities can be connected to oppressive social environments using the minority stress model (Hendricks and Testa 2012; Testa et al. 2015). Furthermore, recent research indicates that distress related to the COVID-19 pandemic has further increased minority stress (Goldbach et al. In press; Kidd et al. 2021; van der Miesen, Raaijmakers, and van de Grift 2020). Many TNB people have encountered additional difficulties accessing gender-affirming care (van der Miesen, Raaijmakers, and van de Grift 2020) and increased psychological distress (Kidd et al. 2021) due to the COVID-19 pandemic. The ability to and methods of accessing support systems and chosen families has been significantly affected by the pandemic as result of social distancing, masking mandates, and stay-at-home orders (Goldbach et al. In press). Decreased access to social support and affirming care has led researchers to call on health providers, educational service providers, and LGBTQ+ organizations to find ways to directly provide support services to TNB people (Gato et

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1 In this manuscript, gender dysphoria in lower case will be used to refer the experience of distress, whereas Gender Dysphoria in title case will be used to refer to the diagnosis in the Diagnostic and Statistical Manual of Mental Disorders (DSM), 5th Edition, Text Revision (American Psychiatric Association 2022).
Transgender and nonbinary people have also developed resilience strategies, such as maintaining forms of community connectedness, to cope with stressors induced by the pandemic (Abreu et al. 2021).

Social and systemic contexts, such as oppressive social environments and living during a global pandemic, can play a significant role in experiences of gender dysphoria (Galupo, Pulice-Farrow, and Lindley 2020), and gender dysphoria can be conceptualized as a proximal or internalized minority stressor (Lindley and Galupo 2020), highlighting a disconnect between clinical characterizations and actual experiences of TNB people. Unfortunately, focusing solely on current clinical characterizations of gender dysphoria produces assessment tools and treatment frameworks (Cohen-Ketteinis and van Goozen 1997; Deogracias 2007) that omit consideration of how factors external to the individual (i.e., living in a cisnormative world that is often oppressive and violent to TNB people) may also contribute to some TNB people’s experiences of gender dysphoria.

**PRESENT STUDY**

Despite the many connections between social and systemic environments, minority stressors, and the physical and mental well-being of TNB people, there is a paucity of research exploring ways oppressive social and systemic contexts may relate to gender dysphoria. The present study therefore investigates the multiple contexts (bodily, social, systemic) in which TNB individuals described their experiences of gender dysphoria using Consensual Qualitative Research-Modified (CQR-M) method (Hill and Knox 2021; Spangler, Liu, and Hill 2012) with an emphasis on associations between gender dysphoria and social and systemic contexts. Data were collected at two time points that happened to fall before onset (May 2019 to January 2020) and after onset (May 2020 to December 2020) of the COVID-19 pandemic. Building on past research about the stability of qualitative findings (Spangler, Liu, and Hill 2012), the researchers sought to investigate whether patterns in experiences of personal and environmental gender dysphoria persisted after the onset of the COVID-19 pandemic. The study included three main research questions: 1) How do TNB people qualitatively report their experiences of gender dysphoria? 2) How do social and systemic interactions, in addition to experiences of the physical body, affect experiences of gender dysphoria? and 3) How has the COVID-19 pandemic shown up, if at all, in reported experiences of gender dysphoria?

**METHOD**

The data for this study were collected using a free response question about self-reported contributors to gender dysphoria that was included in a larger research project on experiences of gender dysphoria. CQR-M was used for this study because the method is sensitive to emotionally loaded data and because it provides a clear, reliable, consensus-based approach to coding brief qualitative data (Spangler, Liu, and Hill 2012). The study was approved by the human subjects committee at Southern Illinois University Carbondale and informed consent was obtained from all participants.
<table>
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<tr>
<th>Variables</th>
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<th>Study 2 (N = 219)</th>
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</tr>
<tr>
<td>4-year college degree</td>
<td>37</td>
<td>26.8%</td>
</tr>
<tr>
<td>Graduate degree</td>
<td>39</td>
<td>28.3%</td>
</tr>
<tr>
<td><strong>Income Level</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less than $20,000</td>
<td>72</td>
<td>52.2%</td>
</tr>
<tr>
<td>Variables (cont.)</td>
<td>Study 1 (N = 138)</td>
<td>Study 2 (N = 226)</td>
</tr>
<tr>
<td>------------------------------------------------------</td>
<td>-------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td></td>
<td>n</td>
<td>%</td>
</tr>
<tr>
<td>$20,000 to $34,999</td>
<td>25</td>
<td>18.1%</td>
</tr>
<tr>
<td>$35,000 to $49,999</td>
<td>18</td>
<td>13.0%</td>
</tr>
<tr>
<td>$50,000 to $74,999</td>
<td>11</td>
<td>8.0%</td>
</tr>
<tr>
<td>$75,000 to $99,999</td>
<td>9</td>
<td>6.5%</td>
</tr>
<tr>
<td>Greater than $100,000</td>
<td>3</td>
<td>2.2%</td>
</tr>
</tbody>
</table>

Specific Transition Steps Taken

- Came out as transgender to family: 100 (72.5%) vs. 170 (75.2%)
- Came out as transgender to friends: 134 (97.1%) vs. 203 (89.8%)
- Came out as transgender to coworkers and/or classmates: 96 (69.6%) vs. 143 (63.3%)
- Adopted a name that is different from the one given at birth: 99 (71.7%) vs. 162 (71.7%)
- Legally changed name to adopted name: 56 (40.6%) vs. 72 (31.9%)
- Use different pronouns from the ones aligned with your sex assigned at birth: 127 (92.0%) vs. 207 (91.6%)
- Legally changed gender marker on any documentation: 44 (31.9%) vs. 61 (27.0%)
- Change in clothing/accessories/appearance to match gender identity in social situations: 114 (82.6%) vs. 191 (84.5%)
- Change in clothing/accessories/appearance to match gender identity at work and/or school: 99 (71.7%) vs. 153 (67.7%)
- Started hormone replacement therapy (HRT): 67 (48.6%) vs. 111 (49.1%)
- Undergone any gender-affirming surgical procedure (sex reassignment surgery, breast removal, breast augmentation, facial feminization surgery, etc.): 39 (28.3%) vs. 34 (15.0%)

Note. Percentages may add to more than 100% for several demographic variables because participants were allowed to select more than one option for several demographic variables.

Participants

Data were collected at two different time points from two separate samples. Participants recruited prior to the onset of the pandemic (N = 138) were 18 years old or older (M = 28.12) and identified as transgender and/or nonbinary. Most pre-onset participants reported being white (81.2%, n = 116), nonbinary (51.4%, n = 71), assigned female at birth (73.9%, n = 102), and college-educated (91.4%, n = 126). Post-onset participants (N = 226) were also 18 years old or older (M = 27.76) and identified as transgender and/or nonbinary. Most post-onset participants reported being white (84.5%, n = 191), nonbinary (61.9%, N = 140), assigned female at birth (61.5%, n = 139), and college-educated (85.4%, n = 193). For more detailed demographic information, see Table 1.

Researchers

Consistent with CQR-M, our judges met to generate and apply codes through a collaborative, consensus-based process (Hill and Knox 2021). The coding team sizes were variable at time one and two, but both teams worked to establish consensus regarding final domain labels and frequencies (Spangler, Liu, and Hill 2012). The primary in-
vestigator and an assistant professor in counseling psychology served on both coding teams. Other team members changed from time one to time two based on their availability and interest in participating in the rigorous, time-consuming coding process. The fact that the research teams for the pre-onset and post-onset coding projects were different indicated that the codes were well defined and stable across samples. The diversity of identities and experiences of team members further contributed to the accuracy of the domains that were formulated and applied. For details about the teams, see Table 2.

**Procedure**

Participants were recruited for two time points: before (May 2019 to January 2020) and during (May to December 2020) the COVID-19 pandemic. Data were collected the same way at both time points. Participants were recruited via social media and email lists obtained at LGBTQ+ events (e.g., Pride festivals). When participants clicked on the link, they were directed to a survey in Qualtrics. They were first presented with an informed consent form, followed by a series of quantitative measures, after which they were prompted to respond to an open-ended question. Upon survey completion, participants were redirected to separate survey that allowed them to select one of 12 transgender-focused non-profit organizations to which $1 would be donated.

**Materials**

*Demographic Questionnaire*

The demographic questionnaire collected basic information that included age, race, sexual orientation, gender identity, and social and medical transition steps taken.

Table 2. Pre- and Post-Onset Research Team Characteristics

<table>
<thead>
<tr>
<th>Role</th>
<th>Salient Identities</th>
<th>Team</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary Investigator</td>
<td>white, lesbian transgender woman, doctoral student in counseling psychology</td>
<td>pre- and post-onset</td>
</tr>
<tr>
<td>Co-Primary Investigator</td>
<td>white, gay cisgender man, assistant professor in counseling psychology</td>
<td>pre- and post-onset</td>
</tr>
<tr>
<td>Coder</td>
<td>South Asian, queer nonbinary doctoral student in counseling psychology</td>
<td>pre-onset</td>
</tr>
<tr>
<td>Coder</td>
<td>white, queer transgender man, undergraduate psychology student</td>
<td>pre-onset</td>
</tr>
<tr>
<td>Coder</td>
<td>white, lesbian cisgender woman, undergraduate psychology student</td>
<td>pre-onset</td>
</tr>
<tr>
<td>Coder</td>
<td>white, queer cisgender woman doctoral student in counseling psychology</td>
<td>pre-onset</td>
</tr>
<tr>
<td>Coder</td>
<td>Native American and white, lesbian cisgender woman, master's student in community counseling</td>
<td>post-onset</td>
</tr>
<tr>
<td>Coder</td>
<td>white, queer nonbinary doctoral student in counseling psychology</td>
<td>post-onset</td>
</tr>
<tr>
<td>Auditor</td>
<td>white, gay cisgender man, doctoral student in counseling psychology</td>
<td>pre- and post-onset</td>
</tr>
</tbody>
</table>
Table 3. Biases and Expectations

<table>
<thead>
<tr>
<th>Team</th>
<th>Biases and Expectations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-Onset</td>
<td>Noted that the process of coding and organizing words and experiences of others is inherently privileged.</td>
</tr>
<tr>
<td></td>
<td>Identified that all team members are students and educators.</td>
</tr>
<tr>
<td></td>
<td>Acknowledged that research has colonial origins and committed to try to decolonize the process to the furthest extent possible.</td>
</tr>
<tr>
<td>Post-Onset</td>
<td>Noted that experiences as LGBTQ+ people and privileged status as middle-class people associated with graduate programs might shape perspectives.</td>
</tr>
<tr>
<td></td>
<td>Identified that cisgender members of team lack shared experience with participants around gender dysphoria and lack of access to transition-related care.</td>
</tr>
<tr>
<td></td>
<td>Acknowledged a shared expectation that participants would report distressing experiences with health care professionals and additional gender dysphoria due to COVID-19 pandemic impact.</td>
</tr>
</tbody>
</table>

Free Response Question

Participants were asked to respond to the prompt, “Please specify any other important factors that contribute to your level of gender dysphoria.” The prompt was presented immediately after a new measure of gender dysphoria that asked participants to think about contributors to gender dysphoria related to social and systemic variables (Goldbach and Knutson 2021).

Trustworthiness

One criticism of qualitative methods is that researchers may project their own biases and expectations on the data they analyze (Hill and Knox 2012). CQR-M addresses the potential for bias by asking researchers to identify their biases and expectations, to bracket those expectations, and to hold fellow researchers accountable for bracketing their expectations as well (Spangler, Liu, and Hill 2012). The method also makes use of a consensus-building process that allows for in vivo inter-rater reliability checks, and it includes an auditor who checks the accuracy and consistency of the coding process (Hill and Knox 2021). Both pre- and post-onset teams identified possible biases that could impact their work as a team, and they agreed to work together to reduce the impact of those factors (Table 3).

Analysis Plan

CQR-M allowed each coding team to utilize a qualitative coding and analysis process that was clear, structured, and consensus-based (Hill and Knox 2021; Spangler, Liu, and Hill 2012). Each participant response was treated as a unit of data. Similar procedures were followed by both coding teams with the following exceptions: (a) the pre-onset team worked to consensus in person whereas the post-onset team met online and (b) the pre-onset team used Google Documents with comment bubbles to track codes whereas the post-onset team used Google Sheets.

RESULTS

Using CQR-M, 12 domains were identified in the final code list that captured participant descriptions of factors that contribute to their experiences of gender dysphoria.
Each of the domains that follow are accompanied by brief examples. Please refer to Table 4 for a summary of domain definitions and frequencies.

Multiple marginalization is a domain that captures experiences of oppression related to marginalized identities other than gender. Participants’ experiences included, but were not limited to, fatphobia, racism, and ageism that intersect with gender identity. One participant, a multiracial transgender man, shared unique stressors they experience as someone who is transgender, a man, and a person of color: “Being a person of colour, people expect me to be a lot... larger. Taller. Stronger. Deeper voice. I pass as a guy, but I fear they don’t see me as a real man.”

The domain of safety captures participant experiences of feeling unsafe or threatened in various contexts. Participants spoke to threats/feelings of unsafety that have occurred and fears of a lack of safety in future situations. A white nonbinary trans masculine participant emphasized negotiating whether correcting someone who has invalidated them feels safe or worth it: “It is very stressful for me because it never seems worth correcting the person but then I have to subject myself to misgendering during the interaction and the guilt over not seizing the ‘teaching moment’ to educate someone.”

Feeling excluded from gendered spaces was captured in the community exclusion domain. Participant experiences within this domain included being excluded from community spaces aligned with identities they hold (e.g., identity erasure in a trans community space, being excluded from gendered facilities). Experiences of feeling othered or feeling “out of place” were captured by one participant who identifies as a white transgender woman: “As an AMAB individual who is transitioning and presenting female, I find that the gender stereotypes expected of me due to bone structure and facial features cause me to feel out of place in spaces that are traditionally women-only spaces.”

Buffers against experiencing gender dysphoria captured instances where participants shared protective factors that reduce or eliminate experiences of gender dysphoria for them. Limiting contacted with unsupportive people, feeling congruence between gender identity and appearance, and having their gender affirmed by others were some of the protective factors shared by participants. One participant, a multiracial South Asian and white nonbinary person, highlights how medical transition has significantly reduced their gender dysphoria and increased their happiness and comfort in their own body: “Being post-transition (hormones and surgery) I rarely feel physical dysphoria with myself—I’m happy with and feel comfortable in my body, and I’m gender correctly by my family, friends and co-workers.”

The domain of language refers to written and/or verbal language or communication that contributes to invalidation, exclusion, or oppression of TNB people. Participants discussed gender dysphoria and distress associated with misgendering, deadnaming, and more. A white nonbinary participant shared multiple experiences of social invalidation that significantly contribute to their gender dysphoria: “Being perceived as a woman, being identified by strangers with ‘that lady’, parents referring to me with she/her/daughter/etc., accessing healthcare that has very gendered ideas. I’m closeted except to friends so it’s not out of malice that I’m misgendered, but it gives me great social dysphoria.”
Table 4. Domains, Subdomains, Definitions and Representative Quotes

<table>
<thead>
<tr>
<th>Domain</th>
<th>Definition</th>
<th>Frequency (Study 1, N = 138)</th>
<th>Frequency (Study 2, N = 219)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple Marginalization</td>
<td>The participant discusses experiences of oppression related to minority identities other than gender such as but not limited to size, race, and age. These experiences are in addition to oppression related to the person's gender identity.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Safety</td>
<td>The participant talks about feeling unsafe or threatened. This threat may be an actual or perceived danger in a present or future situation. Examples include, being faced with the decision about (a) whether or not to correct others about their misperceptions, (b) in what contexts and whether or not to come out, (c) in which spaces the participant is more likely to be safe or unsafe.</td>
<td>n = 12, 8.70%</td>
<td>n = 28, 12.79%</td>
</tr>
<tr>
<td>Community Exclusion</td>
<td>The participant mentions feeling excluded in gendered spaces, especially spaces for individuals with whom the participant identifies and/or feels a communal tie. Examples include: (a) being ignored or treated as if the participant is not in the given community, (b) being excluded from spaces such as men's or women's bathrooms (c), having their identity disqualified, erased, and/or shunned in cis and/or transgender communal spaces (e.g., facilities, online groups, social gatherings, etc.).</td>
<td>n = 8, 5.80%</td>
<td>n = 9, 4.11%</td>
</tr>
<tr>
<td>Buffers against Experiencing Gender Dysphoria</td>
<td>The participant lists protective factors that mitigate the severity of dysphoria. Participants may discuss, for example, limited contact with biased people, satisfaction with congruent appearance, and/or experiences of affirmation from others.</td>
<td>n = 20, 14.49%</td>
<td>n = 21, 9.59%</td>
</tr>
<tr>
<td>Language</td>
<td>The participant talks about verbal and/or written language that serves to exclude or oppress TNB people such as documents, deadnaming, honorifics, and use of wrong pronouns.</td>
<td>n = 24, 17.39%</td>
<td>n = 48, 21.92%</td>
</tr>
<tr>
<td>Binary Gender Norms</td>
<td>The participant describes patterns of behavior and/or interaction patterns that erase trans experience. These cultural norms may include pressure to pass as cisgender, feeling unable to come out or transition, pressure to conform to a binary gender identity, nonbinary invisibility, and general cisnormative pressure.</td>
<td>n = 38, 27.54%</td>
<td>n = 45, 20.55%</td>
</tr>
<tr>
<td>Systems and Structural Issues</td>
<td>The participant mentions insidious norms that permeate every level of society. This category involves non-inclusive worldviews that impact the systems in which TNB people live. Impacted institutions may be physical and/or ideological and extend to religion, politics, media, education, and other spheres.</td>
<td>n = 28, 20.29%</td>
<td>n = 42, 19.18%</td>
</tr>
<tr>
<td>Domain</td>
<td>Definition</td>
<td>Frequency (Study 1, N = 138)</td>
<td>Frequency (Study 2, N = 219)</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>-----------------------------</td>
<td>-----------------------------</td>
</tr>
<tr>
<td>Transition Care</td>
<td>The participant describes interactions with the medical system. These interactions may be with providers, facilities, or health insurance companies. Participants report lack of access (because of distance and other factors), lack of inclusive services, cost prohibitiveness, lack of knowledge among health care providers, and lack of insurance coverage. Includes access and lack of access to social (includes clothing, makeup, hair, etc.) and medical transition needs.</td>
<td>n = 8, 5.80%</td>
<td>n = 34, 15.53%</td>
</tr>
<tr>
<td>Gender Congruence</td>
<td>Participants talk about experiences of body dysphoria and/or dysphoria that results from direct interactions with strangers and/or acquaintances. This may include talking (on the phone and elsewhere), low self-confidence in interactions, and body dysphoria. Can include emotional and sexual intimacy.</td>
<td>n = 53, 38.41%</td>
<td>n = 88, 40.18%</td>
</tr>
<tr>
<td>Close Relationships</td>
<td>Participants mention distress encountered in close relationships (e.g., family, friends, significant others) such as rejection, invalidation, etc.</td>
<td>n = 12, 8.70%</td>
<td>n = 22, 10.05%</td>
</tr>
<tr>
<td>Pandemic Benefits</td>
<td>Any positive experience related to lockdown, quarantine, etc.</td>
<td>N/A</td>
<td>n = 4, 1.83%</td>
</tr>
<tr>
<td>Pandemic Detriments</td>
<td>Any negative experience related to lockdown, quarantine, etc.</td>
<td>N/A</td>
<td>n = 3, 1.37%</td>
</tr>
<tr>
<td>Other</td>
<td>Any content that did not fit into existing categories, but that was indexed for later consideration.</td>
<td>n = 22, 15.94%</td>
<td>n = 8, 3.65%</td>
</tr>
</tbody>
</table>

Note. AMAB = assigned male at birth; GNC = gender nonconforming; TNB = transgender and nonbinary; HRT = hormone replacement therapy
The binary gender norms domain refers to cultural norms that contribute to erasure of TNB people’s identities and experiences. One participant, who identifies as a Latinx, genderfluid nonbinary person, spoke to erasure they encounter in interpersonal interactions: “The fact that most people, both total strangers and my mother, cannot even conceptualize a nonbinary person, and therefore perceive me (and treat me) as my agab [assigned gender at birth] regardless of what I do to present differently.”

Systems and structural issues also contributed to participants self-reported experiences of gender dysphoria. This code refers to institutions (e.g., religion, politics, media, educational systems) that negatively impact the lives of TNB people. One participant, a white genderqueer person, shared how political debates over transgender rights contribute to their levels of distress and gender dysphoria: “The ‘trans rights debate’ is extremely visible in my city and is often expressed through both pro- and anti-trans stickers and posters, which I see almost every day. It has more of an effect on my mental health than I like to admit.”

Participant descriptions of medical and social transition needs and interactions with systems (e.g., healthcare settings) that impact access to transition needs were captured in the transition care domain. Interactions with staff, providers, healthcare facilities, and health insurance companies were included in this domain. Participant experiences included lack of access to affirming care, financial barriers, and interacting with healthcare staff who had minimal knowledge on transgender issues. A Black nonbinary participant shared how negative interactions with healthcare staff contribute to their experiences of gender dysphoria: “I want to get top surgery, but have felt extreme levels of gender dysphoria from any medical professional I have seen because they 1) assume my sex assigned as birth equates my gender, 2) don’t ask for my pronouns, and 3) use conversational and medical language that does not correlate with my gender.”

Many participants shared experiences of body and social gender dysphoria, captured under the gender congruence domain. These experiences included gender dysphoria associated with the physical body (i.e., body dysphoria), invalidating social interactions, and gender dysphoria associated with voice/speaking (e.g., talking on the phone). One participant, a white transgender woman, expressed how feeling an incompatibility between their gender identity and physical body triggers gender dysphoria: “This body having developed reproductive morphology that is not compatible with what my brain expects to be plugged in to.”

Some participants shared how emotional distress in close relationships contributes to their gender dysphoria, which was captured under close relationships. Participants described experiences of invalidation and rejection from close friends, family, and/or significant others. A multiracial transgender man emphasized how living with an unsupportive family triggers experiences of gender dysphoria: “I am out to friends but am not out at home due to extreme transphobic parents. So while I do try to live as myself, I am unable to do much in my transition because of family situation.”

The final two domains, pandemic benefits and pandemic detriments, captured ways in which the pandemic reduced or increased the severity or frequency of experiences of gender dysphoria. One participant, an Asian nonbinary agender person, shared how lockdowns associated with the pandemic significantly reduced experiences of misgendering:
I was misgendered almost every day before lockdown and the ensuing dysphoria wore down my resilience and capacity. Being repeatedly misgendered in a short period of time was also exhausting and I over presented as masculine to try and compensate. Being in lockdown for COVID-19 has given me a lot of time and I'm more resilient to the occasional misgendering and I feel more comfortable dressing less masculine.

Several participants also shared how the pandemic created additional distress (e.g., healthcare access barriers, financial stress) that negatively impacted their gender transition and gender dysphoria. One participant, a white nonbinary person, expressed how moving home during pandemic lockdown prompted them to make difficult choices regarding their gender transition: “I am a college student living at home due to covid. This has forced me to put my transition on hold until it’s over. I cannot risk my living situation by coming out as trans to family.”

Throughout the qualitative responses, participants shared powerful examples of times that they feared for their safety and they highlighted difficulties accessing transition care. For the second sample, pandemic distress and benefits interacted with feelings of gender dysphoria in complex ways. The frequency with which participants referenced various domains fluctuated from the first to the second sample and were variable across the different domains. Some domains like binary gender norms and gender congruence were coded more frequently, indicating a greater focus among participants on those issues. Less frequently referenced domains like multiple marginalization were still included in the results because they were mentioned by multiple participants and they contribute to a more wholistic picture of participant experiences, but they should be approached with care and further examined in future studies. Throughout their stories and reflections, participants demonstrated determination and resilience as they discussed buffers against experiencing dysphoria. We provide further details for each code in Table 4, including definitions and frequencies.

DISCUSSION

The present study sought to examine external and internal contributors to gender dysphoria among two non-clinical samples of transgender and nonbinary individuals recruited before and during the COVID-19 pandemic. The CQRM analysis generated 12 domains that add depth and context to research suggesting that gender dysphoria is impacted by social, systemic, and bodily factors. Findings also add to growing evidence that social and systemic aspects of gender dysphoria are important foci for future research. Although the domains do not fit perfectly into specific categories (binary gender norms can have social, systemic, and bodily implications), the discussion addresses each of these broader themes and extends the research discussed in the introduction.

Body Dysphoria

Interactions with healthcare systems and transition-related care were contributors to gender dysphoria among both the pre-onset (5.80%, n = 8) and post-onset samples (15.53%, n = 34). These findings are consistent with past qualitative research concern-
ing sources of gender dysphoria. Pulice-Farrow and colleagues (2020) have documented that gender incongruence related to specific body parts plays a significant role in terms of how individuals conceptualize their gender dysphoria. Furthermore, a recent systematic review and ethnographic meta-analysis concerning 20 existing qualitative studies on gender dysphoria detailed that bodily sources of gender dysphoria and gender incongruence were amongst some of the most salient sources of gender dysphoria participants mentioned (Cooper et al. 2020).

Other Sources of Dysphoria

However, the answer to our first research question was nuanced. Beyond bodily factors, participants also named binary gender norms and exclusionary language as social contributors to gender dysphoria. Binary gender norms included responses related to a pressure to pass as cisgender, pressure to conform to a cisgender identity, and non-binary invisibility. This domain included 38 (27.54%) responses in the pre-onset sample and 45 responses (20.55%) in the post-onset sample. The use of exclusionary language included misgendering, deadnaming, and using incorrect pronouns. Such exclusionary language was another large social contributor for both the pre-onset (17.39%, \( n = 24 \)) and post-onset (21.92%, \( n = 48 \)) samples. Interestingly, participants mentioned that in addition to the social pressures of binary gender norms and exclusionary language, other aspects of social worldviews and institutions were sources of gender dysphoria as well. Both pre-onset (20.29%, \( n = 28 \)) and post-onset (19.18%, \( n = 42 \)) participants reported that institutions such as the media, education, politics, and religion advanced hostile, anti-transgender ideologies and worldviews that contributed to experiences of gender dysphoria. Similar societal and systemic contributors of gender dysphoria were found to be present among transgender individuals in several other studies (Galupo, Pulice-Farrow, and Lindley 2020; Goldbach and Knutson 2021).

Social and Systemic Interactions

The current study’s findings related to the societal and systemic contributors to gender dysphoria, our second research question, are important because they suggest that the medical model of gender dysphoria (e.g., the DSM-5-TR diagnostic model) may be a flawed or incomplete conceptualization of how transgender and nonbinary individuals understand and experience gender dysphoria. Conceptualizations of gender dysphoria need to be updated to take social and systemic contributors, such as exclusionary language and binary gender norms, into account (Goldbach and Knutson 2021). For example, healthcare providers and systems can contribute to transgender and nonbinary people’s experiences of gender dysphoria if measures are not taken to account for exclusionary language and binary gender norms, such as having forms that allow individuals to share their pronouns and provide gender options that are inclusive of nonbinary individuals. Transgender and nonbinary individuals also appear to increasingly reject the medicalization of their experiences. Johnson (2019) conducted 158 hours of participatory field-observations of a transgender community organization in the southeastern US and surveyed 33 transgender and nonbinary individuals to analyze communal perceptions of the medical model of gender dysphoria. Participants rejected a medical model of their experiences and instead advocated for a social model of gender-affirming care. Furthermore, the medical model of gender dyspho-
ria is often rooted in binary expectations for gender transition (e.g., expectation that transgender people will medically transition from “one gender to the other”), which in and of itself can contribute to gender dysphoria due to reinforcement of binary gender norms. Such findings mirrored participant responses from the current study, with many participants naming social and societal aspects of their gender dysphoria.

Indicative of their resilience, participants from both the pre-onset (14.49%, \(n = 20\)) and post-onset (9.59%, \(n = 21\)) samples named buffers and protective factors against experiencing gender dysphoria. Such buffers included affirmation from others and limited contact with bigoted individuals. Researchers have extensively documented that transgender individuals may draw upon various sources of resilience when coping with minority stress, depression, and anxiety (Bariola et al. 2015; Bockting et al. 2013; Bockting et al. 2020; Hendricks and Testa 2012; Puckett et al. 2019; Singh, Hays, and Watson 2011; Testa et al. 2015; Veale et al. 2017). Furthermore, access to gender transition needs for social and/or medical transition has been documented to alleviate, reduce, or “treat” gender dysphoria (Coleman et al. 2012; Davy and Toze 2018). Although researchers have recently found evidence to support conceptualizing gender dysphoria as a proximal minority stressor (Lindley and Galupo 2020) and researchers have explored various sources of resilience that TNB people access in the face of gender minority stress (Bockting et al. 2013; Bockting et al. 2020; Hendricks and Testa 2012; Testa et al. 2015; Veale et al. 2017), unique resilience and protective factors for experiences of gender dysphoria appear to be unexamined in the research literature.

This gap in the research literature may be due to, in part, researchers only recently connecting gender dysphoria to social contexts (Galupo, Pulice-Farrow, and Lindley 2020; Goldbach and Knutson 2021), the absence of gender dysphoria in current models gender minority stress and resilience (Hendricks and Testa 2012; Testa et al. 2015), the medicalization of TNB bodies and experiences of gender dysphoria (Dewey and Gesbeck 2017; Johnson 2015; Johnson 2019), and a lack of consistency in how gender dysphoria is described across the research literature (e.g., personal phenomenological experience, specific mental health diagnosis; Davy and Toze 2018). Researchers have specifically called for increased focus on gender dysphoria in affirmative practice (Austin, Holzworth, and Papciak 2022), which could include a focus on resilience and protective factors. The present study’s findings help elucidate buffers and protective factors specifically related to dysphoria and may be useful for developing future interventions to decrease gender dysphoria.

**COVID-19 and Gender Dysphoria**

Because the post-onset sample was recruited during the COVID-19 pandemic, participants listed such as a relevant factor related to their gender dysphoria or lack thereof and provided us with answers to our third research question. Some participants mentioned the pandemic was detrimental to their health and a contributor to dysphoria (1.37%, \(n = 3\)), but some participants mentioned the pandemic was beneficial for avoiding dysphoria (1.83%, \(n = 4\)). Goldbach and colleagues (2021) recently recruited a sample of 220 LGBTQ+ individuals and found that higher levels of resilience weakened the effects of the pandemic on mental health outcomes. These findings may suggest that participants from the current study are utilizing their resilience to address any negative impacts of the pandemic related to gender dysphoria. Further research is
necessary to confirm the contextual relationship between the pandemic and gender dysphoria.

Gender dysphoria also appeared to be context-dependent for many of the current study participants. For example, participants from both the pre-onset (8.70%, n = 12) and post-onset (12.79%, n = 28) reported that their sense of safety determined in which contexts to come out, correct people about their misperceptions, or even what spaces to go to. Community exclusion from both gendered spaces and LGBTQ+ spaces (5.80%, n = 8; 4.11%, n = 9) as well as rejection or mistreatment in close relationships (8.70%, n = 12; 10.05%, n = 22) were contributors to gender dysphoria in both samples. Some participants contextualized their understandings of their gender dysphoria related to the oppression that they faced from having multiple marginalized identities (3.62%, n = 5; 2.74%, n = 6). This is in line with existing models of identity development among transgender people of color (de Vries 2015).

Strengths and Limitations

The strengths of this study include the use of the established CQR-M method of coding, which involves blind consensus-building among raters while keeping pre-identified expectations and biases in check at all points of the coding process. The difference in coding schemes utilized before and after the global outbreak of the COVID-19 pandemic can also be interpreted as a strength, as the second round of data interpretation was not limited to a pre-existing code list. This qualitative nature of this study also allowed for an in-depth examination of the factors impacting gender dysphoria, with the unique lens of pre- and post-pandemic cross-examination.

Limitations for the present study include potential for bias due to participant and researcher bias. As the majority of participants identified as white in study 1 (81.2%) and study 2 (84.5%), future research should further investigate the voices of TNB populations of color. Additionally, the majority of participants self-identified as assigned female at birth (AFAB) in study 1 (73.9%) and study 2 (61.5%). Other studies have indicated a similar bias towards white and AFAB participants (Lindley, Bauerband, and Galupo 2021; Morris and Galupo 2019), and therefore future researchers should take care to not generalize findings to all TNB individuals. Additionally, all study data were interpreted by a coding team that was majority graduate-educated and majority white. All coders self-identified as queer, gay, or lesbian, and half as TNB which can simultaneously be regarded a strength and limitation to the current study. Lastly, while the coding scheme was developed based on the data, oversimplification of participant responses is a limitation to the CQR-M method used (Hill and Knox 2021; Spangler, Liu, and Hill 2012).

CONCLUSION

Although previous research findings have already emphasized the importance of bodily factors in the treatment of gender dysphoria, the present study reveals that gender dysphoria is also deeply connected with societal and systemic factors. Future research should further investigate the role of additional factors beyond bodily experiences in gender dysphoria, including daily interactions with oppressive social and societal systems. Future health interventions in the treatment of gender dysphoria should high-
light an individual’s sociocultural context, including their geographic setting, access to affirming care, and interactions with social systems.

REFERENCES


Hill, Clara E., and Sarah Knox. 2021. Essentials of Consensual Qualitative Research. Es-


Su, Dejun, Jay A. Irwin, Christopher Fisher, Athena Ramos, Megan Kelley, Diana


“I Carry So Much Anger, and That Is Not Good for My Health”: The Mental Health Impact of Current Gender-Affirming Healthcare Pathways on Transgender Adults in England

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This study aimed to explore the mental health impact of current gender-affirming healthcare (GAHC) pathways on transgender people in England. Trans participants (experts by experience) were recruited through purposive sampling and took part in qualitative semi-structured interviews between October 2021 and January 2022. The data generated were analysed and coded using a thematic framework analysis. Sixteen trans individuals participated. The majority were white, transfeminine, and reported a disability and/or neurodivergence. Four key themes reflecting the mental health impact of GAHC pathways were identified: (1) anticipated or experienced discrimination, (2) long waiting times for treatment, (3) socio-geographic disparities, and (4) the role of psychotherapy and peer support. The mixed and inequitable provision of GAHC contributes to trans minority stress and has
a substantial negative impact on the mental health of trans individuals, with participants describing healthcare avoidance, anxiety, depression, hopelessness, suicidality, anger, and chronic stress-related physical disability. Early access through primary care services to hormone replacement therapy (HRT), voice coaching, laser hair removal, and fertility preservation is likely to improve the mental health of trans individuals, alongside trans-affirmative or trans-led psychotherapy and peer support.

**KEYWORDS** transgender; gender-affirming healthcare; mental health; healthcare pathways; health inequity

**DOI** 10.57814/0dbe-4w50

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Transgender is an umbrella term to describe people whose gender is not the same as the gender socially attributed to the sex they were assigned at birth (Coleman et al. 2022). This study focuses on the experience of trans people in England, including men, women, and nonbinary people. The findings may also be relevant to other gender minorities who live in England but have region- or culture-specific gender variant identities, as well as individuals who are questioning or exploring their gender.

Many (but not all) trans individuals seek medical intervention to alter their physical characteristics as part of their care (Coleman et al. 2022). This gender-affirming healthcare (GAHC) should follow a person-centred approach whereby individuals can choose to access all, some, or none of the available gender-affirming interventions available. These interventions could include hormone replacement therapy (HRT) and/or gender-affirming surgery. Appropriate and timely GAHC has the potential to significantly reduce mental health difficulties in trans populations (Coleman et al. 2022; Ellis, Bailey, and McNeil 2015; McNeil et al. 2012).

In order to access GAHC in England, most trans individuals first approach a National Health Service (NHS) General Practitioner (GP) and, if triaged adequately, are referred to a specialist Gender Identity Clinic (GIC) (NHS England 2019). At the GIC they are assessed by a psychiatrist for a diagnosis of “gender dysphoria”, which if given, leads to them being accepted onto the NHS care pathway to access state-funded interventions such as HRT, gender-affirming surgeries, vocal coaching, fertility preservation, and psychotherapy (NHS England 2019). However, the waiting time to be seen by a GIC is long and increasing in length, with the most local GIC to Sussex, England (where this study has been conducted) having a waiting time of 4.5 years for individuals referred in 2018 (Gender Identity Clinic 2022). This means that many trans individuals resort to accessing GAHC through private providers or self-medication (Ellis, Bailey, and McNeil 2015; Mepham et al. 2014).

The General Medical Council (GMC), the body which sets the ethical standards for doctors in the UK, advises that NHS GPs can prescribe “bridging hormones” whilst trans patients await specialist care if they are self-medicating or their mental health is at risk whilst on the waiting list (GMC, n.d.). This guidance is supported by the Royal College of Psychiatrists (2018) and the World Professional Association for Transgender Health (WPATH) Standards of Care (Coleman et al. 2022). In recent years, a small
A number of NHS pilot projects have emerged that are primary care-led and provide access to GAHC, including GP-provided HRT prescriptions and/or surgical referrals. These include The Indigo Project (Greater Manchester), CMAGIC (Cheshire and Merseyside), Trans Plus (London) and the East of England Gender Service.

The move away from psychiatric assessments to primary care-led assessments is in line with the desires of the trans community that trans identities are depathologized and that there is improved access to care (Ellis, Bailey, and McNeil 2015). However, the pilots still follow the “medical model” of GAHC rather than the alternative “informed consent” model that is increasingly requested by trans writers and research participants (Ashley 2019; Schulz 2018). The informed consent model emphasizes self-determination for trans individuals (that no psychiatric diagnosis is necessary for someone to be “trans enough” to receive care) and shared decision-making between the trans individual and provider, such that the trans individual can access GAHC as long as they understand the risks and benefits of any intervention, regardless of whether they have achieved specific “gender transition” milestones.

No specific data exists comparing trans mental health or GAHC experiences in the different UK nations, despite there being some differences in GAHC service provision (Royal College of General Practitioners 2019). Trans individuals in the United Kingdom as a whole are more at risk of mental health difficulties than their cisgender counterparts, particularly depression, anxiety, self-injury, and suicidal ideation (Bachmann and Gooch, 2018; Jones et al., 2019; McNeil et al. 2012). Reported rates differ with different data collection periods and sample populations. For example, one report found 46% of trans people in the UK had suicidal thoughts in the last year compared to 31% of cisgender LGB people (Bachmann and Gooch, 2018). Another found this rate to be even higher, at 63% (McNeil et al. 2012). Either of these figures is substantially higher than the rate amongst the general UK population, which has been estimated at 5.4% (Baker and Kirk-Wade 2023). This heightened prevalence of mental distress can be attributed to minority stress, which is defined as the impact of hostile social environments and institutional stigma, prejudice, and discrimination on marginalized individuals (Brooks 1981; Hendricks and Testa 2012; Meyer 2003). One UK-based study of 889 trans individuals found that 58% of participants felt their mental health worsened whilst waiting to access GAHC, with 20% wanting to harm themselves due to the long waiting times, being denied care, or receiving inadequate treatment (McNeil et al. 2012). Only 2% of participants had major regrets after accessing GAHC, with the vast majority feeling that access had improved their mental health (McNeil et al. 2012). This evidence, combined with trans experiences of primary care (Heng et al. 2018) and of accessing GICs (Ellis, Bailey, and McNeil 2015; Wright et al. 2021), suggests that barriers to accessing GAHC might contribute to minority stress and poor mental health in trans populations. This is the first study to look specifically at the impact of the current mixed provision of GAHC on the mental health of trans individuals, with a focus on the English population.

METHODS
This qualitative interview study was undertaken following discussions between Sussex-based clinical leaders and academics about the need for more academic research.
around GAHC and primary care for trans patients in the area. A Sussex-based trans support organisation was approached for advice and support. A senior worker at the charity (LW) volunteered to design and lead the project as they additionally had a postgraduate research background. The research team included two cisgender senior academics who provided vital input such as support with securing ethical approval and funding and overseeing the research process. A medical student (DH) was also invited due to their previous postgraduate research on trans experiences of primary care (Holland et al. 2023). DH supported the community researcher LW with data collection and analysis. Both LW and DH were financially compensated for their input. LW led the write-up of this article and is the first author of the article. All members of the research team were white. The team included researchers of a range of ages and those who were queer and/or disabled and/or neurodivergent.

Setting
This research was undertaken in Sussex, England. This was the area the research team was based in, but it is also known to be a popular location for the trans community. In the city of Brighton and Hove, it is estimated that there are twice the percentage of trans individuals compared to the average UK city. Approximately 35% of the trans population used terms such as “genderqueer”, “nonbinary,” and “agender” to describe their relationship to gender (Hill and Condon 2015). The local Sussex NHS commissioning service has committed to improving healthcare access to trans populations by training local GPs in how to best support trans patients (Sussex CCG 2021). This population was therefore more likely to experience a mixture of proactive primary care-led GAHC at a local GP practice level. Further NHS GAHC provision is via referral to the closest GIC (London, Tavistock).

Participants
Participants had to be 18 years or older, trans, eligible to receive healthcare in Sussex, English-speaking, and able to give verbal or written informed consent. We aimed to recruit a purposive convenience sample of between 10 and 15 trans individuals, in order to reach sufficient information power for in-depth analysis (Malterud, Siersma, and Guassora 2016). An aspirational quota was set to recruit greater than or equal to two trans people who were: older than 50, people of color, trans feminine, trans masculine, nonbinary, and disabled and/or neurodivergent to ensure a variety of voices were represented in this research.

Procedure
Trans community researcher LW distributed the study flyer to Sussex-based community organisations supporting trans people for dissemination via their mailing lists and social media. This included the support charity where LW had a paid role, with a mailing list of 600 trans community members and over 1000 followers on social media. Other organisations contacted included grassroots community groups specifically supporting queer and trans people of color, disabled queer and trans people, and queer and trans people with mental health conditions or who are autistic/neurodivergent. The flyer was also shared using all the researchers’ personal and institutional/neurodivergent social media accounts. Participants were directed to contact LW via email.
Members of the community researcher’s immediate personal network (e.g., friends and colleagues) did not participate in this study, and neither did individuals currently receiving individual support from them in a professional capacity. All eligible participants were invited to interview and offered a choice of an online or in-person interview, and a choice of a trans researcher. The trans interviewer was LW, they/them pronouns, and the other interviewer was DH, a medical student, she/they pronouns. Both interviewers were previously trained in qualitative research methodology. All participants were sent a consent form and participant information sheet prior to interview. Further purposive sampling of those with multiple marginalized identities was restricted by the time constraints of the project.

Semi-structured interviews were designed and conducted in accordance with the steps outlined by DeJonckheere and Vaughn (2019). The interview was pilot tested prior to the study. Both interviewers took part in the pilot test, which was also audio recorded and could be re-listened to, to ensure the interviewers developed a shared understanding of the type of language and style of probing to be used. The interview guide included the following domains: experiences of accessing GAHC, the impact of GAHC on health and wellbeing; opinion on the current GAHC pathway; and the role of the GP practice in GAHC. The interview guide consisted of predetermined open-ended questions such as: “What examples of trans affirming healthcare have you experienced in Sussex?” and “What impact has accessing gender-affirming healthcare had on your overall health and wellbeing?” Possible additional follow-up questions and example prompts were included in the interview guide to support the interviewers to have similar approaches to navigating the topics.

Interviews took place between October 2021 and January 2022, either online (via encrypted Zoom), using the voice or video function, or face-to-face as per participants’ preference. Each interviewer completed eight interviews. First, demographic questions were asked. Then, the consent form was read through with the participants. The audio recording device was switched on, and participants were asked to state for the recording that they had read, understood, and agreed to the consent form. A maximum time of 60 minutes was set for interviews to support accessibility for disabled participants and researchers.

Ethics
Ethical approval was gained by the Brighton and Sussex Medical School Research Governance and Ethics Committee on 27th October 2021. All participants received a £20 love2shop voucher in thanks for their participation in line with the study’s ethical protocol.

Analysis
The audio recordings were transcribed verbatim, by DH, by hand using Microsoft Word. Participants were assigned pseudonyms that were gender-neutral or in keeping with the common gendering of their names. The data was analyzed using Ritchie and Spencer’s (1994) thematic framework analysis in six stages: familiarization; identifying a framework; indexing; charting; and mapping and interpretation. Analysis was conducted manually and independently by DH and LW. Audio recordings were listened to, and transcripts were read, multiple times to achieve a holistic sense of the data.
Both DH and LW produced copies of the transcript annotated with ideas for preliminary codes including a priori and emergent categories. The wider research team then met to develop the working analytical framework. Following group discussion, a list of initial codes was agreed upon, including “experiences of psychotherapy” and “impact of waiting list”. DH then recoded the transcripts using the initial working framework. DH and LW then met again to discuss how the framework should be revised to incorporate and refine codes. This process was repeated until no new codes were generated. DH then took the lead in indexing and charting the data using Microsoft Excel. DH and LW then started the mapping and interpretation process by exploring patterns in the data and drawing out key themes. Interpretation of the results were discussed amongst the wider research team to establish a consensus and to validate the findings. There was sufficiently rich data to divide the findings into two sections: the impact of current GAHC pathways on the mental health of the trans community, and the role the trans community wanted primary care services to play in their health. This article summarizes the first half of these findings.

RESULTS
Twenty-one trans individuals contacted the research team in the time period. Two did not respond to an email regarding an interview, one did not attend their interview, one dropped out prior to interview, and one contacted the research team after we had ended recruitment. Sixteen participants were therefore included in the study. Interviews had a median duration of 50 minutes.

<table>
<thead>
<tr>
<th>Table 1. Participant Characteristics</th>
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<tr>
<td>Participant Characteristics</td>
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<tr>
<td>Age (years)</td>
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<td>18–29</td>
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<td>30–39</td>
</tr>
<tr>
<td>40–49</td>
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<tr>
<td>50+</td>
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<tr>
<td>Ethnicity</td>
</tr>
<tr>
<td>White</td>
</tr>
<tr>
<td>Black / person of color</td>
</tr>
<tr>
<td>Gender</td>
</tr>
<tr>
<td>Trans woman / transfeminine</td>
</tr>
<tr>
<td>Nonbinary / genderfluid</td>
</tr>
<tr>
<td>Trans man / transmasculine</td>
</tr>
<tr>
<td>“Still figuring it out”</td>
</tr>
<tr>
<td>Disability / neurodivergence</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>No</td>
</tr>
<tr>
<td>Prefer not to say</td>
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</tbody>
</table>
The aspirational quota set was met for the following categories: being older than 50, being transfeminine, transmasculine, and nonbinary, and being disabled or neurodivergent (Table 1). A large proportion of participants were either white and/or transfeminine and/or between 18–39 years of age and/or disabled/neurodivergent. Further purposive sampling of communities of color would have been preferred, but the research team was restricted by the allocated time period. This is further discussed in the limitations section.

Four key themes reflecting the mental health impact of current GAHC pathways in Sussex were identified: (1) anticipated or experienced discrimination, (2) long waiting times for treatment, (3) socio-geographical disparities, and (4) the role of psychotherapy and peer support (Table 2).

**Anticipated or experienced discrimination**
Trans participants described anxiety around accessing GAHC due to fears that they would experience discrimination, that they may have to educate their healthcare provider, that they would have to wait a long time to access any support, and that they might have to find alternative means of accessing GAHC outside of the NHS.

> I was kind of expecting to have an appointment with someone who didn't understand what it really meant, the route, would like hand me off to the generalist clinic and then be on a waitlist for five years and probably have to self-medicate. –Sophie

When they did access care, some participants had more positive experiences than they were anticipating. Others did experience discrimination, rejection or dismissal of their issues, or denial of access to appropriate support. Some participants had difficulty defining key positive or negative experiences but rather described their experiences as an absence of overt negativity.

> I saw a specialist physio at [closest hospital] and again he was already aware when I turned up that I was trans... there was no hostility there, which I was very relieved about. –Emily

Experiences of negative healthcare interactions led to feelings of frustration and sadness and reinforced feelings that trans patients were seen as less important than cisgender patients and that their healthcare was too complex to be supported by primary care providers. For some trans participants, negative healthcare interactions led to a general avoidance of all healthcare interactions.

> It makes me really anxious about going, because then it’s – and become quite depressed about it because then it's like what's the point? Which is then kinda like a negative spiral because then you're stuck in this position of not being able to, you know, not feeling like you can get help because I'm so anxious about accessing it because I feel like if I try, it's not gonna turn out well anyway. So, it makes me feel a little bit hopeless about it. –Amber

Experiences of negative healthcare interactions were more common amongst trans participants who had multiple marginalized identities, which in turn led to a greater number of these participants reporting healthcare anxiety and avoidance. In particular, those with mental health issues, disabilities or neurodivergence described not accessing support for these issues out of fear that they would then be denied GAHC.
<table>
<thead>
<tr>
<th>Themes</th>
<th>Description</th>
<th>Example</th>
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<tbody>
<tr>
<td>Anticipated or experienced discrimination</td>
<td>Anticipated and experienced discrimination impacted on trans participants' mental health, including experiences of anxiety, depression, and healthcare avoidance, particularly for those with multiple marginalized identities.</td>
<td>“I was kind of um, scared to go to the GP about any mental health problems because I thought oh if I have any mental health problems, they’re gonna um, take away my referral um, so I put that off for a very long time.” – Jamie</td>
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<tr>
<td>Long waiting times for treatment</td>
<td>Long waiting times for GICs caused trans participants stress, hopelessness, anger, suicidality, and chronic stress-related physical health conditions. People who had managed to access GAHC through primary care providers instead reported better mental health.</td>
<td>“I thought I'd done my two years and I'd be at the top of the list for the gender clinic and then being told it's going to be at least another 2 or 3 years... the impact that has on you, you don't realize until that's not there anymore and talking to [a trans-affirmative GP] I just feel more like me. And I feel calmer and the anxiety levels... it's like if you know if you have a pain and you take a pill, and the pain goes away it's like that. Um, everybody that knows me has noticed how different I am.” – Jo</td>
</tr>
<tr>
<td>Socio-geographic disparities</td>
<td>Trans participants reported that there is a socio-economic and geographical divide between who can access GAHC in the UK currently. Alternative GAHC models to the current GIC-orientated model led to improvements in participants mental health.</td>
<td>“I think a big part of that is uh down to the uh area of the UK that you're in there is definitely a big gap in a level of um, care and services available um depending on where you live which is quite significant um, and definitely needs uh adjusting I think.” – Fern</td>
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<tr>
<td>Psychotherapy and peer support</td>
<td>Trans-affirmative or trans-led psychotherapy and peer support services led to participants experiencing euphonia, sometimes for the first time. However, there were concerns about confidentiality and experiencing discrimination, particularly from non-trans providers.</td>
<td>“I saw a private um trans therapist... he was amazing just like meeting with a therapist who is trans who can relate speak from experience just reassure and like any really specific or nuanced concerns like the mental loops you get stuck in when you're like trying to work these things through so yeah, that's very affirmative and just really helpful in understanding my gender so like having that, trans therapy or trans mental health services like run by trans people it just, yeah, similarly just affirming and like, qualitatively different.” – Melody</td>
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I haven't disclosed any of my disabilities or mental health issues... ‘cause I'm aware that they are much less likely to uh, allow me to continue along the medical path I've gone down it's also prevented me from getting myself properly tested for autism even though I've been advised to... I know it might make it harder for me to continue to procure hormones if I do so. –Sam

**Long waiting times for treatment**

The long waiting times for GICs were perceived by trans participants to be an important risk factor for poor mental health, as GICs were seen as the only NHS (and therefore free) pathway to accessing GAHC. Participants who were on waiting lists reported that they and their peers experienced stress, hopelessness, anger, suicidality, and chronic stress-related physical health conditions. The lack of clear communication from GICs about the length of waiting times and uncertainty as to where people were on the referral list, also contributed to feelings of hopelessness.

And I swallow so much anger. I carry so much anger, and that is not good for my health, I've, I've plenty of other disabilities that have developed over the years, fibromyalgia, IBS, other things and how much of that I can never really be sure... I can't help but feel that a lot of that would've been relieved had I been... If I had prompt access in 2013 when I had asked for, how much better my health in other ways would be now.

–River

Some trans participants had taken matters into their own hands, either by self-medicating, accessing private healthcare, accessing new pilot GAHC clinics that use an informed consent model of care, asking their GP to provide bridging hormones, or moving GP practices to be closer to known trans affirmative health care professionals. Those who had been able to access GAHC more quickly reported significant improvements in their mental health.

I think if I ended up waiting [on the NHS waiting list] I would’ve uh, probably at least attempted suicide, ‘cause that was definitely yeah, like yeah, absolutely enormous once I got my [privately funded] top surgery done it was like, a, being able to breathe again... everything is better after that. –Robin

**Socio-geographic disparities**

Participants reported that currently there is an unofficial “postcode lottery” determining which trans individuals are able to access a GP that will prescribe bridging hormones. Several participants choosing chose to move to a GP practice far away from their home address in order to access this care. This particularly involved individuals living in rural areas either changing GP practice to one within Brighton city center or even moving house to be closer to Brighton city center. Participants also reported that the current system led to a class disparity whereby trans individuals who were financially comfortable were able to start transition quickly and others were not. Several put themselves under considerable financial stress in order to access private GAHC.

I mean just a few months ago... I had to pick hormones over eating properly. I was just eating rubbish because I was like it's cheap, so I
could actually survive but then get my hormones which you shouldn't have to make that sort of decision when you need something. –Candice

Trans participants suggested that GPs should be able to prescribe bridging hormones and refer for vocal coaching, laser hair removal and fertility preservation, using an informed consent model of care, in order to shorten GIC waiting times and improve the mental health of the trans community. Those who had accessed a GP willing to do this reported life-changing improvements in their mental health.

Having a positive um, experience just you know, had this huge effect throughout the rest of my life where suddenly there, the sun was shining again you know?… I could acknowledge that life can be good. Um, and not just sort of being a well of depression. So, the GP has an incredible amount of power there. To just, you know, suddenly make everything seem a lot brighter. –Ellie

Whilst the current GIC-orientated model of care still exists, trans participants stressed the importance of adequate mental health support and trans-led community support, in order to help prevent suicide, depression, anxiety, and social isolation of trans individuals on the GIC waiting list.

Experiences of psychotherapy and peer support

Several trans participants had sought psychotherapy and counselling whilst exploring their gender identity and waiting for GAHC. It was important for participants to have an openly trans-affirmative practitioner. For some participants, an affirmative practitioner had allowed them to feel gender euphoria for the first time, and this was experienced as deeply beneficial to their mental health.

She said to me all right well then, next week when I call you, I’ll greet you as [new name], it just, it felt so good, I, I can't rationally explain it, it's as if she had pressed a button and she sent me home on a cloud. –Alex

Accessing psychotherapy was seen as risky by some participants due to anticipating or experiencing discrimination as reported above with other healthcare providers. Participants were clear that psychological therapy should not act as an assessment for accessing GAHC and feared that if the information they disclosed in therapy was not kept confidential, they may be at risk of losing their access to GAHC.

It can't be um it cannot actually be um connected to uh whether a patient um, will be signed off for other treatments such as uh HRT or surgery because um, that would get in the way of any, in, that, that creates an instant power dynamic between the therapist and the, the, and then the person who, any patient who wishes to get these things. –River

Trans participants had also accessed peer and community networks for support. Community advocacy services were seen as very important, as were social groups, including online social groups and community forums.

I've loved the online groups the uh, yeah, I've really loved that. I've come off and I'm literally like beaming, I'm literally like euphoric about two days after. –Ashley

These peer and community support networks were identified as particularly beneficial if these services were trans-led or explicitly trans-affirmative.
DISCUSSION

This is the first study to look specifically at the mental health impact of the mixed provision of GAHC in England on the mental health of trans people. Previous studies have focused only on the experience of accessing primary healthcare (Heng et al. 2018), mental healthcare or GICs (Ellis, Bailey, and McNeil 2015; Wright et al. 2021). This study also obtained a sample from a population that was more likely to have accessed trans-affirmative GAHC, such as “bridging” HRT, from primary care providers due to the presence of a Transgender Locally Commissioned Service in Brighton and Hove, East and West Sussex (Sussex CCG, 2021).

The findings that trans individuals experience anxiety, depression, hopelessness, and suicidality when accessing the standard NHS GAHC pathway back up findings from a previous study done ten years ago (McNeil et al. 2012). In addition, this study found that some trans individuals relate their chronic illnesses, such as chronic pain, irritable bowel syndrome, and fibromyalgia, to their experience of struggling to access NHS GAHC. Participants attributed these mental and physical health issues to fears of discrimination, long and uncertain waiting times for treatment, and the need to rely on self-medication or private healthcare with the subsequent financial implications. These findings are coherent with Hendricks and colleagues’ model of minority stress in trans populations (Hendricks and Testa 2012). The long and uncertain waiting times for GICs could be seen as part of a “hostile and stressful social environment” that trans individuals experience in England. The target maximum waiting time for non-urgent specialist treatment on the NHS is 18 weeks (NHS 2019) – the waiting time for GICs can be over 200 weeks (Gender Identity Clinic 2022), constituting a systemic institutional neglect of the trans population, and an objective distal source of minority stress. Examples from previous research show that long waiting times can increase mental distress, with individual participants linking this experience directly to an increase in their suicidality and self-harm (Harrison, Jacobs, and Parke 2020; Wright et al. 2021). Anticipation of discrimination is a more proximal source of minority stress. This study backs up previous research in this area which shows that anticipated and enacted stigma lead to an increased risk of poor health and healthcare avoidance, which then leads to an increase in psychological distress, suicidality, and poor physical health in trans populations (Reisner et al. 2016; Seelman et al. 2017).

Participants in this study reported accessing HRT privately or self-medicating in order to improve their mental health and reduce their waiting time for GAHC. A UK study of 74 trans individuals accessing the GIC in 2016 found that 50% of participants had sourced hormones over the internet, 28% with no medical advice (Bouman et al. 2016). Recent studies indicate that HRT is safe and effective for trans individuals (Meyer et al. 2020) and early access to HRT improves quality of life, depression, and anxiety (Rowniak, Bolt, and Sharifi 2019). Having a mixed provision of GAHC in England means that trans individuals who are better off financially are more likely to have safe access to early HRT than those who are less well off, this is likely to increase health disparities within the trans population. This study also found geographical inequality between which trans individuals could access early HRT, supporting previous findings that trans individuals will travel long distances (at financial cost) or even move house to access healthcare providers that are known to be trans-affirming (Bohlmann et al. 2021; Gandy et al. 2021; Heng et al. 2018; Hibbert et al. 2018). Other inequalities with
trans communities which were highlighted by this study include that participants with multiple marginalized identities were more likely to avoid seeking healthcare for mental health difficulties, neurodivergence, and physical disability due to fears of the impact of this on their access to GAHC. This study did not show the additional impact of racial discrimination, likely due to there being a single participant of color in the sample. Previous studies have shown that practitioners are more likely to stereotype trans people of color, and trans people of color report poorer care than white trans individuals, including experiences of racism in healthcare settings (Agénor et al. 2022; Grant et al. 2011; Howard et al. 2019).

When trans participants had experiences that were affirming and were able to access GAHC in a timely manner, they described life-changing improvements in their mental health. Previous research has also shown that having a supportive GP is associated with lower rates of self-harm and suicidal ideation in trans communities (Kattari et al. 2019; Treharne et al. 2022). Early access to HRT, vocal coaching, laser hair removal and fertility preservation were seen as key, and participants favored an informed consent model of care provided by NHS primary care practitioners. Previous research has also argued that the risk of withholding treatment greatly outweighs the risk of providing care through this model (Wylie et al. 2016). The new WPATH Standards of Care Version 8 states that “considering barriers to health care access and the importance of gender-affirming hormone therapy to this population, primary care providers must be able and willing to provide gender-affirming hormone therapy for trans patients” (Coleman et al. 2022; Shires et al. 2017). Previous pilot studies of the informed consent model of care have high patient satisfaction (Ker et al. 2020; Spanos et al. 2021). Normalizing GP prescribing of HRT using an informed consent model of care would mean that trans individuals were able to self-identify as trans rather than having to prove distress and have a psychiatric diagnosis imposed on them. This would reduce the negative mental health impact of the current “medicalized” GAHC model, which has been described by previous studies as “dehumanizing” (Ashley 2019), and therefore likely improve the mental health of the UK trans population.

Participants in this study also described having benefitted from peer and community support and affirmative psychotherapy. Peer support has been previously described as a crucial part of trans care (Wylie et al. 2016) with the trans population relying on peer knowledge to help them navigate the cisgenderism of the GAHC system (Harner 2021; Willis et al. 2020). Peer support can improve mental health experiences, including attenuating suicide risk, and moderating the effects of discrimination and stigma on mental health outcomes (Johnson and Rogers, 2019; Kia et al. 2021). Trans community experts in England recommend that rather than the NHS providing individual trans peer supporters in community mental health teams, there is a need for wider workforce development (Borthwick et al. 2020). This includes mental health services paying for training and support from the trans specialist voluntary organisations to improve their accessibility. Trans specialist voluntary organisations also need to be able to access sustainable long-term funding in order to support the resilience and mental health support skills of their peer support workers (Borthwick et al. 2020). Participants described affirmative experiences with psychotherapists, however, there has not yet been an in-depth examination of what “trans-affirmative psychotherapy” means to trans individuals. Previous research has indicated that a key concern for
trans individuals when accessing mental healthcare is that practitioners will think their mental health difficulties are due to them being trans, without understanding the nuances of their experience (Ellis, Bailey, and McNeil 2015). Research with psychotherapists has highlighted that trans-affirmative therapy means therapy that is person-centered, that therapists should be able to repair the relationship should a microaggression occur, and that therapy should be rooted in theoretical foundations of social justice, intersectionality, feminism, and the nonbinary nature of gender (Banks 2021; Chang et al. 2018).

**Strengths and limitations**

A key strength of this study is that it was co-produced with the trans community. Rich data were generated from open-ended questions, which allowed the research team to gain insight into the experiences of the trans community of accessing GAHC from a wide variety of providers including NHS and non-NHS options. This study also provided trans participants with the opportunity to voice their opinions on what they would like GAHC to look like for them to be heard, through the dissemination and publication of the research findings. Collecting data from individuals who lived across Sussex, rather than urban centers only, allowed for the views of people in rural areas to also be collected and included.

This study’s findings are generated from a small and self-selecting sample. This study only used qualitative methodology, and the findings may have been strengthened by an additional quantitative analysis of the mental health issues experienced by the sample for example by inclusion of a survey measuring symptoms of depression, anxiety, and other common mental illness. The majority of participants were white and trans feminine and as such, the diversity of experiences of people of color, trans masculine people and nonbinary people may not have been adequately captured. A longer time period for recruitment may have allowed further purposive sampling of under-represented groups. The fact that the community researcher was known by many participants to have a combined role as both researcher, trans community member and worker at a trans support charity, means that their involvement may have introduced participant bias and influenced some participants’ responses. However, their involvement may also have increased participant trust in the process. In order to navigate this issue, close personal contacts and those receiving individual professional support from the community researcher were not included, and where possible the least known interviewer for each participant was chosen.

**Implications for future research and practice**

In the short term, whilst the mixed provision of GAHC continues, it is vital that trans people receive good mental health support and trans-led community support, in order to help prevent suicide, depression, anxiety and social isolation of trans individuals on the GIC waiting list. Funding should be provided to local support organisations run by and led by the trans community, to allow them to provide support such as online and in-person psychosocial groups and peer support. However, the demand for statutory mental health support is also high. NHS mental health services should be willing to receive training from trans support organisations and to provide trans-affirmative counselling to individuals whilst they wait, rather than expecting them to receive
counselling only after accessing the GIC. Best placed to triage the mental health needs of trans individuals are GPs and other primary care providers, but in order to do so they must be openly trans-affirming and clear that accessing mental health support will not damage an individual’s attempts to access GAHC.

In the medium- to long-term, the mixed provision of NHS and non-NHS GAHC should be streamlined into a more inclusive pathway that is free at the point of use for all trans individuals. This needs to be done in such a way that individuals in rural areas, those on low incomes, and those with multiple marginalized identities can all access support equally. Primary care providers throughout England should be able to support access to hormones, vocal coaching, laser hair removal and fertility presentation. Specialists that can provide gender-affirming surgeries, specialist endocrinology and mental health input, should be available at local regional hubs. All providers, be they primary care or specialist, should use an informed consent model of care. In practice, this would include the system-wide removal of pathologizing labels such as the “gender dysphoria” diagnosis. Individuals should be able to access GAHC once they have come out to their healthcare provider as trans and understood the risks and benefits of interventions. There should not be a need for psychological evaluation, pressure to conform to cis-normative assumptions about gender identity and expression, or to have proven they are “trans enough” by having reached arbitrarily set social transition milestones. All new providers should be informed, led, and routinely evaluated by the trans community. This should not be limited to individual trans peer supporters being placed within the current healthcare systems but by paid collaboration with trans specialist community sector organisations. Trans peer workers need to be adequately supported to support community members who have complex needs and to be able to easily facilitate access to crisis intervention services.

Further research should focus on the specific needs of the trans populations who also have multiple marginalized identities, such as those who are neurodivergent, and/or disabled, and/or people of color. More in-depth trans perspectives on what “trans affirmative psychotherapy” looks like in practice in a UK context should be sought. Additional quantitative research on the prevalence of and contributing factors to mental illness in the trans community in England would be beneficial, as the largest and most cited survey by McNeil et al. (2012) was published over ten years ago. Such research would also benefit from examining protective factors which improve resilience, community connectedness, and pride in the trans community. There is also a lack of research comparing the experience of accessing GAHC in different UK nations and between different geographic locations in England.

CONCLUSION
This research has provided an important insight into trans individuals’ experiences of accessing GAHC in England. The inequity and mixed provision of these services, particularly the long and unknown waiting times and subsequent reliance on self-medication and private healthcare, systemic geographical and class disparities in access to care, and experiences of and anticipated discrimination, contribute to trans minority stress and therefore have a substantial negative impact on the mental health of trans individuals. Mental distress described by participants included depression, anxiety,
suicidal thoughts, and chronic stress-related physical illness. The way that trans individuals access GAHC in England must change to prevent ongoing harm to this population. Participants were vocal in advocating for early access through primary care services to HRT, voice coaching, laser hair removal, and fertility preservation following the principles of self-identification and informed consent. Trans-affirmative psychotherapy and online and in-person trans-led peer support and community advocacy were also identified as important to support self-affirmation and reduce mental distress.

REFERENCES


ACKNOWLEDGEMENTS

We would like to thank our participants for their willingness and openness in sharing with us their experiences of accessing gender-affirming healthcare. We would also like to thank the organisations who helped us with recruitment for this study. We received small seed funding for this study from Brighton University’s Centre for Transforming Sexuality and Gender as well as the Individual Research Project student fund from Brighton and Sussex Medical School.
Attack Helicopters and White Supremacy: Interpreting Malicious Responses to an Online Questionnaire about Transgender Undergraduate Engineering and Computer Science Student Experiences

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Online research that solicits participation from marginalized communities or is conducted by scholars of marginalized identities may be targeted by individuals who intend to tamper with the study outcomes and/or harass the researchers. Our goal is to identify and interpret malicious responses recorded in a first-of-its-kind national questionnaire for transgender and gender nonconforming (TGNC) students in undergraduate engineering and computer science programs. Data categorized as malicious (50 of the 349 total responses) contained slurs, hate speech, or direct targeting of the research team. The data was coded inductively and discursively interpreted through social justice frameworks. The responses contained homophobic, transphobic, ableist, anti-Black, antisemitic, and anti-Indigenous content. Online memes associated with white nationalist and fascist movements were present throughout the data, alongside memes and content referencing gaming and “nerd” culture. Malicious responses can provide critical insight into the social conditions in STEM education. In application, we call for researchers to critically analyze, rather than discard, malicious data to shed light on these phenomena and generate empowering “counterspeech” to confront hate and reclaim agency. These findings show that social justice STEM education must include perspectives on online hate radicalization and center anti-colonial, intersectional solidarity organizing as its opposition.

**KEYWORDS** transgender; STEM; engineering; computer science; hate speech

**DOI** 10.57814/qd1y-9b22

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Many academics are pleased to receive emails from strangers interested in their research. The authors of this paper have been particularly thrilled to receive warm words from engineering education and transgender and gender nonconforming (TGNC) community members over the course of a project to provide insight into the experiences of TGNC students in engineering and computer science. Shortly after the launch of the project, however, a member of our research team opened her email to find a different type of feedback:

Subject: TGNC Resiliency Question

...I believe that is what is wrong with higher education. Students should be taught to focus on their chosen field and not their gender. In my program I’m sure there are students that fall into the categories you are researching, but their performance is how they are judged. Stop trying to push gender and convince people that they are more important or discriminated against because how they identify. Let people choose their own path and don’t force them into fields because you think a group isn’t represented enough. In today’s world people can be what they want to be regardless of their gender or race, all you’re doing is propagating a stereotype and pushing a divide between groups. Also, the fact that you are funded by the NSF is an enormous waste and not science, that money could be used for real research that could actually better things. Good luck with your research,

[Name Redacted]
In retrospect, and compared to other communications we received, this email is relatively kind. There were a handful of other direct emails to our research team, but slurs and hate speech poured into our online outreach questionnaire when it was distributed nationally. The malicious words and slurs directed towards our research team had a profound impact on morale and mental health, particularly for one of our graduate student researchers, who was the primary data analyst. As a transgender woman who was already in therapy for anxiety and depression regarding online anti-trans rhetoric, managing the study’s data collection caused significant personal distress, and time had to be taken off the project to heal from traumatic harm.

This paper interprets the online backlash against our research, particularly as it appeared in the questionnaire data, and relates the hate speech we received to larger trends of online radicalization into white supremacist and fascist conspiracy movements. Rather than exclude this data in our research, we argue that malicious responses must be taken into account. To quietly discard these responses due to their harmful intent is a disservice to a project aimed at transforming engineering culture, as such responses reflect the social and educational context in which traditionally excluded students and scholars experience oppression, silencing, and violence. Our goal is to better understand how these responses relate to engineering culture by framing them within larger social contexts—namely, the rise of online fascism.

BACKGROUND

This paper is situated within a national multi-phase research project specifically exploring the experiences of TGNC students in engineering education and computer science. In the broader project, queer and trans studies frameworks are used to form discipline-specific understandings of how student experiences are shaped by gender, racial, political, and professional identities (Cech and Waidzunas, 2011; Cech, 2013; Haverkamp et al. 2021; Tonso, 2014).

The project’s initial phase was an outreach questionnaire directed toward TGNC undergraduate engineering and computer science students in the U.S. The instrument was composed of numerical and open-ended text box questions probing students’ perceptions of gender, engineering education culture, and communities of support. Online outreach was chosen as the first activity for two reasons: first, online questionnaire and survey-based methods are effective in gathering many participants from small-number populations. The number of TGNC engineering or computer science students at a single institution is likely small, given that transgender-identified individuals are approximately 0.6% of the general population (Flores et al. 2016). Second, transgender-identified students spend more time online compared to their peers (Stolzenberg and Hughes 2017). This may be attributed to the internet offering readily accessible TGNC “counterpublic” social spaces for belonging, name and gender recognition, emotional care, and identity affirmation when compared to physical public spaces (Cavalcante 2016).

We began writing this paper in 2020, before some of the major events of the last few years, including the COVID-19 crisis, the move of conspiracy theories such as QAnon into mainstream discourse, the attempted coup and fascist insurrection of January 6, 2021, the overturning of reproductive rights by the Supreme Court in Dobbs
v. Jackson Women’s Health Organization, legislative attacks on TGNC children and youth and their health care providers, new waves of book banning, and restrictions against K-university educators in states such as Florida in discussing issues of racism, transphobia, homophobia, and sexism. Before these events, it was disturbingly clear to our research team that the malicious responses could not be dismissed and indicated that discussions of gender and sexuality in STEM education are flashpoints for fascist ideologues living “inside the house” of engineering and computer science. Tellingly, earlier versions of this paper submitted to journals in engineering education were ultimately rejected, not because of the quality of the research itself, but because of “fit.” We were left with the impression that our arguments concerning the necessity of addressing fascist ideologies within the cultural contexts that TGNC students endure was seen as irrelevant to engineering education, if not alarmist. Ultimately, we continued with this paper in order to raise awareness and, further, call for researchers in engineering education to take malicious responses seriously in order to better understand the contexts of TGNC students’ experiences in engineering and interrupt fascist ideologies inside and outside of our academic programs.

Gender and engineering education research
It has been established that engineering culture presents barriers to the inclusion of women, people of color, and lesbian, gay, bisexual, transgender, and queer (LGBTQ+) individuals in higher education and the workplace (Fouda et al. 2017; Gregory 2015; Linley et al. 2018; Logel et al. 2009). In 2019, 77.5% of bachelor’s degrees in engineering and computer science were granted to men, and 60.7% were awarded to white graduates (ASEE 2020). The number of women in architectural or engineering occupations is just 16.5%, according to the Bureau of Labor Statistics, and 78% of total workers in this category are white (Bureau of Labor Statistics 2021). These barriers remain culturally embedded in engineering despite decades of funded intensive reform and inclusion efforts. Research on gender in engineering and computer science education has predominantly remained within a cisgender, gender binary, Eurocentric framework for many years, but work that integrates the intersectionality of race and gender is becoming increasingly visible (Haverkamp et al. 2021).

Online harassment and radicalization
While TGNC students may spend more time online due to supportive internet communities, this does not mean the internet is a safe place for TGNC people. In fact, TGNC individuals navigate an online culture of targeted harassment, which exists parallel to widespread offline marginalization. Almost every trans individual (97.6%) in a recent study reported witnessing persistent negative social media and news articles about the community, which strongly correlates to broadly reported experiences of depression, anxiety, and distress (Hughto et al. 2021). A comprehensive three-and-a-half-year study further discovered that 15% of all transgender-related comments on social media were blatantly transphobic, weaponizing slurs against TGNC individuals (Haynes 2019). Another study analyzed the highest-performing social media content on TGNC topics and found that politically right-wing or anti-transgender sources account for 65.7% of all top-performing content, compared to 15.4% of top-performing content from LGBTQI+ sources (January 2020).
Transphobic and homophobic harassment online has the potential to extend into academic research focused on these communities. The term “mischievous responder” has been coined to describe respondents who falsely claim to be part of a survey’s intended audience to provide extreme or untruthful responses to alter the research outcomes (Robinson-Cimpian 2014). Several studies on LGBTQI+ topics have noted mischievous responders. In one example, mischievous responder data (1% of the total) in a large data set (N=148,960) altered the measurement of LGBTQI+-heterosexual youth health disparities by as much as 46% (Cimpian et al. 2018). A study within engineering education presented at the Collaborative Network for Engineering and Computing Diversity 2019 conference recorded data from mischievous responders as well, much of which contained overt hate speech (Boudreau et al. 2019). In that paper’s case study, an all-campus survey regarding gender-neutral restrooms received 880 survey responses and 50% were identified as negative, with a transgender undergraduate student describing these comments as “hateful and violent.” (Boudreau et al. 2019, 9). We use the word malicious over the word mischievous when discussing such data to recognize malintent rather than playfulness. Our concern is that what occurred in our study, and as could be reasonably predicted in Boudreau and colleagues (2019), has been occurring without note or acknowledgment in engineering education research for years and continues to occur. The consequences of targeted harassment against TGNC researchers in STEM, which occur silently or hidden, cause researchers to feel isolated, and the harassment may discourage them from persisting in the field. Ignoring malicious responder data and incidents of targeted harassment contributes to the already documented chilly, unwelcoming climate in STEM for marginalized academics. Instead, we call on researchers to pay close attention to malicious responses as data that elucidate the lived experiences of TGNC students and scholars in STEM. To dismiss such statements and harassment as “mischievous” ignores the context of fascist movements taking place in the U.S. in which TGNC students find themselves in the crosshairs of violent white nationalist extremists.

STEM fields such as computer science and programming share workplace and recreational proximity to online subcultures including video gaming and “nerd-dom” which similarly present barriers to those not within a white, cis male, heterosexual norm (Starr 2018). While not inherently white nationalist (and indeed, can offer potent rebukes to such ideologies), these are locations where the issue of radicalization into white supremacist and white nationalist movements is endemic. Of concern to STEM education is the fact that online white supremacist and white nationalist groups frequently recruit from online gaming/ttech/nerd communities where they find fruitful connections through white “geek” identity and the militarized straight cis masculinity represented in popular video game media (Kline et al. 2003, 246–68; Shaw 2014, 13–51).

White supremacy and white nationalism are related, often overlapping, yet not synonymous. White supremacy is a system of oppression that maintains cultural, ideological, epistemological, and political control of people of color through “direct processes that secure (white) domination and the privileges associated with it.” (Leonardo 2004, 137) White supremacy can be subtle or overt, but it is ubiquitous in the United States of America. White nationalism is the belief that an all-white Christian ethnostate must be created through the removal of “others” through citizenship denial, deportation, and genocide (Flanagan, Acee, and Schubiner 2019, 6). White nationalism
fixates on the nation-state and processes to create a racially pure ethnostate through the creation and subjugation of racial “others.” Such ideologies are always inseparable from constructions of gender, sexuality, and disability within white nationalist claims to genetic superiority, with epistemic origins as far back as the Crusades and Spanish Inquisition, which used violence and forced conversions of Jews, Muslims, and Indigenous peoples to regulate citizenship across racial-ethnic boundaries (Dunbar-Ortiz, 2003; Friedlander 1995).

Online radicalization and recruitment occur on a constellation of websites, from 4chan, Twitter, YouTube, Reddit, the “manosphere” (men’s rights and misogynist forums), and conspiracy theory news sites (Nagle 2017). Social communities on these websites collectively form a pipeline of sorts, where algorithms intended to increase engagement or “clicks” funnel users into increasingly extreme content and tactics. This pipeline is not composed of a single app or site, but rather affects a person’s whole ecosystem of internet use and social media. Adherents to various hate movements or ideologies eventually meet and integrate members of one group into another, forming allied commitments towards radical reactionary racial, gender, and political agendas. For example, women are present in neo-Nazi groups, despite the antifeminist and male-orientation of these ideologies, due to a shared racist agenda (Blee 1996). Weissman (2018) illustrates this phenomenon occurring online using an example of strangers becoming friends on an online game chatroom through sharing antifeminist memes. Through this friendship, an individual who had not been aware of antisemitic conspiracy theories may become introduced and radicalized towards those views and drawn into communities with shared antisemitic and antifeminist views through this new connection.

Misogynist communities such as “men’s rights,” “red pill,” and “pick up artist” communities often directly overlap with white supremacist communities, consisting of primarily straight cisgender white men who build community partially through the harassment of women, people of color, and LGBTQI+ people (Condis 2018; McLean and Griffiths 2019; Nagle 2017). A significant number of online gaming community members experience sexist, racist, transphobic, white supremacist, and conspiratorial discourse—which harms marginalized communities and builds a sense of community-dominance by straight, white men (Easpaig 2018, TaeHyuk, and Hearnes, 2021). One study found that over 80% of gamers have witnessed identity-based harassment online, and that roughly 10% will be exposed to white supremacy, Holocaust denial, and conspiracies surrounding COVID-19 and Black Lives Matter (Anti-Defamation League, 2020).

Far-right adherents deflect criticism by writing off their digital hate-signaling as playful trolling and edgy memes. As Cynthia Miller-Idriss (2020, 151–2) observes, one reason the new ecosystem of online spaces has been so effective in spurring growth in the far right has to do with the entertainment value of social media and the ways that humor has been weaponized, especially through the creation and circulation of memes, jokes, and emoji. The far right has figured out that young people are motivated not only by serious, planned action but also by spontaneous and humorous engagement.

Harassment from online gaming and tech communities translates to real-world danger for women and marginalized groups through in-person threats and releases of
addresses and personal information (doxxing). Three mass shooters in 2019 left manifestos littered with specific references to racist, antisemitic, and sexist memes common on gaming and tech-centered forums such as 4chan, 8chan, and Reddit. They were part of a growing number of mass shooters who announce their shootings on forums and/or livestream the violence (Dewey 2014; Harwell 2019; Quinlan 2019; Wells and Lovett 2019). Paying attention to when, where, and how students in STEM are drawn into radicalization pathways online is clearly necessary. Studies that assist STEM education researchers in better understanding these pathways will better equip us to understand the depth and scope of the issue and find ways to intervene.

METHODOLOGIES AND CONCEPTUAL FRAMEWORKS

Social justice methodologies operate through a lens of “tackling seemingly intractable issues” through frameworks that extend “beyond the mere ability to collect, interpret and communicate data” to “create the conditions for social justice” (Gwyther and Possamai-Inesedy 2009, 97). We use antifascist and trans/queer methodologies to transform the raw data from a collection of malicious responses into results that can assist researchers in understanding and untangling the interconnected knots of the social, political, and cultural context of the data surrounding TGNC students in order to make effective interventions and transformations to our programs and institutions.

Antifascist methodologies

Fascism perpetuates itself through a cycle of growth, obtaining power, splintering, and then moving back towards growth. Paxton details this theory of fascism-as-process through a five-stage model, summarized below by Ross (Paxton 1998; Ross 2016, 15):

1. A movement-building base dedicated to creating a “new order”
2. A process of rooting in the political system
3. Obtaining power
4. Exercising power
5. Either entering a decline period or a period of compromise called “entropy,” or a radicalization by hardcore fascist groups who advocate a “second revolution.”

Antifascist methodologies attend to and challenge fascist ideologies and movements in research frameworks and data, and expose the overlap among them.

Queer/trans methodologies

Research on equity in engineering education has been called to use theories of power that move beyond institutional policy or individual bad actor models (Riley et al. 2009). We answer this call through the use of critical trans and queer methodologies. Trans and queer methodologies are interdisciplinary, addressing multi-faceted mechanisms of power through engaging in cross-disciplinary politics, methods, relationships, and intellectual structures (Pryse 2000). If “to queer” is to destabilize normativity and the nature of knowledge and its power-as-universal-truth, then a “queer” methodology will destabilize traditional research trajectories and act as an interpretive project (Browne and Nash 2010; Crawley, Whitlock, and Earles, 2021). It follows, then, that
transing is a practice that takes place within, as well as across or between, gendered spaces. It is a practice that assembles gender into contingent structures of association with other attributes of bodily being, and that allows for their reassembly. (Stryker, Currah, and Moore 2008, 13)

Trans and queer methodologies position discourse as a primary mode through which power permeates society. Discourse is a linguistic process that upholds power through legitimizing institutions while also constructing differences such as sexual, racial, and gender categories (Browne and Nash 2010; Foucault 1978). Interpreting discourse, even between trans people ourselves, allows for a critique of what is seen, felt, or perceived as hegemonic truths in their specific social context (Zitz et al. 2014). Language not only has power but constructs and reproduces power itself. We view the malicious responses to our study as data, fragments of discourse that can reveal how power constructs itself and operates.

Single identity models, such as an analysis that positions TGNC undergraduate student experiences as unconnected to race, class, ability, or sexuality, reflect an epistemology of Eurocentric masculinist thought and obscures the multiplicity of identities and experiences of TGNC people and people of color. Patricia Hill-Collins (1990, 293) argues that viewing domination itself as encompassing intersecting oppressions of race, class, gender, sexuality, and nation points to the significance of these oppressions in shaping the overall organization of a particular matrix of domination. Similarly, personal identities constructed around individual understandings of race, class, gender, sexuality, and nation define each individual’s unique biography. Using a Black feminist thought framework, we seek to prevent TGNC identity from becoming a detached genre of singular identity, or subsumed into a supposed universality of lesbian, gay, bisexual, and queer experiences. Gender and trans identities cut across sexualities relating distinct discourses, communities, issues, practices, and lifestyles (Stryker 2014).

Gender and trans identities are constructed by and through race, with whiteness shaping dominant norms of gender embodiment. Discursively categorizing Black bodies as subordinate, for instance, was critical in “maintaining the biopolitical ordering of slavery” and continues to undergird Black experiences with trans identity (Snorton 2017, 104). Racialized conceptions of “masculinity” and “femininity” further cast all non-white trans individuals into disproportionate doubt and invalidation. This occurs in a myriad of ways, such as the contemporary objectifying mystique of Asian transgender bodies in dominant culture or the colonization of Indigenous gender/sexual embodiments into prevailing colonial gender regimes (Driskill et al. 2011). Trans and queer methodologies in STEM education research must ultimately recognize the power of discourse upon the construction of gender and its deep enmeshment with racial subjugation. Our methodological frameworks do not attempt to remain “objective” in our analysis of our data. Instead, we are rooted within research methodologies that contribute to the practice of “research justice,” which Andrew Jolivette (2015, 5), defines as “examining the relationships and intersections between research, knowledge construction, and political power/legitimacy in society.”
METHOD
Malicious responses to research on marginalized students in engineering education should be analyzed as vital to an analysis of the context of their experiences. Towards this end, we combine qualitative and quantitative methods through inductive coding, thematic interpretation, and TGNC undergraduate research participant input to interpret the malicious responses to our outreach questionnaire. The instrument explored student skillsets and strengths, sources of community and support, and their favorite aspects of engineering and computer science.

Recording of data
A Qualtrics questionnaire with 16 Likert-scale items and 7 open-text prompts focusing on students’ perceptions of their skills, support, and resiliency was created. Demographic questions regarding gender, disability, and race/ethnicity were included. The questionnaire link was distributed to over 3,000 email addresses of department chairs, program administrators, and faculty at accredited engineering bachelor’s degree-granting institutions. A total of $N = 723$ responses were recorded.

Criteria for invalid, malicious, and valid data
The responses were exported into Excel for sorting and cleaning. Validity criteria were established to develop datasets for the research project and identify which respondents would receive a $5 Amazon.com gift card as compensation. We did not intend to separate any complete responses into a “malicious” category until faced with the problems of harm to the research team and potential skewing of outcomes. Reading the data participant by participant, the malicious responses were often immediately and viscerally identifiable. The general sorting criteria are described in Table 1.

Table 1. Criteria for questionnaire data categorization

<table>
<thead>
<tr>
<th>1. Invalid or Incomplete</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did not Agree to Consent.</td>
</tr>
<tr>
<td>Did not select they identified as TGNC.</td>
</tr>
<tr>
<td>Did not select they are an undergraduate engineering or computer science student.</td>
</tr>
<tr>
<td>Did not answer all fields (incomplete).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Malicious</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answer contained slur, hate speech, or mocked research/researcher.</td>
</tr>
<tr>
<td>Answer implied bad faith (i.e., direct mention of gift cards or memes).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>3. Valid</th>
</tr>
</thead>
<tbody>
<tr>
<td>All else.</td>
</tr>
</tbody>
</table>

Inductive thematic coding
Data categorized as malicious was imported into ATLAS.ti. An inductive coding approach was used to highlight specific themes and form connections throughout the range of malicious responder data (Thomas 2006). Multiple read-throughs of the data both by column (question) and by row (respondent) were performed. Thematic analysis informed our team’s “identifying, analyzing, and reporting patterns within the data” (Braun and Clarke 2006, 79). Emergent results were discussed and revised iteratively. Two primary upper-level codes were created: culture and identity.
referred to political commentary, internet subculture, perspective on higher education, or expressed ideologies. Identity referred to specific social identities targeted, marginalized, or referenced (e.g., race, ability, gender).

**Virtual research community input**

Thirty-six participants, categorized as valid responders to the questionnaire, accepted an invitation to join a virtual research community on the Slack platform. The space allowed for input beyond the one-time initial outreach questionnaire and provided a supportive space where the unique intersection of TGNC experience meets the engineering undergraduate experience. TGNC students in the virtual community were offered an opportunity to help the research team analyze and make sense of the malicious responder data. Student participants were warned that the data contained violent terminology and harmful, triggering language. Students that opted into the smaller private Slack channel discussing malicious responders were provided with de-identified versions of the demographic data and an Excel sheet of the malicious responses. A multi-month, online conversation ensued, prompted at random intervals by specific questions.

Students involved in the analysis, particularly those who spend time on forums such as Tumblr, Reddit, and 4chan, or engage online games, provided perspectives into the meanings and motivations of the malicious responders, and provided context for online subculture slang. While input from this group was relatively unstructured and informal and was not used as an augmenting data set in and of itself, it did help refine the research team's understanding of the malicious data. Drafts of this manuscript were also reviewed by this subgroup of the virtual community, and their constructive feedback was integrated.

**Representing hate speech**

We present our data mostly verbatim, including words that are broadly understood as demeaning, disturbing, and hateful. Some words, however, have been redacted in consideration of the positionality of the research team. Andrea Haverkamp is Jewish, transgender, queer, and white. Finn Johnson is white, transgender, queer, and disabled, and Michelle Bothwell is white, cisgender, queer, and disabled. Qwo-Li Driskill is light-skinned, multiracial (Indigenous/Black/white), queer, trans feminine, and disabled, and Devlin Montfort is white, transgender, and queer. We have redacted the n-word from the malicious comment data in this paper. As Stewart writes, “who benefits from seeing that word, unredacted? I assure you it is not Black people” (Stewart 2016). The decision to retain homo- and transphobic words is intentional, as they shape the communities and histories of our queer and trans team members and are deeply entwined with the systems of power under study. We do not wish to perpetuate the harm done through these responses but rather leave them intact to bear witness to the realities of our lives. Censoring or hiding these words in this research area limits our collective ability to dismantle them more broadly in social justice work and may counterintuitively add to their power. Here, we document this problematic speech, critique its origins and impact, and advocate for action (Saldaña and Omasta 2017). Last, the terms “hate,” “hateful,” and the term “hate speech” in this paper should not imply simple or irrational emotion. We use these terms as shorthand for serious and
focused negative prejudice enacted verbally, non-verbally, and symbolically by those with social or political power, which can further 1) rally support by similar ideological adherents and/or 2) incite or perform physical, emotional, or relational harm upon the subject community in private or in public (Paz, Montero-Díaz, and Moreno-Delgado 2020). Eli Clare (2017), on the importance of trigger warnings, notes that “in the late 1980s and 1990s, feminists developed the practice of trigger warnings to give people a heads up before details of violence were spoken out loud.” Clare uses the specific language of “trigger warnings” to “reflect the abrupt, visceral tailspin some of us experience when encountering or being caught off guard by particular images or stories...” The following sections contain virulent and malicious responses to our study. We advise that the reader take great care in reading the following sections.

RESULTS
Total responses (N = 723) were separated into three categories: i) 299 responses from TGNC undergraduate students in engineering education; ii) 50 malicious responses; and iii) 374 invalid or incomplete responses. Malicious responders accounted for about 15% of the questionnaire's responses.

Demographics
The demographics of the 50 malicious respondents are presented in Table 2. Throughout the rest of the paper, quotations from responses will be attributed to the respondent number from this table. Of note is that 12 respondents (24%) indicated their gender as being related to a helicopter or aircraft and that 15 of the 30 reporting disabilities (50%) referred to transgender identity or sexuality as a disability. Viewing this table gives an immediate snapshot of the tone and tenor of the malicious responses and the interplay between gender, sexuality, race, and ability. Here are a few examples of demographics that show this interplay:

#2 – Aerosol [Gender], Afro/Klingon-Asiatic Galapogayation [Race], Being 2.86% White [Disability]
#17 – Airplane [Gender], Native American (Elizabeth Warren) [Race], Transgenderism [Disability]
#24 – Fucking white male [Gender] I’m a Swedish Muslim [Race], My country is run by communists [Disability]
#31 – pansexual attack helicopter [Gender], kangz [Race], intracranial lead deficiency [Disability]

Primary Themes
The following sections outline major patterns found in the responses. Select quotations are provided, along with their associated questions, as examples of how these patterns appeared in the data. Our methodology explicitly calls attention to the multiplicity of constructed identities that are subjugated across race, gender, citizenship status, religion, disability, and sexuality.
<table>
<thead>
<tr>
<th>#</th>
<th>Gender</th>
<th>Racial / Ethnic Identities</th>
<th>Disability (if indicated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I identify as a gift card</td>
<td>I'm an ethnic gift card</td>
<td>I don't have enough gift cards</td>
</tr>
<tr>
<td>2</td>
<td>Aerosol</td>
<td>Afro/Klingon-Asiapogaya-</td>
<td>Being 2.86% white</td>
</tr>
<tr>
<td>3</td>
<td>Apache Attack Helicopter</td>
<td>American</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Male</td>
<td>Puerto-Rican American</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Apache Attack Helicopter</td>
<td>Erhapsically diverse</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Apconsugender</td>
<td>Black</td>
<td>I have hands where my feet are and feet where my hands are</td>
</tr>
<tr>
<td>7</td>
<td>Attack Helicopter</td>
<td>Ah-64 Apache</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Bi Sexual</td>
<td>Black</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>big chungus</td>
<td>republican</td>
<td>autism</td>
</tr>
<tr>
<td>10</td>
<td>Gruy</td>
<td>Come on man, these questions are stupid. Everyone is a grab bag</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>of genetics from all over the world</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>There are only two genders</td>
<td>There are only two genders</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Transgender/shemale</td>
<td>white</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>I'm an attack helicopter</td>
<td>my skin is blue, I think I might be a smurf</td>
<td>being an identitarian</td>
</tr>
<tr>
<td>14</td>
<td>?</td>
<td>Blasian</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Airplane</td>
<td>Black Hispanic Jew</td>
<td>Being trans</td>
</tr>
<tr>
<td>16</td>
<td>A human being.</td>
<td>STILL A HUMAN. this tells us even less information than gender</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>its the actual color of my skin. what else do you want to know?</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>what i ate for breakfast. this question is unnecessary.</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Airplane</td>
<td>Native American(Elizabeth Warren)</td>
<td>Transgenderism</td>
</tr>
<tr>
<td>18</td>
<td>Apache helicopter</td>
<td>Cracker</td>
<td>Gender disphoria</td>
</tr>
<tr>
<td>19</td>
<td>Cis gender lizard king</td>
<td>Eskimo</td>
<td>Thinking im not a man</td>
</tr>
<tr>
<td>20</td>
<td>DID YOU JUST FUCKING ASK FOR</td>
<td>DID YOU ASSUME MY RACE</td>
<td>Gender Disphoria</td>
</tr>
<tr>
<td></td>
<td>MY GENDER</td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Electron GENDER</td>
<td>Colored Native Mix w/opressed ancestors.</td>
<td>Anxiety</td>
</tr>
<tr>
<td>22</td>
<td>F-16 Fighter Jet</td>
<td>US Military</td>
<td>That I'm a tranny.</td>
</tr>
<tr>
<td>23</td>
<td>Female</td>
<td>White</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Fucking white male</td>
<td>I'm a Swedish Muslim</td>
<td>My country is run by communists</td>
</tr>
<tr>
<td>25</td>
<td>helicopter</td>
<td>caherree</td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Hermaphrodite</td>
<td>African American</td>
<td>Transgenderism</td>
</tr>
<tr>
<td>27</td>
<td>homophobic biggot, yes we exist</td>
<td>well i was born white but i spend a lot of time in the sun so</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>i identify as a light skin black male</td>
<td></td>
</tr>
<tr>
<td>#</td>
<td>Gender</td>
<td>Racial / Ethnic Identities</td>
<td>Disability (if indicated)</td>
</tr>
<tr>
<td>----</td>
<td>-----------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>28</td>
<td>I identify as a boy when I'm getting fucked and a girl when I'm the one fucking. My dick goes inside out so it changes</td>
<td>I'm black on the inside but when I'm a boy I like getting my white ass fucked, you know what I'm sayin' broh?</td>
<td>I'm sexually attracted to the thought of being eaten alive. I know this sounds like a joke, but I'm being serious. I'm a macrophile/vorephile and I jack off almost every night to the thought of a giantess women shoving me up her ass (to dip me in her sauce) and then throwing my body into her giant mouth. This isn't a joke. I'm sexually suicidal and I jack off to death. The doctors say I have a disease but I find that really fucking hard to believe</td>
</tr>
<tr>
<td>29</td>
<td>Literal fluid</td>
<td>My skin color is not important.</td>
<td>Like all transgenders, my disability is the inability to come to terms with biological reality. Madness, essentially.</td>
</tr>
<tr>
<td>30</td>
<td>Mail</td>
<td>Bourne</td>
<td>-</td>
</tr>
<tr>
<td>31</td>
<td>pansexual attack helicopter</td>
<td>kangz</td>
<td>intracranial lead deficiency</td>
</tr>
<tr>
<td>32</td>
<td>Pedophile</td>
<td>Hispanic latina, native american black</td>
<td>pedohilia</td>
</tr>
<tr>
<td>33</td>
<td>Perfer not to say</td>
<td>Perfer not to say</td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Quasi-Demi-poney; bankai-released state queercraper with a hint of faggotdrag lesbian and homosexual upside-down Frappuccino cake.</td>
<td>Everything that is native from the country of Africa.</td>
<td>Trans</td>
</tr>
<tr>
<td>35</td>
<td>Queer</td>
<td>KANGZ</td>
<td>Being transgender</td>
</tr>
<tr>
<td>36</td>
<td>Real n°</td>
<td>Real n°</td>
<td>Too ballin homie</td>
</tr>
<tr>
<td>37</td>
<td>There is only 2</td>
<td>White</td>
<td></td>
</tr>
<tr>
<td>38</td>
<td>Agender</td>
<td>African-American</td>
<td>Depression/Anxiety</td>
</tr>
<tr>
<td>39</td>
<td>Trans hypocoagulated</td>
<td>I identify a Indian</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td>V22 osprey</td>
<td>Crip</td>
<td>nvm</td>
</tr>
<tr>
<td>41</td>
<td>Two-spirited demiqueer n°faggot attack helicoptor kin</td>
<td>KANGZ</td>
<td>being transgender</td>
</tr>
<tr>
<td>42</td>
<td>Female</td>
<td>Black, Hispanic American, Hawaiian Indian</td>
<td>My pride</td>
</tr>
<tr>
<td>43</td>
<td>transgendered lesbian</td>
<td>saiyan</td>
<td></td>
</tr>
<tr>
<td>44</td>
<td>Non-binary inter-sectional African Mohammedian Feminist</td>
<td>African Jewish</td>
<td>Transgendered</td>
</tr>
<tr>
<td>45</td>
<td>Non-cookie-cutter cis-furry dragonkin. Don't judge.</td>
<td>Homo sapiens, American</td>
<td></td>
</tr>
</tbody>
</table>

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Responding to diversity, equity, and inclusion (DEI)
Respondents frequently mentioned DEI efforts, and affirmative action, with one referring to “privilege point systems” (#41). Programs that seek to promote equity and inclusion may be perceived by these respondents as antithetical to ideologies of meritocracy. Many of the comments along this theme were fairly succinct, stating that “this is bullshit” (#39) or that “a degree has nothing to do with gender” (#31).

What are your strengths and skills in engineering and computer science classrooms or projects?
I am trans obviously I will have a job regardless of my skills thanks to diversity quotas inspired by surveys such as these. - #15
I don’t actually have any skills I’m just a diversity “affirmative action” student. - #43

Are there any comments that you would like to share with the research team?
While I of course do not condone bullying or discrimination, I wish people in universities (especially the faculty) would not focus so much on gender and identity. That doesn’t matter. Just let people do their thing and teach them how to do Gauss eliminations and whatnot. - #47
Please do some research on something that will actually benefit the human race. This notion that these quacks are normal is crazy. Honestly, they make engineering courses more a pain in the ass. Why cant they just sit down and learn the material like the rest of us and stop making everything about themselves? - #5
How on earth did this study get funding??? - #13

These responses, alongside the emails we received, communicated to our research team that the respondents not only thought our specific TGNC research project was unnecessary but that this study was one aspect of a larger social problem. This reflects claims made by political conservatives, which argue that equity research and policies are a legitimate and immediate concern in academia. The community act of making this claim constructs this as a part of their social reality, regardless of the evidence (Best 2018).

It is important to make clear here that (1) “diversity quotas” are against the law and do not exist in the U.S., and (2) Affirmative Action is not a quota system and its policies do not apply to LGBTQI+ communities. This is one of many places where we can see issues of race deeply entwined with issues of gender and sexuality. Attacks on
Affirmative Action are racialized and implicitly anti-Black, as the historic and ongoing exclusion of Black people is a specific legacy Affirmative Action was implemented to address.

**Gender binary discourse**

Respondents promoted an immutable biological gender-sex binary through their commentary on gender. The most overt was respondent #11 putting “There are only two genders” into every open-text comment field, with similar wording provided by respondents #17, 31, and 39.

*Are there any comments that you would like to share with the research team?*

Transgenderism and Modern Gender Theory are a manufactured entity created out of a desire to help people, but are factually incorrect and deny any of the unique and valuable differences between men and women that should be celebrated, not taught as falsehoods in order to eliminate any distinctions. Facts don't care about your feelings, and neither do most Americans. They care about getting a good job and providing for their families, not pandering tendency and neglect of moral or personal responsibility. - #4

Your research is Bullshit and there is no such think [sic] and nonbinary genders you're either male or female with the rare exception of someone born with both which is probably a result of a genetic disorder therefor if someone thinks they are born in the wrong body they have a mental disorder. - #27

*Do you have friends, classmates or family who support your success in engineering as it relates to your race, sexuality, disability status, religious affiliation, or other identities? If so, how do they provide support for you in your engineering program?*

I really can't be bothered at this point. You're ruining genuine scientific disciplines here. There are two genders, male and female. If an engineer creates a bolt and a nut but then whimsically labels them, then they're not that great of an engineer. - #29

The marginalization of TGNC people through a rigid gender binary is closely related to the marginalization of intersex people through the simplification of gender into two binary categories of sexual difference. Roughly 1/100 humans have intersex characteristics and the notion that physical sex confers inherent immutable gender difference is increasingly recognized as outdated and false (Joel 2011).

**Anti-trans, anti-queer**

Many comments targeted TGNC individuals and their community. Trans and queer people were referenced with hostility, anger, resentment, denial of validity, and tropes such as pedophilia and sexual predatory behavior. Some responses were short—issuing slurs such as “shemale” or “tranny” or calling themselves (feigning TGNC identity) “degenerate” or “repulsive.” Demographics listed in Table 2 provide a window into the respondents’ perceptions of gender and sexuality. Reported genders range from those similar to expected TGNC respondents (e.g., trans male, nonbinary queer, female,
agender) to those outright ridiculing TGNC identity (e.g., non-cookie-cutter cis-furry dragonkin, non-binary intersectional African Mohammedian Feminist, pedophile).

Do you have friends, classmates or family who support your success in engineering as it relates to your race, sexuality, disability status, religious affiliation, or other identities? If so, how do they provide support for you in your engineering program?
No lol I’m a social outcast transsexual who the fuck would actually hang out with me - #15

What is your favorite part of engineering & computer science programs & student culture?
I love that everybody misgenders me. I have a mental disorder and they are constantly reminding me to snap out of it. -#26
Faggots -#34
The hate for faggots -#24
The sex hehe. -#53

What are your strengths outside of your engineering program (i.e., at home, in your community, during free time, within friendships, and beyond)?
My strength is my ability to rape women with the strength of a man but pretending to have the body of a woman. It’s not cross dressing, mom!!! - #28

Are there any comments that you would like to share with the research team?
Pedosexual rights are the next step in the never ending march of poz and degeneracy and fathers who won’t let people from the pedosexual community have sexual relations with their children are bigots and might as well join the KKK. -#43

The term “poz,” used by respondent #43, is shorthand for HIV-positive. This shorthand was first used by the HIV-positive community itself but has been appropriated by hate groups online to refer to LGBTQI+ people. Taken in context these responses highlight the respondents' conflation of gender with sexuality, and gender diversity with mental illness, rape, disease, and child abuse.

Anti-Blackness, Anti-Indigeneity, and racialization
The backlash to TGNC students and their inclusion is an inherently racist backlash due to the intersectionality of race and gender. There are implicit racist assumptions and explicit racist rhetoric in contemporary anti-transgender movements, alongside ideological partnerships with the Far Right, and reflected in the malicious responder data (Pearce, Erikainen, and Vincent 2020, 680).

Racial and ethnic identity demographics displayed in Table 2 demonstrate that racial references and racism are deeply embedded in the malicious responses, particularly anti-Blackness. The respondents were not satisfied by simply listing “Black” as their race. Instead, it was often compounded with additional terms such as “Black Hispanic Jew,” “Blasian,” “Hispanic latina, native American, black” among others visible in Table 2. Mixing of races and ethnicities in the demographic data
reflects one of white supremacy’s primary fears: the diluting of whiteness resulting in anti-mixed racism.

Being both Black and trans is constructed by white dominated society as a “seemingly impossible positionality” due to the complex intersections of race and gender (Nicolazzo 2017, 69). Snorton argues that the “condensation of transness into the category of transgender is a racial narrative” predicated on the privileging of white gender narratives while simultaneously ungendering and excluding Black bodies from the construction of cis/trans (Snorton 2017, 8). Further, the racialization of Blackness and gender is imprinted with ownership, animalization, and bestialization (Gossett 2017). When a respondent maliciously writes one’s race as Black, this signals an ideology in which Black trans bodies are constructed as both impossible, and not fully human.

Anti-Black online netspeak and “digital Blackface” was present throughout the data. This is contemporary online parody, spectacle, and role play which commodifies a performance of Black culture and language, reflecting racial dynamics of 19th century Blackface minstrelsy (Matamoros-Fernández 2020). The online slang term “kangz” was used by 7 (14%) of the respondents. This term is shorthand for an online anti-Black phrase “we was kangz,” or “we were kings,” which is a pejorative diminishment of Black history on the African continent. Respondent #38 filled every single text box available with anti-Black slurs or stereotypes such as “I eat fried chicken NOMISAYIN AHAHA” or the word “kangz”—never once explicitly touching upon the subject of gender.

Indigenous people are also targeted in the data, reflecting historical and ongoing discursive and state violence against Indigenous gender systems to justify genocide through the exertion of biopower. Chris Finley argues that “biopower defines the colonization of Native peoples when it makes sexuality, gender, and race key arenas of the power of the settler state” (Finley, 2011, 31). Table 2 presents diminishing demographics such as the slur “Eskimo,” “Colored Native Mix w/opressed (sic) ancestors,” and “Two-spirited demiquer n”faggot attack helicopter kin.” It is notable that the specific descriptor of an Apache Attack Helicopter is referenced by several different participants—itself a synthesis and reflection of U.S. military force and the appropriation of Indigenous language by colonizers.

**Antisemitism and Jewish conspiracy**

The connection between antisemitism and enduring white nationalism in the data set must be identified and understood through historical context. Antisemitism was first termed in the 1870s to describe new patterns of Jewish subjugation across Europe after Jews gained citizenship and individual rights (Robinson 2000, 472). Antisemitism is a “cyclical” oppression that positions Jews as secretly capable and powerful, and conversely, a lesser-than corrupting force in society (Jews for Racial and Economic Justice 2017, 15). Hostility to Jewish people is the “lynchpin” of white supremacist organizing and alt-right conspiracy theories because “within this ideological matrix, Jews—despite and indeed because they often read as white—are a different, unassimilable, enemy race that must be exposed, defeated, and ultimately eliminated” (Ward 2017, 10).

*What are your strengths and skills in engineering and computer science classrooms or projects?
Recognizing Jewish Marxist conditioning.* -#24
What are your most important sources of support & community in your engineering or computer science program?
Hitlers 3rd Reich -#25

What is your favorite part of engineering & computer science programs & student culture?
The fact that Jews aren't in it. -#37
Getting to fuck my classmates without their consent. If they report me, I'll just report them to the Jewish elites and the Clinton foundation and we'll kill their parents. -#28
My favorite part is how I can get all the students and faculty to deep throat my pozzed tranny cock and rim my yummy boy hole in public for everyone else to see just by threatening to report them to my jew enablers at the ADL so they can dox them and defame them as nazis for the egregious hate crime of not wanting to sexually satisfy me in public. -#43

One of our researchers, who is Jewish, had their last name referenced directly:
Are there any comments that you would like to share with the research team?
I felt like the team wasn't diverse enough and included too many cis-white males. I did not appreciate the lack of trigger warning. Haverkamp reminded me of mein kampf which triggered my alter-jewish identity. -#2

Online hate subculture references
The growth of hate movements online carries specific vernacular and in-group “jokes.” Respondent #6 filled every comment field with the same phrase: “They can call me MA’AM” followed by 70 exclamation points. This is a direct reference to a popular video shared online by anti-trans activists with millions of views. The viral video shows a trans woman yelling at a GameStop employee after being misgendered, and the woman in the video is frequently cited as emblematic of trans activists. Respondents frequently referenced “triggered/trigger warnings.” The website Tumblr was referenced as an important place for several malicious responders. The site once known as a safer space for LGBTQI+ people has more recently been noted as a hot spot for white supremacist and anti-trans targeting (Nagle 2017). Members of the white nationalist associated community of 4chan perform organized “raids” of Tumblr, flooding the social media site with offensive and antisemitic imagery. References to online jokes, humor, memes, or hateful jokes permeated the data.

Identifying one’s gender as an (Apache) Attack Helicopter is also a hallmark of anti-trans discourse online, whether overt or in passing, and helicopters and aircraft were mentioned 12 times in the data. This meme can be understood through the belief that gender is genital-based at birth and any deviation is undeniably outrageous—and this anti-trans joke argues that trans-ness is inherently made up or artificial. Students in the virtual TGNC engineering community described the meme as a more socially acceptable way to mock trans people compared to overt slurs. The various identities targeted through stereotyping, slurs, and offhand statements blur
together to form a web of oppression, leaving masculinity, whiteness, and Christianity untouched.

**DISCUSSION**

The backlash to our research project reflects characteristics of contemporary far-right or fascist political movements in the U.S., such as the synthesis of antisemitism with anti-Black and anti-feminist rhetoric (Ward 2017). Harassment against engineering education researchers conducting social justice research are expressions of power intended to silence our efforts toward equity, and we should organize against these efforts (Pawley et al. 2019). It is our hope that this paper and our discussion will assist researchers in making sense of malicious responses they receive by shedding light on this often undiscussed, yet serious, phenomenon. We further hope that readers can leave this paper with a clear sense of application of this work to their own research, education, and organizing.

There are three primary themes in our discussion: (1) the potential for malicious responder research to shed light on and undermine hate speech; (2) an ideological exploration into the malicious responses as reflective of fascist ideologies and movements, and (3) potential responses in higher education.

**Research as counterspeech**

This paper was written precisely because we had not seen a paper written by researchers analyzing the hateful comments they received. Our peers in the field have been targeted and have written about it—but a content analysis or deeper details were not released (Pawley et al. 2019). Research demonstrates that online harassment and discrimination towards scholars lead to mental health issues and silencing, with scholars of marginalized identities more vulnerable to these effects, but this describes the impact of the targeting—not the content itself (Gosse et al. 2021). Analysis of harassment towards academics by Doerfler and colleagues (2021) proposes a taxonomy of harassment that objects to work on race, gender, and marginalization; details how harassers can form networks to enact the abuse; and argues that institutions are presently unable to support the mental and spiritual wellbeing of researchers experiencing targeting. Within the paper, Doerfler et al. posit three primary motivations for online harassment: “1) self-preservation, in that the research poses a real or perceived threat to the harasser 2) ideology, when the research is offensive to the harasser or challenges their ideology; and 3) performative harassment for personal or social gratification” (p. 5-6). Targeting of our work by malicious responders is likely ideological in nature. Many questions we had about academic research communities and our capacity to enact collective care and institutional ethics of safety/visibility have been reflected on by others as well, namely Massanari and her work on the “Alt-Right” online gaze upon researchers (2018).

Despite this, we still return to the question of the data itself—is it to be deleted, unspoken, stored on a hard drive, or analyzed? We clearly argue that more analysis work should be done on the words and ideologies written by the commentators—particularly work that takes their words, repurposes them into critique, and pushes back.
Counterspeech—done safely and with intention—can be empowering, reclaim control and narratives of our lives, and work towards a productive end-goal. The Online Harassment Field Manual’s section entitled “Fight Back Write Back” offers examples of counterspeech such as “the reclamation of hashtags” and “enlisting an online community to redirect the conversation in a comments section” (PEN America 2022). Similar work in academia can be done to safely and intentionally repurpose, confront, and make assertive statements against the ideologies expressed in malicious comment data. For the researcher on our team who experienced the brunt of the hate speech, she felt most fully able to complete her dissertation work when the idea to analyze and publish the malicious comments was further refined. Recommendations in prior work center on institutional response and research ethics—we hope that this paper and our discussion demonstrate usefulness to dissecting the ideology, assessing why a particular study was targeted, and confronting the hate in the research process itself. Further work may be able to assess the size, scale, and severity of these subcultures in STEM student bodies, for example, or better understand the cultural proximities at play. Safety from additional danger and intention in the analysis, as suggested by PEN America in the Online Harassment Field Manual’s section “Guidelines for Safely Practicing Counterspeech,” should be key for researchers building on this work.

Ideological motivations
Harassment and targeting of academics and their research can come from those with ideological motivations. Theories of fascism provide a framework to interpret the ways that dominant, oppressive, or reactionary ideologies regarding race, personhood, and gender become entrenched in community base building, exercises of power, and the State (Toscano 2021). Exercises of power by fascist movements can be electoral or legislative victories, violence, media entrenchment, and discursive shifts (Paxton 1998; Ross 2016). In our data, we saw individuals exercising discursive power in their language to target researchers and tamper with data. Importantly, the themes and repetitions serve to mark shared references and signify an existing community with a shared political agenda and racist, trans-antagonistic, and online political meme commentary. Fascism is not a coherent singular ideology or a resolved historical problem. It is a process, not only an outcome, consisting of multiple simultaneous reactionary movements which advocate extremist “ideas about race, religion, economics, social welfare and morality” (Davies and Lynch 2002, 13). Anti-fascism is a framework that we can use to connect contemporary fascist movements to the foundation of the U.S. as a racial project and ongoing legacies into the present era, which have bolstered colonialism, eugenics, slavery, and the prison industrial complex (Mullen and Vials 2020, 6-8). The U.S., while purporting to be founded on legal equality and democratic rights, was predicated on the 17th century invention of “the white race” alongside slave codes and settler colonial militarism—defining people of color as subordinate racial castes who were ultimately dispensable when it favored the white land-owning class (Mullen and Vials 2020). Further, white eugenicist and fascist movements in Europe played a key role in the transition of gender/sexual differences into “notions of sickness and deviancy within criminal law” to be constructed, categorized, regulated, or eradicated, which continues to shape material conditions for contemporary trans and queer communities of color (Mullen and Vials 2020, 316). The fact that just three respondents
identified as white in the demographics, with most responses noting a form of disability and non-normative gender, points to a critical ideological subtext: the fascist extremist’s obsession with conflating and eradicating TGNC/LGBTQI+ people, Black people, Indigenous people, Jews, Muslims, “race-mixing” and multiracial people, and people with disabilities.

Various parts of the fascism-as-process, five-stage model can be interpreted as present within the data. The geographically widespread institutional email addresses recorded from malicious responders and their connections to online hate-movement building relate to the movement-building defined in stage 1, and the ability to target researchers and research projects is a minor exercise of power (stage 4). The backlash to our research project is just one small component of broader fascist base building in the United States which frequently targets trans individuals and student activists (Hayden, 2020).

**Higher education responses**

The targeting of social justice research and marginalized academics fits into theories of fascism as a pathway the right-wing can use to exert power, one act within a larger effort. With this in mind, we can explore ways to not only protect each other and perform our work, but also stifle their broader social-political goals. Alexander Reid Ross (2016) concludes *Against the Fascist Creep* by stating that education is a key tool for dismantling fascist political movements:

> It is fascism and the radical right’s distortion of truth that poses the greatest threat to the world—not immigration or “Islamization.” Combating fascism requires the bravery and courage of fact. Knowledge pierces prejudice. Education around politics, immigration, Islam, and Judaism—to name only a few hot points—remains crucial. (p. 330).

Extremist political ideologies and conspiracy theories are increasingly easy to access online. If counter-education does not occur or is not widely accessible, then white supremacists and nationalists will have a larger share of political education through social media and other media platforms (Snyder 2021).

The university at its most ideal can be envisioned as “a central site for revolutionary struggle, a site where we can work to educate for critical consciousness” using “a pedagogy of liberation” (hooks 1989, 31). Towards this liberation, teaching theories of power regarding racism, antisemitism, cissexism, and fascist political movements should avoid “individual bad actor” frameworks which have been common in STEM (Riley et al. 2009). Frameworks that illustrate interdependent collective struggle, and demonstrate a politic of solidarity, should be centered instead. We share Cathy Cohen’s assertion that “the process of movement building [should] be rooted not in our shared history or identity, but in our shared marginal relationship to dominant power which normalizes, legitimizes, and privileges” (Cohen 1997, 458). Identities such as transgender status in STEM teaching should similarly not be taught as “single issues” but be conceptualized as one component of our multifaceted experiences with power and oppression—and that categories such as race, gender, and sexuality have roots in European colonial logics shared by fascist movements (Haverkamp et al. 2021). The content of social justice education in STEM must also challenge STEM’s role in these oppressions. Engineering graduates in the U.S. frequently work in fields such as fos-
sil fuels, defense, construction, and technology upon graduation, and could be taught about these field's relationships with national and global racial capitalism and ongoing apartheid in Palestine, as an example (Davis 2016, 79-83). While outside the scope of this research, though perhaps relevant to other researchers, a quick internet search of a phrase such as “January 6 engineer” will quickly reveal a number of engineers involved with the Capitol Riots. These engineers were educated in our classrooms. Engineering educators have a responsibility to teach critical thinking around political issues.

CONCLUSION
Our researcher serving as the primary contact for the outreach questionnaire received a winding 500-word email, with its end stating:

I am only writing this email to make it more obviously aware to you that your “transgender and non-conforming gender” studies are only encouraging this new unfortunate and immature movement that is happening across the United States at this time. I am appalled that you think it is okay to waste money and precious time on something so irrelevant in the field of engineering... please dispose of this study and focus on something better. Do it for humanity. The decisions we make now will effect (sic) the outcome of history forever. Don't make the wrong decisions.

We disagree with this email’s assertions. This analysis and the TGNC student resiliency study they are referencing are for the sake of humanity. The email asserts that our research is part of a movement that will affect the “outcome of history forever.” We hope that this paper is part of a movement that will dismantle hate, bigotry, and oppression. Using social justice and anti-racist frameworks to dissect malicious data recorded in engineering education research is necessary in order to conduct responsible and rigorous scholarship.

This analysis is a rebuke of conspiracy theories and misinformation which not only barraged our research but also underpinned the fascist storming of the U.S. Capitol on January 6th, 2021. We should find common ties between social events such as the cyber threats issued against engineering educators, anti-trans rhetoric online from celebrities and major media, antisemitic conspiracies gaining a foothold in mainstream political discourse, and the shooting of Black Lives Matter protestors by a member of the right-wing militia movement. These events all share a common tie of growing extremist racial and gender rhetoric and violence. This paper answers calls made by engineering educators to embrace academic freedom and engage in political discourse (Morgan et al. 2020; Riley et al. 2020). We echo scholarship explicitly naming antiracist engineering education approaches as critical in combating white supremacy (Cross 2020). Our field must develop a robust analysis of how racist and fascist discourses are inseparable from transphobic discourses and approach malicious responses to research that focuses on marginalized people in engineering as central evidence in this research. Addressing these sentiments and their cultural contexts are not only critical for understanding resistance to social justice research, but it is imperative for our colleagues’ safety and the transformation of our field.
REFERENCES


Gregory, Stacie LeSure. 2015. ‘African American Female Engineering Students’


Wells, Georgia, and Ian Lovett. 2019. “‘So What’s His Kill Count?’: The Toxic Online


ACKNOWLEDGEMENTS
Oregon State University in Corvallis, Oregon, is located within the traditional homelands of the Mary’s River or Ampinefu Band of Kalapuya. Following the Willamette Valley Treaty of 1855, Kalapuya people were forcibly removed to reservations in Western Oregon. Today, living descendants of these people are a part of the Confederated Tribes of Grand Ronde Community of Oregon (grandronde.org) and the Confederated Tribes of the Siletz Indians (ctsi.nsn.us).

We are grateful for funding from the National Science Foundation (NSF) under grant EEC-1764103. Any opinions, findings, and conclusions, or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the NSF.
BRIEF REPORT

The Political Participation of the Transgender Community in Kerala: Rights, Accessibility, and Activism

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This brief report examines the political exclusion of the transgender community in Kerala and factors impeding trans people's inclusion in electoral politics. The report's main argument is that the political exclusion of the trans community in Kerala is an extension of their socio-economic exclusion. Cultural and social exclusion, institutional or structural barriers, lack of identification documents, lack of awareness about the right to vote, lack of money and resources, violence, and discrimination are some of the factors that hamper the political participation of trans people. This report also showcases some possible recommendations for change that would increase the political inclusion of transgender people in Kerala.

KEYWORDS electoral participation; political exclusion; trans community; Kerala

DOI 10.57814/ramh-r352
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A democratic political system allows all citizens to participate in decision-making and neither denies nor capitulates to a particular group. Nevertheless, various minority groups are excluded from the Indian political system (Kumar and Rai 2007; Roluahpuia 2018). This exclusion is mainly based on identity markers, such as gender, race, class, ethnicity, or property ownership. It is only due to struggle by diverse groups and constituencies that democracy, in practice, has expanded to include the demands and rights of non-elites. Transgender people are a marginalized and vulnerable community in India. It is difficult to understand discrimination and inequality in the transgender community by focusing on a single axis of gender identity. It must be examined and explored through an intersectional lens, wherein people's multiple identities collide. In his work, Rahul Rao (2020) draws connections between trans and lower-caste Dalits critiquing backwardness in India. Transphobia structurally depends on caste oppression in a historical sense (Rao 2020). Indian society is incredibly multi-layered, with class and caste divides, meaning that the inequality and abuse faced by gender
minorities differ due to the intersection of these categories. In India, gender violence is a gender-related crime and a combined effect of other factors, including caste, class, and religion. A hierarchy based on caste, class, and geographical location separates trans communities across India, and they experience varying degrees of abuse and marginalization.

One of India’s most prominent Dalit trans activists, Grace Banu, points out that writers neglect cis-Brahmanical patriarchy’s adverse and discriminatory effect on transgender persons. Transgender individuals fight for their rights and survival in a society organized by patriarchal and caste binaries. Banu links the discrimination that victimizes transgender persons to the cis-Brahmanical patriarchal order, which views sex work and begging as taboo rather than a form of labour. Finally, Banu argues that cis-Brahmanical patriarchy is responsible for notions of “purity” and “pollution” that surround the idea of morality in our society and distort socioeconomic power structures to disadvantage Dalit transgender persons (Banu 2018). Banu points out that the OBC classification and reservation of transgender people mentioned in the NALSA judgment do not do justice to the intersectional caste group within the community. Banu demands horizontal reservations for trans people based on their intersectional identity. The transgender community has caste divisions; for example, a transgender person could also be Dalit. This raises the need for reservations to recognize these intersectional and multiple marginalizations and cut across caste categories. Horizontal reservation ensures this need is recognized. This argument highlights the need for the transgender community to be treated as a separate class within existing reservation slabs (Banu 2022).

It has taken 70 years for India, the world’s largest democracy, to realize and recognize that trans people have the right to vote on their gender identity. India had 908,717,791 registered voters in the 2019 Lok Sabha election. Out of this, a total of 470,925,902 (51.8%) were male voters, 437,752,919 (48.1%) female voters, and only 38,970 (.0042%) transgender voters. Political communication between citizens and government is possible only through electoral participation, adequate representation, strategic negotiations, protests, discussions, debates, etc. The lack of political involvement of transgender people is evident in every Indian state. This report argues that the poor political participation of the trans community in India is an extension of their socio-economic exclusion. Compared to other Indian states, Kerala is one of the states that introduced progressive measures for trans people. The study analyzes the political participation of trans people and the factors impeding their political participation in Kerala.

**METHODODOLOGY OF THE STUDY**
The study is descriptive and analytical, using available books, interviews with trans voters and candidates, media reports, and academic writings. Since the study happened during the COVID-19 pandemic, the researcher conducted interviews over the phone. When names for interviewees are provided, names have been changed to protect participants.
POLITICAL PARTICIPATION OF TRANSGENDER PEOPLE IN KERALA

In the public sphere of Kerala, an Indian state known for its admirable Human Development Index score, transgender people have historically been invisible. Kerala is the most literate state in India, with a literacy level of over 93.91% compared to the national literacy rate of 74% as per the 2011 census (Know India, n.d.). However, despite some of its exceptional characteristics, persistent male dominance, social stigma, and heteronormativity are evident. Public perceptions of the hijra community outside Kerala, as well as patriarchal and heteronormative gender norms, phobia, and social stigma prevailing in Kerala society, led to their social exclusion (Krishna 2018). After the Supreme Court verdict (NALSA v. Union of India, 2014) on transgender people, discussions and social interactions in the community have become active in Kerala's public sphere. The struggles of transgender community members, the intervention of community-based organizations, print, and visual media reports, and the positive support of the government have catalyzed these changes. Kerala is the first Indian state to announce a transgender policy (Government of Kerala Social Justice Department 2015). Despite pro-trans attitudes and welfare measures that enhance them into the mainstream, trans community electoral participation remains low. Kerala politics has always been male-oriented and -dominated (Hapke 2013), which has created an unfriendly environment for women and gender minorities to access political positions. This is especially evident in the political recruitment and representation of women and gender minorities. The social construction of gender and sexuality, stigma, and patriarchal notions have often limited transgender peoples' capacities to articulate and act upon their claims and concerns. The discourses, procedures, structures, and functions of governance are still, by and large, heavily skewed in favor of men. Women and gender minorities cannot articulate the priorities of their constituency and influence decision-making. Consequently, their voices are muted. The patriarchal culture neither sees them as political entities nor allows them to develop in that direction.

Feminist politics in contemporary Kerala is now evidenced by the much greater visibility of women in public and development and by the arrival of anti-patriarchal discourses that reject binary gender models (Devika and Thampi 2012; Tharayil 2014). When discussing the political participation of trans people in Kerala, it is essential to look past the obstacles for transgender political aspirants, the lack of political intent to help them contest oppression, and the social ostracism they face in a heteronormative society. In 2017, six voters in Kerala registered their identity as transgender on the voter’s list. In 2021 the number increased, indicating social change. As per the government’s 2014–2015 transgender survey, there were around 25,000 transgender

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1 Hijras are mostly feminine individuals assigned male birth. Hijras have a long tradition and culture and have strong social ties formalized through a ritual called “reet” (becoming a member of the hijra community). There are regional divergences in terms referencing hijras, for example, kinnars (Delhi) and aravanis (Tamil Nadu). Hijras may earn an income through their traditional work, “badhai” (clapping their hands and asking for alms), blessing newborn babies, or dancing in ceremonies. Some of them engage in sex work for lack of other job opportunities. Reddy (2005) refers to hijra “supra” religious/national subjectivities that emerge out of the plurality of their daily life practices and the incessant material and symbolic comings and goings through which “hijrahood” is constructed in South Asia.
people in Kerala, but only 290 registered in the voter’s list by March 2021 (Sangama 2015). However, this is not enough for transgender political participation. The fear of social ostracization prevents many transgender people from enrolling as transgender voters. Most are forced to hide their identities for fear of being tainted and expelled. The researcher spoke to some trans people at a private event hosted by a community-based organization. They revealed that they had never publicly disclosed their gender identity. As a result, those who retain their birth identity in public cannot vote or obtain an identity card by revealing their gender identity due to fear of social rejection. Some trans persons want to identify as binary male/female, and others are forced to remain in the binary gender category contrary to their wishes due to social stigma and discrimination. They are reluctant to fight for their rights because of the risk of socio-political exclusion.

Duffy (1995) defined social exclusion as the inability to participate effectively in social, political, economic, and cultural life and alienation and distance from mainstream society. Duffy argues that the political disengagement manifested in non-participation is a form of social exclusion. There is ample evidence that political disconnection can be a form of social exclusion. Those excluded for economic and social reasons are also politically excluded; they are less likely to participate in the election process and vote. As a result, democratic participation is reduced, and political influence is polarized by class and wealth. Duffy’s study points out that political segregation and social exclusion harmonize and guide each other. The relationship and causal direction between the factors of social exclusion of the transgender community in Kerala and the levels and forms of political disintegration are evident. Trans individuals have not yet been able to ensure their political, social, and economic participation in Kerala society. Those who experience social poverty are the most politically excluded, and political segregation can be a form of social exclusion (Beeghley 1986). Political aspects of exclusion refer to deprivations of citizens’ rights, including restricted access to organizations, voter rights, legislations, constitutions, and decision-making in policy. This multidimensional model of social exclusion also frames the analysis of the experiences of the trans community. Their citizenship and community decision-making rights are limited. Among these multifaceted exclusions, few trans people have participated in Kerala politics without adequate support from political parties and society.

Despite their ideological and political differences, political parties in Kerala support trans persons after the Supreme Court’s verdict on transgender people. Such changes stemmed from the general perception that accepting transgender people is progressive. Thus, since 2014, the political parties in Kerala have developed pro-transgender attitudes. During their reign, the Transgender Policy initiated by the United Democratic Front (UDF) has also been implemented by the Left Democratic Front (LDF) government. There were signs of acceptance and acknowledgement of trans people as evidenced by their inclusion in the manifestoes of the LDF and UDF during the 2016 assembly election and the discourse on the transgender community in the policy outline of the Fourth Kerala Padana Congress held by the AKG Study and Research Centre. Although the problems of the trans community need to be highlighted by political party members, a binary gender-identifying candidate talking about transgender community issues is not adequate. It reflects the main problem of representation; transgender people talk about their problems through a cisgender person,
who either understands it empathetically or may not understand it. Therefore, the policies they formulate will not be effective. Political presence from the trans community is essential for any policy change because many policies and plans have been formulated for trans people in India in general and Kerala in particular. Still, the voice of trans communities is not heard in parliament or at any political level. In Kerala, three transgender candidates have stood in elections. In 2019, Aswathy Rajappan contested as an independent candidate from the Ernakulam Parliamentary constituency in the Lok Sabha elections to represent the transgender community. Rajappan is a Dalit activist who identifies as both intersex and transgender and actively working among Kerala’s LGBTQIA human rights community. Rajappan has also been an active part of the ‘Sahayathrika,’ an LBT welfare organization based in Thrissur. Rajappan was the first transgender candidate to contest from Kerala. Out of 967,203 votes polled, Rajappan received 494 (Joseph 2019). Many candidates and fronts have talked about rights and equality in Kerala politics, but Kerala society has rejected identity-oriented politics and still favors broad-based party politics. The Lok Sabha elections always highlight issues of national importance, so those raised by the trans person Rajappan in the election and the politics put forward were not reflected correctly in the constituency. A lack of money and other resources, social stigma, and discrimination were obstacles for Rajappan to get the political campaign to the grassroots.

In the 2020 local body election, a transgender person named Sneha K. contested as an independent candidate from the Kannur Corporation Keezhunna ward. Sneha K. was the first transgender candidate to contest in the local body election in Kerala (Sanjit 2020). Out of 1,397 votes polled, Sneha received 37. It is clear from the votes for Sneha that there had been no significant change in the mindset of voters and political parties in the three-tier panchayat elections a year after the Lok Sabha elections. Although national perspectives determine parliamentary elections, panchayat-level elections often focus on local issues, personal relationships, and the candidate’s excellence. Sneha has been unable to get any votes beyond her sphere of influence because trans people are still not entirely accepted by society.

Similarly, in the 2021 Kerala Legislative Assembly election, a transgender person named Annanyah Kumari Alex contested as a Democratic Social Justice Party candidate from the Vengara constituency. The candidature and performance of transgender candidates in Kerala were not noticed due to a lack of support or cooperation from political parties and the community. Ananya did not receive any group support from her party. She stated that DSJP used her to gain publicity, and she faced stigma, gender discrimination, and sexual harassment from their party members (TNN 2021).

“Dalit” is derived from the Sanskrit word “dal,” which means “ground,” “suppressed,” “crushed,” or broken pieces. It was first used by Jyotiba Phule, the founder of the Sathya Shodak Samaj, a non-Brahmin movement in Maharashtra. Phule used the term to refer to the outcasts and untouchables as the victims of the caste-based social division of Indian society in the nineteenth century. According to Premasagar (2002, 108), the word expresses “weakness, poverty, and humiliation at the hands of the upper castes in the Indian Society.” Ambedkar (1948) chose “broken man” as an English translation of dalits in his famous treatise, The Untouchables.
FACTORS IMPEding TRANS PEOPLE’S POLITICAL PARTICIPATION IN KERALA

The study identifies broader issues that lead to transgender people being excluded from the political sphere. Various issues and problems have existed in Kerala regarding the path of the political participation of transgender people. Although specific policies are introduced and implemented by the Government of Kerala, promising equal rights for transgender people, the public’s conceptions remain unchanged. Since there is a gap between the state and society in Kerala, mere policy formulation is not the solution.

Cultural and social barriers

One of the obstacles to transgender people’s political participation is cultural and social barriers, including social stigma and heteronormative beliefs. They are often treated as an oppressed community and disrespected in almost all aspects of life. Social exclusion, such as exclusion from participation in social and cultural spaces, exclusion from family and society, poor facilities for education and health, and lack of protection from violence, lead to political exclusion. Due to negative behaviour from society, norms, and culture, their voices have not been heard. The lack of acceptance from society and family has left trans people filled with anxiety and discomfort.

A transgender voter in Kerala told me in an interview:

When I first went to the polls, everyone looked at me with great astonishment. I felt like everyone is making fun of me or looking at me as different. I felt like I had to get out of there quickly.

A transgender political party member pointed out:

As a member of a mainstream political party in Kerala, I had demanded in the party that one of the transgender persons be brought into the fray during the local government elections. They did not accept this demand saying that society has not started accepting transgender people fully and there is no chance of winning. Many of the parties that hold us together in public have not yet fully accepted us.

From these opinions, trans individuals face stigma and discrimination from society and political parties in Kerala. These obstacles discourage transgender persons from entering politics in various ways. The main reasons for this are the cultural and socio-political attitudes that consider politics an exclusively male domain. In this regard, it is essential to remember that public opinion matters greatly in elections. Thus, how the public perceives transgender people’s place in society can be decisive. Considering that Kerala’s social organization remained highly patriarchal and heteronormative, as noted in scholarly inquiries (Devika 2019; Kumaramkandath 2013; Tharayil 2014), one could assume that many faced gender dysphoria but preferred to remain in the closet due to social ostracism. Similarly, general social exclusion also prevents transgender presence in the public sphere. This social exclusion among the trans community extends their political exclusion within society.

Despite all their efforts, social stigma and existing patriarchy remain the biggest obstacle to overcome for the trans community in Kerala. The stigma of discrimination, harassment, and even violence causes psychological distress for transgender individuals. Rajappan, in a telephone interview, recounts experiences of such social stigma during the election campaign:
The families I approached for the election campaign have asked me why you are contesting. Will people vote for you [a trans person]? Aren't the other parties talking about you?

Thus, the social stigma in which gender is questioned reduces the political participation of trans people. The stereotypes imposed by civil society onto trans people are a crucial barrier to access to political opportunities.

A lack of education among trans people is also an obstacle to understanding political rights. Kerala's high literacy rate is not reflected in transgender education. According to the transgender survey of the Social Justice Department, 59% of transgender students drop out before completing the 10th standard, and 72% by the time of the 12th standard due to discrimination (Sangama 2015). Transgender people in the education sector strongly experience exclusion. The feeling that voting and electoral politics will not make a substantial difference in their lives also becomes a reason for the reluctance of transgender people to participate in politics.

**Institutional or structural barriers**

Institutional or structural barriers are a substantial obstacle to transgender political participation. These constraints include political systems, electoral rules, political party structures, and institutional cultures, such as campaign financing trends that discriminate against transgender people. Political parties are one of the institutions influencing the electoral participation of trans citizens. At the national and state levels, parties determine which candidates are nominated and elected and which issues are of national importance. The role of transgender people in political parties is a key determinant of their potential for political empowerment, especially at the national level. Unfortunately, there are no candidate lists or leadership elections involving trans persons on the part of political parties. In addition, mainstream political parties do not mobilize transgender voters in their constituencies and election campaigns. There is no proper initiative on the part of political parties to add the names of trans persons to the voter's list and get them to vote. As a result, political parties are reluctant to give transgender people important responsibilities and include them in their campaigns.

In a telephone interview Manu, a trans man, told me:

> Political parties are now increasingly involved in our problems. Solidarity is also expressed through social media and public opinion when there are any issues. But they do not intervene in a big way to choose us a candidate or ensure our political participation. No party is willing to take risks in politics.

Political parties and Kerala society love to look at the trans community with sympathy and keep them aside. However, while the social taboo and ostracism have kept most transgender people from actively participating in politics, there have been a few risk-takers.

**Violence and discrimination**

Transgender individuals face multi-dimensional violence and discrimination in public and private spheres. For example, Ramya, a trans woman, said:

> I am a person who has faced various forms of violence in public places.

> I have heard jokes and abuses even from the police, who are supposed...
to protect the law. For all these reasons, public space interventions are complex for me.

In Kerala, trans people are targeted, harassed, and abused publicly because of gender identity. Syama S Prabha said:

When I met PC George, a member of the Kerala Legislative Assembly, he asked me, “Aren’t you a man… Why are you dressed up? I can see your moustache.” I am a transgender government employee in Social Justice Department, and he is a representative of the people, and he was questioning my identity.

This is a clear example that high-ranking officials and politicians still do not have a clear understanding of trans identity. Mental harassment, bullying, and insults are common in public places. In the workplace and medical institutions, transgender people have reported the experience of psychological harassment and discrimination more prominently than physical or sexual violence. Sruthi, a trans woman, said:

When I went to the hospital to treat a rash on my hand, I openly declared to the doctor that I was a trans woman. But the doctor called the nurse and murmuring her about my gender expression and made vulgar comments. Because of this humiliating situation, I returned without treating my illness.

Many trans men face derogatory comments from the public or co-workers. Monu, a trans man, spoke about the period before he had started taking hormones:

My boss knew that I was a female. But when customers came into the shop, they would point at me and ask, “Is that a he or a she?” This incident made me feel very bad, and so I left the job.

In the context of transgender identity, the vulnerability and discrimination that the trans community faces are distinct. Dalit transgender persons face compounded discrimination due to their caste and gender identity. Caste-based discrimination has been recorded in different forms. They range from termination, employers verbally reminding respondents of their background, unequal pay, etc. In the case of Dalit transgender respondents, the interviews reveal experiences of verbal harassment and ridicule. Karishma, a trans woman, recounted that they face discrimination and mental abuse in the workplace because of their gender and caste. They were severely insulted by colleagues because of their color and feminine character. Because of this multitype and intersectional violence and discrimination, trans people are afraid to face the public.

**Lack of identity documents**

Access to legal identification is a fundamental human right of every citizen. A unique identity is needed to prove who we are, exercise our fundamental rights, and facilitate access to all state services. However, in the case of many transgender community members, their gender identity in documents differs from their self-declared identity. Therefore, due to the lack of identity documents, transgender people lack social benefits such as education, healthcare, and voting rights. In addition, due to the lack of clear identity documentation, most trans people are still forced to vote within the gender binary. Soorya, a trans woman, said:

Although I am a self-identified trans woman, all my identity cards are my
biological (male) identity. I'm still voting on my male identity because it is not changed. I'm not happy about that. I'm trying to change it.

Interviews revealed that there are also trans people who abstain from the voting process because of their inability to vote using their desired gender identity. In addition, the lack of a clear/definite address for trans human persons displaced from their families, homeland, and social status is a barrier to obtaining identity documents.

**Poor awareness of voting rights**

Lack of awareness among trans citizens about their voting rights is one of the reasons for their active participation in the electoral process and their awareness and interest in the process. One trans interviewee opined in a telephone interview:

> Why should I vote? Politicians or the people will not accept us. None of the politicians come to me asking for votes. No one asks us to vote or add a name to the voter list. Now I am 28 years old, but I didn't vote yet.

This comment points to a lack of awareness of political rights and duties and a sense of inferiority and indifference arising due to neglect from political institutions and systems. There is insufficient information, training, and voter education for transgender citizens regarding registering on the voter’s list, casting a vote, finding relevant polling booths, etc. Moreover, they haven’t received enough information and training on contesting elections, their rights, and their duties as candidates.

**Lack of money and resources**

Money, as well as related resources, is essential to facilitate an election process. Unfortunately, economic backwardness and a lack of election-related materials hamper the smooth running of trans contestants’ campaigns. In a telephone interview, Kavya revealed:

> Competing in elections is a very costly process. No one comes forward to support competitors like us mentally and financially. I have personally seen contestants from our group struggling with the money to tie up in the election and the cost of campaigning. Only the majority parties are funded and supported by all. Nobody cares about minority people like us.

Transgender candidate Rajappan, who contested the 2019 Lok Sabha elections, raised funds for the election through crowdfunding. Rajappan says the financial crisis decelerated campaigning and poster advertising throughout the constituency (Varghese 2019). The trans candidates who contested various elections in Kerala had no permanent work or income. Therefore, society’s economic situation and lack of acceptance have severely affected their election campaigns and political participation.

**RECOMMENDATION FOR THE INCLUSION OF TRANSGENDER PEOPLE’S POLITICAL PARTICIPATION**

In light of the interviews and analyses conducted with trans individuals, their social inclusion must be addressed to enhance their participation and inclusion in political activities. Thus, the level of political participation of the transgender community can be improved through the following measures:
1. Create an enabling socio-economic and political environment for transgender inclusion. The study shows that transgender people continue to be subjected to social ostracization and prejudice, leading to horrific violence and discrimination.

2. Provide knowledge, training, and education for political participation. This study indicates that the level of political knowledge and consciousness affects political participation among the trans community in Kerala. Empowerment through processes of learning and action strengthens their self-esteem, analytical skills, competencies, and political consciousness. It helps marginalized and excluded transgender citizens understand their rights and unite to transform inequitable power relations and develop more democratic societies.

3. It is clear from the study that the trend of avoiding trans candidates in elections continues in Kerala, despite increased social acceptance. Surya, a trans activist in Kerala, opined in a newspaper, “The parties’ support for our community remains on paper. We realize we are still prevented from coming to the forefront of politics. Trans people continue to face gender discrimination. I understand the respective political fronts must give the allies a few seats. But at least a few seats should be earmarked for us by all political parties” (Chandran 2020). Kerala political parties must ensure a gender-neutral political approach, education, and thinking beyond the gender binary. All political parties should include the trans community in their election manifestoes to make them non-discriminatory and inclusive. Political parties should explore the potential of transgender politicians and candidates. Political parties should include transgender rights organizations and activists in party meetings, consultations, and hearings; it creates political space for them.

4. The election commission should hire transgender community members as polling staff to deliver the inclusion message. It should organize special campaigns to educate transgender voters, focusing on first-time young transgender voters. The Election Code of Conduct should ban any transphobic candidate from contesting elections. It must ensure zero tolerance towards transphobia in election campaigns and elections. Local, district, and state-level offices should be sensitive and mobilized to engage with transgender individuals, organizations, networks, and alliances.

5. Amend the constitution and include provisions for reservations for transgender people. There is a need to consider the transgender community as a separate class within existing reservation criteria. In addition, it will help increase their political participation.

CONCLUSION
It is critical for trans people, a marginalized and excluded section of Kerala society, to be part of the democratic system to achieve their rights and to make sure their voice is heard. Unfortunately, the political participation of transgender people in Kerala is minimal, as reflected in their electoral registration, voting, and election contestation.
That fact is reflected in the opinion and views shared by the trans respondents interviewed for this study. The main reason is that transgender people do not receive equal treatment in the community and are discriminated against in all spheres. Although political activism has increased slightly, fundamental changes are possible only by ensuring trans representation in the legislature and executive. However, their election to representative bodies will not be possible without the support of the political parties that dominate the Kerala political system. Trans communities can become mainstream only if they receive social, political, and legal support, welfare measures, and empowerment programs. Political parties, government, and society have a significant role to play in ensuring the political participation of trans people. More broadly, NGOs, including trans, human rights, community groups, the academic community, and other civil society organizations, can contribute to the advancement of the political participation of transgender people.

REFERENCES
wathi-fight-high-powered-battle-ernakulam-99628.


BRIEF REPORT

Building a Rural Gynecology Gender Health Program to Bring Care Closer to Home

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Transgender and gender diverse patients face significant healthcare disparities that are often exacerbated for those living in rural areas. Our aim is to describe the characteristics of and medical services utilized by a transgender and gender diverse population seeking gynecologic care in a rural area. We conducted a retrospective chart review of transgender and gender diverse individuals who sought care and/or underwent gender-affirming gynecologic surgery at our institution. We compared patients presenting to the gynecology clinic from 2017–2018 to patients presenting to the dedicated Gynecology Gender Clinic from 2019–2020. We also describe the features that distinguish the clinic as specialized care. The clinic was able to utilize a pre-visit questionnaire to obtain patient name, pronouns, and gender identity in advance of the visit. Total unique patient volume increased by 83% (average 12 per year to average 22 per year). Hysterectomies performed increased by 320% (from 5 to 21 post-implementation) and encounter volume increased by 84%. The development of a Gynecology Gender Clinic program has led to an increase in clinical and surgical volume, improving access to care. Our data demonstrates feasibility of implementing the clinic and demand for specialized gender care in a rural community.
Transgender individuals face significant healthcare disparities and barriers to care that are often exacerbated for those living in rural areas (Fantz 2014; Sinnard, Raines, and Budge 2016; Tinc et al. 2020). Multiple factors contribute to this disparity, including fear of discrimination, direct mistreatment, or refusal of care by providers or ancillary staff, as well as higher rates of uninsured or underinsured status (Fantz 2014; Bradford et al. 2013). Additionally, trans individuals living in rural areas may experience increased isolation and discrimination compared to urban populations, leading to further marginalization, reluctance to present for care, and decreased access to specialized clinics (Poteat, German, and Kerrigan 2013; Rowan et al. 2019; Whitehead, Shaver, and Stephenson 2016).

Several studies have demonstrated decreased primary care utilization, including vaccinations and cancer screening tests, amongst the rural transgender population, despite adequate insurance coverage. This may be due to a combination of barriers faced by rural populations in general (poor transportation infrastructure, low provider density), compounded by healthcare disparities specific to trans patients (outright discrimination, stigma, provider knowledge gaps; (American College of Obstetricians and Gynecologists 2014; Horvath et al. 2014). Additionally, transgender patients face greater travel distances to receive medical care (Stewart, Lee, and Damiano 2020; Whitehead, Shaver, and Stephenson 2016). The factors leading to increased distance travelled are myriad. For some patients, it may be a function of rurality and distance to a metropolitan area, especially for patients with an interest in receiving care from a knowledgeable provider with experience caring for trans individuals Berli et al. 2017). Other patients, especially those living in more remote or isolated areas, may fear breaches in their personal medical information when presenting for medical care, which can lead to further stigmatization and risks to personal safety (Harb et al. 2019; Logie et al. 2019; Whitehead, Shaver, and Stephenson 2016).

Population estimates of trans patients are difficult to determine for a variety of reasons. Most surveys conducted for research do not currently include questions about gender identity, missing opportunities to capture even basic demographic information about transgender populations (Meerwijk and Sevelius 2017). Similarly, the United States Census and other national demographic data repositories (birth certificates, Department of Motor Vehicle records, etc.) do not include information about gender identity or discrepancies in legal sex versus sex assigned at birth (Meerwijk and Sevelius 2017). While we do not have data to effectively determine the number of trans people who live in our hospital's catchment area, we do know that a previous study at our institution captured at least 255 gender diverse patients utilizing our institution for primary care from 2015 to 2018 (Stewart, Lee, and Damiano 2020, 51). This number is certainly an under-representation of the total trans population, but it does serve to demonstrate that a population is present and may have a need for specialized care.
Distance to care in the context of transgender health care access has several implications. One of the primary barriers to gender-affirming surgery, heightened in rural areas, is the lack of surgeons providing this type of care. A survey conducted in 2018 by Terris-Feldman and colleagues (2020) demonstrated that only 20 of 50 US states had surgeons performing genital gender-affirming surgery (vaginoplasty, metoidioplasty, and phalloplasty). This information was gathered in the same fashion that a patient would use to find a surgeon, such as utilizing national transgender patient care forums and internet searches.

Inability to access a qualified healthcare provider was described as the primary barrier for not undergoing surgery among 41% of transgender men in another survey (Sineath et al. 2016). Even among patients with a suitable provider, there are often additional barriers such as unaffordable out-of-pocket costs, challenges with insurance coverage and time away from work, exacerbated when having to travel a greater distance (Puckett et al. 2018; Terris-Feldman et al. 2020). These issues are similar for patients seeking hormone treatment or other types of care (Puckett et al. 2018; Sineath et al. 2016). For all these reasons, we felt that expanding access to transgender care at our hospital, which serves a primarily rural population, would help to ameliorate some of the impediments to care trans patients in our area were facing.

At our institution, prior to the implementation of our clinic, there was a small group of trans patients seeking care. However, there was not an emphasis on scheduling these patients with a particular provider with interest and knowledge of gender-affirming care. For example, all providers would be capable of providing hysterectomy services; however, providers delivered variable counselling on ovarian conservation for people on testosterone and largely used risks and benefits specific to a cisgender population to guide this conversation.

The specific motivation for starting this clinic stemmed from a single transgender patient who provided feedback on their experience seeking care. The last author of this paper founded the clinic after a patient reached out to Patient Relations when the gynecology clinic refused to provide the patient care in a location outside of the gynecology office. The administrative staff denied the request for care in a different location without considering whether it could and should be offered. Reasons for not wanting to seek care at a gynecology department vary between patients, but for certain individuals, this could result in “outing” them as transgender, a concern magnified for those living in small towns. Other reasons include increased dysphoria based on the clinic environment including artwork or gendered informational brochures. The patient could not simply seek care elsewhere since, in a rural environment, there are limited options for specialty care. To find a different option for care, the patient would have needed to travel a greater distance and would risk similar insensitive care in a different office. After the patient spoke with Patient Relations, care was able to be arranged in a more appropriate location for that individual. After this event, a multidisciplinary team was assembled, including community members, to discuss how to optimally offer gynecology care to transgender and gender diverse patients in our care environment.

Before the intervention, the clinic did not have a standard process for gathering sexual orientation, gender identity, and pronouns from patients. This increased the likelihood of misgendering patients during registration, rooming, visits, and subse-
quent encounters. For these reasons, there was motivation to identify a small group of gender-affirming providers with specialized knowledge to provide this care. Additionally, education to the entire gynecologic clinic staff was deemed necessary, as there are often patients seen outside of the specialized gender program and staffing of auxiliary team members often varies day to day.

**Program Creation**
Several studies have demonstrated increasing numbers of patients presenting for gender-affirming care and treatment over time (Al-Tamimi et al. 2020; Berli et al. 2017; Canner et al. 2018; O’Bryan et al. 2018). Despite the initially small number of patients being seen in our general gynecology clinic, we knew it was likely that these patients were only a fraction of the trans population living in the area served by our medical center. Thus, the dedicated Gynecology Gender Clinic program was started in 2019 at a rural, tertiary care center to serve patients closer to home, outside of a major metropolitan area, anticipating an unmet need in the region.

This clinic provides evidence-based, multidisciplinary transgender care, including gender-affirming hysterectomies and hormone management, as well as preventative health care, routine gynecologic care, and contraceptive services. The clinic works closely with other departments, including pediatric and adult endocrinology, plastic surgery, urology, and psychiatry to provide comprehensive services to patients depending on their needs. The interdisciplinary program hired a program manager to act as patient navigator and help patients interface between departments.

The program has two half-day clinic sessions per month, however trans patients are frequently scheduled into additional open spots to better accommodate the patient’s needs or the provider’s availability. The Gynecology Gender Clinic appointment slots are kept for trans patients until seven days before the clinic to ensure adequate access. This is in contrast to non-gender program appointments that are likely to fill weeks to months in advance. Advertising for the specialty clinic involved word of mouth to referring providers in the area and a new website page. Additionally, the provider is a member of World Professional Association of Transgender Health (WPATH), which lists the provider on their website.

Prior to arriving for an appointment at the Gynecology Gender Clinic, patients are administered an online questionnaire (see Appendix A) through the patient portal. If the patient has not completed the questionnaire in advance, they are given a tablet to complete the questionnaire in the waiting room or in a private exam room. This questionnaire includes questions on chosen name, pronouns, gender identity, and sexual orientation that all automatically populate the medical record. Therefore, when the patient checks in for the visit, their name and gender are already correct in the medical record. Additionally, the questionnaire collects sex assigned at birth, screens for domestic violence, and asks a sexual history. Using branching logic based on self-reported organs, the questionnaire also collects a gynecologic history including menstrual history, cervical cancer screening, and obstetrical history. These answers are reviewed by the provider during the clinic visit and confirmed with the patient to allow additional follow-up questions when needed. The questionnaire also allows patients to indicate if they would prefer to have their visit in a non-gynecology setting. If this is the case, the provider can arrange for the visit to take place in the outpatient internal medicine clinic.
Additionally, as part of the program development, the gynecology office was assessed for inclusivity. For example, the office does not have a gendered name but rather is signified by an alphanumeric indicating its geographic location in the building (floor number and alphabetical designation). All exam rooms were also labelled with rainbow flag stickers. Part of a staff meeting was designated for gender-specific training for the auxiliary staff (i.e., medical assistants, licensed nurse assistants, registration desk staff, and secretaries). Orientation for new staff now includes two 5–10-minute videos on basic gender terminology, use of chosen name and pronouns, and the importance of offering gender-affirming care. The patient schedules for all clinic types, which are viewed by the auxiliary staff throughout the day, were updated to automatically include the patient’s chosen name and gender identity.

**METHODS**

For this study, we conducted a retrospective chart review of transgender and gender diverse individuals who sought gynecologic care and/or underwent gender-affirming gynecologic surgery (hysterectomy, with or without oophorectomy and other concurrent procedures) at a rural 396-bed academic medical center with a connected ambulatory clinic. Participants were identified using the Electronic Medical Record (EMR, Epic Systems Corporation) with the following inclusion criteria: age over 18, presenting for health care at either our outpatient gynecology clinic or our dedicated Gynecology Gender Clinic from 2017–2020. Participants were identified in the following ways: either by having their legal sex listed in the EMR as male, or by having a gender identity in the EMR of male, transgender female, transgender male, gender nonconforming, or other. Manual chart review was performed to remove non-trans patients such as cisgender males presenting for genetic or fertility counseling visits. The study protocol was approved by our Institutional Review Board, which ensured proper protections were in place to assure patient privacy and de-identification of data (Study #02001032).

Chart review was performed manually by one author to determine the nature of the visit, as well as to monitor post-operative complications for all surgeries. Data collected from January 2017 to December 2018 was allotted to the pre-implementation period, prior to the creation of the clinic. Data from January 2019 to December 2020 represents the post-implementation period after establishment of the dedicated Gynecology Gender Clinic program.

Primary outcomes include number of patients seen, number of encounters, and data regarding gender-affirming surgeries performed, including type of surgery and route of surgery. Secondary outcomes include demographic characterization of patient population utilizing our services, including gender identity and distance from the hospital.

We used descriptive statistics to assess the total number of patients served and surgical volume for gender-affirming hysterectomies in the two years before and after the creation of a dedicated program. A two-sided chi square was used for analysis of categorical variables with significance set at $p < .05$. 
RESULTS
Total unique patients increased from an average of 12 per year to an average of 22 per year (83% increase). Encounter volume, meaning the total number of completed visits from all patients, increased by 84%, from 44 encounters during the pre-implementation period to 81 encounters during the post-implementation period. Hysterectomy volume increased 320% (from 5 surgeries pre-implementation to 21 post-implementation; see Table 1). While two of the five pre-implementation surgeries were open/abdominal procedures, both had gynecologic or other surgical indications beyond gender affirmation to guide surgical approach, i.e., small bowel obstruction. Routes of surgery were 100% minimally invasive in the post-implementation period, with 90% being laparoscopic and 10% transvaginal. In the post-implementation group, one patient underwent concurrent partial vaginectomy and two patients underwent chest masculinization at the time of hysterectomy. 70% of post-implementation patients chose to pursue oophorectomy, while all patients in both groups underwent salpingectomy. It is our practice to use shared decision making with patients to guide decisions around oophorectomy. It should be noted that there is very limited evidence for the potential morbidity related to oophorectomy in trans populations given that extrapolating from cisgender studies is unlikely to be fully relevant (Reilly, Fruhauf, and Martin 2019). Therefore, this conversation largely focuses on the lack of population-specific data, anticipated duration of testosterone therapy, concern for lack of access to hormones in the future for political or financial reasons, fertility preservation, and theoretical risk reduction for future adnexal pathology.

Table 1. Characterization of gender-affirming care and surgery

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of patients</td>
<td>23</td>
<td>44</td>
</tr>
<tr>
<td>Number of encounters</td>
<td>44</td>
<td>81</td>
</tr>
<tr>
<td>Number of surgeries</td>
<td>5</td>
<td>21</td>
</tr>
<tr>
<td>Type of surgery</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hysterectomy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Laparoscopic</td>
<td>3</td>
<td>19</td>
</tr>
<tr>
<td>Transvaginal</td>
<td>–</td>
<td>2</td>
</tr>
<tr>
<td>Abdominal</td>
<td>2</td>
<td>–</td>
</tr>
<tr>
<td>Concurrent partial vaginectomy</td>
<td>–</td>
<td>1</td>
</tr>
<tr>
<td>Concurrent chest masculinization</td>
<td>–</td>
<td>2</td>
</tr>
<tr>
<td>Bilateral salpingo-oophorectomy</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Bilateral salpingectomy</td>
<td>–</td>
<td>6</td>
</tr>
<tr>
<td>Diagnosis code for surgery (primary)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender affirming</td>
<td>1</td>
<td>18</td>
</tr>
<tr>
<td>Abnormal uterine bleeding</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Fibroid uterus</td>
<td>1</td>
<td>–</td>
</tr>
<tr>
<td>Endometriosis</td>
<td>–</td>
<td>1</td>
</tr>
<tr>
<td>Small bowel obstruction</td>
<td>1</td>
<td>–</td>
</tr>
</tbody>
</table>
### Table 2. Patient demographic characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Pre-implementation</th>
<th>Post-implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>( n = 23 )</td>
<td>( n = 44 )</td>
</tr>
<tr>
<td><strong>Age (at first encounter)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18–25</td>
<td>14 (61%)</td>
<td>19 (43%)</td>
</tr>
<tr>
<td>26–39</td>
<td>6 (26%)</td>
<td>19 (43%)</td>
</tr>
<tr>
<td>40–68</td>
<td>3 (13%)</td>
<td>6 (14%)</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>21 (91%)</td>
<td>39 (89%)</td>
</tr>
<tr>
<td>Black</td>
<td>–</td>
<td>3 (7%)</td>
</tr>
<tr>
<td>Hispanic / Latine</td>
<td>–</td>
<td>6 (14%)</td>
</tr>
<tr>
<td>Other</td>
<td>2 (9%)</td>
<td>2 (5%)</td>
</tr>
<tr>
<td><strong>Body Mass Index</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;18–24</td>
<td>8 (35%)</td>
<td>12 (27%)</td>
</tr>
<tr>
<td>25–35</td>
<td>12 (52%)</td>
<td>21 (48%)</td>
</tr>
<tr>
<td>&gt;35</td>
<td>3 (13%)</td>
<td>10 (23%)</td>
</tr>
<tr>
<td><strong>Insurance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medicaid / Medicare</td>
<td>4 (17%)</td>
<td>18 (41%)</td>
</tr>
<tr>
<td>Private / commercial</td>
<td>17 (74%)</td>
<td>25 (57%)</td>
</tr>
<tr>
<td>Charity / uninsured</td>
<td>1 (4%)</td>
<td>1 (2%)</td>
</tr>
<tr>
<td>Not listed</td>
<td>–</td>
<td>1 (2%)</td>
</tr>
<tr>
<td><strong>Employment status</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Full time / part time</td>
<td>10 (43%)</td>
<td>20 (45%)</td>
</tr>
<tr>
<td>Not employed</td>
<td>8 (35%)</td>
<td>5 (11%)</td>
</tr>
<tr>
<td>Student</td>
<td>5 (22%)</td>
<td>8 (18%)</td>
</tr>
<tr>
<td>Disabled</td>
<td>–</td>
<td>10 (23%)</td>
</tr>
<tr>
<td>Not listed</td>
<td>–</td>
<td>1 (2%)</td>
</tr>
<tr>
<td><strong>Legal sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>13 (57%)</td>
<td>21 (48%)</td>
</tr>
<tr>
<td>Female</td>
<td>10 (43%)</td>
<td>23 (52%)</td>
</tr>
<tr>
<td><strong>Gender identity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trans male</td>
<td>8 (35%)</td>
<td>25 (57%)</td>
</tr>
<tr>
<td>Trans female</td>
<td>–</td>
<td>1 (2%)</td>
</tr>
<tr>
<td>Female</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Male</td>
<td>5 (22%)</td>
<td>11 (25%)</td>
</tr>
<tr>
<td>Gender nonconforming</td>
<td>10 (43%)</td>
<td>5 (11%)</td>
</tr>
<tr>
<td>Other</td>
<td>–</td>
<td>2 (5%)</td>
</tr>
<tr>
<td><strong>State of residence</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clinic’s state</td>
<td>16 (70%)</td>
<td>23 (52%)</td>
</tr>
<tr>
<td>Neighbor state</td>
<td>5 (22%)</td>
<td>18 (41%)</td>
</tr>
<tr>
<td>Other</td>
<td>2 (9%)</td>
<td>3 (7%)</td>
</tr>
<tr>
<td><strong>Distance from hospital (in miles)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0–25</td>
<td>9 (39%)</td>
<td>6 (14%)</td>
</tr>
<tr>
<td>26–50</td>
<td>3 (13%)</td>
<td>14 (32%)</td>
</tr>
<tr>
<td>51–100</td>
<td>9 (39%)</td>
<td>16 (36%)</td>
</tr>
<tr>
<td>&gt;100</td>
<td>2 (9%)</td>
<td>8 (18%)</td>
</tr>
</tbody>
</table>

*Note. Column percentages may not sum to 100% due to rounding.*
The pre-implementation patient population had a median age of 26, with more than half of patients under age 25 (n = 14, 61%; see Table 2). The post-implementation patient population had greater age diversity, with equal patients in the 18–25 age category (n = 19) as the 26–39 category. (n = 19). The median age was 25. The majority of the pre-implementation patients (n = 17, 74%) had private health insurance, while only 4% (n = 1) were uninsured. The post-implementation population had a larger proportion of patients with Medicaid or Medicare (n = 18, 41%), though the majority had private insurance (n = 25, 57%) and only 2% (n = 1) were uninsured.

The most common gender identity in the pre-implementation population was “gender nonconforming” (n = 10, 43%), while “transgender male” and “male” were also present (n = 8, 35% and n = 5, 22%, respectively). In the post-implementation group, 57% (n = 25) of patients’ gender identity was “transgender male.”

In the pre-implementation group, over two thirds of patients were residents of the clinic’s state (n = 16), while 60% traveled more than 25 miles to access care, either within the state or coming from out of state (n = 14). In the post-implementation group, half of patients were residents of the clinic’s state (n = 23) and 86% of patients lived greater than 25 miles away from the clinic, either in or out of state (n = 38).

We also evaluated post-operative complications related to surgeries. There were no complications in the pre-implementation group (n = 5), while complications in the post-implementation period (3 complications out of 21 surgeries) included one pelvic hematoma that was managed conservatively, one case of cellulitis treated with outpatient antibiotic treatment, and an incidental diagnosis of intussusception on CT scan after presentation to the emergency department post-operatively (0% vs. 14%, p = .37). All complications were observed after laparoscopic hysterectomy.

After implementation of a dedicated clinic, gender affirmation became the primary diagnosis code for surgery (listed for 86% of surgeries), whereas this diagnosis was
used for only 20% of surgeries previously. Diagnosis codes included under “gender-affirming” included gender-affirming, gender dysphoria, gender identity disorder, gender transition, transgender male, and transgender (female to male). Non-gender-affirming codes included endometriosis, abnormal uterine bleeding, and fibroid uterus.

When evaluating diagnosis codes associated with each visit, frequency of visits coded for transgender care increased by 390% when comparing the pre-implementation to post-implementation periods. Transgender care diagnosis codes included all of the ICD 10 F64.0 codes. In the post-implementation period, transgender care was the most common visit diagnosis, with 40% of visits coded as such. Preventative health care visits increased by 85%, comprising 22% of visit diagnosis codes in the post-implementation period. Routine prenatal care visits for trans-masculine patients increased 225% between the pre- and post-implementation periods and accounted for 10% of visits in the post-implementation period. Gynecology problem visits and family planning/contraception visits remained relatively stable.

CONCLUSIONS
The Gynecology Gender Clinic program was able to build a rural gynecology clinic with specific features to provide specialized care focused on each patient’s individual needs. Specifically, an electronic questionnaire was integrated with the medical record to allow patients a private mechanism to provide important information such as name, pronouns, and gender identity for those who may not feel comfortable disclosing such information to their health care provider. A dedicated program was able to provide wrap-around services for specialized gender-related healthcare, such as working in collaboration with urology or general surgery to coordinate joint surgical cases or working with behavioral health providers to obtain letters needed as a pre-requisite for insurance coverage for gender-affirming surgeries. Additionally, our clinic was able to provide continuity for patients, also addressing primary care/health maintenance needs, as well as pregnancy care.

Our results from a rural tertiary care center show that creating a dedicated clinic for transgender patients resulted in a marked increase in patient clinical and surgical volume in a two-year time period. We saw a doubling of our patient volume, as well as patient encounters. Most notable was an over 300 percent increase in surgical volume over the two-year post-implementation period. This was despite much of our post-implementation period taking place during the first months of the COVID-19 pandemic, which ceased elective surgery and decreased ambulatory clinic visits from March 2020 through June 2020. This also greatly limited surgeries for the remainder of the year, decreasing surgical volumes for all indications. These increases in clinical and surgical volume over the post-implementation period suggest that the development of a gender clinic helped meet the demand for gender-affirming services in a rural setting.

The secondary outcome was to describe the patient population utilizing these services, as gender diverse patients living in rural areas are less well characterized than those living in urban areas (O’Bryan et al. 2018; Whitehead, Shaver, and Stephenson 2016). Both the pre-implementation and post-implementation phase patients were predominantly less than 40 years old, racially homogenous (majority white, non-Hispanic/Latine), and at least half of both cohorts were residents of the clinic’s state.
In the post-implementation phase, the geographic area where our patient population lived was notably expanded, with fewer patients from within the clinic’s state, as well as increased numbers of patients coming from greater distances, with 86% of our patients driving over 25 miles to receive care, suggesting that the creation of the gender clinic expanded access to care to a wider population. The number of patients with insurance provided by Medicaid or Medicare also increased, which may represent greater socioeconomic diversity after program implementation.

Importantly, it was feasible to provide specialized gender gynecology care by dedicating physician clinical time to these patient visits. The pre-visit questionnaire was able to collect important information in advance of the visit to provide specific, patient-focused, evidence-based, care and avoid mis-gendering. This type of specialty care was not previously available in the rural setting and would have previously required travel to the nearest urban setting, approximately two hours from our center.

Strengths of our study include our position as a rural, tertiary care academic hospital. This presents a unique opportunity to explore the distinct barriers faced by the rural transgender and gender diverse population, as compared to those living in urban areas with greater availability and access to providers in all specialties and subspecialties. While our population is relatively small, it represents a unique lens that may be applicable to the greater rural transgender population. A limitation is that this study was not adequately powered to detect a difference in rare events such as post-operative complications. Our data analysis, first drawn through a data extraction from the EMR, was then corroborated with extensive manual chart review, allowing for a complete data set without missing information. Additionally, this clinic’s patient volume has continued to expand dramatically since the data for this study was analysed. One limitation is that the study design did not include pediatric patients and therefore does not represent the large volume of pediatric patients who presented for fertility preservation counseling in the post-implementation timeframe. Additionally, there may be some transfeminine patients who were inadvertently not included in analysis if both their legal sex and gender identity were listed as female.

Our study demonstrates growing demand for transgender healthcare in a rural area, both for specialized treatment and primary care utilization. To achieve equity in care for the transgender population, that is too often marginalized and medically underserved, access to both specialty as well as routine preventative care must continue to be expanded in rural areas.

REFERENCES


Puckett, Jae A., Peter Cleary, Kinton Rossman, Brian Mustanski, and Michael E.


As transgender people have become more salient in American society, there has been a commensurate increase in interest in transgender history. However, archival collections currently have weak holdings in transgender history and materials pertaining to the history of the transgender movement remain under-collected. This brief report examines the Trans Equality Archive, a new archive of primary and secondary materials pertaining to transgender political history at the National Center for Transgender Equality in Washington, DC. Challenges pertaining to scope, born-digital records, and organizational priorities are considered as they relate to the preservation of neglected transgender histories.
ways, these changes are directly traceable to the important work done by the relatively young transgender movement. However, in both popular discourse and academic research, these changes are often celebrated as the achievements of an expansive “LGBT” movement, even though the L, G, and B portions of that acronym had little to do with them—and often did much to hinder them (see, for a basic introduction, Billard and Gross 2020; Devor and Matte 2006; Murib 2015; Stryker 2008; Vitulli 2010).

Despite the historic nature of the transgender movement’s many achievements, documentation of those achievements has struggled to find its way into historical archives. But perhaps this should not surprise us. There is an overall underrepresentation of transgender history in historical archives, and what little transgender material has been collected has generally been acquired as a niche subgenre of “LGBT” history (Rawson 2015; Wagner Webster 2016; Wakimoto, Hansen, and Bruce 2013). This is a problem in both the archival literature, which regards the collection of transgender materials as necessary for the diversification of sexual histories (rather than the development of transgender-specific histories; e.g., Stone and Cantrell 2015), and in LGBT archives themselves, which generally have strong holdings about white cis gay men and, to a lesser extent, cis lesbians, but in which holdings about transgender people are scarcer and of secondary concern (Vecoli 2015). In both cases, there is a clear “secondary marginalization” (Cohen 1999) of transgender history occurring.

This approach to the archiving of transgender history has two main consequences. First, this approach encourages a focus on particular kinds of historical materials that produce a distinct vision of “transgender” as derivative of gay and lesbian identity. That is to say, when “LGBT” is the central collection parameter for transgender history, the materials collected are limited to those in which transness relates explicitly and exclusively to queer sexuality. Transgender-specific archives, in contrast, produce a distinct vision of “transgender” as autonomous and independent. In the words of trans archival theorist K. J. Rawson, “as the central collection parameter, ‘transgender’ becomes legitimated as an identity through the rich historical lineage that the archive evidences” (Rawson 2014, 25).

Second, and relatedly, archiving transgender history as LGBT history encourages the production of certain misguided historical narratives—especially about the origins and development of the transgender movement. Two recent histories of the transgender movement evidence this perfectly: those by Anthony Nownes (2019) and by Jami Taylor, Daniel Lewis, and Donald Haider-Markel (2018). Though they arrive at fundamentally different arguments about the history of the movement, both position the emergence and evolution of the transgender movement vis-à-vis the gay and lesbian movement. Per Nownes’ (2019) narration, the transgender movement emerged as independent only in recent years as transgender activists “spun off” from the LGBT movement they previously participated in. Per Taylor and colleagues’ (2018) alternate version, transgender individuals and issues were slowly incorporated into the existing LGB movement structure over a number of decades, only recently becoming fully subsumed into a singular LGBT movement. However, neither version of this history accurately characterizes the independent origins and development of the transgender movement (see Aultman 2021; Billard forthcoming; Stryker 2017), and both are an obvious byproduct of the tendency to archive transgender history as LGBT history; this is the story that LGBT archival materials tell.
The Trans Equality Archive was incepted to intervene into this state of affairs by systematically collecting previously inaccessible materials documenting the historical activities of the US transgender movement. Beyond preserving these materials for members of the transgender community so that they might discover a fuller and richer history of their predecessors and the work that went into shaping the cultural and political environment for transgender people, the Archive fits into a broader, cross-disciplinary push in the academy to understand transgender issues and identities on their own terms, rather than in the context of the LGBTQ "umbrella" (Adair, Awkward-Rich, and Marvin 2020; Billard et al. 2020; Keegan 2020; Stryker 2020). Against this backdrop, this brief report narrates the founding and development of the Trans Equality Archive, discussing both the opportunities and the challenges of preserving transgender history in its own right.

THE CASE: THE TRANS EQUALITY ARCHIVE AT THE NATIONAL CENTER FOR TRANSGENDER EQUALITY

The Trans Equality Archive was established at the National Center for Transgender Equality (NCTE) in Washington, DC over the course of 2018. NCTE is "the dean of transgender rights organizations" (Nownes 2019, 40), which is to say it is the largest and most influential transgender advocacy organization in the US, and the only one to operate at a truly national level.¹ I first began working with NCTE in May 2017 as a Consortium on Media Policy Studies Fellow. In that role, I worked closely with the Communications and Outreach & Education teams, which together coordinate all of NCTE’s communicative activities. As a trans scholar of media and social movements, I used this Fellowship term as an initial foray into ethnographic fieldwork in the transgender movement. Yet, while my primary research focus was the contemporary media practices of the movement (see Billard 2019, 2021, 2022, 2024), it quickly became evident through my conversations with staff, with NCTE’s coalition partners, and with media outlets interested in the transgender movement that some of the most significant empirical gaps in understanding of the movement were historical. Even among those who were currently working in the movement, there was little awareness of how the movement came to be and little acknowledgement of the organizations and individuals who had achieved much of the movement’s successes, but who had done so without public visibility. It became clear to me, as it had been to NCTE’s executive leadership, that unless someone preserved primary documentation of this history soon, it would be lost to the sands of time.

Before I departed from my first round of fieldwork at NCTE in August 2017, the organization’s Deputy Director Lisa Mottet and I discussed under what auspices I

¹ Technically, NCTE is one of three transgender rights organizations that operates nationally in the US as of the time of writing. The other two are the Transgender Law Center (TLC) in Oakland, California and the Transgender Legal Defense and Education Fund (TLDEF) in New York City. However, both organizations differ from NCTE in focus; TLC and TLDEF both focus primarily on litigation, rather than advocacy, and TLC focuses heavily on California politics, though it operates outside the state occasionally. Moreover, neither TLC nor TLDEF has as extensive connections to broader civil rights movements or as robust public programs as NCTE.
might return for a second, longer-term round of fieldwork to inform my ongoing book project. Given our shared concern about the preservation of the movement's history, Mottet suggested one auspice could be the creation of an historical archive at NCTE. As she said, the organization had myriad uncatalogued documents sitting in boxes both in the office and in present and former staff member's homes, which she feared may become lost or ruined. She also expressed interest in collecting oral histories from some of the organization's departed founders and key staff before their memories faded or they passed away. Though the development of an historical archive was somewhat outside my domain of expertise and would require me to develop new skills, it was an important project for the organization (and the movement), and one NCTE's staff lacked both the capacity and the skill set to do. Per Mottet's suggestion, I prepared a formal proposal for such an archive, which was approved by NCTE's leadership.

I returned to NCTE in June 2018 with a charge to draft the founding documents for what would become the Trans Equality Archive, including a statement of mission and mandate, an admissions policy, an access policy, and short- and long-term staffing plans. Additionally, I was tasked with researching which institutions NCTE may eventually choose to house the Archive with. Over the seven months from June to December 2018, in parallel to my ethnographic research, I completed these tasks and undertook the collection and organization of materials for the Archive.

The first challenge I encountered in my tasks related to the scope of the Archive. The Trans Equality Archive was, fundamentally, a business archive (albeit of a non-profit corporation, rather than a for-profit one). As a business archive, it needed to include materials that would document the origins and development of the organization, immortalize the organization's greatest achievements, and provide insight and inspiration to future employees and leaders. It also, of course, needed to serve as a repository to which future employees could turn when preparing promotional materials, funding appeals, annual reports, and so on. In short, as a business archive, it needed to support a range of business functions (see Hull and Scott 2020). At the same time, the Trans Equality Archive was an archive of a movement—or at least the national policy wing of a movement. As such, it needed to include materials that would document events and activities (both within and outside of the organization's direct work) that were of broad significance to the political history of the transgender community. These various materials included working documents from coalition partners, conference programs, press clippings, and drafts of policy proposals—materials that would evidence the work of a broad network of actors involved in making transgender history. The competing demands of a business archive and a movement archive affected every decision regarding the Trans Equality Archive, from who I solicited materials from to which individual records were admitted into collections. The ultimate strategy developed to balance these demands was (1) to collect materials both in the core collection, which focused on organizational history, and in auxiliary collections, which included materials not created by the organization and its agents, and (2) to exclusively focus auxiliary collections on NCTE's coalition partners and the organizations that directly preceded them. For example, when the personal papers of NCTE's founders were collected, I retained documents from their earlier activism, such as those from the National Transgender Advocacy Coalition, which had been founded in 1999 as a loose network of local transgender organizations that shared information and coordinated
advocacy strategies. While these decisions limited the scope of the archive significantly by excluding materials documenting important histories outside of NCTE’s sphere of influence, they balanced the need to serve NCTE’s corporate interests with the aim of situating NCTE’s work in within a larger national movement, all while maintaining a reasonable scope of work.

Oral history interviews were another means of situating NCTE’s work within the wider movement and documenting the work that occurred outside of the organization. Additionally, these interviews complemented archival materials by filling in gaps in what there was documentation of (Fogerty 1983) and by providing narrative orientation to the significance of the collected materials (Saretzky 1981). In some ways, oral history was more feasible for the Archive’s aims than it might have been in some other contexts because of the relatively young age of the transgender movement; many of the most significant figures in the establishment of the national policy wing of the movement are still alive and with good memory. For example, I was able to interview Donna Cartwright, who was a founding board member of NCTE, but also a board member of the organization GenderPAC that preceded it, and a veteran activist in the labor movement who did much to advance the inclusion of trans people in labor activism. I was also able to interview Masen Davis, who founded FTM Alliance in Los Angeles in the late 1990s; Shannon Minter, who co-founded the Transgender Law and Policy Institute in 2002; and Diego Sanchez, who was a prominent figure in the Democratic Party starting in the early 2000s and central to making transgender rights part of the Democratic platform. Each of these interviews documented histories that preceded NCTE, while still situating NCTE’s place in the historical narratives they told. Additionally, oral history interviews were able to collect both the experiences of key staff in the organization’s history (such as the organization’s first Managing Director) and external figures who could speak to the organization’s public standing and wider impact (such as President Barack Obama’s liaison to the LGBT community, who worked closely with NCTE). These interviews provided insights that could hardly be gleaned from archival materials, but that are crucial to the history the Archive aims to document.

On a more practical level, the oral history interviews collected for the Trans Equality Archive helped identify relevant parameters for the collection of digital materials. As a relatively young organization, founded in 2003, most of NCTE’s records were created and stored digitally. Archivists have discussed at length the challenges of preserving “born-digital” records (Neal 2015) and fears over an eventual “digital dark age” as current information technologies are rendered obsolete, and the materials stored on them are lost (Kuny 1997). Both issues were particularly salient at NCTE, as the sheer volume of digital records made full archiving impossible, but most of the relevant history was contained in these records. In fact, large portions of NCTE’s records from their first few years had already been lost in a data migration by 2017—a problem I spent months fruitlessly trying to address. Thus, I engaged in an iterative process of moving between oral history interviews and digital materials, as interviews surfaced specific events and projects that were high priority to pull records like email correspondence and project files from and as collected materials inspired new interview questions about events and projects for which there was little documentation.

Finally, perhaps the largest challenge I encountered in my tasks was the prioritization given to the archive project within the organization. While staff and leadership
were eager to see the project completed and were generally supportive of my needs where it concerned the project, the Archive was always the first sacrifice to be made when time and attention were at issue. As was often repeated around the office, there are two timelines at NCTE: “immediately” and “eventually.” The Archive very rarely warranted “immediately,” and so it was relegated to “eventually.” This is, of course, a general issue when working in advocacy, as opposed to profitable businesses; businesses can spare the time and resources for “vanity” projects like an archive, while advocacy organizations have important public missions to fulfil on shoestring budgets. And at NCTE specifically, this state of affairs was heightened. In the face of the Trump administration, which was particularly hostile to the trans community, and which assaulted trans rights regularly and without warning, NCTE was constantly trying to put out unexpected fires (Billard 2021, 2024). These fights needed to be given priority, and they were. Thus, much of the work of the Archive for which I needed staff support was not completed until my final weeks at the organization, as my pending departure shifted the project from the “eventually” category to the “immediately” category. While the Archive was ultimately successful and its collections are solid, it is hard to imagine that they might not be more robust if staff participation was greater over the full course of the project.

DISCUSSION
The Trans Equality Archive at the National Center for Transgender Equality in Washington, DC is a one-of-a-kind archive documenting the rich history of the national policy wing of the US transgender movement. Crucially, it is an archive that documents transgender history in its own right, rather than as a subsidiary concern of LGBT history, which will significantly affect how historians (re)construct our understanding of the history of the movement (e.g., Billard forthcoming). All of the materials included in the Archive were previously inaccessible to historians and the general public, and its original oral history interviews preserve the insights and perspectives of some of the modern transgender movement’s founding figures. However, despite the relative merits of the Trans Equality Archive, a number of key issues remain unresolved at this time and will need to be addressed with future work.

The major unresolved issue at this time is the accessibility of the Archive. During my time at NCTE, I spoke with archivists at four candidate institutions with relatively strong holdings in transgender studies: the Special Collections Research Center at the University of Michigan; the Jean-Nickolaus Tretter Collection in Gay, Lesbian, Bisexual and Transgender Studies at the University of Minnesota; the ONE Archives at the University of Southern California; and the Transgender Archives at the University of Victoria. On the basis of these conversations, I narrowed down my recommendations to the Tretter Collection and the ONE Archives, and I presented NCTE leadership with a memo outlining the relative benefits and limitations of both choices. When I left NCTE in December 2018, the archived materials were still being stored in the organization’s offices until a final home for the Archive was selected. The following year, NCTE’s Executive Director Mara Keisling visited me in Los Angeles and toured the ONE Archives, but still no decision came. In the intervening time, Mara has retired from NCTE and been replaced as Executive Director. The new Executive Director, Rodrigo...
Heng-Lehtinen, has not responded to inquiries about the status of a decision on the Archive's ultimate home—likely because of the volume of other matters that require his immediate attention. Thus, at present the Archive's materials are accessible only to the organization's staff.

A second issue of accessibility remains, which is much stickier. That issue is how to balance NCTE's desire to preserve and make public documentation of their history and their need to keep matters of advocacy strategy confidential while facing political opponents who seek the elimination of the community they advocate for. While this issue is addressed to a certain degree in the Archive's access policy, which details restrictions on access to certain materials, the concern that opponents may find strategic weaknesses to exploit in the historical record is never eliminated.

Finally, the Trans Equality Archive has one major objective for the future that remains uncertain: expanding the scope and value of the Archive by including materials from the other national organizations in the transgender movement. Shortly after I left NCTE, Mara secured verbal agreements from the leaders of the Transgender Law Center and the Transgender Legal Defense & Education Fund, among others, to jointly archive their organization's records with NCTE's. However, no progress has yet been made on this front due to the organizational resources that need to be dedicated to the archiving process. Given the high immediate demands on these organizations' resources as they pursue the work of the movement, pushing the archiving project forward remains a major challenge for preserving transgender history.

REFERENCES


Billard, Thomas J, Traci B. Abbott, Oliver L. Haimson, Kelsey N. Whipple, Stephenson


**ACKNOWLEDGMENTS**

The author would like to thank Mara Keisling and Lisa Mottet of the National Center for Transgender Equality for entrusting them with the development of the Trans Equality Archive. The author would also like to thank everyone who donated materials to the archive, including oral history testimonies. The research described in this brief report was generously supported by a fellowship from the Consortium on Media Policy Studies and by the Annenberg Endowed Fellowship from the University of Southern California.